A COMPARISON OF TWO STRATEGIES USED
TO REDUCE THE NUMBER OF DROPOUT-PRONE STUDENTS
IN URBAN MIDDLE SCHOOLS

by
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ABSTRACT

The primary purpose of this study was to compare academic achievement and behavioral characteristics of students enrolled in the Career Exploratory Middle School (CEMS), an alternative middle school, with the academic achievement and behavioral characteristics of students in a project called Building and Supplementing Instruction in the Core Skills (BASICS), a dropout prevention program within traditional middle schools. The independent variable was CEMS. The dependent variables were SRA composite scores, absences, days tardy, grade point average and office referrals. Project BASICS was used as a comparison group.

Another purpose of this study was to determine whether or not CEMS and Project BASICS had any effect on selected academic and behavioral criteria. A total of 120 subjects were analyzed from two groups. Each group consisted of 60 randomly selected students. An ex post facto research design was used. Descriptive analyses included mean, media, mode, range, variance and standard deviations. Analysis of covariance was used to determine significant relationships. T-tests were used to compare the performance within both
comparison groups. A p<.05 level of significance was used. Based on the Pearson Correlation Coefficient there appears to be a highly positive relationship between student performance in 1986-87 and in 1987-88 for all behavioral variables. The t-test for Grade Point Average (GPA) indicated that the sample means were almost identical within each individual group. All other variables indicated significant within-group improvement.

The results suggested that there were no significant differences between the Career Exploratory Middle Schools (CEMS) and project BASICS with regard to Science Research Association (SRA) composite scores, absences, days tardy, GPA and office referrals.

This study is designed to compare the effectiveness of two strategies used to reduce the number of dropout-prone middle school students.
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Finally, thanks to my husband Norman, for his enduring patience and for the sacrifices he was willing to make. To my children, Norman Jr., Kevin and Tolisha, thank you for your encouragement, your love, your understanding, and your constant support throughout this study.
DEDICATION

To my family: Norman R. Jones, Sr. husband; Tolisha Monique Jones, daughter; Norman Randolph Jones, Jr., and Kevin DeRell Jones, sons; and Mrs. Gladys Lewis, mother.
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CHAPTER I
INTRODUCTION

Administrators and educational leaders in the Commonwealth of Virginia and throughout the nation struggle to find approaches and programs that will motivate students in the public school system (Azumi and Gourney, 1985). According to Hahn (1987), the dropout-prone student is a national concern to educators at all levels in the schools of America. Characteristics of students who become dropout-prone include poor attendance, lack of employment, dislike for school, socio-economic disadvantages, lack of discipline, pregnancy, low self-esteem, drug and alcohol abuse, and alienation from peers. However, the most common reason for a student to leave school is poor academic performance (Hahn, 1987).

According to the United States General Accounting Office (1985), dropping out of school is a problem not confined to a specific race, creed or color, but is a systemic failure. If the results of such research are valid, then alternative approaches to education are necessary.

A number of interventions have been proposed or attempted to address this problem (Gray-Shoffner, 1989 and Allen and Gardner, 1989). However, most of these dropout-prevention
programs were at the high school level or in vocational schools. Researchers and practitioners agree that many of these solutions are too little and too late. In other words, earlier intervention is needed (DeBlois, 1989 and Fizzel, 1987).

Data was also obtained from the Director of Research and Testing Services in the city of Richmond, Virginia. This data indicated that throughout the 1970's the Richmond Public School system maintained alternative programs within the traditional middle school setting for students with deficiencies in specific academic areas. These alternative programs focused on providing vocational education.

Historically speaking, in the 1970's the dropout rate in the Richmond Public School system rose sharply above previous decades (Principal's End of the Year Report and Evaluation Summary). As a result, a taskforce of educators was formed to address this problem. The taskforce concluded that there was an urgent need for an alternative program for grades six through eight to address the problem of the aberrant child. Among the problems which this group identified needing solutions were students who did not have a positive attitude, who saw no relevance in education and who were dissatisfied and confused (A Study of the Career Exploratory Middle School 1980-1988). These characteristics were classic examples of those which many authorities used to identify potential
dropouts. Based on the conclusions and recommendations of the taskforce, in 1980, the Richmond Public School system developed an alternative for dropouts.

The Career Exploratory Middle School (CEMS), an alternative middle school, was created and designed to address the needs of potential dropouts in a single school building. Therefore, the needs of students with similar characteristics in the other eight middle schools were not being addressed. Thus, Building and Supplementing Instruction in the Core Skills, hereafter referred to as Project BASICS, a program designed to be offered within the other eight middle schools, was initiated to address the needs of the dropout-prone students.

Project Basics provided remedial assistance to dropout-prone middle school students who demonstrated deficiencies in mastering essential skills in the core subjects. Project BASICS was also designed to improve attendance, to increase self confidence, and to promote and to encourage academic excellence.

**Purpose of the Study**

The primary purpose of this study was to compare academic achievement and behavior characteristics of students enrolled in the Career Exploratory Middle School (CEMS), an alternative
middle school with the academic achievement and behavioral characteristics of students in a project called, Building and Supplementing Instruction in the Core Skills (BASICS), a dropout prevention program within traditional middle schools. Another purpose of this study was to determine whether or not CEMS and Project BASICS had any effect on selected academic and behavioral criteria.

**Statement of the Problem**

This study is designed to compare the effectiveness of two strategies used to reduce the number of dropout-prone middle school students.

**Need for the Study**

According to the Director of Research and Testing Services of Richmond Public Schools (1988), many studies have identified the problems of today's youth relative to dropouts, but too little effort has been made in addressing solutions for the problems. Programs have been implemented in the Richmond public Schools but insufficient and aggregate data have not been compiled. There was a need to study the effectiveness of two programs in the Richmond Public School system designed to stem the tide of dropouts, in terms of
academic and behavioral criteria. Therefore, this study provides data on two dropout programs in an urban school system.

**Hypotheses**

Based on the data collected over a two year period, 1986-88, the following hypotheses were tested in this research:

**H1:** There are no significant differences between the CEMS group and the Project BASICS group in terms of the following achievement criteria:

(a). Mean Science Research Associates (SRA) Achievement Series, Level G Forms 1 & 2 national percentile scores.

(b). Mean Grade Point Average (GPA)

**H2:** There are no significant differences between the CEMS group and the Project BASICS group in terms of the following behavioral criteria:

(a). absences

(b). tardiness

(c). office referrals

**H3:** There are no significant differences between
student performance within the CEMS group and subsequent performance in the following year in terms of the academic achievement criteria:
(a). Mean SRA Scores
(b). Mean GPA

H4: There are no significant differences between student performance within the CEMS groups and subsequent performance in the following year in terms of the behavior criteria:
(a). absences
(b). tardiness
(c). office referrals

H5: There are no significant differences between student performance within the Project BASICS groups and subsequent performance in the following year in terms of the academic achievement criteria:
(a). Mean SRA Scores
(b). Mean GPA

H6: There are no significant differences between student performance within the Project BASICS group and subsequent performance in the following year in
terms of the behavioral criteria:
(a). absences
(b). tardiness
(c). office referrals

Definitions

In order to provide an optimal level of clarity and communication, the following operational definitions and terms are used in this research study.

 Dropout-Prone Students. Dropout-prone students are those students who possess the common characteristics of academic failure, academic difficulty, chronic absenteeism, minimal family education, and low socio-economic family status (Hahn, 1987).

 Alternative School. In this investigation, an alternative school is defined as a non-traditional academic and vocational school for dropout-prone middle school students (Hahn, 1987). This school features programs designed to enhance student achievement and to encourage the dropout-prone student to improve attendance and academic performance.

 Dropout. In this investigation, a dropout is either a W8 or W9. A W8 is a student who transfers to another Richmond City School or one who transfers out of Project Basics. A W9 identifies a student who either transfers to another school
out of Richmond, is incarcerated or deceased.

**Achievement.** Achievement is defined as the amount of learned material of a given time (Brophy and Good, 1985). With regard to this study, achievement is measured by SRA composite scores, and grade point average (GPA).

**Behavioral Pattern.** Behavioral pattern is defined as chronic disciplinary action that interrupts the educational process. For the purpose of this study, behavioral patterns are determined by observing the number of days absent, number of days tardy, and number of office referrals.

**Career Exploratory Middle School (CEMS).** In this investigation, the Career Exploratory Middle School (CEMS) is defined as a non-traditional alternative middle school in the Richmond Public School system that operated from 1980 to 1988 (CEMS Report, 1988).

**Building and Supplementing Instruction in the Core Skills (Project BASICS).** A dropout prevention program designed in 1986 to provide remedial assistance to dropout-prone middle school students who demonstrated deficiencies in mastering essential skills in the core subjects. (Project BASICS Report, 1988).
Limitations of the Study

This research follows a case study approach which limits the generalizability of the results.

This study does not consider affective variables even though those variables may influence academic achievement and behavioral characteristics.

Major Assumption

The research assumes that the SRA is a reliable instrument for measuring academic achievement.

Organization of the Study

Chapter I provides an introduction of the study, a statement of the problem, the need for the study, hypotheses, operationally defined terms, limitations of the study, major assumption and the organization of the study.

Chapter II presents a review of the research related to dropout-prone students and alternative middle school programs.

Chapter III delineates the methods and procedures used in planning, designing and implementing this investigation.

Chapter IV presents the findings and statistical results in the data analysis.
Chapter V summarizes the research findings and provides conclusions and recommendations for further research.
CHAPTER II
REVIEW OF RELATED LITERATURE

Committees convened in previous years to propose preventive dropout measures have been generally unsuccessful. Although raw data on the dropout population and raw data on the causes were available, until recently there have been few attempts to isolate the dropout-prone population and to determine the major reasons for students from this group dropping out of school (Barber and McClellan, 1987). Many of the reported dropout statistics -- local, state, and national -- are in error because of reliance on divergent and inconsistent data bases (Barber and McClellan, 1987). Moreover, the difficulties in obtaining reliable data on dropout-prone students may increase due to an ineffective and inefficient means of collecting data. This problem of ineffective and inefficient data collection may affect state and federal program funding (Ogden and Germinario, 1988).

In the 1985-1986 school year alone, 682,000 American teenagers dropped out of school -- an average of 3,789 each day (Paulu, 1987). Nancy Paulu further explained that the dropout figure of 682,000 is based on information from the October 1986 current population survey conducted by the Bureau of the Census. It is estimated that by the year 2000, Blacks and Hispanics, two of the minority groups most prone to leave
school, will compose one-third of those enrolled in public schools (Paulu, 1987). The result is expected to be an increased number of dropouts.

Recent reports indicate that it is practically impossible to compare school districts to one another to assess the factors that might be related to dropping out, or to develop model prevention programs. It is, however, relatively easy to identify minority groups, that have not succeeded under current standards and are already alienated from formal schooling (Barber and McClellan, 1987). These factors may be interpreted as giving considerable support to the present idea that the public schools of our nation are not achieving the commonly accepted ideal -- a high school education for every able American youth (Foley, 1981).

Further research reveals that poor academic performance is the single best predictor of who drops out (Campbell, 1987). Academic performance is based on a well-defined and appropriate curriculum which maximizes learning and minimizes conditions which interfere with learning (Ogden and Germinario, 1988). Students who have been suspended, are chronically truant, or have been in conflict with school rules and the law have a higher-than-average chance of becoming dropouts (Brophy and Good, 1985).

For the purpose of this investigation the literature has been organized into the following major areas:
(1) Characteristics of Dropout-Prone Students; (2) Dropout Prevention Programs; (3) Dropout Concerns in the Richmond Public School system; and (4) Synthesis of Related Research. This chapter also surveys the findings of educational authorities and other published reports as they pertain to dropout-prone students.

**Characteristics of Dropout-Prone Students**

Most studies reviewed pointed out rather common characteristics of the dropout-prone student. Those characteristics that had the greatest frequency of occurrence were: academic failure, reading difficulty, little interest in school, hostility, chronic absenteeism, frequent tardiness, minimal family education, and low socioeconomic family status (Hahn, 1987). The terms "dropout-prone" and "potential dropout" are used interchangeably.

The Bureau of Attendance of the State of New York Department of Education has defined the potential dropout as a pupil who is consistently absent or tardy and who leaves school on his own volition without transferring to another school (Barber and McClellan, 1987).

Additional research suggest that dropping out signifies a number of underlying problems including conflict with the environment, low self-esteem, low socio-economic status, and
chronic absences and tardies from school (Beck and Muiia, 1980). Similar descriptive characteristics were used to identify drop-out prone students more than twenty years ago. A potential dropout was then described as a person with serious personality and environmental conflicts, rather than an immature personality who simply decides to walk away from his responsibilities (Paulu, 1987). The decision to drop out is rarely made impulsively. Hershaff (1980) described the potential dropout as an individual with great feelings of alienation, meaninglessness, powerlessness; average or above academic ability; and an extremely negative attitude toward school and teachers. Determining how many students will eventually drop out of school, and for what reason, is a difficult task. The definition and characteristics of a potential dropout tend to vary from district to district, and the mobility of students makes counting them accurately, nearly impossible (Chenoweth, 1989). It is therefore important that a common set of characteristics be developed to define potential dropouts (Ascher and Schwartz, 1987).

According to Ascher and Schwartz (1987), the following core characteristics can be used universally to define a dropout-prone pupil: a pupil who will leave school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school or institution. They stated further that within this
definition are common categories of students, including those:

- who leave during the school year and do not return within a specified length of time designated by the school district;

- who do not return to school after a break, summer vacation, or suspension;

- who are runaways or whose whereabouts are unknown;

- who enter a trade or business school, prison, or any other program not qualifying them as a secondary school student;

- who are expelled.

Some students are erroneously identified as potential dropouts. Among the categories of such students are those:

- who return to middle school (ages 16 and above) to receive the Graduate Equivalent Degree (G.E.D.);

- who leave a traditional school to continue their education elsewhere (i.e., private school, home-based instruction).

Ascher and Schwartz (1987) further reported that crucial to identifying potential dropouts and helping them progress through school is monitoring various aspects of their performance.
- Attendance: Since poor attendance often foreshadows dropping out, personal attention needs to be given to the pupil who is excessively absent.

- Testing: Use of new sensitive testing devices should be used to identify learning strengths and weaknesses.

- Educational History: Mainstreaming comprehensive academic profiles of students can facilitate their placement in proper compensatory programs.

Students earning D's and F's are more apt to become dropouts than those earning A's and B's (Pauly, 1987). She stated further that in the next decade, most growth in the school-aged population is expected to occur among the poor, Blacks, and Hispanics -- the groups whose members are now most likely to drop out.

Dallas' former General Superintendent, Linus Wright, explained that public pressure to lower the dropout rate should not tempt educators to water down standards in order to attract potential dropouts to stay in schools (Pauly, 1987). Moreover, watering down academic and behavioral standards only exacerbates the dropout problem because students who have not mastered basic skills tend to drop out or, even worse, graduate at an emotional and skill level that does not reflect
a sound educational background. But, at the same time, educators must be alert to signs that a student is dropout-prone and provide special help to students for whom traditional programs alone are insufficient (Hodgkinson, 1985).

Manford Byrd, Jr., former General Superintendent of the Chicago Public Schools (1987) observed, "If you're really talking about what would discourage dropping out, get the daddies of our kids a job".

**Dropout Prevention Programs**

Charles Gray-Shoffner (1989) described the successful operation of a middle school experimental student study center designed to utilize in-school suspension as an educational and social rehabilitation program for the potential dropout. In 1985, Gray-Shoffner opened the unique Student Study Center, A Rescue Program for Potential Dropouts. The experimental dropout prevention program was initiated at Clear Lake Junior High School in Colorado because the Adams County Public Schools' dropout rate was increasingly high (Gray-Shoffner, 1989). The focus was not only on academics, but also on behavior and habits that distracted from the student's ability to learn. Five hundred and forty-five middle school students experienced this prevention program. During its brief
existence, the program showed a drastic decrease in the number of out-of-school suspensions. Between September and December, just before the program was initiated, statistics indicated that sixty-five students were suspended. During the entire 1985-86 school year, only fifty-one students received suspensions (Gray-Shoffner, 1986). The principal of the school reported that the program results were positive and that the students who benefitted from this program demonstrated better attitudes toward their classes. He further stated that their academic performance improved and their self-esteem was elevated.

A dropout-prevention program called Tender Loving Counseling (TLC) was initiated in the fall of 1977 in Spartanburg County, South Carolina. The original design for TLC involved identifying approximately 5% of the Dorman School freshman class who had poor attendance records and low grades but were able to do the work (Allen and Gardner, 1989). At its inception, the dropout rate was 17%. The dropout rate was only 1% with 92% of the target group (8th grade) moving on to the ninth grade. The success of TLC was based on three major factors: the support of the principal and district personnel, the identification of the students to be involved, and the counselor's commitment to the program (Allen and Gardner, 1989). TLC was proved an extremely workable, practical, and inexpensive application of basic counseling practices for the
potential dropout. The program has expanded to four additional middle schools in Spartanburg County, South Carolina (Allen and Gardener, 1989).

Robert DeBlois (1989) indicated that potential dropouts are the most glaring failure of our schools. They are visible, and costly in terms of wasted potential and public expense. To keep potential dropouts in school, educators must proceed on the belief that young people have the capacity for completing school. Therefore, educators must believe that they can change behavior, raise self-esteem, and obtain significant academic results (DeBlois, 1989). DeBlois viewed alternative schools in the middle school years as a possible cure for the potential dropout. He stressed the need to address student interest and suggested that students drop out because they feel alienated from school and lack motivation. This results in high levels of absenteeism, poor self-control and low self-esteem.

DeBlois concluded that one of the most effective features of alternative schools for potential dropouts is a thorough vocational component that addresses student interests and capabilities -- showing possibilities rather than limitations. DeBlois believed that preventive programs solve only a small segment of the dropout problem. He believed that alternative schools for middle-aged pupils stand the best chance of succeeding if they are small and located in a separate
building, where both the students and teachers can develop their own sense of identity. In order to keep the school from becoming a dumping ground, students should go through an application process and teachers should have control over who is accepted. Finally, teachers should also be in the school because they want to be. Clear academic and behavioral standards should be set and followed. This means that teachers must be able to accept the fact that some students will not survive the program without constant counseling and encouragement (DeBlois, 1989).

Rita O'Sullivan (1989) in the position paper "Identifying Students for Participation in a Model Middle School Dropout Prevention Program", reported that it is important to explore factors that will clearly identify students who are in need of a prevention program. During the first semester of the project the following characteristics were used as predictors of failing grades: teacher recommendations, attendance, age, grade point average, and frequency and severity of discipline referrals (O'Sullivan, 1989). The study took place in a small city school district in North Carolina which had a dropout rate above the state average. O'Sullivan reported that contrary to national trends, the typical dropout in the district was a white male. Subjects were all of the 334 sixth-grade students. Findings indicated that it is possible to predict with a fair amount of accuracy which children are
dropout-prone.

Fizzell (1987) believed that allowing students to choose their own schools benefits them as well as their teachers. He suggested that the single most important step to preventing students from dropping out is to allow students to choose. By choosing, students make a commitment, thus increasing self-esteem and personal interest in school. These two factors will decrease the dropout rate, by making students less likely to become chronically absent and less likely to develop chronic behavioral problems (Fizzell, 1987). The Alternative Learning Center described in his study is located in Vancouver, Washington. The center serves not only students who have low academic abilities, but also the brightest dropouts, truants, troublemakers, youngsters with serious emotional problems, and those who are simple "turned off" (Fizzell, 1987).

In conclusion, Fizzell (1987) reported that young people want to learn and that the job of educators is to provide opportunities for learning. He stated further that only in schools of choice can we tailor our programs to the changing needs of the student, rather than relying mechanically on what worked before.

Joseph Grannis' (1988) two-year evaluation of the New York City Dropout Prevention Initiative reported that alternative programs are not effective. In this evaluation,
twenty-nine middle schools were divided into two models. Fifteen of the schools comprised Project Connect, with services provided by the New York City Board of Education. The other fourteen schools were served primarily by community-based organizations. Summary findings included the following: Project Connect failed to address individual needs of the student population. Thus, after two years, the program failed to improve the students' chances of success. On the other hand, the community-based organization served schools that emphasized individual and group counseling and a vocational component. They focused on student characteristics, program services and outcomes. They did not operate on the school-within-a-school concept. Students were allowed to seek alternatives from the community at large. There were few differences in degrees of success among students who attended alternative programs (Grannis, 1988).

Welch and McKenna (1988) described the success of SWAS (School Within A School), an early dropout intervention program designed for average to above-average potential dropout middle school students selected by the assistant principal. SWAS was a temporary self-contained institution within Davisville Middle School, North Kingstown, Rhode Island. Parental involvement was mandatory (Welch and McKenna, 1988). Parents were required to sign contracts guaranteeing their involvement. They were also required to
attend once-a-month meetings with their child's SWAS teacher. Individual and group instruction were self-contained. As soon as the student demonstrated achievement and was recommended by the SWAS teacher, the guidance counselor, and the regular school receiving teacher, the student re-entered the regular Davisville Middle School program (Welch and McKenna, 1988). Research results indicated that at least 90% of the students evaluated improved their attitudes toward school and toward their class work.

In a Columbus Ohio Public School Project, Edward Chamberlain (1988) reported that 50 percent of the disruptive students enrolled in the project showed improved attitudes toward teachers and education as well as improved school behavior. Howe-School-Community Agents (HSCA) worked on an in-depth basis with approximately 60 pupils who had been identified as dropout-prone. The agents served as liaisons between the school and the community to promote understanding of the program and to assist pupils in their adjustment to the school environment. The Final Evaluation Project indicated that potential dropouts on the middle school level, despite personal obstacles, stand a far greater chance of not leaving school if provided alternative opportunities. In addition, the report indicated that student misbehavior signaled that educational problems exist when students' needs are not met (Chamberlain, 1988).
A three and a half year study of dropout prevention programs in New York City Public Schools (Oxley, 1988) showed that current programs have been effective in increasing professional and public awareness of the dropout problem and in providing needed support to some students. However, the categorical approach of most programs was shown to be inadequate, providing special services to only a limited number of students under a rigid format for a limited time. Moreover, the approach used by the Carnegie Corporation of New York City (1988) and funded by the New York State Attendance Improvement/Dropout Prevention Program, did not address the problems of school environments that are personally alienating and academically ineffectual (Oxley, 1988).

Clark (1987) in a paper discussed the potential of school district-based and community-wide approaches to dropout prevention and provided a summary of the goals and expected outcomes of the consortium of Dropout Prevention and the Urban Dropout Prevention Collaborative Program. The consortium addressed dropout prevention practices by Boston, Detroit, New York City, San Diego, San Francisco and four small suburban school districts. The collaborative program, funded by planning grants from the Ford Foundation, actively developed dropout prevention programs in 21 cities, including Detroit, New York City and San Diego. Final conclusions (Clark, 1987) from the Consortium's research are as follows:
(1). Both community and school districts must cooperate.

(2). Community and school districts need good leadership.

(3). Each system should focus on different issues which can be resolved collaboratively.

(4). Issues should be chosen that can be represented on a continuum of needs assessment, information gathering, planning and implementation activities.

Mizell (1987) provided a risk assessment instrument for identifying potential dropouts at the middle school level. The instrument provided a checklist of 21 criteria; the more criteria the student meets, the greater the risk of dropping out. Criteria included: age in comparison to grade; standardized test performance, retention history; subject failure; tardiness, truancy, and excessive absences history; suspension/expulsion history, delinquency; handicapping condition without employability development services; previous classification as a dropout; pregnancy/parenthood; single parent home situation; living in household receiving Aid to Families with Dependent Children; and having parents and/or siblings who did not graduate from school. It is noted that the instrument has been validated and has been proven
successful in identifying potential dropouts (Mizell, 1987). Students who tend to drop out meet seventy-five percent of the listed criteria (Mizell, 1987).

A follow up study by Gampert (1989) in Brooklyn, N.Y. indicated that the majority of students from the New York Public Schools Promotional Gates Program made significant gains during their participation. This program identified potential dropouts and provided remedial instructions in reading and mathematics. This program lasted for only one year. Unfortunately, after the Gates year, students received few, if any, educational or social services to assist them in building these gains, consequently they failed to continue to make adequate progress. As a result, the study recommended a continuation of the Promotional Gates Program (Gampert, 1989).

In 1987, the Duval County Schools of Jacksonville, Florida implemented a similar Comprehensive Dropout Prevention Plan. This Dropout Prevention Plan (1987) was designed to provide for the identification of potential dropouts and to implement various interventions to help reduce the dropout rate in the Duval County Schools. The components of the program were the following:

(1). a vocational program to retrieve dropouts;

(2). programs to involve parents and interested citizens;
programs to form partnerships with businesses;

community involvement

auxiliary services, such as those provided by health agencies;

early identification of potential dropouts and;

development of employability skills and career awareness.

Several special populations were targeted by the dropout prevention staff. These included: (1) pregnant and parenting students; (2) substance abusers; (3) disruptive students; (4) truants; and (5) students who lack motivation.

In Lowell, Massachusetts, William Phelan (1987) targeted seventh-eighth grade potential dropout students. The sample included 120 students. The main goals of the program were to identify dropout-prone students and to stimulate them to participate in their own learning process so that they would have a better chance to realize their potential. This goal was accomplished by offering remedial instruction, establishing a drop-in center, and providing weekend experiences for the students. The students were compared to a control group of students who were not in the program. The findings of the evaluation were the following: (1) students who completed the program were more likely to be minorities
than control group students; (2) absenteeism decreased among program students; (3) student attitudes improved and the number of suspensions among program students decreased; and (4) reading scores were improved by the program.

A summary of the evaluation of the Special Education Attendance Improvement Dropout Recovery and Prevention Program (Barber and McClellan, 1987) in New York City reported that services were provided to 2,343 students, 74% of whom were selected because of excessive absences. The remainder were selected based on other eligibility criteria, such as: facilitating services, attendance outreach, counseling, health services, school to promote transition to various grade levels, and alternative education experiences. Thirty-four percent of the program participants improved their attendance rate. Of students who failed at least one subject in the previous year, 40% improved in the number of subjects passed. Among the recommendations was the re-examination of program attendance and academic performance goals in light of results, which did not meet the pre-established 50% criteria.

Hahn (1987) reported that although successful dropout assistance programs depend on effective implementation, casework, and long-term follow up activities, the literature only occasionally addresses these practices. His article "Reaching Out to America's Dropouts: What to Do?", reviewed data collection problems, major risk factors, reforms aimed at
actual and potential dropouts, and alternative school programs.

**Dropout Concerns in Richmond Public School System**

A review of summarized raw data sheets from 1980-89 compiled by Richmond Public Schools' Division of Pupil Placement Services revealed that the dropout rate has increased each year. Black students tended to become potential dropouts as early as grade five. By the time they reached the middle school level, black students dropped out at more than twice the percentage for white students. In terms of student grade levels, the greatest percentage of white dropouts was at the high school level (Richmond Public Schools, 1988).

A Principal's End of the Year Report and Evaluation Summary (1988) for Richmond Public Schools recommendations included: establishment of a comprehensive program, various interventions to help reduce the dropout rate, the identification of an alternative education component to provide work/study experiences, jobs and life skills training for the middle school student, an overall improvement of attendance and rate of failure, and the establishment of characteristics of potential at-risk students.

According to the Director of Research and Testing
Services (1988), in a single middle school in the Richmond Public School system, the dropout rate for the 1987-88 school year was 12.09%. The average dropout rate for all Richmond middle schools was 7.69%. Nearly 85% of the dropout rate occurs after age fifteen.

**Summary of Related Literature**

There is an increasing amount of evidence to support the importance of academic achievement, behavior modification and good attendance as essential prerequisites to staying in school. It is upon these basic premises that the instructional and programmatic considerations for any attempt at educating all students, and most importantly dropout-prone students, should be founded.

The literature revealed that considerable amounts of time, effort, and money have been invested in programs for students identified as dropout-prone. However, evidence strongly suggests that the middle-aged child consistently shows a lack of the necessary intellectual, emotional and/or social skills to take full advantage of the educational opportunities available to him. Often these students become disenchanted and ultimately, openly or passively reject school. They are then dropout-prone (Hershaff, 1980).

The purpose of school is to maximize learning for all
students (Raywid, 1988). The literature implies that this can be accomplished by controlling or eliminating the effects of those factors which limit the learning and potential of children. Although many prevention and intervention techniques are discussed, maintaining a positive classroom environment and a positive attitude toward learning and teaching, as well as reinforcement of students' needs and interests, tend to decrease the dropout rate among middle school youth (Raywid, 1988). This literature also suggested that behavior and achievement are directly influenced by the curriculum.

Raywid (1988) further suggested that prevention and intervention strategies at various grade intervals can reduce risk. The literature implied that educators can:

- identify situations that pose risk to learning, as well as opportunities to enhance learning;
- implement alternative school programs that will maximize the climate for learning;
- prepare for periodic crises facing children in school and the community, and minimize the negative effects of such problems;
- teach students positive behaviors and skills which promote further learning and reduce the chances of involvement in destructive behavior;
- improve student achievement by systematically applying what is known about educating children.

A survey suggested that peer pressure may push at-risk students out of schoolhouses. Other research showed that long before students decide to drop out, peers often discouraged them from succeeding academically. Lillian Kyser, a Detroit student who co-chaired the district's student effort on dropout prevention explains: "I was an honor roll student. This bothered some of the students who were not successful and they tried to get me to join them. They called me a 'nerd' .... peer pressure to do poorly in school appears to be particularly acute among black males" (Paulu, 1987).

The literature further implied that intermingling factors influence who stays in school and who leaves. Many students drop out because of the cumulative effects of too many negatives, such as years in poverty, the lack of positive role models, poor grades, feelings of hopelessness and helplessness, an overall feeling of alienation from school, and finally, hallway tussles with a classmate that lead to repeated referrals.
CHAPTER III

METHODOLOGY

The primary purpose of this study was to compare academic achievement and behavioral characteristics of students enrolled in the Career Exploratory Middle School (CEMS), an alternative middle school, with the academic achievement and behavioral characteristics of students in a project called Building and Supplementing Instruction in the Core Skills (BASICS), a dropout prevention program within traditional middle schools. Another purpose of this study was to determine whether or not CEMS and Project BASICS had any effect on selected academic and behavioral criteria.

This chapter outlines the methods and procedures undertaken in this study. It includes the following information: (1) variables, (2) description of the sample, (3) statistical procedures and (5) summary.

Variables

The Career Exploratory Middle School (CEMS), an alternative middle school in the city of Richmond served as the independent variable. Project BASICS, a dropout prevention program in a traditional middle school, was used as the comparison group. The dependent variables were SRA
composite scores, absences, days tardy, GPA and office referrals.

**Description of the Sample**

The subjects in this study were 120 randomly selected dropout-prone students. They were identified as dropout-prone based on the following characteristics: (1) the subjects were from low socio-economic backgrounds with a total family income of $4300.00 or less; (2) they were products of single-parent homes; (3) their maximum family education was high school or less; (4) the subjects were behind in two or more grades; (5) their disciplinary records consisted of five or more office referrals per six-week period, and; (6) they had been tardy or absent 15 or more consecutive days per semester.

The subjects were derived from two comparison groups. One of the groups consisted of 60 randomly selected students from the Career Exploratory Middle School (CEMS). The total student population at CEMS consisted of students who had been identified as dropout-prone and were recommended for enrollment in the CEMS alternative program. The other group was selected from drop-out prone students enrolled in a traditional Richmond public middle school, Albert H. Hill. These students were randomly selected from Project BASICS, a dropout prevention program. This group also consisted of 60 students from the general 1986 population of Albert H. Hill
Middle School students who were identified as dropout-prone (Figure 1). CEMS, a non-traditional middle school designed to address the needs of dropout-prone students in the Richmond City School system, existed for eight years, from 1980 to 1988. Prior to its existence, dropout-prone students were mainstreamed within the traditional school program. However, the total population of CEMS consisted of dropout-prone students from eight traditional Richmond City middle schools. These students were offered diverse educational experiences (Principal's End of the Year Report and Evaluation Summary, 1988). In 1988, due to administrative reorganization, the Career Exploratory Middle School was discontinued and Project BASICS, a dropout prevention program was incorporated within the traditional school program (CEMS REPORT, 1988). The characteristics of dropout-prone students who were enrolled in the CEMS program were similar to those of students who were assigned to Project BASICS. Project BASICS, Building and Supplementing Instruction in the Core Subjects, was designed to provide remedial assistance to dropout-prone middle school students who demonstrated deficiencies in mastering skills in the core subjects. These students represent approximately 45% of the total traditional middle school population in the Richmond Public School system.
<table>
<thead>
<tr>
<th>Group</th>
<th>Year</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMS</td>
<td>1986-87</td>
<td>138</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>1987-88</td>
<td>131</td>
<td>60</td>
</tr>
<tr>
<td>BASICS</td>
<td>1986-87</td>
<td>143</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>1987-88</td>
<td>150</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: As the population increased at CEMS there was a slight increase in Project BASICS.

**FIGURE 1: POPULATION OF CEMS/Project BASICS**
Data Collection Procedure

The data for both the Project BASICS group the CEMS group were drawn from student files obtained from the Division of Pupil Placement Personnel Services. These files contained student family income information based on the free and reduced lunch applications, SRA composite scores, GPA, number of days tardy, number of days absent, number of office referrals as well as other data not relevant to this research. Office referrals included the frequency of suspensions and expulsions but not detentions.

Academic performance data were obtained from cumulative files of SRA secondary test score information located in the Department of Research, Planning and Development (Richmond Public Schools).

Data from the Science Research Association (SRA) Achievement Series, Level G, Forms 1 and 2 National Percentile Scores were used for this investigation. The Commonwealth of Virginia has used this instrument for at least six years and the composite score was one of the variables used to identify dropout-prone students. Level G contained the following sub-tests: reference materials, social studies, science, reading (vocabulary and comprehension), and language arts (mechanics, usage and spelling). In this investigation, composite scores for reading and mathematics were considered.
In a 1985 review of the SRA Series, Mayo indicated that the reliabilities for both Form 1 and 2 and all levels of the SRA Series ranged from .87 to .95 with a median of .91. The alternative forms reliabilities study for the sub-tests in reading and mathematics ranged from .76-.93. An adaption of the K-R 20 (Kuder-Richardson 20) formula was used to obtain reliability estimates for composite scores. These scores were all equal to or greater than .90. The mathematics and reading composite scores were in the low- and mid-90's respectively.

According the [SRA Achievement Series User's Guide](#) Background and Interpretation manual, content validity is:

Textbook and supplementary instructional materials used widely in today's schools were examined and existing achievement tests were reviewed. Curriculum guides were examined for a representative sampling of states and of individual schools and school systems. Basic test, professional journals and research literature in the subject matter to be tested were studied in order to determine current trends and common instructional objectives (p. 10).

Mayo (1985) further stated that the SRA Scores were correlated with those of the Metropolitan Achievement Test and the Iowa Test of BASIC Skills. The SRA composite scores were
correlated with those of the Metropolitan Achievement Test and the Iowa Test of BASIC Skills. The SRA composite scores had correlations with the aforementioned tests ranging from .80 to mid .90's.

**Statistical Procedures**

An ex post facto research design was used to assess the relationship between the non-traditional programs of CEMS and the selected academic or behavioral variables. This design was also used to determine differences between CEMS students and the Project BASICS group based on those same dependent variables. All of the statistical analyses for this investigation were based on data collected during the 1986-87 and 1987-88 academic years.

Descriptive analyses, including mean, median, mode, range, variance, standard deviations are presented for students at CEMS and those who were enrolled in Project BASICS. These descriptive analyses include frequency distributions and relations frequency percentages for each of the dependent variables.

Analysis of covariance (ANCOVA) was employed to determine the relationships between the Project BASICS group the CEMS group. This (ANCOVA) was used to respond to hypotheses H1 and H2. The SRA scores from the 1986-87 academic year were used as covariants and SRA scores from 1987-88 were used as the
criterion variable. Similar analyses were used to compare the relationships in terms of GPA, days absent, days tardy, and the number of office referrals presented. T-tests were used to compare performance of all academic and behavioral criteria within the CEMS group during the 1986-87 and the 1987-88 academic years. T-tests were used to compare performance of all academic and behavioral criteria within the Project BASICS group during the 1986-87 and the 1987-88 academic years. These t-tests were used to respond to hypotheses H3-H6. An alpha level of .05 was used to determine significant differences within and between groups.

Summary

The purpose of this chapter was to describe the methodology, the sample, the data collection procedures, and the statistical methods used to analyze the data collected in this study.

The sequential procedures used for collecting data were:

1. Sixty students were randomly selected from the Career Exploratory Middle School (CEMS), 1986.

2. Sixty students were randomly selected from Project BASICS, 1986.

3. The random selection process was computer generated. Each individual in the total populations of CEMS and Project BASICS was assigned
a number beginning with one. The computer was programmed to select every third number until samples of sixty were obtained for both groups. The individuals corresponding to those 60 numbers were randomly selected.

4. Student files were obtained for all subjects selected.

5. All academic and behavioral criteria data, to be used in this study, were recorded from the information that was included in the student's files.
CHAPTER IV
DATA ANALYSIS

Introduction

The primary purpose of this study was to compare academic achievement and behavioral characteristics of students enrolled in the Career Exploratory Middle School (CEMS), an alternative middle school with the academic achievement and behavioral characteristics of students in a project called, Building and Supplementing Instruction in the Core Skills (BASICS), a dropout prevention program within traditional middle schools. Another purpose of this study was to determine whether or not CEMS and Project BASICS had any effect on selected academic and behavioral criteria.

The dependent variables were SRA composite scores, absences, days tardy, grade point average (GPA), and office referrals. The Career Exploratory Middle School (CEMS) served as the independent variable. Project BASICS was the comparison group. The data collected over a two-year period were presented in four parts. The first part described the data using sample statistics including the mean, median, range, variance, standard deviation, standard error of the mean, and confidence interval estimates of the population.
mean. The second part consisted of t-tests performed on each variable in order to compare changes within the alternative school.

The third part presented analysis of covariance (ANCOVA) results, and compares variables between the CEMS and the Project BASICS groups. The ANCOVA used 1986-87 performance criteria as covariants and 1987-88 data as the criterion variables. The fourth part described the status of students in the study group at the beginning of the 1989-1990 academic year.

**Descriptive Statistics**

Table 1 SRA exhibits Composite Standard Test Score Results. The Project BASICS 1986-87 scores had a mean of 13.333 and standard error of 0.996. The 95% confidence interval suggested that the population mean SRA scores of all Project BASICS students was between 11.301 and 15.366.

It was observed that the 1987-88 SRA composite scores of Project BASICS students increased to a mean of 15.983 which, based on the 95% confidence interval, implied that the population mean was between 13.927 and 18.040. This was
### TABLE 1

**SRA COMPOSITE STANDARD TEST SCORES**

<table>
<thead>
<tr>
<th></th>
<th>PROJECT BASICS 1986-87</th>
<th>PROJECT BASICS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>13.333</td>
<td>15.983</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>59.548</td>
<td>60.966</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>7.717</td>
<td>7.808</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>0.996</td>
<td>1.008</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td><strong>MIN</strong></td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CEMS 1986-87</th>
<th>CEMS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>14.100</td>
<td>16.233</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>41.786</td>
<td>47.402</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>6.464</td>
<td>6.885</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>0.835</td>
<td>0.889</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td><strong>MIN</strong></td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
determined by using the sample standard error of 1.008.

The CEMS 1986-87 and 1987-88 SRA scores indicated that the maximum score increased from 25 to 27. More importantly the mean increased by more than two points from 14.100 to 16.233. The standard error remained relatively static.

The GPA of Project BASICS 1986-1987 when compared to that of Project BASICS 1987-88 showed that the mean remained basically unchanged as the standard error decreased slightly from 0.107 to 0.098. Table 2 reflects the results.

The CEMS 1986-87 and 1987-88 GPA's revealed that at the 95% confidence interval the population mean GPA of all CEMS students was between 1.250 and 1.626 in 1986-87 and 1.191 and 1.622 in 1987-88.

A 95% confidence interval for the population mean for days absent from project BASICS in 1986-87 was between 19.136 and 35.598. A mean of 27.367 and standard error of 4.035 was also observed.

Table 3 shows the number of absences that occurred within the Project BASICS group during the following year (1987-88). Of special note was the drastic decrease from 1986-87 regarding the mean of the 18.117, and a standard error of 3.122. The 95% confidence interval estimate of the mean for Project BASICS as it related to days absent was between 11.748 and 24.485.
TABLE 2

GPA's

<table>
<thead>
<tr>
<th></th>
<th>PROJECT BASICS 1986-87</th>
<th>PROJECT BASICS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>1.406</td>
<td>1.440</td>
</tr>
<tr>
<td>VARIANCE</td>
<td>0.682</td>
<td>0.581</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>0.826</td>
<td>0.762</td>
</tr>
<tr>
<td>STD. ERROR</td>
<td>0.107</td>
<td>0.098</td>
</tr>
<tr>
<td>RANGE</td>
<td>2.714</td>
<td>2.357</td>
</tr>
<tr>
<td>MAX</td>
<td>2.714</td>
<td>2.357</td>
</tr>
<tr>
<td>MIN</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CEMS 1986-87</th>
<th>CEMS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>1.438</td>
<td>1.406</td>
</tr>
<tr>
<td>VARIANCE</td>
<td>0.509</td>
<td>0.672</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>0.714</td>
<td>0.820</td>
</tr>
<tr>
<td>STD. ERROR</td>
<td>0.092</td>
<td>0.106</td>
</tr>
<tr>
<td>RANGE</td>
<td>2.333</td>
<td>2.061</td>
</tr>
<tr>
<td>MAX</td>
<td>2.333</td>
<td>2.061</td>
</tr>
<tr>
<td>MIN</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
### TABLE 3

**DAYS ABSENT**

<table>
<thead>
<tr>
<th></th>
<th>PROJECT BASICS 1986-87</th>
<th>PROJECT BASICS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>27.367</td>
<td>18.117</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>976.745</td>
<td>584.715</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>31.253</td>
<td>24.181</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>4.035</td>
<td>3.122</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td><strong>MIN</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CEMS 1986-87</th>
<th>CEMS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>32.800</td>
<td>22.333</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>781.645</td>
<td>509.175</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>27.958</td>
<td>22.565</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>3.609</td>
<td>2.913</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>94</td>
<td>92</td>
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<tr>
<td><strong>MIN</strong></td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 3 further exhibits days absent from CEMS in 1986-87 and 1987-88. The data indicated that a 95% confidence interval of the population mean decreased from 25.437 and 40.163 in 1986-87 to 16.341 and 28.276 in 1987-88. This suggested a significant decrease in the population mean. The standard error also decreased.

Data from Table 4 compares and contrasts, over a two year period, days tardy from Project BASICS and CEMS. For Project BASICS, a mean of 5.667 and a standard error of 1.296 was observed. The 95% confidence intervals from the population mean for days tardy of Project BASICS was 3.023 to 8.310. The following year, there was a mean of 5.183, and a standard error of 1.021. By comparison, for CEMS the means were 7.133 and 4.850, respectively, while the standard errors were 1.103 and 0.912. The population mean for days tardy from CEMS was between 4.883 and 9.383 in 1986-87 and 2.990 and 6.710 in 1987-88 based on confidence interval estimates.

For office referrals, it can be seen in Table 5 that the mean scores for Project BASICS were 2.650 and 1.583 in 1986-87 and 1987-88 respectively. It can be seen that the mean scores for CEMS were 2.133 and 1.267 for those years. Additional data indicated a standard error of 0.332 and 0.214 for CEMS in 1986-87 and 1987-88, respectively. In 1986-87 and 1987-88,
<table>
<thead>
<tr>
<th></th>
<th>PROJECT BASICS 1986-87</th>
<th>PROJECT BASICS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>5.667</td>
<td>5.183</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>100.734</td>
<td>62.525</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>10.037</td>
<td>7.907</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>1.296</td>
<td>1.021</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>51</td>
<td>36</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>51</td>
<td>36</td>
</tr>
<tr>
<td><strong>MIN</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CEMS 1986-87</th>
<th>CEMS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>7.133</td>
<td>4.850</td>
</tr>
<tr>
<td><strong>VARIANCE</strong></td>
<td>72.999</td>
<td>49.892</td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>8.544</td>
<td>7.063</td>
</tr>
<tr>
<td><strong>STD. ERROR</strong></td>
<td>1.103</td>
<td>0.912</td>
</tr>
<tr>
<td><strong>RANGE</strong></td>
<td>37</td>
<td>42</td>
</tr>
<tr>
<td><strong>MAX</strong></td>
<td>37</td>
<td>42</td>
</tr>
<tr>
<td><strong>MIN</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE 5
OFFICE REFERRALS

<table>
<thead>
<tr>
<th></th>
<th>PROJECT BASICS 1986-87</th>
<th>PROJECT BASICS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>2.650</td>
<td>1.583</td>
</tr>
<tr>
<td>VARIANCE</td>
<td>9.994</td>
<td>7.569</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>3.161</td>
<td>2.751</td>
</tr>
<tr>
<td>STD. ERROR</td>
<td>0.408</td>
<td>0.355</td>
</tr>
<tr>
<td>RANGE</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>MAX</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>MIN</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CEMS 1986-87&CEMS 1987-88

<table>
<thead>
<tr>
<th></th>
<th>CEMS 1986-87&amp;CEMS 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>2.133</td>
</tr>
<tr>
<td>VARIANCE</td>
<td>6.626</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>2.574</td>
</tr>
<tr>
<td>STD. ERROR</td>
<td>0.332</td>
</tr>
<tr>
<td>RANGE</td>
<td>12</td>
</tr>
<tr>
<td>MAX</td>
<td>12</td>
</tr>
<tr>
<td>MIN</td>
<td>0</td>
</tr>
</tbody>
</table>
the means of 2.133 and 1.267, and the standard errors of 0.408 and 0.355 represented office referrals for Project BASICS.

**Changes Within the CEMS Group**

In an attempt to determine if CEMS had a positive or a negative impact upon the students, t-tests for dependent samples were run to compare dependent variables from years 1987-88 and 1988-89. The level of significance used to determine difference was $p<.05$. The results of those t-tests are presented in Tables 6 through 10.

It was important to note that for all variables except GPA there were significant differences between the means. SRA scores for instance, showed a significant increase from 14.100 to 16.233. The number of days absent decreased by almost nine days. In 1987-88 students average 28.8 days absent when in 1988-89 the average number of absences was only 20. This difference was significant even at the $p<.001$ level. Similar results, as shown in Table 9, also existed for number of days tardy. The number of days tardy from 1987-88 to 1988-89 fell by more than 2 points. Although in 1987-88 students were late an average of 7.1 times, the following year they were late an average of 4.8 times. This was a significant difference at the $p<.01$ level. Also significantly different at the $p<.01$
<table>
<thead>
<tr>
<th></th>
<th>FOR 1ST SAMPLE - 1986-87</th>
<th></th>
<th></th>
<th>FOR 2ND SAMPLE - 1988-88</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 60</td>
<td>MEAN</td>
<td>14.100</td>
<td>VARIANCE</td>
<td>41.786</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STAN. DEV.</td>
<td>6.464</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N = 60</td>
<td>MEAN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>VARIANCE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STAN. DEV.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T-TEST FOR DEPENDENT SAMPLES</td>
<td>T RATIO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D.F.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PROBABILITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PEARSON R</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 7
CEMS GPA

**A. FOR 1ST SAMPLE - 1986-87**

<table>
<thead>
<tr>
<th>N</th>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>1.438</td>
<td>0.59</td>
<td>.714</td>
</tr>
</tbody>
</table>

**B. FOR 2ND SAMPLE - 1987-88**

<table>
<thead>
<tr>
<th>N</th>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>1.406</td>
<td>.672</td>
<td>.820</td>
</tr>
</tbody>
</table>

**T-TEST FOR DEPENDENT SAMPLES**

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY (ONE-TAIL)</th>
<th>PROBABILITY (TWO-TAIL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.223</td>
<td>59</td>
<td>.817</td>
<td>.999</td>
</tr>
</tbody>
</table>

**PEARSON R**

9E-03000
TABLE 8
CEMS DAYS ABSENT

A. FOR 1ST SAMPLE - 1986-87

\[ N = 60 \]

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.783</td>
<td>700.139</td>
<td>26.460</td>
</tr>
</tbody>
</table>

B. FOR 2ND SAMPLE - 1987-88

\[ N = 60 \]

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.967</td>
<td>422.338</td>
<td>20.551</td>
</tr>
</tbody>
</table>

T-TEST FOR DEPENDENT SAMPLES

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.107</td>
<td>59</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

PEARSON R

\[ .766 \]
<table>
<thead>
<tr>
<th>TABLE 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMS DAYS TARDY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A. FOR 1ST SAMPLE - 1986-87</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.133</td>
<td>72.999</td>
<td>8.544</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. FOR 2ND SAMPLE - 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.850</td>
<td>49.892</td>
<td>7.063</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T-TEST FOR DEPENDENT SAMPLES</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.689</td>
<td>59</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PEARSON R</th>
</tr>
</thead>
<tbody>
<tr>
<td>.828</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>N = 60</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>N = 60</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

T-TEST FOR DEPENDENT SAMPLES

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.156</td>
<td>59</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

PEARSON R

.568
were the number of office referrals as presented in Table 10. Students on the average, decreased the number of referrals by almost 1 from 2.1 to 1.2.

For all four dependent variables for which significant differences occurred, the Pearson correlation coefficient suggested highly positive relationships between a student's performance in 1987-88 and in the subsequent year, 1988-89. In other words, for example, students with higher SRA scores in 1987-88 generally had higher SRA scores in 1988-89.

For the dependent variable GPA, however, the sample means were almost identical. Also, Pearson correlation coefficient indicated no relationship at all between 1986-87 and 1987-88 GPAs. This information is shown in Table 7.

Therefore, hypothesis H4 which states that there is no significant difference between student performance within the CEMS group and subsequent performance in the following year in terms of the behavioral criteria: (a) absences, (b) tardiness, and (c) office referrals, was rejected in its entirety. On the other hand, for hypothesis H3 which states there are no significant differences between student performance within the CEMS group and subsequent performance in the following year in terms of the academic achievement criteria: (a) Mean SRA Scores, and (b) Mean GPA, the findings indicated that H3(a) is not rejected while H3(b) exhibited no significant differences.
Changes Within the Project BASICS Group

Similar to the analyses of the CEMS group, t-tests for dependent samples were run on the Project BASICS group to compare the dependent variables. The results can be seen in Tables 11 through 15. The results were used to address hypotheses H5: There are no significant differences between student performance within the Project BASICS group and subsequent performance in the following year in terms of the academic achievement criteria: (a) Mean SRA Scores; (b) Mean GPA and H6: There are no significant difference between student performance within the Project BASICS group and subsequent performance in the following year in terms of the behavioral criteria: (a) absences; (b) tardiness, and; (c) office referrals. SRA scores for Project BASICS show significant increase, although, the mean GPA was not significantly different at p<.05. Therefore, hypothesis H5(a) was rejected while there was a failure to reject hypothesis H5(b).

With regards to the behavioral criteria, the number of days tardy exhibited no significant difference while the
| TABLE 11 |
| PROBLEM BASICS SRA |

| A. FOR 1ST SAMPLE - 1986-87 |
| N = 60 |
| MEAN | VARIANCE | STAN. DEV. |
| 13.333 | 59.548 | 7.717 |

| B. FOR 2ND SAMPLE - 1987-88 |
| N = 60 |
| MEAN | VARIANCE | STAN. DEV. |
| 15.983 | 60.966 | 7.808 |

| T-TEST FOR DEPENDENT SAMPLES |
| T-RATIO | D.F. | PROBABILITY | PROBABILITY |
| 3.109 | 59 | .018 (one-tail) | .032 (two-tail) |

| PEARSON R |
| .499 |
| TABLE 12 |
|---|---|---|---|
| PROJECT BASICS  GPA |

A  
FOR 1ST SAMPLE - 1986-87

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.406</td>
<td>0.682</td>
<td>0.826</td>
</tr>
</tbody>
</table>

B  
FOR 2ND SAMPLE - 1987-88

<table>
<thead>
<tr>
<th>MEAN</th>
<th>VARIANCE</th>
<th>STAN. DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.440</td>
<td>0.581</td>
<td>0.762</td>
</tr>
</tbody>
</table>

**T-TEST FOR DEPENDENT SAMPLES**

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>.247</td>
<td>59</td>
<td>.885 (one-tail)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.997 (two-tail)</td>
</tr>
</tbody>
</table>

PEARSON R

7E-03000
TABLE 13
PROJECT BASICS DAYS ABSENT

<table>
<thead>
<tr>
<th>For 1st Sample - 1986-87</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Variance</th>
<th>Stan. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.367</td>
<td>976.745</td>
<td>31.253</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For 2nd Sample - 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Variance</th>
<th>Stan. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.117</td>
<td>584.715</td>
<td>24.181</td>
</tr>
</tbody>
</table>

**T-TEST FOR DEPENDENT SAMPLES**

<table>
<thead>
<tr>
<th>T Ratio</th>
<th>D.F.</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.988</td>
<td>59</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Pearson R

.812
### TABLE 14

**PROJECT BASICS DAYS TARDY**

<table>
<thead>
<tr>
<th></th>
<th>FOR 1ST SAMPLE -- 1986-87</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>VARIANCE</td>
</tr>
<tr>
<td>5.667</td>
<td>100.734</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FOR 2ND SAMPLE -- 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>60</td>
</tr>
<tr>
<td>MEAN</td>
<td>VARIANCE</td>
</tr>
<tr>
<td>5.183</td>
<td>62.525</td>
</tr>
</tbody>
</table>

**T-TEST FOR DEPENDENT SAMPLES**

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY (one-tail)</th>
<th>PROBABILITY (two-tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.041</td>
<td>59</td>
<td>.528</td>
<td>.812</td>
</tr>
</tbody>
</table>

**PEARSON R**

.141
### TABLE 15
PROJECT BASICS NUMBER OF OFFICE REFERRALS

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>FOR 1ST SAMPLE - 1986-87</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>= 60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MEAN</td>
<td>VARIANCE</td>
</tr>
<tr>
<td></td>
<td>2.650</td>
<td>9.994</td>
</tr>
</tbody>
</table>

| B | FOR 2ND SAMPLE - 1987-88 | 63 |
| N | = 60 |   |
|   | MEAN | VARIANCE | STAN. DEV. |
|   | 1.583 | 7.569 | 2.751 |

T-TEST FOR DEPENDENT SAMPLES

<table>
<thead>
<tr>
<th>T RATIO</th>
<th>D.F.</th>
<th>PROBABILITY</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.183</td>
<td>59</td>
<td>.016 (one-tail)</td>
<td>.039 (two-tail)</td>
</tr>
</tbody>
</table>

PEARSON R

\ .459
number of days absent and the number of office referrals both showed significant improvement. Therefore, hypotheses H6(a) and H6(c) were rejected while H6(b) was not rejected.

**Data Analyses**

Analysis of covariance was used to determine whether there were significant differences between the CEMS group and the Project BASICS group in all areas of academic achievement and behavioral criteria defined as dependent variables. The 1986-87 data from each variable were used as covariants while comparable data from the following academic year served as the criterion variable. This analysis was used to address the following null hypothesis: H1: There is no significant difference between the CEMS Group and the Project BASICS group in terms of the following achievement criteria: (a) Mean Science Research Associates (SRA) Achievement Series, Level G Forms 1 & 2 national percentile scores, (b) Mean Grade Point Average. H2: There are no significant differences between the CEMS Group and the Project BASICS Group in terms of the following behavioral criteria: (a) absences, (b) tardiness, and (c) office referrals.

Table 16 shows an adjusted mean of the criterion variable for Project BASICS (Group 1) of 16.255 as compared to 15.962
### TABLE 16
#### ANALYSIS OF COVARIANCE - SRA

<table>
<thead>
<tr>
<th>FOR TREATMENTS</th>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.573</td>
<td>1</td>
<td>2.573</td>
<td>0.0089</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOR ERROR</th>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3391.140</td>
<td>117</td>
<td>28.984</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOR TOTAL</th>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3393.714</td>
<td>118</td>
<td>1.000</td>
</tr>
</tbody>
</table>

### F - RATIO FOR TREATMENTS

\[ F = 0.089 \quad P = 1.000 \]

<table>
<thead>
<tr>
<th>MEAN OF COVARIANT</th>
<th>MEAN OF CRITERION VARIABLE</th>
<th>ADJ. MEAN OF CRITERION VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1:</td>
<td>13.333</td>
<td>15.983</td>
</tr>
<tr>
<td>GROUP 2:</td>
<td>14.100</td>
<td>16.233</td>
</tr>
</tbody>
</table>

COVARIANT: SRA SCORES 1987  
CRITERION: SRA SCORES 1988  
GROUP 1: PROJECT BASICS  
GROUP 2: CEMS
for the CEMS group (Group 2). Therefore, hypothesis H1(a) was not rejected. The mean SRA scores between the two groups did not differ significantly.

A similar analysis as exhibited in Table 17 revealed adjusted means of 1.441 and 1.405, respectively, for grade point averages.

The F-ratio of .062 was not significant. Therefore, hypothesis H1(a) was not rejected, which means that mean grade point averages of Project BASICS students and CEMS students did not differ significantly.

Based on the results of the previous two analyses, academic achievement for CEMS and the Project BASICS groups was not significantly different at the p<.05 level. Regarding the behavioral criteria under examination in the study, hypothesis H2(a) was not rejected according to the ANCOVA shown in Table 18.

In Table 19 the adjusted means of the number of days tardy was 5.689 for Project BASICS subjects and 4.345 for CEMS subjects. The p-value of .058 indicated no significance at the p<.05 level. This suggested that the number of days tardy for the control and experimental groups did not have a significant difference. Therefore, hypothesis H2(b) was not rejected.
TABLE 17
ANALYSIS OF COVARIANCE - GPA

FOR TREATMENTS

<table>
<thead>
<tr>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>.039</td>
<td>1</td>
<td>.309</td>
</tr>
</tbody>
</table>

FOR ERROR

<table>
<thead>
<tr>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.615</td>
<td>117</td>
<td>.629</td>
</tr>
</tbody>
</table>

FOR TOTAL

<table>
<thead>
<tr>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.654</td>
<td>118</td>
</tr>
</tbody>
</table>

F - RATIO FOR TREATMENTS

\[ F = .062 \]

\[ P = 1.000 \]

<table>
<thead>
<tr>
<th>MEAN OF COVARIANT</th>
<th>MEAN OF CRITERION VARIABLE</th>
<th>ADJ. MEAN OF CRITERION VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1: 1.406</td>
<td>1.440</td>
<td>1.441</td>
</tr>
<tr>
<td>GROUP 2: 1.438</td>
<td>1.406</td>
<td>1.405</td>
</tr>
<tr>
<td></td>
<td>SUM OF SQUARES</td>
<td>DEGREES OF FREEDOM</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>FOR TREATMENTS</td>
<td>18.770</td>
<td>1</td>
</tr>
<tr>
<td>FOR ERROR</td>
<td>23379.611</td>
<td>117</td>
</tr>
<tr>
<td>FOR TOTAL</td>
<td>23398.381</td>
<td>118</td>
</tr>
</tbody>
</table>

**F - RATIO FOR TREATMENTS**

\[ F = 0.094 \quad P = 1.000 \]

<table>
<thead>
<tr>
<th></th>
<th>MEAN OF COVARIANT</th>
<th>MEAN OF CRITERION VARIABLE</th>
<th>ADJ. MEAN OF CRITERION VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1:</td>
<td>27.367</td>
<td>18.117</td>
<td>19.828</td>
</tr>
<tr>
<td>GROUP 2:</td>
<td>32.800</td>
<td>22.333</td>
<td>20.622</td>
</tr>
<tr>
<td>FOR TREATMENTS</td>
<td>SUM OF SQUARES</td>
<td>DEGREES OF FREEDOM</td>
<td>MEAN SQUARE</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>53.857</td>
<td>1</td>
<td>53.857</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOR ERROR</th>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
<th>MEAN SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1764.642</td>
<td>117</td>
<td>15.082</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOR TOTAL</th>
<th>SUM OF SQUARES</th>
<th>DEGREES OF FREEDOM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1818.499</td>
<td>118</td>
</tr>
</tbody>
</table>

F - RATIO FOR TREATMENTS

\[ F = 3.571 \quad P = .058 \]

<table>
<thead>
<tr>
<th>GROUP 1:</th>
<th>MEAN OF COVARIANT</th>
<th>MEAN OF CRITERION VARIABLE</th>
<th>ADJ. MEAN OF CRITERION VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.667</td>
<td>5.183</td>
<td>5.689</td>
</tr>
<tr>
<td>GROUP 2:</td>
<td>7.133</td>
<td>4.850</td>
<td>4.345</td>
</tr>
</tbody>
</table>
Finally, Table 20 shows office referrals for the Project BASICS group had an adjusted mean of 1.497 referrals while the CEMS group's adjusted mean number of referrals was 1.353. The F-ratio of .146 indicated no significant difference. Therefore, hypothesis H2(c) was not rejected. Table 21 summarized the analyses of hypotheses H1 - H6.

In conclusion, there were no significant differences between Project BASICS students and CEMS students in terms of the academic or behavioral variables, the SRA scores, mean GPAs, number of days absent, number of days tardy, and number of office referrals.

**Current Status of Test Subjects**

The locations of the subjects used in this study have been determined and are presented below. The subjects fall into several categories. These include:

1. in high school
2. remain in Project BASICS
3. completed Project BASICS
4. completed CEMS
5. transferred to another Richmond City School
6. transferred to another school out of Richmond
7. transferred out of Project BASICS
### Table 29
#### Analysis of Covariance
##### Office Referrals

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For Treatments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Squares</td>
<td>.624</td>
<td>1</td>
<td>.624</td>
</tr>
<tr>
<td><strong>For Error</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Squares</td>
<td>499.859</td>
<td>117</td>
<td>4.272</td>
</tr>
<tr>
<td><strong>For Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Squares</td>
<td>500.483</td>
<td>118</td>
<td></td>
</tr>
</tbody>
</table>

*p* - Ratio for Treatments

\[ F = .146 \]
\[ p = 1.000 \]

<table>
<thead>
<tr>
<th></th>
<th>Mean of Covariant</th>
<th>Mean of Criterion Variable</th>
<th>Adj. Mean of Criterion Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1:</strong></td>
<td>2.850</td>
<td>1.583</td>
<td>1.497</td>
</tr>
<tr>
<td><strong>Group 2:</strong></td>
<td>2.133</td>
<td>1.267</td>
<td>1.353</td>
</tr>
<tr>
<td></td>
<td>CEMS I (1986-87)</td>
<td>CEMS II (1987-88)</td>
<td>S</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>---</td>
</tr>
<tr>
<td>PROJECT BASICS I</td>
<td>(1986-87)</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>PROJECT BASICS II</td>
<td>(1986-88)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEMS (1986-88)</td>
<td></td>
<td></td>
<td>N/S</td>
</tr>
</tbody>
</table>

N/S - No significant differences  
S - Significant differences
8. incarcerated
9. deceased

Data for Project BASICS were presented in eight categories as exhibited in Table 22. Thirty students are in high school, eight remained in Project BASICS, and one transferred out of Project BASICS. Three students completed Project BASICS. Eight students were transferred to a school within the Richmond City School system or to one outside of the Richmond City School system. The students who were transferred were identified as withdrawals. Ten students were completely dropped from the program. Seven of the ten are incarcerated, and the remaining three are deceased.

A similar analysis was made in Table 23 for students who were enrolled in CEMS. Thirty-three students were in high school. Four completed CEMS and one student transferred to and completed Project BASICS. Five students enrolled in Project BASICS. This study further revealed that six students transferred to another Richmond City school. Three students transferred to another school not in Richmond. Six students were incarcerated and two were deceased.

In summary, thirty-six students have withdrawn from both CEMS and Project BASICS. Five are deceased and thirty-one are potential dropouts.
Table 22
Current Status of Test Subjects

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of Students</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In High School</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>2. Remain in Project Basics</td>
<td>8</td>
<td>13.2</td>
</tr>
<tr>
<td>3. Completed Project Basics</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4. Transferred to Another Richmond City School</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>5. Transferred to Another School Out of Richmond</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>6. Transferred Out of Project Basics</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>7. Incarcerated</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>8. Deceased</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
TABLE 23
CURRENT STATUS OF TEST SUBJECTS
CEMS

<table>
<thead>
<tr>
<th>STATUS</th>
<th>NUMBER OF STUDENTS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  IN HIGH SCHOOL</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>2.  ENROLLED IN PROJECT BASICS</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>3.  COMPLETED CEMS</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td>4.  TRANSFERRED TO AND COMPLETED PROJECT BASICS</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>5.  TRANSFERRED TO ANOTHER RICHMOND CITY SCHOOL</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>6.  TRANSFERRED TO ANOTHER SCHOOL OUT OF RICHMOND</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7.  INCARCERATED</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>8.  DECEASED</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter represents a summary of the findings, conclusions, and recommendations. The summary describes the purpose, methodology, and the results of the analysis. Implications for future research are also discussed.

Summary

The primary purpose of this study was to compare academic achievement and behavioral characteristics of students enrolled in the Career Exploratory Middle School (CEMS), an alternative middle school with the academic achievement and behavioral characteristics of students in a project called Building and Supplementing Instruction in the Core Skills (BASICS), a dropout prevention program within traditional middle schools. Another purpose of this study was to determine whether or not CEMS and Project BASICS had any effect on selected academic and behavioral criteria.

Such a study of an urban alternative middle school might prove to be vital with respect to dropout-prone students. This study may prove beneficial to school systems which are addressing the problem of an increased rate of dropouts.
on the middle school level.

Academic performance data were obtained from two sources:

a. Grade Point Average (GPA)


The composite SRA scores obtained from sub-tests in reading and mathematics were used. The reliabilities for the SRA series ranged from .87 to .95. An adaptation of the K-R 2 (Kinder-Richardson 20) formula was used to obtain reliability estimates for composite scores. These scores were all equal to or greater than .90. Behavioral data were collected from individual student files.

The subjects in this study were 120 randomly selected dropout-prone students. They were identified as dropout-prone based on the following characteristics: (1) the subjects were from low socio-economic backgrounds with a total family income of $4,300.00 or less, (2) they were products of single-parent homes, (3) their maximum family education was high school or less, (4) the subjects were behind in two or more grades, (5) their disciplinary records consisted of five or more office referrals per six-week period, and (6) they had been tardy or absent 15 or more consecutive days per semester.

The Career Exploratory Middle School (CEMS), an alternative middle school in the city of Richmond served as the dependent variable. Project BASICS, a dropout prevention
program in a traditional middle school, was used as the comparison group. The dependent variables were SRA composite scores, absences, days tardy, GPA and office referrals.

The researcher obtained the data that were used in this study from individual student files for both the CEMS group and the Project BASICS group. These files contained the necessary information on the number of office referrals, SRA composite scores, grade point average, number of days tardy, number of days absent, and family income information.

An ex post facto research design was used to assess relationships between the non-traditional programs of CEMS and academic or behavioral variables. All of the statistical analyses were based upon data collected during the 1986-88 academic years. Descriptive analyses including mode, mean, median, range, variance and standard deviations were presented for both the CEMS and the Project BASICS groups.

Analysis of covariance was used to determine relationships between the Project BASICS group and the CEMS group. The SRA scores from the following year were used as criterion variables. In a similar manner, analyses also were made for the other dependent variables.

T-tests were used to compare performance of all academic and behavioral criteria within the CEMS group and within the Project BASICS group. An alpha level of .05 was used to determine significant differences between and within groups.
Conclusions

T-tests were used to determine the impact (positive or negative) that the independent variables had upon subjects tested. In the CEMS group, findings indicated that all variables except GPA had significant difference between the means. There was a 2.1 increase in SRA scores over a two year period. Student attendance also increased by over eight days. This difference was significant even at the p<.001 level. The results were similar for the number of days tardy. There was a significant difference at the p<.01 level. Also, office referrals were significantly different at the p<.01 level.

In the Project BASICS group, both GPA and days tardy showed no significant difference. Improvement was found in SRA, days absent and office referrals.

Hypothesis H1: There is no significant difference between the CEMS group and the Project BASICS group in terms of the following achievement criteria: (a) Mean Science Research Associates (SRA) Achievement Series, Level G Forms 1 & 2 national percentile scores, (b) Mean Grade Point Average (GPA).

Based on data collected from the Richmond Public School system, Project BASICS, Building and Supplementing Instruction in the Core Skills, was designed to provide remedial assistance to dropout-prone middle school students who
demonstrated deficiencies in mastering essential skills in the cores subjects. On the other hand, the Career Exploratory Middle School (CEMS) was created as a school for those students who are identified as dropout-prone. It was a non-traditional middle school and involved students in Grades 6, 7, and 8, based on specific academic and vocational needs. Research suggested that there were no significant differences between the CEMS group and the Project BASICS group in terms of achievement criteria. Therefore, hypothesis H1 was rejected.

Hypothesis H2: There are no significant differences between the CEMS group and the Project BASICS group in terms of the following behavioral criteria: (a) absences, (b) tardiness, and (c) office referrals. The research suggested that the behavioral criteria studied do not differ between the CEMS group and the Project BASICS group. No significant differences were found in any of the categories.

Hypothesis H3: There are no significant differences between student performance within the CEMS group and their subsequent performance in the following year in terms of the academic achievement criteria: (a) Mean SRA scores and (b) Mean GPA. Findings indicate that H3(a) (Mean SRA Scores) is rejected while H3(b) (mean GPA) exhibited no significant differences.

Hypothesis H4: There are no significant differences
between student performance within the CEMS groups and their subsequent performance in the following year in terms of the behavioral criteria: (a) absences, (b) tardiness, and (c) office referrals. This hypothesis was rejected in its entirety.

Hypothesis H5: There are no significant differences between student performance within the Project BASICS group and subsequent performance in the following year in terms of the academic achievement criteria: (a) Mean SRA Scores; (b) Mean GPA. H5(a) was rejected while H5(b) was not rejected.

Hypothesis H6: There are no significant differences between student performance within the Project BASICS group and subsequent performance in the following year in terms of the behavioral criteria: (a) absences, (b) tardiness, (c) office referrals. H6(a) and H6(c) were rejected. H6(b) was not rejected.

Unlike the Career Exploratory Middle School (CEMS) program, Project BASICS focused on two major disciplines, reading and mathematics. It was designed to provide remediation for the dropout-prone middle school student who demonstrated deficiencies in mastering essential skills in the core subjects. Data revealed that approximately 45% of the students in the middle grades scored in the lower quantile in mathematics or reading. Project BASICS was also designed to increase self confidence and to encourage academic excellence.
However, the student-teacher ratio of 10 to 1 was not ideal for the Richmond middle school BASICS students, but many behavioral needs were met and some students exhibited a very positive self-esteem.

**Recommendations for Further Research**

Based on the findings of this study the following additional research is recommended:

1. A similar study should be conducted with dropout-prone students at the high school level.
2. A similar study should be conducted with the dropout-prone student at the elementary level.
3. The replication of this study should be undertaken in a non-urban setting.
4. A similar study should be conducted with a larger population of students.
5. A study should be conducted with dropout-prone students based on environmental, and affective characteristics.
REFERENCES


APPENDIX A

Letters Granting Permission to Conduct a Study
January 8, 1990

TO WHOM IT MAY CONCERN:

The purpose of this memo is to confirm that, according to existing records of January 1988, Mrs. Margaret L. Jones, Assistant Principal, Albert Hill Middle School, was granted permission to conduct a study entitled "A Study of Causes and Effects of the Richmond City High School Dropouts and a Proposed Prevention Program," by Dr. Lois Harrison-Jones, then Superintendent of the Richmond Public Schools and Dr. B. Krishna Singh, then Director of Planning and Development, Richmond Public Schools. Copies of the research contract and study proposal are currently on file in the office of Test Management and Evaluation for the Richmond Public Schools.

Sincerely,

Ann S. Allen  
Research and Evaluation Specialist

ASA/efh
I am presently a doctoral candidate at Virginia Polytechnic Institute and State University, Blacksburg, Virginia. My research is concerned with the cause of the rapidly increasing dropout rate among public school youths. Hence, I am requesting permission to conduct a study of the causes of the Richmond City School Dropouts on the middle school level.

As an employee in the Richmond Public School System, I am committed to achieving excellence in education. My primary goal is to study causes of dropouts from a select group utilizing the TEAMS concept as mandated by our school administration.

Data generated may be used by other researchers to replicate this study with appropriate credit given to the author. All data will be treated confidentially and objectively.

All information must be received on or before December 1, 1989.

Thank you in advance for granting me permission to conduct this study.

Sincerely,

Margaret L. Jones
Assistant Principal
Albert H. Hill Middle School
Per your request, enclosed are Statement of the Problem, Design of the Study, and resources required to conduct a study of dropouts of the Richmond City Schools.

The entire population of dropouts for 1986-1988 school years will be used in this study.

The following information is necessary for the completion of my study:

a.) total enrollment of students in CMS Alternative Middle School - 1986-1988

b.) total enrollment of students in Project BASICS - 1986-1988

c.) total lunch counts by school - 1986-1988

d.) total dropout rates by school - 1986-1988

No further statistical analysis can be made without the above requested information. Therefore, it is imperative that I receive these statistics prior to December 1, 1989.

Thank you for your continued cooperation.

Sincerely,

Margaret L. Jones
Assistant Principal
Albert H. Hill Middle School
APPENDIX B

Research Contract Procedures for Conducting Research in Richmond Public Schools
RESEARCH CONTRACT

In accordance with State and Federal law, Richmond Public Schools may only allow the disclosure of personally identifiable information concerning students to organizations or persons conducting research if the following conditions are met:

1. The research is being conducted either by an educational agency or institution, or by an organization on behalf of an educational agency or institution for the purpose of developing, validating, or administering predictive tests, administering student aid programs, or improving instruction; or the study is to be conducted by the staff of a college, university, or educational research and development organization or laboratory which is sponsoring, or which has otherwise approved the research.

2. The information requested is necessary for the research project or study.

3. The organization and/or researchers agree that no pupil or parent will be identified by name or in any other manner, either in the information submitted for research or by any other means.

4. The organization and/or researchers agree that any personally identifiable information will be destroyed when it is no longer needed for the purpose for which it was collected.

It is hereby agreed that the organization and/or researchers are eligible under Paragraph 1 above, to conduct the research, and that the further conditions of Paragraphs 2, 3, and 4 will be met. If the conditions of this contract or the attached policy and procedures for conducting research are not met, or are broken at any stage of the project, Richmond Public Schools reserves the right to deny future access to its records, personnel, facilities, etc., and to revoke permission for use of all records previously obtained. It is further agreed that a copy of the results or completed study will be furnished to the Director of Planning and Development for Richmond Public Schools at the conclusion of the study.

A DESCRIPTIVE STUDY OF DROPOUT-PRONE STUDENTS

Title of Study

VPJ and State University
Organization

September 20, 1989
Date

By Margaret L. Jones

Dr. Houston Conley
Dr. Jim C. Fortune

Advisor (if applicable)
RICHMOND PUBLIC SCHOOLS
DEPARTMENT OF PLANNING AND DEVELOPMENT
301 NORTH MINT STREET
RICHMOND, VIRGINIA 23219

RESEARCH REQUEST

Personal
Name ____________________________ Phone No. Home (804) 262-2526
Margaret Lewis Jones ____________________________________________
Business (804) 700-6107

Home Address ____________________________ Richmond Va. __________
9010 Tweed Road ____________________________ Va. 23220
Street ____________________________ City ____________________________ State Va.

Educational or Business Affiliation
University or College ____________ Tech ____________ City Blacksburg ____________ State Va.
Academic Department ____________ School of Education ____________________________

Check appropriate response: _____ Student _____ Faculty member
Proposed study is part of work for a degree _____ Yes _____ No
If yes, check appropriate response: Ph. D. _____ Ed. D. _____ M.A./M.S.
____ Undergraduate _____ Other

Business or Professional Organization ____________________________
Richmond City Schools ____________________________

Address ____________________________ Richmond Va. __________
3400 Patterson Avenue ____________________________ State ________
Street ____________________________ City ____________________________

Approval by Protection of Human Subjects Committee of your own institution.
(Please submit a copy of the approval with this request, or as soon as possible.)

Approved _____ Pending _____ Disapproved * _____

Other _____ (Please explain)

* Research request will be automatically disapproved by the Richmond Public Schools.

Any change in the scope of research or procedures of data collection must be
resubmitted for a new approval.
POLICY FOR CONDUCTING RESEARCH IN RICHMOND PUBLIC SCHOOLS

Qualified individuals and organizations may conduct, with administrative approval, research projects which satisfy the following criteria:

1. Educational agencies and institutions as well as organizations acting on their behalf, conducting studies for the purpose of developing, validating, or administering predictive tests; administering student aid programs; and improving instruction may be allowed access to personally identifiable student information, providing that the information is necessary to the project and that no pupil will be identified by name in subsequent reports. No research requiring personally identifiable information can be implemented until (a) a research request has been approved and (b) a research contract has been signed.

2. A student may not be allowed access to personally identifiable student information. Such information can be released to a staff member under the conditions specified under Item 1. In some instances, personal identification can be deleted or coded in such a fashion that it cannot be identified with a specific person. A student conducting research not requiring personally identifiable student information may sign a research contract. This contract, however, requires the signature of his/her advisor.

3. The project will lead to worthwhile educational benefits for pupils and/or personnel of the Richmond Public Schools. Projects which promise solutions to problems or improvements to programs existing in Richmond Public Schools will receive preferential consideration.

4. The time of pupils and staff required by the project is fully justified by the expected educational benefits to pupils and/or staff. In all cases, instruction on pupil and staff time and disruption of normal routines in classrooms and schools must be minimal.

5. The research problem and the methods to be used to solve the problem are described in a detailed written research proposal submitted to the Director of Planning and Development for Richmond Public Schools.

6. The research project has been approved (or pending approval) by the Protection of Human Subjects Committee of investigator's own institution.

7. The results of the research project will be submitted in writing to the Director of Planning and Development for Richmond Public Schools at the conclusion of the project.

8. The Director of Planning and Development for Richmond Public Schools shall be notified promptly of future publications and/or studies in which the results of, or data from, the research project are used.
PROCEDURES FOR CONDUCTING RESEARCH IN RICHMOND PUBLIC SCHOOLS

Submission of Requests

Requests to conduct research in the Richmond Public Schools must be submitted in writing to the Department of Planning and Development, Richmond Public Schools, 301 North Ninth Street, Richmond, Virginia 23219. Research request forms may be obtained from the Department of Planning and Development (telephone 780-5345).

Requests should be submitted at least four weeks prior to the time research is expected to begin to allow time for review of the proposal by Department of Planning and Development staff and other appropriate school system personnel.

Review and Decision

The research request will be reviewed and evaluated by a research review committee composed of members of the Department of Planning and Development and appropriate personnel in the administrative and instructional area(s) to which the research relates. If information beyond that submitted in the written request is necessary to the review, an interview with the researcher may be requested. The review committee may suggest revisions to the proposal prior to a final decision on its acceptability. The research request will be approved or denied on the basis of criteria to be met by research projects in Richmond Public Schools.

Following a decision on the request, the researcher will be notified promptly by letter. If the project is approved, the letter will specify:

1. Procedures to be followed by the researcher for actual implementation of the project; e.g., school personnel to contact, sources of further assistance, how implementation will be monitored by school personnel, etc.

2. Special conditions or constraints, if any, which apply to the project; e.g., conditions under which pupils may be interviewed, parental permission which may be required, etc.

Reports and Dissemination

The researcher should submit one copy of the final report for the project upon completion of the study. In the case of extended studies, six month progress reports are required.

The Richmond Public Schools must be allowed by the researcher to make non-commercial use of project results for the benefit of the school system.
The following format should be used to describe the research problem and the methods to be used to solve the problem:

**Statement of the Problem**

State question(s) to be answered or hypotheses to be tested.
Define variables.
Summarize relevant theory and previous related research.
Justify the study (explain its importance and describe intended use of the findings).

**Design of the Study**

Describe the sample and how it is to be selected.
Describe the data to be collected on each variable and the procedures, including instruments, to be utilized in data collection; supply copies of the instruments.
Describe the methods to be used in analyses of data.
Provide a time schedule for implementation of the study.
Benefits for the Richmond Public Schools from your study.

**Resources required** - INFORMATION AVAILABLE ON FILE

**Personnel**
- Estimated total teacher work-hours
- Estimated total pupil work-hours
- Estimated total administrator work-hours

**Facilities**
Describe equipment or space, other than regular classroom, which may be required for the study; e.g., space for interview or individualized testing, etc.
APPENDIX C

Student Documentation Forms:

School Record of Attendance
Student Behavior Referral Form
Student Violation of Conduct Letter
Student Suspension/Expulsion Letters
Dropout Analysis by School
STUDENT BEHAVIOR REFERRAL FORM

DATE __________________

STUDENT______________________________

GRADE__________________

H. R. _________________

NAME OF TEACHER__________________________

ROOM__________

PERIOD_________

INDICATE WHAT YOU HAVE DONE TO HELP PUPIL ADJUST:

YES   NO   DATE

TALKED WITH STUDENT PRIVATELY

KEPT STUDENT AFTER SCHOOL

TALKED WITH STUDENT'S PARENTS

REASON FOR REFERRAL:

DISPOSITION:
OUT-OF-SCHOOL SUSPENSION FOR 10 DAYS OR LESS

Parent(s) Name__________________________ Date__________________________
Address__________________________ RE:__________________________
Richmond, VA__________________________ Grade:__________DOB:__________
(732)__________ Telephone:__________

Dear__________:

This is to inform you that__________________________ has been suspended from Richmond
Public Schools for______ days due to a violation of Standard(s)_______ of the Standards
of Student Conduct, a copy of which is enclosed. The suspension begins__________ and
your son/daughter may return to school on__________________________.

This suspension is based on the following facts, which I have already discussed with
your son/daughter:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Upon your written request, the Assistant Superintendent will review this suspension
and confirm or disapprove it based upon an examination of the record of your child's
behavior. Your written request MUST be filed with the Assistant Superintendent,
Richmond Public Schools, 301 North Ninth Street, Richmond, Virginia 23219, within three
(3) school days of the date of this notice or your right to a review and to an appeal to the
School Board will be waived.

While your son/daughter is suspended he/she should remain off school property.
Your child will not be allowed to participate in or attend extracurricular activities. Lack
of adherence to these instructions may result in trespassing charges or additional
offenses and consequences. I further recommend that he/she remain off the streets,
except when absolutely necessary, because the Police Department will be closely
monitoring and making contact with out-of-school youth during school hours.

Sincerely,

(Principal)

Enclosure

cc: To Appropriate Assistant Superintendent

Revised 1/09
OUT-OF-SCHOOL SUSPENSION OF MORE THAN 10 DAYS

Parent(s) Name__________________________ Date________________
Address______________________________ RE:__________________
Richmond, VA__________________________ Grade:___ DOB:_____ 
(Zip Code) Telephone:__________

Dear:_____________________

This is to inform you that due to a violation of Standard(s) _____ of the Standards of Student Conduct (a copy of which is enclosed) committed by your son/daughter,______________________, I am recommending that he/she be________________________

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

This recommendation is based on the following facts, which I have already discussed with your son/daughter:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

This recommendation will be presented to a Disciplinary Panel which will hear evidence from the concerned parties and make a decision whether to uphold, reject or alter the recommendation. YOU AND YOUR CHILD HAVE THE RIGHT TO BE PRESENT AT THE HEARING, TO BE REPRESENTED BY A LAWYER, AND TO PRESENT EVIDENCE AND WITNESSES. You also have the right to inspect your child's school file. The panel's decision may be appealed, in writing, to the School Board. You will receive specific information regarding the time and place of the Disciplinary Panel hearing from Dr. Roberta P. Caston, Disciplinary Panel Supervisor.

If your child has been suspended from school, and the Panel upholds the suspension, you may appeal the decision upon the record of the suspension hearing to the School Board. This means that you will not be able to present any evidence, witnesses or make any statement to the School Board. The School Board will review the case as presented to the panel and either uphold, reject or alter the recommendation.
If your child is recommended to the School Board for expulsion, you may appear before the School Board and present any evidence, bring witnesses or make a statement in his or her defense.

If you have any questions, please contact Dr. Roberta P. Caston at 780-7811. Until the panel makes a decision, your son/daughter is suspended from Richmond Public Schools and must stay off school property. Your child will not be allowed to participate in or attend extracurricular activities. Lack of adherence to these instructions may result in trespassing charges or additional offenses and consequences. I further recommend that he/she remain off the streets, except when absolutely necessary, while on suspension because the police department will be closely monitoring and making contact with out-of-school youth during school hours.

Sincerely,

(Principal)

Enclosure

Copy: __________
Assistant Superintendent

Roberta P. Caston
Supervisor of Pupil Placement/Student Records

Revised 1/89
OUT OF SCHOOL SUSPENSION OF MORE THAN 10 DAYS
FOR EXCEPTIONAL EDUCATION STUDENTS

Date __________________

Re: __________________

Grade: ____ D.O.B.: ____

Dear __________________:

This is to inform you that due to a violation of Standard(s) __________________ of the Standards of Student Conduct committed by your son/daughter named above, I am recommending that he/she be __________________

This recommendation is based on the following facts, which I have already discussed with your son/daughter.

Since your son/daughter is enrolled in an exceptional education program, the procedure is to present the case to the Central Office committee which reviews disciplinary actions involving exceptional education students (Central Office I.E.P. Review Committee) before it can be heard by a Disciplinary Panel. The Central Office I.E.P. Review Committee has to determine whether or not your son/daughter’s exceptionality had a causal relationship to his/her actions. If this committee determines that the exceptionality had a direct bearing on his/her actions or that your child’s placement is inappropriate, then the committee can make recommendations for future placement.

If the Central Office I.E.P. Committee determines that your child’s exceptionality did not contribute significantly to the action(s) in question and that the current exceptional education placement is appropriate, then the case will go to the Disciplinary Panel.

We hope you and your son/daughter will attend the Central Office I.E.P. Review Committee meeting so that you will be able to have some input in the future education of your child. The committee is scheduled to hear your child’s case as follows:

Date of Meeting: _____________ Time: _____________

Location: 13th Floor Conference Room, City Hall

Sincerely,

Principal

cc: Appropriate Assistant Superintendent
   Panel Supervisor
APPENDIX D

Description of Project BASICS

Description of Career Exploratory Middle School (CEMS)
Description of Project BASICS

Project BASICS, Building and Supplementing Instruction in the Core Skills, was designed to provide remedial assistance to dropout-prone middle school students who demonstrated deficiencies in mastering essential skills in the core subjects. The selection was based on 1986-87 SRA test data. Based on the data, approximately 15% of the students in the middle grades were in the lower quantile in mathematics and approximately 30% were in that category in reading. About one half of the students were functioning below grade level in mathematics and about two thirds were functioning at that level in reading (Richmond Public Schools test data for 1986-87). Based on the above data, a committee consisting of principals, assistant principals, supervisors, and the middle school director, were charged with the responsibility of providing an alternative program within the regular middle school setting that would address the needs of dropout-prone middle school students who scored in the 25th and below percentile in the core subjects on the Science Research Association Achievement Series (SRA). This program involved middle school students of Grades 6, 7, and 8. It was designed to decrease the number of days absent and tardy, to increase self confidence, and to promote and encourage academic excellence. Additionally it was anticipated that intensive
instruction, based on specific student needs and levels of maturation, would meet the primary object of Project BASICS which was to remove and/or improve academic deficiencies (Project BASICS Report, 1988).

The Organizational Plan

The committee determined that flexible block scheduling would be the organizational plan at all grade levels. The academic team would consist of two teacher teams at Grade 6 and progress to a four or five member team at Grade 8. The committee agreed with many middle school educators who believed that time may not be used efficiently and effectively when it is rigidly allocated in blocs of 45 or 50 minutes. In this plan, reading and mathematics were to receive the larger share of time in every case. To provide the extra time, consideration would be given the following:

(1) Some subjects need not meet everyday.
(2) Some courses need meet for only 25 or 30 minutes (e.g., Foreign Languages at Grades 6 and 7).
(3) Courses in which skills are sequentially developed may be scheduled two or three days per week for the entire year.
(4) Vocational courses should meet not less than
25 hours and not more than 90 hours over a one week time period.

(5) There are no specific time requirements at the middle school level, except for Grade 8 Foreign Languages and ninth grade advance placement courses, which should meet the same time requirements as high school courses.

(6) Time should be allocated according to the needs of students.

(7) Students needing the same skills may be grouped for reading and mathematics, but should be heterogeneously grouped for all other experiences. There should be no tracking.

**Instructional Plan**

The teaching team developed a prescription for each student based on the known deficiencies in mathematics and reading. Every opportunity was given to parents to participate in the development and execution of the child's plan. Each member of the team was committed to teaching skills and developing curriculum content which are common to disciplines such as reading, writing, speaking, critical
thinking, mathematics skills, and use of technology. Each student was taught according to an individualized plan. The Mathematics and Communicative Arts supervisor worked with a committee to identify the core objects in the curriculum which must be mastered by every student. The Communicative Arts Curriculum Guide was revised to include specified reading objectives in English for students reading at grade level or below. Teachers used a variety of instructional materials and resources to accommodate various learning styles and personalities. Computer technology (Plato and other hardware and software) was used regularly when working with students in need of remediation. The students were scheduled to use the laboratory at least twice a week for reading and/or mathematics. This did not include the time that might be spent when the classroom teacher used the facility. The extra time could be scheduled during elective or exploratory course time. Time for recreational reading was also provided.

Resource teachers, who had the necessary personal and professional competencies to teach students who have faced repeated failure, were available to serve as tutors. These teachers were provided from the projected staffing quotas when possible.

Manipulative resources such as spinners, cubes, calculators, tiles, geoboards, compasses, scissors, rulers, protractors, graph paper, and grid and dot paper were made
available in every mathematics classroom. Microcomputers were available for the use of every classroom teacher either through media services or through scheduled use of the microcomputer laboratories. Every teacher in the program was able to use all available technology for instructing these students. Teachers who were not competent in the use of the technology enrolled in appropriate courses offered during the summer. The computer-based education supervisor and the subject area supervisors worked together to determine the software most apt to support the core objectives. Student attendance and office referrals were monitored very closely to determine whether the number of days absent and tardy decreased as a result of Project BASICS. Time on task and individualized instruction determined if there was a decrease in the number of office referrals.

**Focus**

The focus of Project BASICS in the Richmond Public Schools was to raise the overall competence of students who had demonstrated deficiencies in mastering essential skills in communicative arts/reading and mathematics subjects. Through daily extended classroom instruction students mastered and applied the necessary skills of mathematics, reading and language arts (Project BASICS Report).
The following instructional plan was to correct the deficiencies in mathematics and Communicative arts for each student (Richmond Public Schools test data, 1988).

- Teachers and parents, who were committed to teaching the skills and content, were an integral part of the program development.

- The mathematics and communicative arts supervisors worked with a committee to identify the core objectives in the curriculum which were to be mastered for overall competence.

- Computer technology was used at least twice a week to remediate students who were weak in reading, language arts and/or mathematics skills.

- Extra time for computer technology and/or extended reading was provided during elective or exploratory course time.

- Competent resource teachers from the projected staffing quotas served as tutors for those students who faced repeated failure.

- Supplementary materials, supplies, and equipment were provided for each communicative arts and mathematics classroom.

- Microcomputers were available through media
services, computer laboratories and/or through the local Plato Delivery System.

- Teachers in the program were expected to use all available technology for instructing remedial students. Teachers who were not competent in using this technology enrolled in summer courses.

- The computer-education supervisor and subject area supervisors worked cooperatively to determine software most apt to support the accomplishment of specific objectives.

- Reading across the curriculum was given special emphasis in all curriculum areas.

- The attendance clerk monitored number of days absent or tardy and the frequency of office referrals.

**Major Strategies**

A. Language/Reading

1. On all grade levels, students scoring below the 25th percentile on standardized tests in reading received special tutorial help in assigned workshops during the school day.
2. The students were grouped for special assignments, but individualized teaching was the main focus.

3. To enhance reading skills, the students were taught directed reading and thinking activities, guided reading procedures, read and recite techniques, and semantic mapping techniques.

4. Each parent was informed of his child's participation in the remediation workshops.

B. Mathematics

1. Provided a caring, non-threatening environment that encouraged questions and risk-taking.

2. Analyzed standardized test results to determine strengths and weaknesses.

3. Interviewed students to develop mutual trust and respect, and to learn about their interests and abilities.

4. Devised plans for individualized instructions.

5. Provided opportunities for small group, cooperative learning.

6. Provided real-world problems to solve.
7. Integrated mathematics into other areas of the curriculum.
8. Used a variety of manipulatives measuring devices and models.
9. Used audiovisuals, taped lessons, and listening posts.
10. Used guided computer instruction.
11. Used computers and calculators to explore and to discover mathematic concepts.

Organizational/Instructional Design

A. Organizational Design
1. Team and individual planning were continuous.
2. Approximately five to eight students were assigned to each workshop.

B. Instructional Design
1. The students were taught strategies that would help them read and comprehend all texts.
2. The students were given timed activities and modeled standardized test formats.
3. The students enhanced their knowledge though weekly visit to the computer
laboratory.

4. The students participated in weekly independent readers/writers workshops.

5. The students participated daily in 45-minute mathematics grade level workshops.

C. Procedures for Monitoring

1. Objective check-off sheets.

2. Student folders to hold documentation of objectives mastered.

3. Observation and discussion.

4. Diagnose errors and correct error patterns in computation.

5. A daily check of students' notebooks/folders.

6. A computer listing of books checked out bi-weekly by students.

7. Reading logs in the classrooms to monitor writing assignments.

8. Writing folders in the classrooms to monitor writing assignments.


The information on Project BASICS was taken from a Richmond Public School Project BASICS Report.
Description of Career Exploratory Middle School (CEMS)

The Career Exploratory MIddle School was created as a school for those students who are identified as dropout-prone. It was a non-traditional middle school that involved students in Grades 6, 7, and 8, based on specific academic and vocational needs. The programs, which were designed to promote self-esteem, to encourage high academic performance, to reduce the number or days absent and tardy, and to encourage academic excellence, were on student interests and individual levels of maturation.

The Career Exploratory Middle School was in existence from 1980 to 1988. It offered diverse educational experiences. The faculty and staff at CEMS were dedicated to providing an alternative education program not only for students who had special needs but for those middle school students who were ready to begin an orientation to the world of work. The educational success of students were enrolled at CEMS was dependent upon the learning opportunities that were made available to them to enrich their learning experiences, their skills and techniques, and to test their mental abilities.

The following instructional components were offered at CEMS:

A. The Special Tutorial Emphasis Program (STEP)
This component was provided for students who required individualized instruction or remediation of materials previously taught. Learning time was sequenced in small steps. Various techniques were utilized to achieve the desired outcome. Students from a local theological center assisted with the tutorial program. A resource teacher was funded by the Carl D. Perkins Fund. This teacher had a background and training in special education, with the ability to provide small group and/or a one-to-one instructional environment. The Urban League's Seniors in a community program also provided funding for the STEP program. This community organization provided three community assistants/tutors to work 20 hours per week with students who were referred to the resource teacher for remediation in math and reading skills.

B. Computer Assistance Program

Computer-based knowledge was obtained in the Plato laboratory. The laboratory furnished each student with a placement test prior to enrolling in the CEMS program. Based on the needs assessment, the computer-based educational system identified strengths and weaknesses. The student was tutored until course requirements and objectives were met.
C. Small Pupil-Teacher Ratio

Individualized instruction was emphasized. Students were taught according to levels of maturation and abilities. The Criterion Reference Tests (CRT's) were diagnostic and prescriptive tests used to assess ability levels. Students were taught at their ability level, then retested until maximum achievement had been obtained.

D. Content Area Reading Emphasis Program (CARE)

The CARE Program was designed to motivate students in the area of language arts. The main purpose of this program was to enhance reading, listening, and comprehension skills. Some of the areas of emphasis were test-taking skills, critical thinking skills, language usage, and study and reference skills. Students were expected to become well-informed by the daily utilization of the school's curriculum. Writing assignments were based on cultural and environmental experiences.

E. Master Learning

A daily tutorial program provided mastery of mathematics and language arts skills and concepts. The utilization of computer-based knowledge, teacher-made resource materials, enrichment developed and reinforced critical thinking skills
for the dropout-prone students.

F. **Block Scheduling**
A team-teaching interdisciplinary approach to learning was used. Students were assisted by academic and vocational teachers in a two hour block of time.

G. **Education for Employment (EFE)**
This program was designed to give students an orientation to vocational training and to prepare them for successful employment. Job placement was found for students within the school building and in the surrounding community. As an incentive, students earned minimum wages and worked at least three hours/week.

H. **Shadowing Program**
This program was designed to give students an opportunity to receive training in their fields of interest. The selection process was the responsibility of the career teacher.

I. **Students' Recognition Program**
The program was held each nine-week period. Certificates were awarded in the following categories: Academics, careers, attendance, most improved attitude, and school and community service. The student who received the greatest
number of certificates was rewarded with a round trip shopping spree or a bus trip within a 100 mile radius.

J. **Scholastic Standout**
A student was chosen annually based on academic achievement, school and community service and overall human relations skills.

K. **Teacher Advisory Program (TAP)**
The goal of the Teacher Advisory Program was to foster student self-awareness, self-esteem, and self-understanding by the use of mini-lesson series.

L. **Project Business**
This particular project was an extension of the social studies curriculum. The activity took place one a week. Emphasis was placed on understanding the stock market and the basic principles of economics. A representative from the business sector conducted the weekly sessions.

M. **Mini Course**
Mini courses were held once a week based on student interests. The following areas were discussed: (1) art appreciation, (2) recreational games, (3) crafts, (4) aerobics, (5) creative writing, (6) Student Council, and (7) Technology Student
Association.

N. **Respite Care Program**

This child care program was an extension of the home economics curriculum. Ten children, ages one - five, were enrolled. Volunteers served as child care assistants.

This information was taken from a CEMS Annual Report (1988).
VITA

Margaret L. Jones
9010 Tweed Road
Richmond, Virginia 23228
(804) 262-2526

Date of Birth    July 5, 1946

Education       Bachelor of Science, in Biology
                Virginia State University, Petersburg, VA.

                Master of Education, in Science Education
                Virginia State University, Petersburg, VA.

                Secondary Principal, in Educational
                Administration

                Doctor of Education, in Educational
                Administration
                Virginia Polytechnic Institute and State
                University, Blacksburg, VA. May, 1991

Experience    * Assistant Principal
               Richmond, VA., 1984 to present
* Acting Principal
               Richmond, VA., 1987-1989
* Teacher, Richmond Public Schools
               Richmond, VA., 1969-1984
* Department Head
               Richmond, VA., 1980-1984
* Administrative and Advisory Coordinator
               Richmond, VA., 1979-1982
* Staff Coordinator - Administrative
               Evaluation
               Richmond, VA., 1969-70; 1971-79

Professional Publication


Mrs. Jones is married and has three children.

Margaret L. Jones