EFFECTS OF AN ATTENDANCE INCENTIVE PROGRAM
FOR CHRONICALLY ABSENT ELEMENTARY SCHOOL STUDENTS

By
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>vii</td>
</tr>
<tr>
<td>CHAPTERS</td>
<td></td>
</tr>
<tr>
<td>I    INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>4</td>
</tr>
<tr>
<td>Justification of the Study</td>
<td>4</td>
</tr>
<tr>
<td>Rationale for the Study</td>
<td>6</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td>7</td>
</tr>
<tr>
<td>Assumptions</td>
<td>8</td>
</tr>
<tr>
<td>Delimitations</td>
<td>9</td>
</tr>
<tr>
<td>Limitations</td>
<td>10</td>
</tr>
<tr>
<td>Organization of the Dissertation</td>
<td>10</td>
</tr>
<tr>
<td>II   REVIEW OF THE RELATED LITERATURE</td>
<td>11</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>11</td>
</tr>
<tr>
<td>Attendance Incentive Programs</td>
<td></td>
</tr>
<tr>
<td>Targeting Specific Students</td>
<td>14</td>
</tr>
<tr>
<td>School-Wide Attendance Incentive Programs</td>
<td>17</td>
</tr>
<tr>
<td>Studies Linking Attendance with Achievement</td>
<td>21</td>
</tr>
<tr>
<td>Other Programs and Proposed Policies</td>
<td></td>
</tr>
<tr>
<td>for the Student Absentee Problem</td>
<td>23</td>
</tr>
<tr>
<td>Summary</td>
<td>28</td>
</tr>
<tr>
<td>III  METHODOLOGY</td>
<td>30</td>
</tr>
<tr>
<td>The Setting</td>
<td>30</td>
</tr>
<tr>
<td>The Program</td>
<td>31</td>
</tr>
<tr>
<td>The Pilot Study</td>
<td>34</td>
</tr>
<tr>
<td>The Population</td>
<td>36</td>
</tr>
<tr>
<td>Research Design and Analysis</td>
<td>37</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>41</td>
</tr>
<tr>
<td>Summary</td>
<td>42</td>
</tr>
<tr>
<td>IV</td>
<td>RESULTS OF THE STUDY</td>
</tr>
<tr>
<td>----</td>
<td>----------------------</td>
</tr>
<tr>
<td>V</td>
<td>SUMMARY, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
</tr>
<tr>
<td></td>
<td>Results and Discussion</td>
</tr>
<tr>
<td></td>
<td>Implications</td>
</tr>
<tr>
<td></td>
<td>Recommendations for Further Study</td>
</tr>
</tbody>
</table>

APPENDICES

<table>
<thead>
<tr>
<th>A</th>
<th>LETTER OF NOTIFICATION</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>COOPERATIVE AGREEMENT</td>
<td>73</td>
</tr>
<tr>
<td>C</td>
<td>PERMISSION TO CONDUCT RESEARCH</td>
<td>74</td>
</tr>
</tbody>
</table>

REFERENCES | 75 |

BIOGRAPHICAL SKETCH | 83 |
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1 Research Design</td>
<td>40</td>
</tr>
<tr>
<td>4-1 ANCOVA of Absences</td>
<td>44</td>
</tr>
<tr>
<td>4-2 Mean Absences</td>
<td>45</td>
</tr>
<tr>
<td>4-3 Interaction Effects between Pretest and Grouping Variable</td>
<td>48</td>
</tr>
<tr>
<td>4-4 Pretest California Achievement Test Scores of the Treatment Group—1989</td>
<td>50</td>
</tr>
<tr>
<td>4-5 Pretest California Achievement Test Scores of the Control Group—1989</td>
<td>51</td>
</tr>
<tr>
<td>4-6 Posttest California Achievement Test Scores of the Treatment Group—1990</td>
<td>53</td>
</tr>
<tr>
<td>4-7 Posttest California Achievement Test Scores of the Control Group—1990</td>
<td>54</td>
</tr>
<tr>
<td>4-8 Analysis of Covariance of the CAT Scores</td>
<td>55</td>
</tr>
<tr>
<td>4-9 Treatment Group Referrals to HRS and Court Petitions</td>
<td>57</td>
</tr>
<tr>
<td>4-10 Student HRS Referrals and Court Petitions</td>
<td>58</td>
</tr>
</tbody>
</table>
Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

EFFECTS OF AN ATTENDANCE INCENTIVE PROGRAM FOR CHRONICALLY ABSENT ELEMENTARY SCHOOL STUDENTS

By

Lynn Herrick

December 1992

Chairman: Dr. James Hensel
Major Department: Educational Leadership

Previous research indicated that (a) programs targeting chronically absent students increased attendance at school, (b) a relationship existed between student attendance at school and academic achievement, and (c) students absent from school established a pattern of nonattendance in elementary school and were often at risk of dropping out of school prior to graduation.

The purpose of this study was to determine the effectiveness of an incentive program for improved school attendance that used behavior-shaping techniques. The relationship between attendance at school and academic achievement was examined using standardized test scores.

The treatment group was comprised of 49 elementary-school students who participated in the incentive program for improved school attendance for a full school year. Another 15 chronically absent elementary students at district
elementary schools not participating in the program served as the control group. Data were collected during the 1988-89 and 1989-1990 school years.

Analysis of covariance was used to test for significance. No significant (p < .05) difference was found between the treatment and control groups when attendance records were analyzed. Both groups increased school attendance during the 1989-1990 school year. However, the treatment group went from a mean of 45 days absent in 1988-1989 to a mean of 21 days absent in 1989-1990.

Standardized test gain scores on the California Achievement Test revealed a significant difference (p < .05) between the control and treatment groups. Even though both groups increased attendance, the treatment group made greater gains in academic achievement. Students in the incentive program scored significantly higher in this area than the control group.

Data on the number of Department of Health and Rehabilitative Services (HRS) referrals and court petitions of the treatment group were also gathered. No difference was found between 1988-1989 and 1989-1990 school years within the treatment group on the number of HRS referrals and the number of court petitions. However, the number of referrals cannot be described as a program weakness. The individual attention of the social worker enabled needs of students to be met that might otherwise have been overlooked.
CHAPTER I
INTRODUCTION

Every day in the classroom for a child should be a time of discovery and learning. A child absent from school may be deprived of valuable educational experiences. A chronically absent child establishes a pattern of absenteeism that often leads to other academic problems.

Many schools are faced with the problem of poor student attendance. Absenteeism is costly for both the child (Birman & Natriello, 1978; Douglas & Ross, 1965; Hegner, 1987; Monk & Ibrahim, 1984; Morgan, 1975; Rutter, Maughan, Mortimore, & Ouston, 1979; Ziegler, 1928) and the school district (DuFour, 1983; Johnson, Falstein, Szurek, & Svendsen, 1971; Morgan, 1975; Schultz, 1987). For school districts, state dollars are generally based on student daily attendance averages (DuFour, 1983; Schultz, 1987). A high rate of student absenteeism can result in a loss of funds to individual schools and an entire school district.

Absenteeism also can contribute to lower academic achievement (Birman & Natriello, 1978; Cooper, 1930; Douglas & Ross, 1965; Ediger, 1987; Hegner, 1987; Kersting, 1967; Monk & Ibrahim, 1984; Morgan, 1975; Rozelle, 1968; Rutter et al., 1979; Schultz, 1987; Ziegler, 1928). A high rate of
absenteeism may be associated with other school-related problems such as misconduct and loss of sense of social belonging (Galloway, 1983; Lakebrink, 1989; Neale & Proshak, 1967).

The results of studies and interventions at the secondary-school level have shown positive results of students improving their attendance (Hakanen, 1978; Hegner, 1987; Turkel & Abramson, 1986; Zweig, Chlebnikow, Epstein, & Cullinan, 1979). However, earlier identification and intervention strategies are necessary (Cooper & Mellors, 1990). Early intervention strategies may need to begin during the elementary years.

This study investigated the effectiveness of an attendance incentive program specifically designed for Marion County Elementary Schools. The Incentive Program for Improved School Attendance, designed for elementary-age children who had been absent from school 36 days or more during the previous school term, was an on-going program in a majority of the county's elementary schools.

Contracts were made between school social workers and individual students that included incentives (e.g., go-bots, fun pads, play-doh) as the students improved daily school attendance. Incentives used to modify behavior can be described as items viewed as being desirable by the subject (Nye, 1979). Each student met with a social worker to discuss the program and, if agreeable to the student, signed
the first contract, the Cooperative Agreement (Appendix B). The terms of the first contract required the student to attend school 5 days in a row in order to earn the prize of choice. If the student was successful in meeting the terms of the first contract, the incentive, along with verbal praise, was awarded. At the same time, another contract was signed requiring 10 consecutive days of attendance in order to earn the next incentive. If the student was unsuccessful, the contract was renewed for another 5 days. These steps were an application of B. F. Skinner's behavior-shaping techniques, which suggest that when desired behavior is reinforced, undesirable behavior is extinguished.

The objectives of this experimental program were to assist students in developing personal responsibility for their daily school attendance, recognize and reinforce student progress, enable students to maximize the educational opportunities available to them, enable the school social work staff to intervene in a timely and systematic manner with chronic attendance cases, and reduce the number of student referrals to community agencies. In essence, the program developed by the district's School Social Services Department was an effort to minimize the number of referrals to the Department of Health and Rehabilitative Services' (HRS) Division of Youth and Family Services and petitions for court action.
Purpose of the Study

The purpose of this study was to determine the effectiveness of an incentive program for improved school attendance that used behavior-shaping techniques. The following research questions were posed:

1. Can participation in an incentive program for improved school attendance that includes tangible rewards be associated with increased attendance of chronically absent elementary-school students?

2. Can participation in an incentive program for improved school attendance of chronically absent elementary-school students be associated with their academic achievement?

3. What effect does the incentive program for improved school attendance have on the number of HRS referrals and petitions for court action?

Justification of the Study

Excessive absenteeism or truancy from school consistently stands out as a top indicator of a potential school dropout (Barber & Kagey, 1977; Barrington & Hendricks, 1989; Cage, 1984; Coleman, 1990; Davies, Topping, & Koon, 1989; Donnelly, 1987; Ediger, 1987; Erickson, 1989; Gonzalez & Swallow, 1989; Grannis, 1991; Hardy, 1989; Hoover, 1989; Klimko, 1982; Schultz, 1987; Stabile, 1989; Stroup & Robins, 1972; Williams, 1985). Excessive absenteeism is also related to student misconduct and a lack of sense of social belonging
All of these issues have been of national concern to educators for some time. Reports and literature in the 1980s focused on the shortcomings of U.S. schools and alerted the public to serious flaws in the current system of education (Bloom, 1987; Boyer, 1983; Goodlad, 1983; National Commission on Excellence, 1983; Task Force on Education for Economic Growth, 1983).

United States President George Bush's April, 18, 1991, release of "America 2000: An Education Strategy" has policy makers scrambling to address these national education goals. The third of six goals reads, "By the year 2000, the high school graduation rate will increase to at least 90%" (Elam, Rose, & Gallup, 1991, p. 43). The current rate of high school graduation in the United States is 74% (Elam et al., 1991). To achieve the goal of 90% graduation rate, interventions and strategies must be introduced early into a child's educational program.

Douglas Hoeft, Superintendent of Kane County Schools in the Chicago area, suggests that, based on a study conducted by his school district, the vast majority of students who drop out of high school have missed a large number of school days during the first few years of their education. He concluded that dropping out began in kindergarten when these students established a pattern of nonattendance (Kendall, 1990). Early intervention during the elementary-school years
may eliminate chronic absenteeism and reduce the number of dropouts.

**Rationale for the Study**

The Incentive Program for Improved School Attendance is an experimental program that was piloted in two elementary schools in Marion County, Florida, in 1987. Based on its initial success, the program was expanded gradually to other elementary schools within the district. By 1992, all elementary schools in the district had implemented the Incentive Program for Improved School Attendance.

Although the results of studies and interventions at the secondary-school level have shown promise in encouraging students to complete high school (Hakanen, 1978; Hegner, 1987; Turkel & Abramson, 1986; Zweig et al., 1979), earlier intervention strategies may be necessary. If a pattern of absence at the elementary-school level is a strong indicator of a potential high school dropout, it is imperative that at-risk students be involved in a program to encourage regular school attendance. In these early, formative years, children develop self-worth and behavior patterns that affect not only academic achievement school success but also their adult lives.

The focus of recent research studies has been on early identification of at-risk students and on possible interventions (Barber & Kagey, 1977; Barrington & Hendricks, 1989; Boehnlein, 1987; Boloz & Lincoln, 1982; Cage, 1984;

Even with the recent emphasis on early intervention during the elementary-school years, few reports identify successful strategies for improving attendance. The interventions reviewed in Chapter II involve a variety of variables that limit the practicality of implementation beyond an individual classroom and/or elementary-age group and reduce the possibility of replication outside the environment where first implemented.

After a review of several programs, one early intervention behavior modification program was investigated. The experimental program selected for this study was easily administered, replicated, and monitored, targeted chronically absent elementary students in Marion County, Florida.

**Definitions of Terms**

An **at-risk student** is a student exhibiting those characteristics that are indicators of dropping out of school prior to graduation. These characteristics, in addition to absenteeism, may include academic problems, low socioeconomic status, and discipline problems.

**The Cooperative Agreement** is the form used as a contract between the social worker/assistant and the student to
determine the incentive to be earned and the number of days' attendance in school required to earn the incentive.

The Incentive Program for Improved School Attendance is the experimental program designed to identify and work with elementary-school students who have been or are currently experiencing significant school attendance problems. Students were identified by their lack of school attendance during the previous school term. The criterion established by the program was an attendance rate of less than 80% during the ninth attendance period of the previous year. Students who qualified for the program were absent from school 36 days or more during the previous school year.

School social worker/assistant is the assigned school social worker or social worker assistant in contact with a targeted student.

Incentives are those things considered desirable to the student. Examples are toys, school supplies, or playing a game. The term "reinforcer" is interchangeable with the term "incentive."

Assumptions

In this study the following assumptions were made:

1. The students involved in the Incentive Program for Improved School Attendance met the initial criterion of 80% or lower attendance for the previous school term. The criterion was a percentage established by the school district where the program was initiated.
2. Each student willingly participated in contractual agreements with the school social worker or social worker assistant assigned to the school.

3. Each student had regular contact with the social worker or social worker assistant during the year he or she was involved in the program.

4. All data collected by the researcher were accurate and factual.

**Delimitations**

The delimitations in this study were as follows:

1. The research was conducted in Marion County, Florida.

2. Data concerning the participants in the attendance incentive program were gathered from 16 Marion County schools.

3. Data on students in the control group were selected from all other Marion County elementary schools not participating in the program.

4. Data gathered on student attendance were from the 1988-89 and 1989-90 school terms.

5. Data gathered on standardized test scores (California Achievement Test) were from 1989 and 1990 results.

6. Students meeting program qualifications were from second, third, fourth, and fifth grades.
Limitations

The following were threats to the validity of the study:

1. The experimental program was conducted in one school district.

2. Student maturation may affect student attendance without the intervention of the incentive program.

3. Historical events in the students' personal lives and in the schools they attend may influence attendance patterns.

Organization of the Dissertation

The causes of absenteeism are discussed in Chapter II. The literature on programs aimed at improving student attendance at school and studies on relationships between grades and attendance was also examined. In Chapter III the methods and analysis used to answer the research questions are presented. Chapter IV contains the results of the analysis. The dissertation summary, discussion, implications, and recommendations are presented in Chapter V.
CHAPTER II
REVIEW OF THE RELATED LITERATURE

This chapter presents a review of the professional literature related to student absenteeism and attendance incentive programs in elementary and secondary schools. The initial review deals with a description and causes of absenteeism. The second portion of this review describes various studies on attendance incentive programs targeting specific students. The third aspect of this review describes school-wide attendance incentive programs which have also targeted small groups of chronically absent students. Next is a review of studies linking attendance with achievement. Finally, other programs and proposed policies for the student absentee problem are reviewed.

Absenteeism

Students may be absent from school for a number of reasons. A child may be out of school because of personal illness, parent illness, other family-related responsibilities, family vacation, or oversleeping (Tyerman, 1972). However, maladaptive solutions for an absence from school may be categorized as either truancy or school phobia (Friesen, 1985).
Truants do not have measurable anxiety about attending school, and they are more likely than the school-phobic child to be engaged in delinquent acts. Further, truant students are not only absent from school but absent from home as well (Friesen, 1985). Truants have been described as being defiant and unable to identify themselves with school (Cooper, 1966).

Truancy has been targeted and studied in relationship to high school education. In a study by Crespo (1974) at Quebec High School, 45 students who had been absent 21 days or more were interviewed. The students were heavily concentrated in lower academic tracks taught by younger and less-experienced teachers. These teachers were aware of their lower status reflected by this teaching assignment. The students interviewed had a low opinion of themselves; this was reinforced by teacher communication which continually told them that they were below average in intelligence and a teaching burden. When these 11th and 12th graders were asked, "What are the biggest problems that you face in school?", 45% indicated school work was not interesting and 42% talked about boredom.

The school-phobic child possesses a completely different personality from the truants. Friesen (1985) reported, "Researchers have shown that school phobics perform with higher standards in school, do not engage in delinquent acts, and exhibit much more anxiety about school attendance" (1985,
School phobia has been defined as not so much an unwillingness to go to school but an unwillingness to leave home (Kahn, 1981).

In the 1960s, England took a closer look at school phobia as a result of articles and letters focusing on an increase in this behavior reflected in the numbers of referrals to clinics (Chazen, 1962) as well as an upward trend of over 2% (Cooper, 1966). As a result of Cooper's work, the following profile of the school-phobic child was identified:

- poor physique,
- timid,
- anxious about being useful,
- fantasizes,
- unable to enjoy success,
- withdrawn,
- has little contact with the teacher,
- has little contact with peers,
- appears not to enjoy school.

Chazen (1962) discussed how he and Hersov (1960) determined that school factors contributed to some incidences of school phobia. Both researchers identified the following as the main precipitating factors: fear of a teacher and of other pupils, worry about school progress, a dislike of being punished or shouted at in class, and a dislike of a particular subject.
There also was evidence concerning peer influence, which can affect attendance at school (Coleman, 1961). If a student group or clique does not value school attendance, absenteeism will be higher.

Secondary-school principals in Tennessee identified compulsory attendance laws, changes in student attitudes toward authority and school, and the erosion of parental control as primary reasons for increased absenteeism (Brimm, Forgety, & Sadler, 1978). In a recent study Ediger (1987) found that reasons for a child being absent from school may also involve child abuse and substance abuse in the home.

Often overlooked is the impact of absentees on the students who regularly attend classes. Monk and Ibrahim (1984) concluded that classmates were also affected by the absenteeism of others "because teachers took class time to provide remedial help for returning students" (p. 308). Consequently, attending students were also forced to cope with reduced learning opportunities.

Reasons why a child may be absent from school range from truancy, school phobia, and peer pressure to substance abuse, child abuse, or boredom. Understanding absenteeism is the first step toward finding solutions--both for the absent students and the regular school attenders.

**Attendance Incentive Programs Targeting Specific Students**

This portion of the review describes several successful attendance incentive programs using various types of
reinforcers ranging from points for field trips and tokens for toys to stamps for watches. Using reinforcers that are perceived as being desirable by the subjects can increase desired behavior (Tharp & Wetzel, 1969). These programs are based on applications of B. F. Skinner's theories of operant conditioning.

Morgan (1975) conducted a study involving 92 lower socioeconomic elementary-school students in kindergarten through fifth grades. Four groups of students were divided into M+PSR (material reinforcement plus peer social reinforcement), MR (material reinforcement only), TSR (teacher social reinforcement), and C (control group/no treatment). The interventions lasted 40 days.

The M+PSR students received peer reinforcement by helping his/her group earn tokens when in attendance. These tokens could be exchanged for small toys. The subjects also kept a calendar-like daily attendance chart located in the school office. The MR group subjects earned tokens individually and could also earn small toys. The TSR students kept a daily attendance chart in the classroom and were recognized by the teacher in front of the class for their attendance.

The reduction in absenteeism was most significant in the M+PSR group. This would seem to suggest that positive reinforcement along with social recognition creates a
stronger desire to attend school than material reinforcement only or teacher social reinforcement.

Zweig et al. (1979) demonstrated a significant increase in attendance by use of contingency contracting in a study of a 13-year-old learning disabled student. In this type of contracting, what the subject earned was tied directly to the desired behavior.

The subject student had accumulated 42 absences during the previous school year. A contingency contract was made between the student and teacher. The terms of the contract stated that the child would attend school daily, and each day the student was present he would receive 300 trading stamps from the teacher. When he had earned enough stamps, he could purchase an item from the trading stamp brochure. During the phases of the study when the subject was earning trading stamps, he was present 94% of the days. In addition to an increase in attendance, improved academic and social behavior was reported.

By coming to school, arriving on time, and completing their homework, 77 potential dropouts at Red Bank Regional High School in Little Silver, New Jersey, received a check for $50 every Friday. Funds from the federal job-training program were used as an incentive to convince these at-risk students to stay in school. Program leaders believed that this short-term incentive program was effective (Flax, 1988).
These studies suggest incentives are effective in increasing attendance at school. Material reinforcers earned within a short time period combined with social reinforcement contributed to the success of this type of program.

**School-Wide Attendance Incentive Programs**

An attendance incentive program can be directed not only to targeted absentee students but also to the entire school population. A program of this nature can eliminate negative reactions of regular attenders. A child who is present at school daily can resent a chronically absent student earning prizes, privileges, and praise.

In a program at Ganado Primary School in Arizona, a plan was formulated after a review of the 1980 attendance register, which showed a 15% increase in absenteeism over the previous year (Boloz & Lincoln, 1982).

Thirty-two students were targeted as chronic nonattenders, averaging 31 days of absences in a school year. The students and their families were contacted to discuss the importance of attending school. In addition, if attendance did not improve, follow-up home visits were made by school liaisons, the principal, and a social worker. If poor attendance continued, a final conference at school placed the student on academic probation.

At the school level, perfect attendance was reinforced often. Students with perfect attendance during any one month enjoyed a special movie. Students with perfect attendance
during any 9 weeks received a ribbon of recognition. If students maintained perfect attendance for the entire year, they received a "Ganado Attendance Star" T-shirt and attendance certificate at a school assembly.

Classrooms with the highest monthly attendance average also were rewarded with a movie. At the end of the year, the class with the overall best average earned a field trip and T-shirts. Classrooms with daily perfect attendance also were recognized over the school intercom.

The incentives were so effective that by the end of the second month, absences had decreased by 37%. By December of the program's third year, absences were at an all-time low of 3.9% to 2.5%--a significant improvement over the 5.6% absentee rate in 1980.

Barber and Kagey (1977) described an incentive program used in a Virginia elementary school during the 1972-73 school term. This elementary school, composed of grades 1 through 3, had a population of 212 students.

An attendance incentive plan was introduced to the faculty in December 1972. The program was designed so students could earn all or part of a monthly party. Students with perfect attendance for the preceding month could earn a full hour in their choice of four different "fun rooms," which offered short movies, dancing, puppet shows, games, or art. A child missing only 1 day earned 45 minutes (three fun rooms); those students missing 2 days earned 30 minutes, and
those absent 3 days earned 15 minutes. Those not earning a party spent time on academic assignments. Daily attendance was also charted in each classroom with "Attendance Star Stickers" awarded daily.

The party in January included all students regardless of attendance, so they could sample the reinforcers. Students then had to earn parties for the months of February, March, April, and May.

Between January and May, student attendance increased dramatically—up 6.07%. Study results indicated that the attendance charts and parties positively influenced and increased the daily attendance of students in the school. The continuation of the project was not discussed in the study reviewed.

A middle school in Baton Rouge used competition to improve school attendance (Steptoe & Lawther, 1987). Homerooms competed against one another for weekly perfect attendance certificates, banners, and recognition during intercom announcements. Participating students became enthusiastic about the program and began using peer influence to encourage classmates to be present.

A similar absentee program at San Gabriel High in California used discipline and positive reinforcers (Parade, 1988). The consequences of tardiness and truancy followed a progression of disciplinary steps, from a talk with a teacher to a 4-hour Saturday work/study program, and
ultimately to suspension. Students with perfect attendance were eligible for pizzas, football game tickets, and buttons saying "I am perfect."

Community High School in West Chicago, Illinois, had a daily student attendance rate of only 87% in 1974 (DuFour, 1983). As a result of an attendance incentive program, the daily rate of student attendance was nearly 97% during the subsequent 16 months.

The Illinois program began with a coordinated, committed effort by staff and faculty. Guidance counselors notified parents daily by telephone or letter of students with unexcused absences. Students with unexplained or unexcused absences were disciplined by the school dean. Daily student attendance was also charted in each class, period by period, enabling school personnel to determine students' absence patterns.

Incentives for good attendance were also initiated. The dean provided privileges to those with consistent school attendance, including passes from study hall to the student lounge, a free class period, off-campus lunch, and early dismissal.

This program, like the others, demonstrated involvement of all school personnel. Initially impressive results seem to indicate these programs are well worthwhile, but it might be suggested that similar positive results also could be observed involving less time and fewer school personnel.
Attendance incentives for both regular school attenders and chronic absentees can result in progress for all involved. Programs such as these suggest a more positive atmosphere in the classroom as well as a positive attitude toward curriculum.

Studies Linking Attendance with Achievement

Lack of school attendance may affect how much is learned in the classroom. Porwoll (1977), in his report on absenteeism, stated, "Truancy and excessive absenteeism influence an entire spectrum from pupils whose education is affected, to teachers whose instruction is disrupted" (p. 1).

As early as 1928, Ziegler conceded the logic existing at the time was similar to the arguments of today's educators: "Poor attendance on the part of pupils results in poor marks" (p. I). Ziegler's study (1928) gathered grades and attendance records directly from student report cards. Even after taking into consideration additional variables such as home environment, family economic status, and distance from school, the most significant correlation was between attendance and academic grades.

Cooper (1930) found that students who were absent 40 days or more during the academic year could be behind in school progress more than 2 years over an 8-year period. Progress, in this study, was measured by the information gathered from the students' cumulative records in the state of Delaware.
Summers and Wolfe (1975) found unexcused absences and tardiness had a negative effect on achievement based on standardized test scores from the Iowa Tests of Basic Skills, the Cooperative School and College Abilities Test, the California Achievement Test, and the Comprehensive Test of Basic Skills. The total number of elementary and secondary students participating in the study numbered 1,896 from the Philadelphia public school system.

The City University of New York and the New York Board of Education developed a peer tutoring/mentoring program targeting potential drop-outs (Turkel & Abramson, 1986). Poor attendance, attitude toward school, and grade-point average were the criteria used to identify students suitable for the program and also to measure outcomes.

The ninth-grade subjects were paired with mentors who were education majors from City University. The mentors and mentees met for sessions lasting between 60 and 70 minutes over a period of 2-1/2 months during the spring semester. The number of times the subjects met with their mentors varied from 4 to 10 sessions.

The results of attendance based on a comparison group not being mentored were not considered significant. The mean number of absences during the spring semester of the mentored group was 4.6, and the mean number of absences for the nonmentored group was 7.3. Based on project outcome, there was sufficient evidence to support continuation of the
program. In addition, the attitude of the subjects measured by the Quality of School Life Scale (QSL) showed significant improvement, as did the students' reading scores and grade-point averages.

In summary, if school progress and achievement can be viewed as prizes, a student must, indeed, be present to win. Evidence indicates a strong link between attendance and academic progress.

**Other Programs and Proposed Policies for the Student Absentee Problem**

Many other programs and policies for improving school attendance exist. They are as different as community cultures throughout the United States. Some focus on punishment and others on praise.

The research has clearly shown that social attention (i.e., praise) can control certain pupil behaviors (Allen, Hart, Buell, Harris, & Wolf, 1964; Broden, Hall, Dunlap, & Clark, 1970; Hall & Broden, 1967; Hall, Lund, & Jackson, 1968; Harris, Johnston, & Kelley, 1964; Hart, Allen, Buell, Harris & Wolf, 1964; and Thomas, Becker, & Armstrong, 1968).

In the Copeland et al. study (1972), nine elementary students were subjects during a remedial summer school program in Kansas City. The students were divided into two groups: five students in Group P (Praised Group) and four students in Group C (Call Only Group).

The principal called the parents of Group P and praised them when their children attended school. The principal
called the parents of Group C only two times and merely to request that their children attend school. Both types of calls were made during the same 15-day period.

The results of Group P showed an increase in attendance of a mean level of 82.7% during the principal call and praise stage. However, after this phase was terminated, the mean level of attendance dropped to 63.7%. The results of Group C showed a mean attendance level of 31.2%. There was an increase in attendance immediately following the calls to parents, but attendance subsequently declined. Even though successful, the results suggested the need for on-going reinforcers to maintain a more stable attendance pattern.

In the Parker and McCoy study (1977), both parents and students were contacted by the school principal in a first-through third-grade elementary school. Five first-grade students and two second-grade students were subjects.

The principal went into the classrooms of subjects 1, 2, and 3 each morning and praised each subject student for his/her attendance at school. The praise, which lasted approximately 2 minutes, was followed daily until 2 weeks of perfect attendance was achieved. Visits then became intermittent. This program continued for 13 weeks.

For subjects 4 and 5, the principal called the parents on the days their child was in attendance, praising them for taking responsibility for their child's school attendance.
Again, after 2 weeks of perfect attendance, the calls were made intermittently.

The principal called the parents of subjects 6 and 7 to express disapproval of their child's absence. As with the other two groups, calls were made intermittently after 2 weeks of perfect attendance.

The results indicated an initial increase of attendance by all groups. However, immediate and maintained increases in attendance were most effective with the praise calls to the parents. This suggests positive intervention with parents may be more effective than interventions with elementary-age children.

Another successful program in a Rochester, Pennsylvania, school targeted students in grades 7 through 12 (Hegner, 1987). These students had a previous school attendance record of 20 absences. In addition, each student had a record of 10 tardies during the previous year.

The program included conferences with the students and parents. Students were individually considered and placed in support groups, including personal growth groups, referrals for academic help, referrals to a drug and alcohol treatment center, and referrals to Ala-Teen.

At the end of 12 weeks, each student was evaluated to determine if he or she needed further support. The program was determined a success based on changes in the students' behavior and attendance.
A program called "Operation Checkpoint" was developed at Loyalist Collegiate and Vocational Institute (Henshaw, 1982). Students with attendance problems were given a slip of paper with their schedule of classes. Teacher indicated student attendance by initialing the slip at the end of each class period. The slip was returned to a child case worker at the end of the day. Calls to the parents were made by the case worker at intervals to report student's progress.

Due to the program's success, the following year weekly case conferences with staff members were established to keep up with the numbers of poor attendance referrals. In addition to the students participating in Operation Checkpoint, other interventions were considered on a case-by-case basis.

Another program, called STRIDE (Students and Teachers Really Interested in Dropout Education), began in 1975 as an alternative program for 9th and 10th graders in a Rockford, Illinois, school (Hakanen, 1978). Students with a high rate of absenteeism and poor academic performance were channeled into STRIDE. Again, as with other programs reviewed, staff involvement was high and parental contact frequent. Students remained in this program, which involved a self-contained class and an abbreviated school day, on a semester-by-semester basis. The maximum time in STRIDE was limited to 1 year. Based on successful results, the program was expanded to grades 11 and 12.
Secondary-school principals responding in the Brimm et al. study (1978) indicated absenteeism could be reduced by stricter enforcement of attendance laws and policies. They also suggested parents and students assume more responsibility for school attendance. Further, the principals stated that schools themselves must also adapt by developing appropriate schedules and curriculum for chronic absentees.

Bishop (1989) recommended a tough, five-pronged attendance policy to encourage better school attendance:

1. A doctor's note should be required from students who have been ill,
2. Students missing a certain number of days should be retained,
3. Teachers should be required to give failing grades for work missed,
4. There should be a clear distinction between "excused" and "unexcused" absences, and
5. Participation in school-related activities should be classified as "excused" absences.

The Transylvania School Board in Brevard, North Carolina, also proposed a strict attendance policy (Koehler, 1989). Students would be limited to 10 absences (excused and unexcused). If an elementary student exceeded the limit, he or she would not be promoted to the next grade unless the student attended summer school or the principal granted
permission for grade progression. If a middle or high school student exceeded the 10-day limit, he or she would not receive course credits unless the student satisfied summer school requirements, attended extended-day classes, or obtained principal permission for other options.

In Henderson County, North Carolina, the Hendersonville Housing Authority annually awarded $100 savings bonds to elementary school students within their jurisdiction with perfect attendance (Hendersonville Times-News, 1989).

**Summary**

School-based interventions, including praise directed to parents, praise directed to students, tokens, student recognition, and other material incentives, demonstrated success in increasing attendance (Barber & Kagey, 1977; Bizzis & Bradley-Johnson, 1981; Boloz & Lincoln, 1982; Copeland, Brown, Axelrod, & Hall, 1974; Copeland et al., 1972; Fiordaliso, Lordeman, Filipczak, & Friedman, 1977; Fo & O'Donnell, 1974; MacDonald, Gallimore, & MacDonald, 1970; Morgan, 1975; Parker & McCoy, 1977; Sheats & Dunkleberger, 1979; Zweig et al., 1979).

This review of the literature indicates that structured attendance incentive programs are few in number and have not been established as part of the regular school program from year to year. However, sporadic attendance programs have enabled students to increase academic learning and involvement in the schooling process.
This study is an effort to explore the impact of the Incentive Program for Improved School Attendance on the attendance and academic achievement of chronically absent elementary school children.
CHAPTER III
METHODOLOGY

The purpose of this study was to determine the effectiveness of an incentive program for improved school attendance that used behavior-shaping techniques. The following questions were posed:

1. Can participation in an incentive program for improved school attendance that includes tangible rewards be associated with increased attendance of chronically absent elementary-school students?

2. Can participation in an incentive program for improved school attendance of chronically absent elementary-school students be associated with their academic achievement?

3. What effect does the incentive program for improved school attendance have on the number of HRS referrals and petitions for court actions?

The Setting

The setting was Marion County, which is geographically the fifth largest county in Florida and one of the fastest-growing areas in the country (Ocala-Marion County Chamber of Commerce, 1990). Every year the school district averages approximately 1,000 new students. In 1991, just over 14,000
students were served by 23 elementary schools. The enrollment of the schools selected for this study ranged from 335 to 901 students.

The Program

The Incentive Program for Improved School Attendance using tangible rewards was a program developed and designed by the Marion County School Social Work Services. The purpose of the incentive program was to identify and work with elementary-school students who have experienced significant school attendance problems.

The purpose of incentives in this attendance program was to achieve positive results based on B. F. Skinner's behavior-shaping techniques. Skinner suggested that environmental experiences shape and maintain specific behaviors. This theory can be applied to the school environment. Skinner viewed humans as active organisms capable of demonstrating a variety of behaviors. The consequences determine whether a person repeats the behavior or tries something else (Nye, 1979). By reinforcing an appropriate or desired behavior (attendance), the chance of the behavior repeating itself is increased. Part of this technique also involves the extinction of the undesirable behavior (absenteeism) (Matson, 1977). Incentives used in schools may vary, but the common goal is to encourage, rouse, and move students to action (Seoane & Smink, 1991).
The experimental attendance incentive program was piloted in two elementary schools during the 1987-1988 school term. Based on a report of initial success, the program gradually has been implemented in all Marion County elementary schools (Marion County School System School Social Work Services, 1989). Initial selection of schools to implement the program was made by the school social workers, who used their personal discretion in school selection. Reasons for selection ranged from personal belief in the incentive program to a willing school administration.

In addition to the goal of improving student attendance, the incentive program encompassed several educational dimensions and objectives:

1. To assist students in developing personal responsibility for their daily school attendance,
2. To recognize and reinforce student progress,
3. To enable students to maximize the educational opportunities available to them,
4. To enable the school social work staff to intervene in a timely and systematic manner with chronic attendance cases, and
5. To reduce the necessity for student involvement with community agencies.

Tangible incentives along with verbal praise were used in the program. All incentives used in the program, which included toys, games, and school supplies, were donated to
the Department of School Social Work Services by area merchants. School administrators also were cooperative in arranging transportation for earned field trips.

Once the number of qualified students was identified, the social worker visited the home of the student or sent the parents a letter (Appendix A) to explain the program. These contacts served as notification that the child was in the Incentive Program for Improved School Attendance. Students qualified if they had been absent from school 36 days or more during the previous school year.

The students selected to participate in the incentive program then met with the social worker in the school's guidance suite. Each student met individually with the social worker to discuss the program and, if agreeable to the student, sign the first contract, the Cooperative Agreement (Appendix B). The terms of the first contract required the student to attend school 5 days in a row in order to earn an incentive of his/her choice. Some of the incentives offered were smelly stickers, play-doh, go-bots, magic slates, games, fun pads, McDonald's lunch buckets, wallets, jacks, pencils, and notebooks.

At the end of the week the social worker or assistant again met with each student. If the student had successfully met the terms of the contract, the incentive, along with verbal praise, was awarded. At the same time, another contract was signed by the student. The new contract
required the student to attend school 10 days in a row. If the student had been unsuccessful with the first contract, it was renewed for 5 days. This process was repeated, each time lengthening the number of days required to earn the reinforcer.

**The Pilot Study**

The attendance incentive program was piloted in two schools during the 1987-1988 school year. The assistant principal from one of the schools documented the attendance of 21 students meeting the eligibility criterion for the program. Of the 21 students studied during this year, 17 increased their school attendance. Student attendance ranged from 82% to 97%.

Suspecting the students might revert to their previous absentee habits once they exited the program, follow-up documentation and data were collected the year following participation in the attendance program. Sixteen of the 21 students maintained an attendance record above the 80% criterion 1 year after exiting the program. Student attendance rates in the follow-up year ranged from 86% to 100%. These data were interpreted by the assistant principal and social worker to mean that as many as 76% of the students in the pilot program had been positively reinforced to the point that chronic absentee behavior had been modified.

At the end of the first year, teachers at this same pilot school were solicited for comments on the effects of
the incentive program. Several teachers commented that children with regular attendance were irritated that students in the incentive program were being rewarded for attendance but they (the regular attenders) were not. As a result of this information, a school-wide attendance program, in addition to the Incentive Program for Improved School Attendance, was established the following year. Students with perfect attendance each 9-week period were awarded a ribbon, special ruler, button, or certificate. A student with perfect attendance all year could earn all of these items. Names of students with perfect attendance were also read during morning school announcements.

The school-wide gain was an additional 1.42% in student attendance over the 1987-1988 student body attendance of 95.11%. Even though the school already had a satisfactory attendance record, the school administration attributed the increase to the impact of both programs.

Implications from the pilot study led to the development of this study. All elementary schools in Marion County were surveyed to determine which schools had initiated the Incentive Program for Improved School Attendance by the beginning of the 1989-1989 school year. A total of 16 elementary schools participated in the program.
The Population

The Treatment Group

Criteria for the treatment group of students included (a) enrollment in schools in which the Incentive Program for Improved School Attendance had been implemented for an entire year and (b) availability of standardized test scores for the immediate past school year and the school term during which the student participated in the program. This last factor narrowed the selection of grade levels to second, third, fourth, and fifth grades.

Identification of the students qualifying for the program was made by the school's assigned social worker. Students were identified by their lack of school attendance during the previous school term. The criterion established by the program was an attendance rate of less than 80%, as determined by the ninth attendance period of the previous year. Students (n=49) who qualified for the program were absent from school 36 days or more during the previous school year. This group's composition was 22 white females, 14 white males, 4 black females, 6 black males, 2 Hispanic females, and 1 Hispanic male.

The Control Group

Students from all the district's elementary schools not participating in the Incentive Program for Improved School Attendance were selected as the control for this study. Students in the control group had an attendance rate of less
than 80%, as determined by the ninth attendance period the previous year. Therefore, all eligible students (n=15) absent 36 days or more were selected from the second, third, fourth, and fifth grades. This group's composition was 6 white females, 5 white males, 3 black females, and 1 black male.

**Research Design and Analysis**

The purpose of this study was to determine the effectiveness of an incentive program for improved school attendance using behavior-shaping techniques. The following research questions were posed:

1. Can participation in an incentive program for improved school attendance that includes tangible rewards be associated with increased attendance of chronically absent elementary-school students?

2. Can participation in an incentive program for improved school attendance of chronically absent elementary-school students be associated with their academic achievement?

3. What effect does the incentive program for improved school attendance have on the number of HRS referrals and petitions for court action?

The first question was addressed by comparing students' attendance from the previous year to the year of participation in the treatment group. The total number of absences for 1988-1989 were reported, and these figures were
compared to the average increase or decrease in 1989-1990. Analysis of covariance (ANCOVA) was used to determine whether these comparisons differed significantly from each other. The ANCOVA equated the groups and increased the precision of the statistical test. The ANCOVA not only analyzed the total sums of squares for each of the variables—absences in 1988-1989 and absences in 1989-1990—into between and within components sums of squares but also resolved the total sum of products and within groups sum of products (Hill & Kerber, 1967).

The second question was addressed by comparing and analyzing California Achievement Test scores of the treatment group from the previous year to the year of participation in the Incentive Program for Improved School Attendance. The scores for the control group were compared and analyzed the same way. Following is a brief overview of the California Achievement Test.

**The California Achievement Test**

The scores from the 1986 edition of the California Achievement Test (CAT), Form E, were used as the pretests and posttests for the treatment and control groups. The battery is administered to all elementary-school students, first through fifth grades, in the school district in the spring of the school term. The CAT has been widely accepted and used by school systems throughout the country since 1977. The week chosen for testing was the same for all the district
elementary schools except for those on a modified school calendar.

**Scoring.** The students' scores were reported, for purposes of this study, in scale scores. Scale scores are units of a single, equal-interval scale that are applied across all levels of the CAT Form E, regardless of grade or time of year of testing. These scores expressed in numbers that range from 0 through 999, are used primarily to provide a basis for deriving normative scores to describe test performance. Scale scores were obtained by converting the "number-correct" scores using a conversion table published in the manual for the CAT. A student's scale scores for the total battery were obtained by averaging the scale scores for the tests (California Achievement Tests Forms E And F, 1986).

**Administration.** The CAT subtests were given to the entire class daily for 1 week. Before the formal testing procedures began, a practice test was administered so that children could become familiar with testing procedures.

The classroom teacher read aloud the general directions for each test. The teacher and a proctor were available in each classroom for supervision and assistance. The teacher read the question items, and the students responded to the test questions on their answer forms.

The research design selected for analysis of the second question correlating attendance and achievement was a pretest-posttest control group design (Campbell & Stanley, 1963).
This design allowed the researcher to test the effect of an experimental stimulus on a dependent variable through the pretesting and posttesting of students assigned to the treatment (Incentive Program for Improved School Attendance) group and control (no treatment) group. The elapsed time of 1 year between the pretest and posttest served to strengthen the results and minimize internal validity threats. A pretest-posttest control group design was used as shown in Table 3-1.

Table 3-1

<table>
<thead>
<tr>
<th>Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
</tr>
<tr>
<td>Control group</td>
</tr>
</tbody>
</table>

Table 3-1 illustrates the research design used to determine the relationship between academic achievement and attendance of the treatment and control groups. The CAT data were available for 60 students; sufficient test data were not available for 4 students.

To investigate the relationship between students' participation in the Incentive Program for Improved School Attendance and standardized test scores, ANCOVA was applied,
which is a statistical method in which the adjusted posttest mean of the treatment group scores is compared to the adjusted posttest mean of the control group scores, using the pretest scores as the covariate. The ANCOVA statistically reduced the effects of initial group differences by making compensating adjustments to the posttest means of the two groups, given the initial pretest (covariate) scores (Borg & Gall, 1983). Factoring in pretest scores further increases the power of the analysis. In using ANCOVA, the assumption is made that there is no interaction between covariate and treatment (i.e., between pretest and treatment). Therefore, in each analysis, an additional hypothesis (homogeneity of regression line slopes) was tested.

The third question was addressed by a comparison of numbers of HRS referrals and court petitions of students in the program in 1989 and 1990. These data were gathered directly from the logs of the social workers. Tables 4-9 and 4-10 (see Chapter IV) were used to reflect information gathered on the number of referrals.

**Hypotheses**

The following hypotheses were tested to address the research questions. The .05 level of significance was used as the minimum for rejection of the first two of the hypotheses.

**H01**: Participation in an incentive program for improved school attendance that includes tangible rewards is
not associated with increased attendance of chronically absent elementary-school students.

**HO₂:** Participation in an incentive program for improved school attendance of chronically absent elementary-school students is not associated with their academic achievement.

**HO₃:** There is no effect of the incentive program for improved school attendance on the number of HRS referrals and petitions for court action.

**Summary**

Data were analyzed to determine the effects of the Incentive Program for Improved School Attendance. Data were gathered from a treatment group (n=49) and a control group (n=15). Data consisted of number of student absences, CAT scores, number of HRS referrals, and number of court petitions. Results of the analysis of the study are reported in Chapter IV. Conclusions, discussion, implications, and recommendations for further research are discussed in Chapter V.
CHAPTER IV
RESULTS OF THE STUDY

This study was designed to investigate an attendance incentive program for chronically absent elementary-school students. The purpose of the study was to determine the effectiveness of an incentive program for improved school attendance that used behavior-shaping techniques. The students' attendance prior to entering the program and their attendance after participation in the program were examined. A control group of chronically absent elementary students also was used for comparison in order to evaluate the program. Analysis of covariance (ANCOVA) was used to evaluate these data.

The first research question posed was as follows:

Can participation in an incentive program for improved school attendance that includes tangible rewards be associated with increased attendance of chronically absent elementary-school students?

The following hypothesis was tested to address this question:

$H_{01}$: Participation in an incentive program for improved school attendance that includes tangible rewards is
not associated with increased attendance of chronically absent elementary-school students.

To test the hypothesis, analysis of covariance (ANCOVA) was performed. A descriptive analysis was also used to examine the absences of the treatment group and the control group.

Before applying the ANCOVA, the homogeneity of regression slopes was tested. There was no interaction between the pretest and treatment.

An ANCOVA was used to compare the number of days absent between the treatment and control group. Results are shown in Table 4-1. The dependent variable is the 1989-1990 absences of both treatment and control groups. The covariate is the 1988-1989 absences of both groups. The independent variable is the treatment.

Table 4-1

**ANCOVA of Absences**

| Absences 1988-89 | F value = 1.58 | pr > F=0.2134 |

The results of this analysis indicated no significant difference (p > .05) between the control group (n=15) and the treatment group (n=49) in school attendance in 1989-90. The hypothesis failed to be rejected. The results of these statistics indicate that participation in an incentive
program for improved school attendance that includes tangible rewards was not associated with increased attendance of chronically absent elementary-school students when compared to a control group. However, both groups of students did decrease in the average number of days of school absence (Table 4-2).

In other words, students in both groups increased attendance at school in 1989-1990. Students in the treatment group were absent an average of 45.16 days in 1988-89. This mean declined to 24.10 days absent in 1989-90. Students in the control group were absent from school an average of 40.87 days in 1988-89. This mean declined to 30.00 absences in 1989-90. The treatment group's mean absentee rate declined 10.19 days more than the control group. This suggests findings in other attendance incentive programs reviewed in Chapter II (Barber & Kagey, 1977; Boloz & Lincoln, 1982; Flax, 1988; Stepteau & Lawther, 1987; Zweig et al., 1979) may have weakened program results because a control group was not

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Mean Absences 1988-89</th>
<th>Mean Absences 1989-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>45.16</td>
<td>24.10</td>
</tr>
<tr>
<td>Control</td>
<td>40.87</td>
<td>30.00</td>
</tr>
</tbody>
</table>
used. The Turkel and Abramson study (1986) did use a control group. Their results of attendance based on a comparison between treatment and control groups also were considered not to be significant. Thus, increased attendance may be attributed to student maturity or other historical influences rather than to the incentive programs. Morgan (1975) also used a control group. His results indicated the treatment group increased in attendance significantly more than the control group.

The second research question posed was as follows:

Can participation in an incentive program for improved school attendance of chronically absent elementary-school students be associated with their academic achievement?

The following hypothesis was tested:

$H_0_2$: Participation in an incentive program for improved school attendance of chronically absent elementary-school students is not associated with their academic achievement.

An ANCOVA was used to analyze California Achievement Test (CAT) scores from 1989 (pretest) and 1990 (posttest) for both treatment and control groups. The 1990 CAT scores were the dependent variable, and the 1989 CAT scores the covariate. Of the 49 students in the treatment group, 4 students did not have CAT scores for either 1989 or 1990. Therefore, they were not included in this segment of analysis. Scores for all 15 control group subjects were
available. All subtests, reported in scale scores, were analyzed. This detailed analysis reported an accurate account of test gains or losses. Several students' scores in both groups were not reported in all the areas of testing. Since administration of the CAT tests occurred over a 5-day period, it was assumed a student was not in attendance if a score was not recorded. The 1990 (posttest) scores of students of both groups were used to investigate treatment effects.

Before applying ANCOVA, the homogeneity of regression slopes, which indicates no interaction exists between pretest and treatment, was tested. Results are presented in Table 4-3.

A violation of the homogeneous slopes assumption occurred in the area of language expression implying that a significant interaction between the covariate and the grouping variable exists. This means there was too much variability in the scores of both the treatment and control groups. The treatment is having a greater effect on the students with the lower covariate scores than the students with the higher covariate scores. These scores on this subtest prevent an accurate interpretation of the results. The point of eventual intersection of lines crossing above the 750 score is illustrated by the arrow in Figure 4-1. Based on this interaction, these scores were not analyzed.
Table 4-3

Interaction Effects between Pretest and Grouping Variable

<table>
<thead>
<tr>
<th>CAT Scores</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Vocabulary (n=57)</td>
<td>0.6573</td>
</tr>
<tr>
<td>Reading Comprehension (n=59)</td>
<td>0.5641</td>
</tr>
<tr>
<td>Reading Total (n=56)</td>
<td>0.6106</td>
</tr>
<tr>
<td>Language Mechanics (n=34)</td>
<td>0.2072</td>
</tr>
<tr>
<td>Language Expression (n=60)</td>
<td>0.0261</td>
</tr>
<tr>
<td>Language Total (n=34)</td>
<td>0.4657</td>
</tr>
<tr>
<td>Math Computation (n=60)</td>
<td>0.5360</td>
</tr>
<tr>
<td>Math Concepts &amp; Applications (n=57)</td>
<td>0.1306</td>
</tr>
<tr>
<td>Math Total (n=57)</td>
<td>0.5908</td>
</tr>
<tr>
<td>Total Battery (n=34)</td>
<td>0.7506</td>
</tr>
</tbody>
</table>

With the exception of the language expression subtest, no other significant interaction between pretest and covariate occurred.

Descriptive statistics presented in Tables 4-4 and 4-5 show the 1989 CAT subtests and total battery scores for the treatment and control groups. The mean scores, standard deviation, and standard error of measurement are given. The means scores of the control group were above the treatment group scores in all areas, with the exception of language arts and math computation.
Figure 4-1. Scatterplot for Language Expression Scores
Table 4-4

Pretest California Achievement Test Scores of the Treatment Group--1989

<table>
<thead>
<tr>
<th>1989 CAT Subtests</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Vocabulary</td>
<td>563.773</td>
<td>109.519</td>
<td>16.511</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>557.022</td>
<td>134.955</td>
<td>20.118</td>
</tr>
<tr>
<td>Reading Total</td>
<td>565.256</td>
<td>120.166</td>
<td>18.325</td>
</tr>
<tr>
<td>Language Mechanics</td>
<td>640.556</td>
<td>33.777</td>
<td>6.5</td>
</tr>
<tr>
<td>Language Expression</td>
<td>602.848</td>
<td>88.606</td>
<td>13.064</td>
</tr>
<tr>
<td>Language Total</td>
<td>642.815</td>
<td>47.848</td>
<td>9.208</td>
</tr>
<tr>
<td>Math Computation</td>
<td>583.848</td>
<td>103.234</td>
<td>15.221</td>
</tr>
<tr>
<td>Math Concepts and Applications</td>
<td>616.444</td>
<td>56.468</td>
<td>8.418</td>
</tr>
<tr>
<td>Math Total</td>
<td>599.356</td>
<td>74.91</td>
<td>11.167</td>
</tr>
<tr>
<td>Total Battery</td>
<td>641.875</td>
<td>44.007</td>
<td>8.983</td>
</tr>
<tr>
<td>1989 CAT Subtests</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Std. Error</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Reading Vocabulary</td>
<td>575.733</td>
<td>105.068</td>
<td>27.129</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>569.533</td>
<td>106.048</td>
<td>27.381</td>
</tr>
<tr>
<td>Reading Total</td>
<td>572.8</td>
<td>103.538</td>
<td>26.733</td>
</tr>
<tr>
<td>Language Mechanics</td>
<td>666.125</td>
<td>19.989</td>
<td>7.067</td>
</tr>
<tr>
<td>Language Expression</td>
<td>581.2</td>
<td>133.027</td>
<td>34.347</td>
</tr>
<tr>
<td>Language Total</td>
<td>669.5</td>
<td>24.448</td>
<td>8.644</td>
</tr>
<tr>
<td>Math Computation</td>
<td>566.8</td>
<td>116.729</td>
<td>30.139</td>
</tr>
<tr>
<td>Math Concepts and Applications</td>
<td>619.286</td>
<td>77.924</td>
<td>20.826</td>
</tr>
<tr>
<td>Math Total</td>
<td>605.643</td>
<td>81.339</td>
<td>21.739</td>
</tr>
<tr>
<td>Total Battery</td>
<td>662.625</td>
<td>19.522</td>
<td>6.902</td>
</tr>
</tbody>
</table>
Descriptive statistics presented in Tables 4-6 and 4-7 show the 1990 CAT subtests and total battery scores for the treatment and control groups. The mean scores, the adjusted posttest means (LS means), standard deviation, and standard error of measurement are given. The mean scores of the control group continue to be above the treatment group in all areas.

The ANCOVA results, as shown in Table 4-8, indicate a statistically significant difference between the groups exists for the subtests and the total battery when using the 1989 test scores as the covariate. The covariate was the 1989 test scores of both groups. The dependent variable was the 1990 test scores of both groups. The independent variable was the treatment.

The analysis of the reading vocabulary subtest, based on 57 scores, yielded $p < .0001$. Using the .05 level of significance, the hypothesis was rejected. The analysis of the reading comprehension subtest, based on 59 scores, yielded $p < .0001$. Using the .05 level of significance, the hypothesis was rejected. The analysis of the reading totals, based on 56 scores, yielded $p < .0001$. Using the .05 level of significance, the hypothesis was rejected. The analysis of the language mechanics subtest, based on 34 scores, yielded $p < .0440$. Using the .05 level of significance, the hypothesis was rejected. The analysis of the language totals, based on 34 scores, yielded $p < .0018$. Using the .05
Table 4-6

Posttest California Achievement Test Scores of the Treatment Group—1990

<table>
<thead>
<tr>
<th>1990 CAT Subtests</th>
<th>Mean</th>
<th>L S Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Vocabulary</td>
<td>627.756</td>
<td>631.73</td>
<td>94.388</td>
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</tr>
<tr>
<td>Reading Comprehension</td>
<td>632.565</td>
<td>633.24</td>
<td>78.989</td>
<td>11.646</td>
</tr>
<tr>
<td>Reading Total</td>
<td>631.711</td>
<td>633.77</td>
<td>84.444</td>
<td>12.588</td>
</tr>
<tr>
<td>Language Mechanics</td>
<td>646.698</td>
<td>665.70</td>
<td>48.087</td>
<td>7.333</td>
</tr>
<tr>
<td>Language Expression</td>
<td>641.478</td>
<td>638.80</td>
<td>75.572</td>
<td>11.142</td>
</tr>
<tr>
<td>Language Total</td>
<td>647.047</td>
<td>666.16</td>
<td>54.823</td>
<td>8.36</td>
</tr>
<tr>
<td>Math Computation</td>
<td>655.</td>
<td>653.09</td>
<td>77.042</td>
<td>11.359</td>
</tr>
<tr>
<td>Math Concepts &amp; Applications</td>
<td>663.444</td>
<td>662.68</td>
<td>49.393</td>
<td>7.363</td>
</tr>
<tr>
<td>Math Total</td>
<td>661.956</td>
<td>661.41</td>
<td>55.212</td>
<td>8.231</td>
</tr>
<tr>
<td>Total Battery</td>
<td>662.05</td>
<td>689.41</td>
<td>65.02</td>
<td>10.28</td>
</tr>
<tr>
<td>1990 CAT Subtests</td>
<td>Mean</td>
<td>L S Mean</td>
<td>Std. Dev.</td>
<td>Std. Error</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------</td>
<td>----------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Reading Vocabulary</td>
<td>650.933</td>
<td>646.91</td>
<td>81.426</td>
<td>21.024</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>676.133</td>
<td>672.08</td>
<td>66.784</td>
<td>17.244</td>
</tr>
<tr>
<td>Reading Total</td>
<td>663.467</td>
<td>662.12</td>
<td>70.356</td>
<td>18.166</td>
</tr>
<tr>
<td>Language Mechanics</td>
<td>664.267</td>
<td>685.75</td>
<td>47.485</td>
<td>12.26</td>
</tr>
<tr>
<td>Language Expression</td>
<td>691.6</td>
<td>699.82</td>
<td>57.031</td>
<td>14.725</td>
</tr>
<tr>
<td>Language Total</td>
<td>674.867</td>
<td>686.46</td>
<td>42.845</td>
<td>11.063</td>
</tr>
<tr>
<td>Math Computation</td>
<td>691.867</td>
<td>697.72</td>
<td>58.36</td>
<td>15.068</td>
</tr>
<tr>
<td>Math Concepts &amp; Applications</td>
<td>685.933</td>
<td>692.01</td>
<td>61.188</td>
<td>15.799</td>
</tr>
<tr>
<td>Math Total</td>
<td>689.333</td>
<td>692.35</td>
<td>54.928</td>
<td>14.182</td>
</tr>
<tr>
<td>Total Battery</td>
<td>682.643</td>
<td>693.14</td>
<td>46.769</td>
<td>12.499</td>
</tr>
</tbody>
</table>
Table 4-8

Analysis of Covariance of the CAT Scores

<table>
<thead>
<tr>
<th>CAT Scores</th>
<th>DF</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Vocabulary (n=57)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Reading Comprehension (n=59)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Reading Total (n=56)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Language Mechanics (n=34)</td>
<td>1</td>
<td>0.0440</td>
</tr>
<tr>
<td>Language Expression (60)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Total (n=34)</td>
<td>1</td>
<td>0.0018</td>
</tr>
<tr>
<td>Math Computation (n=60)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Math Concepts &amp; Applications (n=57)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Math Total (n=57)</td>
<td>1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Total Battery (n=34)</td>
<td>1</td>
<td>0.0004</td>
</tr>
</tbody>
</table>

*The main effects of the treatment in the Language Expression area are not included due to the previously mentioned determination of interaction effects.

level of significance, the hypothesis was rejected. The
analysis of the math computation subtest, based on 60 scores, yielded \( p < .0001 \). Using the .05 level of significance, the hypothesis was rejected. The analysis of the math concepts and applications subtest, based on 57 scores, yielded \( p < .0001 \). Using the .05 level of significance, the hypothesis was rejected. The analysis of the math totals, based on 57 scores, yielded \( p < .0001 \). Using the .05 level of
significance, the hypothesis was rejected. The analysis of the total CAT battery, based on 34 scores, yielded $p < .0004$. Using the .05 level of significance, the hypothesis was rejected. Therefore, all segments of the second hypothesis were rejected.

Participation in an incentive program for improved school attendance of chronically absent elementary-school students can be associated with their academic achievement. There was a positive correlation between academic achievement as measured by CAT scores and participation in the Incentive Program for Improved School Attendance.

The third research question posed was as follows:

What effect does the Incentive Program for Improved School Attendance have on the number of HRS referrals and petitions for court action?

The following hypothesis was tested:

$H_0_3$: There is no effect of the incentive program for improved school attendance on the number of HRS referrals and petitions for court action.

In 1989, there were six HRS referrals and two petitions for court action from the treatment group. In 1990, there were six HRS referrals and two petitions for court action from the treatment group. There were no differences in referrals and petitions in this group, as shown in Table 4-9.
Table 4-9

Treatment Group Referrals to HRS and Court Petitions

<table>
<thead>
<tr>
<th>Year</th>
<th>HRS Referrals</th>
<th>Court Petitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>N = 6</td>
<td>N = 2</td>
</tr>
<tr>
<td>1989-90</td>
<td>N = 6</td>
<td>N = 2</td>
</tr>
</tbody>
</table>

It was noted that 12 students in the total treatment group (n=49) were involved in HRS referrals and/or court petitions. Two of the 12 were siblings. Of the 12, 3 were repeat referrals. If referrals were counted as initial referrals only, the number for 1990 would have decreased. Counting the same child for each time a referral was made caused the numbers to remain the same. This descriptive information, presented in Table 4-10, presents a clearer picture of the referrals and petitions. Student #1 was referred to HRS in 1989 but also to the courts in the same year. Student #9 was referred to HRS in 1988 and in 1989. Additionally, this same student was also referred to the court system in 1989. Student #11 was referred to HRS in 1988 and again in 1989. It may be assumed that problems with these children became more serious from one year to the next and further interventions became necessary.

There was no change in the number of HRS referrals and court petitions for students participating in the Incentive
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td></td>
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<tr>
<td>3*</td>
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<tr>
<td>4*</td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*siblings

Program for Improved School Attendance. This program did not decrease the number of referrals. The results of this analysis failed to reject the hypothesis. Thus, the Incentive Program for Improved School Attendance had no effect on the number of HRS referrals and petitions for court action. However, this cannot necessarily be interpreted as a weakness in the program. It is possible other problem areas...
such as abuse, neglect, or involvement in drugs experienced by the students may have otherwise gone undiscovered.

The effects of an attendance incentive program for chronically absent elementary-school students was investigated. School absences of students in the program were compared to a control group of chronically absent students not participating in the incentive program over a period of 2 years: 1988-1989 and 1989-1990. Absences were analyzed using the ANCOVA. This analysis indicated no significant difference in the number of days of attendance between both groups. The CAT scores of both groups were analyzed using the ANCOVA. Results of this analysis indicated a significant difference in achievement in the treatment group in all test score areas, revealing a positive relationship between participation in the program for improved school attendance and achievement as measured by the CAT. Information gathered from the logs of the school system's social workers indicated no difference in the number of HRS referrals and court petitions for students in the treatment group from 1988-1989 to 1989-1990.
CHAPTER V
SUMMARY, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The literature is replete with studies of the problems of at-risk students dropping out of school. These studies suggest excessive absenteeism or truancy from school is a top indicator of a potential school dropout. Logically speaking, if attendance at school is increased, then the number of students opting to drop out of school would decrease.

The literature also revealed a variety of programs to keep students in school. However, most of the studies focused on the dropout problem at the middle or high school level. Yet, the pattern of absenteeism was apparent as early as kindergarten. This study examined an attendance incentive program that addressed the absentee problem at the elementary-school level.

The purpose of this study was to determine the effectiveness of an incentive program for improved school attendance that used behavior-shaping techniques. Students from 16 Marion County elementary schools qualified for the program and were monitored. All eligible students from the remaining Marion County elementary schools not participating
in the program were selected as a control group. All schools involved in this research were part of the Marion County Public School System in Ocala, Florida.

The research questions posed were as follows:

1. Can participation in an incentive program for improved school attendance that includes tangible rewards be associated with increased attendance of chronically absent elementary-school students?

2. Can participation in an incentive program for improved school attendance of chronically absent elementary-school students be associated with their academic achievement?

3. What effect does the incentive program for improved school attendance have on the number of HRS referrals and petitions for court action?

The first question was addressed by comparing students' attendance from the year prior to the year of participation or nonparticipation in the program. Analysis of covariance (ANCOVA) was used to test for significance using \( p < .05 \).

The second question was addressed by comparing and analyzing CAT scores of the treatment and control groups for the same 2-year period. Analysis of covariance using \( p < .05 \) was applied.

The third question was addressed by a comparison of the number of HRS referrals and court petitions of students in
the program in 1988-1989 and 1989-1990. Descriptive tables were used to analyze the results.

The treatment group was comprised of 49 students who participated in the Incentive Program for Improved School Attendance. Another 15 chronically absent elementary-school students at other elementary district schools without the program served as the control group. Student absentee records and standardized test scores over a 2-year period were analyzed. Attendance data and CAT scores were collected from 1988-1989 and 1989-1990 school records. Information on HRS referrals and court petitions was gathered from the logs of the school system's social workers.

Results and Discussion

The three hypotheses investigated in this study are presented and discussed in the paragraphs that follow.

H01: Participation in an incentive program for improved school attendance that includes tangible rewards is not associated with increased attendance of chronically absent elementary-school students.

Hypothesis 1 failed to be rejected. The ANCOVA revealed no significant treatment effect. Results of this study indicate that participation in an incentive program for improved school attendance that included tangible rewards did not significantly increase attendance of chronically absent elementary-school students when compared to a control group. Both the treatment and control groups increased the number of
days in attendance at school. Students in the treatment group attended an average of 10.19 more days than the control group. This average difference, while in the expected direction, was not statistically significant.

The main objective for the initiation of the incentive program was to encourage chronically absent students to attend school. The general consensus of the literature reviewed indicated that attendance could be increased by providing some type of incentive to the student. This study examined attendance rates of students selected as a treatment group (N=49) with a similar group of students selected as a control group (N=15). The results were mixed.

The absentee rate for those who participated in the Incentive Program for Improved School Attendance dropped from an average of 45 days in 1988-1989 to 24 days in 1989-1990. Students in the treatment group attended an average of 21 more days while participating in the attendance program. Under the guidelines of the program, 38 or 78% of the students would no longer qualify to participate in the incentive program.

However, students in the control group also had fewer absences. Their absentee rate dropped from an average of 41 days in 1988-1989 to 30 absences in 1989-1990. The control group attended school an average of 11 more days in 1989-1990. When changes in attendance between the treatment group
and the control group were compared, the treatment group attended classes an average of 10 more days.

When the attendance gains of the treatment group were compared to the control group using ANCOVA, the difference of 10 days was not significant. Thus, the hypothesis failed to be rejected.

A factor that might have contributed to these results was the small number of subjects in the control group (N=15). The control group included all eligible elementary-school students in the district absent 36 days or more during the 1988-1989 school term in schools not participating in the incentive program. Even though comparable in racial and male/female composition, a larger control group may have yielded significant differences.

The director of Social Worker Services in Marion County determined, based on the attendance gains of the 1987 pilot groups and subsequent groups, attendance increases were significant enough to continue the program. Since the program's inception and over a period of 6 years, all of the elementary schools in the district have implemented the Incentive Program for Improved School Attendance for the 1992-1993 school year.

The original pilot school's program had become so successful in reducing chronic absenteeism in 1991-1992 that the assigned social worker changed the eligibility requirement to 83% instead of 80%. In other words, students
absent 30 days or more during the previous school year were now eligible for the incentive program. Students absent 36 days or more had become difficult to find. This change suggests the program had met its initial goal.

HO$_2$: Participation in an incentive program for improved school attendance of chronically absent elementary-school students is not associated with their academic achievement.

Hypothesis 2 was rejected. The ANCOVA indicated a significant difference in the test battery scores between the treatment and control groups. The test score gains were significantly higher ($p < .05$) for the students in the Incentive Program for Improved School Attendance.

Examination of test scores of the treatment group and control group revealed a positive correlation between attendance at school and achievement as measured by CAT scores. Results of standardized tests are an academic indicator of a child's educational progress. The treatment group made significantly greater gains on this instrument than the control group. The results of this study suggest attendance at school and academic success are significantly related. This finding is consistent with the positive correlation of academic achievement and attendance found by Cooper (1930), Summers and Wolfe (1975), and Ziegler (1928). The Incentive Program for Improved School Attendance can be associated with higher standardized test scores.
Achievement may have been influenced by the intervention of the program personnel: the social worker or the social worker assistant. A child interacting with an adult showing genuine care and concern in the school setting may have impacted the student's attitude toward school. Often an at-risk child feels detached or invisible in a school setting (Pigford, 1992). Positive personal experiences with adults in authority positions can help to diminish these feelings. This type of personal attention can help establish a feeling of belonging and visibility for the student and may promote the needed reciprocal relationship for further successes (Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). Wells (1990) recognized that poor interpersonal relationships between students and staff contributed to the dropout problem. Another factor for consideration must be given to the possibility of a Hawthorne effect. Gains in achievement might be attributed to the attention the treatment students were given rather than to the program itself (Gay, 1976; Homans, 1950).

H03: There is no effect of the incentive program for improved school attendance on the number of HRS referrals and petitions for court action.

The number of HRS referrals and court petitions for the treatment group remained the same for 1989 and 1990. Since no change was reported, the hypothesis failed to be rejected. There was no effect of an incentive program for improved
school attendance on the number of referrals and petitions for court action.

Department of Health and Rehabilitation Services referrals and court petitions can be made for reasons other than truancy (e.g., abuse, neglect, chemical dependency). These other factors may have had an effect on this finding. Each of the HRS referrals and court petitions reported did not signify individual students. Three of the students were referred on more than one occasion. It may be assumed that problems with these children and their families became more serious from one year to the next. Further intervention may have become necessary.

Even though the number of HRS referrals and court petitions did not change, this may not indicate a weakness in the incentive program. With more personal interaction, the social worker or assistant had an opportunity to build a relationship of trust with the child. Therefore, more information about the circumstances surrounding the child's personal life and home environment may have been discovered. The students referred may have needed further interventions (e.g., counseling, family services, foster care) to address these discovered underlying reasons for chronic absenteeism.

Implications

The results of this study suggest that an attendance program has some influence on the attendance pattern and a
significant influence on the achievement of chronically absent students. This program also provides opportunities for HRS intervention when truancy or other problems persist.

Based on this study and previous research, implementation of an incentive program for improved attendance should be considered for elementary schools. The benefits of the program go beyond the efforts to decrease absences at school. Gains in academic achievement are significantly higher for students participating in the program. The significant gains in achievement provide the school district with substantial evidence of additional benefits to the elementary-school students in the program. The results of this research greatly enhance the importance of this Incentive Program for Improved School Attendance. Increased achievement, as measured by standardized tests, may also contribute to a more successful educational experience for a child and, ultimately, impact his or her adult life.

The results of this study also reinforce the need to encourage daily attendance at school in all grade levels by the use of an organized program within each school. Regular attenders as well as students with attendance problems should have the benefit of incentives and recognition.

The implementation of this attendance program was greatly enhanced by the presence of the social workers and their assistants who monitored the program. Marion County
schools already had in place a staff of social workers and assistants assigned to all schools. One social worker was assigned to several schools for scheduled visitations during the week.

The cost of such a program could be a limiting factor for some schools. Since prizes for the attendance program can be donated by area merchants or school business partners, program costs are negligible.

Measures of attendance and test scores can certainly be incorporated into school improvement goals. School accountability in the state of Florida has begun, and goal setting by individual schools is required by the end of the 1992-1993 school term. Increased student attendance and test scores are a measurable and desirable goal.

**Recommendations for Further Study**

The following recommendations are made based on the results of this investigation:

1. Elementary students having chronic absences need to be identified and their attendance problems addressed. A pattern of nonattendance at school is a common characteristic of dropouts and often begins as early as kindergarten. Longitudinal studies are needed in order to determine if intervention programs similar to the Incentive Program for Improved School Attendance have an impact on motivating students to remain in school through graduation. Results of the pilot study suggest acceptable
attendance at school continues even after students exit the program.

2. Further research using additional academic measures together with the once-a-year standardized test scores would provide a more accurate academic picture of regular school attenders and those chronically absent. Other measures might include the report card, the kindergarten Brigance Screen, and writing assessment scores. A student portfolio is becoming increasingly important as another measure of a child's progress in school.

3. The structure of this research study included a control group as a means of measuring gains in attendance and achievement in the incentive program. Other studies reviewed, with the exception of Morgan (1975) and Turkel and Abramson (1986), did not use a control group. Future studies should consider incorporating a larger control group in order to eliminate historical and maturation factors that might weaken a study's validity.

4. Future research should consider including qualitative information along with quantitative data to enhance analytical results. Information could be gathered from student interviews and artwork, teacher surveys and interviews, parent interviews, and student observations. An extensive profile of the chronically absent child could assist school personnel in an early and accurate assessment
of the child's particular social needs and education intervention needs.
APPENDIX A
LETTER OF NOTIFICATION

Date:


Re: ____________________________
DOB: ____________________________

Dear Parent(s)/Guardian(s):

Your child has been selected to participate in a program to improve his/her school attendance. We made this decision after reviewing your child's cumulative record with the school guidance counselor.

When it is necessary for your child to be absent from school, we request that you send a note to the school regarding the reason for the absence. We also encourage you to contact either me or the school guidance counselor to discuss anything that you feel may be contributing to your child's absence from school. I may be reached at 351-8830, Monday through Friday, from 8:00 a.m. - 3:45 p.m..

Florida law requires that children between the ages of 6 and 16 attend school regularly. If your child has excessive absences from school this year, we will make every effort to work in cooperation with you and your child to improve his/her school attendance.

Sincerely,

School Social Worker

School Social Worker Assistant
APPENDIX B
COOPERATIVE AGREEMENT

Student's Name: _____________________________

First          Last          Middle

DOB: _________  School: ____________  Grade: ___

I, ________________, agree to the following condition(s):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

When the above condition(s) have been met, I _________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Student Signature: _____________________

Assistant/Worker Signature: _____________

Agreement Date: ______________

Review Date: ________________
TO: Mr. Skip Archibald, Superintendent  
FROM: Lynn Herrick  
SUBJECT: Permission To Conduct Research

The purpose of this memo is to ask for permission to conduct research in 23 Marion County Schools.

The research will be the investigation of the Incentive Program for Improved School Attendance being conducted in the elementary schools. I will be gathering CAT scores and attendance information on 49 students involved in the program and other selected students (control group) not involved in the program.

Approved:  
R. E. "Skip" Archibald  
Superintendent
REFERENCES


BIOGRAPHICAL SKETCH

Lynn Herrick was born in LaJolla, California. She attended elementary through high school in Coral Gables, Florida. She received an Associate of Arts degree at Miami-Dade Jr. College, a Bachelor of Arts degree in English at Florida International University, and a Master of Education degree at Western Carolina University.

Lynn worked full time while earning all of her college degrees. She spent 10 years in the business community, working in jobs ranging from floor secretary at New York University, administrative assistant at a London advertising firm, to staff assistant in public relations at Eastern Airlines. She feels one of her most unique accomplishments was being the first female football official in Florida and in North Carolina. Lynn began her teaching career in Hendersonville, North Carolina, in 1975. She taught eighth grade at Rugby Junior High for 4 years before moving to Ocala, Florida, to accept a position as guidance counselor at Fort King Middle School. Since then, Lynn moved from assistant principal at Ward-Highlands Elementary to principal at Madison Street School of Basics Plus. Madison Street is Marion County's only magnet school.
Along with her job and educational career, Lynn enjoys basketry, photography, traveling, and spending as much time as possible at Flat Rock Playhouse, the state theatre of North Carolina.
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

James W. Hensel, Chairman
Professor of Educational Leadership

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Phillip A. Clark
Professor of Educational Leadership

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Sandra B. Damico
Professor of Foundations of Education
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Elizabeth Bondy
Assistant Professor of Instruction and Curriculum

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

December 1992

Dean, College of Education

Dean, Graduate School