The Effects of an Urban Middle School Dropout Prevention Program on the Academic Achievement, Attendance, Attitudes, and Conflict Resolution Skills of At-Risk Student

Patricia Hawkins Fisher

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THE EFFECTS OF AN URBAN MIDDLE SCHOOL DROPOUT PREVENTION PROGRAM ON THE ACADEMIC ACHIEVEMENT, ATTENDANCE, ATTITUDES, AND CONFLICT RESOLUTION SKILLS OF AT-RISK STUDENTS

by

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A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the degree of DOCTOR OF PHILOSOPHY URBAN SERVICES OLD DOMINION UNIVERSITY

August, 1994

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Abstract

The purpose of this study was to determine the effects of an urban middle school dropout prevention program on the academic achievement, attendance, attitudes toward self and school, and conflict resolution skills of potential dropout candidates. The study compared the differences in grade point averages and Iowa Test of Basic Skills scores, percentages of absences, self concept and motivation towards school scores, and the percentage of suspensions of subjects in three middle schools in Portsmouth, Virginia. A review of literature revealed that traditional dropout prevention efforts have addressed the dropout dilemma with varying degrees of success. More recent dropout initiatives have focused on addressing the physical, social, psychological, and educational needs of at-risk students and early intervention. Additionally, the inclusion of a holistic dropout approach can have positive effects on school related dropout predictors of middle school students.

Three defined groups of middle school at-risk students represented levels of the independent variable. Subjects in group one (N=32) were participants in the CAPP holistic dropout treatment at Cradock Middle School. Subjects in group two (N=24) were members of an intact split grade level class
at Hunt-Mapp Middle School who did not receive dropout intervention. This group served as a control group. Subjects in group three (N=18) were assigned to an intact class at Churchland Middle School who participated in an academic remediation treatment. Post intervention data were collected from school records on grade point averages, Iowa composite scaled test scores, percentage of absences, and percentage of suspensions. One-way analyses of variance were used to analyze the dependent variables. A one-way analysis of variance was also employed to measure an attitude subscale relevant to conflict management. Additionally, postmeasures on five subscales of the School Attitude Measures inventory were collected and analyzed using a multivariate analysis of variance.

The findings of the analyses revealed that the grade point averages and school attendance percentages for subjects in CAPP were significantly higher than subjects in the two comparison groups. CAPP subjects also scored higher, overall, on the attitude inventory.

As a result of this study, information was provided that contributed to the assessment of the Portsmouth Public Middle Schools dropout prevention program.
Acknowledgements

A number of wonderful people have impacted my life through the course of this study. Their patience, time, expertise, and understanding have been immeasurable supports for me throughout this endeavor. I give special thanks and gratitude to:

* My daughters, Nichol and Shanetta, who through their love and unselfish claims have made my life at home undemanding.
* My father and mother, Jack and Beatrice Hawkins, who have provided so many words of encouragement and inspiration.
* My sister, Marilyn Drewrey, who has always been there for me.
* Mr. William Stallings, Mr. Seko Varner, and the Cradock Family who created the CAPP project.
* Mrs. Donna Loulies, Mrs. Raynell Hargraves, administrators, faculty and students at Churchland Middle and Hunt-Mapp Middle schools who assisted this research.
* Mrs. Terry Caviness, who rendered her technical skills and faithfully hung in there through this endeavor.
* My "PhD" friend, Dr. Janet McKenzie, who kept me on track and provided so much encouragement.
* Drs. Aaron Gay, Andrew Carrington, Katherine Divine, Mrs. Viola Morgan, and Mr. Joseph Wiggins, who provided resources and dedicated their time.
Finally, I thank the Old Dominion University faculty who believed in me and supported this dissertation. I extend special gratitude to:

* Dr. Jack E. Robinson, my dissertation chairperson, for his persistence, patience, guidance, and expertise.

* Dr. William G. Cunningham and Dr. Maurice R. Berube, who as committee members extended their scholarly talents, and Dr. Jane Hager, concentration area director, for all of her assistance and support.

"Through everything, give him thanks. Through everything, give him praise. To God be the glory."
Dedication

I dedicate this dissertation to my best friend and husband, Tony Alfred Fisher, Jr., whose love, encouragement, and sustaining support have brought us to this point. WE DID IT TONY!

This work is also dedicated to the memory of my beloved sister, Rita Maria Hawkins Holmes, whose love and courage gave me the determination to persevere in my studies.
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CHAPTER I
Introduction

In a 1963 message to Congress, John F. Kennedy shared his belief that:

"the most direct, rewarding, and important investment in our children and youth is education. A high rate of investment in education is essential for our national economic growth, our scientific advancement, and our national security . . ." (Kennedy, 1963, pp. 170-171).

Thirty-one years later, this idea continues to be echoed across America. Unfortunately, many of our youth are not completing their twelve years of free education. As a result of this trend, the American society is losing human dividends.

Educational reports have been unanimous in their contention that America is experiencing a crisis in the number of dropouts. The national dropout rate is generally reported as being 25 percent. However, in some large urban areas, the dropout rate may range from 40 to 60 percent. These percentages have been reported in Boston, Chicago, Los Angeles, Detroit, and a number of other major cities (Hahn, 1987).

Since the report, A Nation at Risk (Lyke, 1986), political and educational leaders have been involved in various attempts to reform and restructure American education.
There are some who believe that standards should be raised if America is to be competitive with Japan and other countries. According to the 14th Amendment, each child has the privilege of an education, but many are choosing to drop out of school. Edmunds (1988) postulates that the dropout problem has received increased attention for two reasons:

- concern that the recent increases in academic course requirements for graduation may swell the dropout rate

- developing awareness that the nation is slowly moving towards a major labor shortage by the year 2000 (Edmunds, 1988, p. 11).

Previous studies relative to the effects and relationships of early dropout prevention programs and cost have been conducted. The Committee for Economic Development reports that every dollar expended on early education intervention that improves performance for at-risk children brings savings of three to six dollars in long-term costs associated with welfare, remedial education, and crime (Blyth, 1991). A 1985 report in an Education Reserve Bulletin titled, "Cost of Dropouts" points out that in 1981, the average high school graduate who does not go to college could expect to earn $260,000 more in a lifetime than the average dropout. It is estimated that the cost to society for lost national income is about $360,000 per dropout. Based on the national percentage, this could total to $228 billion (Cost of Dropout, 1985). The dropout dilemma is not only costly, it is
alarmingly extensive. The following statistics present a clearer picture of the extent of the dropout problem.

- Each day of the year, some 3,800 American teens quit school.

- Twenty-five percent of all students who enter high school, nationwide, fail to finish.

- Most youngsters who dropout do so after they have entered the ninth grade.

- In some large cities, the dropout rate reaches 60 percent.

- Nearly 85 percent of American Indians and 50 percent of African American youth do not graduate from high school.

- The fastest growing group of dropouts is white males.

- Fewer than 2 percent of teens who become mothers will finish high school.

- A teen mother who drops out of school earns only half as much in her lifetime as a woman who has her first child in her 20's or later. (Profile of Teens You Teach, 1988, p. 7).

These statistics provide indication that educators cannot afford to wait until students reach high school age to implement preventive programs. Such programs should be put in place prior to high school and should offer children opportunities to experience success in school.

The relationship of school-related factors to dropout has been supported in a number of studies. Hahn identifies ten conditions as major push factors for students who drop out of school. These factors have been paraphrased as follows.

1. They are behind in grade levels and older than classmates.
2. They have poor academic performance.
3. They dislike school.
4. They are assigned detentions and placed on suspensions.
5. They become pregnant.
6. They are welfare recipients and members of single family homes.
7. They are attracted by work.
8. They are attracted by military service.
9. They have undiagnosed learning disabilities and emotional problems.
10. They have language difficulties. (Hahn, 1987)

Three of these variables are directly linked to school-related factors. Barber and McClellan (1987) rank 33 factors that are most often predictors of dropouts. They conclude that school attendance ranks number one, and academic problems or poor grades rank number four. Vaughan (1991) further concurs that the aforementioned objectives are significant in the identification of potential dropouts. He concludes that the major variables for predicting dropouts are school attendance and grade retention. When examining at-risk students from a school performance related perspective, it is critical that educators focus on potential dropout candidates as early as possible. They must provide at-risk students with the kinds of constructive and instructional activities that will nurture success, and thus encourage them to want to stay in school.
Basis for Study

A number of studies have suggested that the key to dropout prevention is early intervention. Cavozos (1989) affirms this thesis in his synopsis on follow-up studies of children who were involved in Head Start, as well as other childhood at-risk programs. He concludes that when children are successful in school they are ultimately more likely to complete high school. He points out, however, that a student’s decision to drop out of school is often the end result of a pattern of negative school experiences. Some of these experiences, such as academic failure or grade retention, frequent suspensions, and irregular attendance begin before students reach the first year of high school. Dropout prevention strategies, therefore, must be targeted at the middle school grades, when the stresses of a more complex curriculum, a less personal environment, and a growing need for peer acceptance pose grave danger to already disadvantaged children (Massachusetts Advocacy Center, 1988).

The research on dropouts suggests that there is a paramount need for educators to incorporate dropout prevention strategies in the total middle school program. One of the major factors that drives this need is the high rate of retention among middle school students each year. Educational specialist at the Massachusetts Advocacy Center (1988) point out that even though research demonstrates the importance of middle schools in retaining at-risk students, the organization
and curriculum emphasis of most do not meet the needs of young adolescents. They further explain that retention is quite common in the middle grades when teachers are looking for more specialized knowledge and academic achievement from their students. In the Boston School System, for example, 12 percent of all sixth graders and 19 percent of all seventh graders were held back in 1987. In Virginia, the 1991-92 outcome indicators affirm that 68 percent of eighth grade students who took the Iowa Test of Basic Skills scored below the 75th percentile on composite total scores. The percentage of Portsmouth students who scored at or below the 75th percentile for the 1991-92 year was 83 (Virginia Department of Education, 1992).

Children in Virginia who exhibit at-risk characteristics are a rapidly growing segment of the student population. In a conventional school setting and without special services, these students may be unserved, under-served, or inappropriately served by schooling (Virginia Department of Education, 1993). Success in school depends on school programs and curricula that meet the individual student's needs. A curriculum and instructional approach that is successful for some students often fails other students. The best rationale for the need to implement, monitor, and assess dropout prevention and intervention programs is provided by the Virginia Department of Education (see Table I). Between the years 1988 and 1992, dropout percentage fluctuated by
grade level and in terms of the race/ethnic category. Statistics reveal that the percentage of 9th grade dropouts increased from 26.3 in 1988 to 28.2 in 1992 in the state of Virginia. Additionally, the percentage of total dropouts by race and ethnicity increased for grades 7-12. These gains in dropout rate are depicted in Table I.

**TABLE I**

PERCENTAGE OF TOTAL DROPOUTS BY RACE/ETHNIC CATEGORY

**GRADES 7-12**

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<tbody>
<tr>
<td>Amer. Indian</td>
<td>31</td>
<td>0.1</td>
<td>24</td>
<td>0.1</td>
<td>20</td>
<td>0.1</td>
<td>51</td>
<td>0.4</td>
</tr>
<tr>
<td>Asian</td>
<td>370</td>
<td>1.8</td>
<td>346</td>
<td>2.0</td>
<td>331</td>
<td>2.3</td>
<td>318</td>
<td>2.2</td>
</tr>
<tr>
<td>Black</td>
<td>6,454</td>
<td>31.1</td>
<td>5,306</td>
<td>31.1</td>
<td>4,311</td>
<td>33.5</td>
<td>4,983</td>
<td>35.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>451</td>
<td>2.2</td>
<td>498</td>
<td>2.9</td>
<td>549</td>
<td>3.8</td>
<td>627</td>
<td>4.4</td>
</tr>
<tr>
<td>White</td>
<td>13,466</td>
<td>64.8</td>
<td>10,871</td>
<td>63.8</td>
<td>8,662</td>
<td>60.3</td>
<td>8,257</td>
<td>58.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20,772</td>
<td>100.0</td>
<td>17,045</td>
<td>100.0</td>
<td>14,373</td>
<td>100.0</td>
<td>14,236</td>
<td>100.0</td>
</tr>
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* End of year membership by ethnic group (and percent of total end of year membership was as follows: American Indian 669 (0.2); Asian 15,869 (3.8); Black 99,079 (23.5); Hispanic 10,078 (2.4); White 296,326 (70.2). (Virginia Department of Education, 1993).

The encouragement to explore dropout innovations in the school has come from the national level as well as the Virginia department of education. In 1990, President Bush met with state Governors to discuss plans for improving the quality of education. As a result of this convention, new national education goals were introduced. Of particular interest to this study is goal number two, which deals with
youngsters completing high school. In response to the national call for improvement in the dropout rate across the nation, statewide initiatives in dropout prevention have been undertaken.

One national model that has achieved marginal success and has served as an inspiration for other programs, is Project Success. This project was first implemented in the state of Georgia during the 1989-90 school year. According to Cheshire (1992), the Success project focuses on reducing the dropout rate by offering a comprehensive dropout intervention to at-risk students between the ages of 14 to 16. The objectives of the project are to assist students in improving self-image, motivating students to achieve new academic growth, improving attendance and overall student performances. Numerous components are integrated in the Success program. Inclusive in the activities are student team meetings, field trips, speakers, community events, tutoring, and opportunities for recreation and fun. School districts involved in the Success project have reported improvements in student discipline, attendance, grade point averages, and enrollment. Cheshire (1992) reports that participating schools reported a 1.3 and above grade point average improvement for the 1989-90 school year. Additionally, the Lee County district reduced its' dropout rate from eight percent in 1988-89 to three percent in 1989-90. The Haralson County High School reported a 13 percent dropout rate in the tenth grade and 18 percent in the
ninth grade. In light of the impact of project Success on student performances and the dropout rates of participating districts, Cheshire (1992) promotes the use of projects such as Success as a basis for other state-wide dropout programs.

Portsmouth Public Schools

The dropout problem is a major concern to the Portsmouth Public School District. During the 1988-89 school year, the Virginia Department of Education established outcome indicators as an outcome accountability tool. Improvement of the dropout rate is one of the expectations of the Outcome Accountability Project (OAP) assessment. Dropout rates have been reported by the Office of Research for Portsmouth Public Schools on students in grades 9-12 in Portsmouth. Dropout rates increased from 3.7 during the 1988-89 academic year to 5.1 during the 1991-92 academic year. Beginning with the 1989 Virginia Outcome Accountability Project (OAP) report, the reduction of dropouts has been a goal of Portsmouth Public Schools. Dr. Richard Trumble, Superintendent of Portsmouth Public Schools, has expressed concerns for improvement in all areas of the OAP's, particularly school attendance. It is expected that all school principals will develop and implement a school improvement plan that correlates with the Virginia Department of Education dropout outcome indicators.
Of specific concern, is the data that with the exception of the 1989-90 school year, the dropout rate has been steadily increasing in Portsmouth. In addition, Portsmouth ranks 3rd in the Tidewater area in terms of having the highest dropout rate. A recent report from the Virginia Department of Education (1993) on Outcome Accountability Project indicators reveals that Portsmouth's dropout percentage for the 1992-93 school year was five percent. To this end, the Portsmouth Public School District is committed to providing interventions for students who are at-risk of dropping out of school.

In acceptance of the task to institute such programs, the Portsmouth Public Schools' at-risk coordinator, Mr. William Stallings, developed and implemented a project that focuses on intervention at the middle school level. After exploring several dropout prevention programs, Stallings and his staff found that a number of states and districts are experiencing success in student performance by integrating program components that address the psychological needs of at-risk students. These programs include Georgia's Project Success and Kentucky's Reform Act Projects, both of which are geared to changing the educational delivery system for at-risk students. Of further interest to the Portsmouth at-risk staff was the desire to provide a program aimed at developing resiliency in youth from low-socioeconomic backgrounds before they reach high school. Therefore the middle school level was considered for targeting the intervention. It was determined, through
the Portsmouth Public Schools research data base, that a significant number of at-risk students attend three of the four Portsmouth middle schools. Two of these schools offered academic remediation dropout intervention. Through the process of elimination and the support of the former Principal, Mr. Lindell Wallace, Cradock Middle School (formerly Alf J. Mapp) was selected for the dropout prevention pilot.

The intervention is known as the Cradock At-Risk Prevention Project (CAPP). The purpose of the project is to assist students in developing the skills necessary to be successful in school. The project sponsors believe that by providing a service for dropout prevention at the middle school level, students will experience academic success. Thus, they will be less likely to become candidates for dropping out of school. The CAPP program focuses on the following academic objectives:

- to improve academic achievement
- to improve student attendance
- to develop conflict management skills
- to enhance self-concepts

CAPP offers an opportunity for students to participate in a holistic approach to dropout prevention. Four components are collectively integrated in the CAPP program. Inclusive in the project are skills designed to assist students in improving their grades, self-esteem building activities, social skills,
and a recreational component. To address academic improvement, students are offered a forty-five minute time block for a homework clinic, and tutoring or remedial instruction. Additionally, students are required to maintain a daily homework assignment log. The CAPP staff and volunteer mentors assist students in academic skills and self esteem building strategies. The self-esteem component includes teambuilding activities, cultural awareness activities, career presentations and field trips to local business and community agencies. Social skills are addressed through group rap sessions, peer mediation, and counseling. To complete the holistic cycle, students have an opportunity to engage in wholesome recreational activities which encompass team and individual sports. Participants in the CAPP intervention meet after school on Wednesdays and Thursdays from 2:45 p.m. to 4:50 p.m. A descriptive schedule of the CAPP components is included in the methodology chapter of this study. The project, though relatively new, has been cited by the Southeast Regional Center for Dropout and Drug Free Schools as a noteworthy program. The projects' efforts in dropout prevention have met criteria established by the U. S. Department of Education for dropout intervention. In addition, the program has been showcased throughout the region as a model for others and was featured in the Fall, 1993 publication, Shining Stars! Preventive Programs. It was the desire of the Portsmouth Public Schools At-Risk Coordinator
that a formal assessment to examine program effectiveness on student performances in school be conducted. Subsequently, this study was undertaken.

**Implications for Study**

A significant number of studies in the area of dropout prevention agree that early identification and intervention is the key to decreasing the number of dropouts, yet few studies focus on middle school level intervention. Walz (1987) points out that middle school programs for dropout prevention are critical because middle school-age children are particularly vulnerable to peer pressures. According to Walz, negative behaviors can be easily imitated at this age. He maintains that programs should be implemented that provide middle school students with positive and successful experiences.

Drewrey (1994), as an eighth grade counselor in the Portsmouth Public Schools, contends that middle level dropout intervention is limited in most middle schools today. According to Drewrey, a holistic dropout intervention would be beneficial for school districts that are looking to find ways to keep more students in school. She explains that most of the at-risk students she counsels are in themselves diverse and have different educational and social needs. They represent various social economic strata and come from a variety of home settings. They represent functional, dysfunctional, single parent and two parent home environments.
These children have a multiplicity of at-risk factors to contend with in the community and in the school. With these traits in mind, educators may need to incorporate innovative programs and activities to address these needs.

This study has implications for middle school curriculum and program specialists. The results of an assessment of the CAPP intervention can serve as guidelines to strengthen middle school program emphasis. First and foremost, students engaged in the CAPP intervention may be able to transfer positive learning experiences into the classrooms during regular school hours, and subsequently improve their performance.

This study has implications for middle school teachers in terms of effective teaching. Teachers at Cradock Middle School may be able to draw from some of the methods or strategies modeled in the CAPP intervention to enhance their teaching styles. Additionally, administrators in Portsmouth may be able to use program results to plan and implement staff development. Wells, in support of the middle school teaching strategies presented by the Massachusetts Advocacy Center, points out:

"even though research demonstrates the importance of middle schools in retaining at-risk students, the organization and curriculum of most do not meet the needs of young adolescents. . ." (Wells, 1989, p. 1).

Furthermore, the extended school day concept in this study has implication for policymakers in terms of redefining school operational hours and meeting additional needs of students and
parents. This concept may serve as a benchmark study for making decisions regarding the length of the school day and appropriate course offerings.

This study is of particular interest to the Portsmouth Public School System because an assessment of student performances and attitudes could prove beneficial as school improvement teams collaborate to develop and refine school improvement plans.

Statement of Problem

The research problem is one of investigating the effects of an urban middle school holistic dropout prevention program (CAPP) on the academic achievement, attendance, self-concepts and attitudes toward school, and conflict resolution skills of potential dropout students. Students are identified for program intervention based on school performance risk factors such as low grade point averages and low Iowa test of Basic Skills achievement scores, chronic or persistent absenteeism or continuous cycles of in and out of school suspensions. These school performance factors have been cited in a number of studies as predictors for school dropouts. Rumberger (1983), Barber and McClellan (1987), the Urban Superintendent's Network (1987), and Vaughan (1991) rank achievement, attendance, attitudes, and behavior problems as significant for predicting school dropouts. The study examined how CAPP participants compared to at-risk students.
who did not receive dropout intervention and at-risk students who received only academic remediation during regular school hours.

The research focused on three defined groups. The Cradock At-Risk Project participants comprised the first group. Subjects in this group were at-risk students at Cradock Middle School in Portsmouth who participated in the Comprehensive or holistic after school dropout intervention. A second group was selected for comparison from one of the intact split grade level classes at Hunt-Mapp Middle School in Portsmouth. Students scheduled for this class did not receive dropout intervention. This group was classified as a control group. A third group was selected for comparison from students in grades six, seven and eight who had been assigned to a basic skills remediation self-contained class known as "Bridge" at Churchland Middle School in Portsmouth. The "Bridge" class offered some academic remediation intervention. The at-risk characteristics for all three groups selected were based on one or more of the following: grade retention, low-achievement in current academic subjects, low Iowa Test of Basic Skills Composite scores, poor attendance and persistent behavior problems. Most students demonstrated a combination of these traits. The study examined post intervention measures of all three groups to ascertain whether or not significant differences existed between and within the defined groups.
Specific Research Questions

To investigate the problem, the following research questions were addressed:

1. Do differences exist in the academic performance between Portsmouth Middle School at-risk students who participate in the CAPP holistic intervention, those who do not participate in dropout intervention, and those who participate in an academic remediation intervention?

2. Do differences exist in the school attendance between Portsmouth Middle School at-risk students who participate in the CAPP holistic intervention, those who do not participate in dropout intervention, and those who participate in an academic remediation intervention?

3. Do differences exist in the attitudes toward self and school between Portsmouth Middle school at-risk students who participate in the CAPP holistic intervention, those who do not participate in dropout intervention, and those who participate in an academic remediation intervention?

4. Will Portsmouth Middle School at-risk students who are involved in the CAPP holistic intervention
have fewer suspensions than those who do not participate in dropout intervention, and those who participate in an academic remediation?

**Definition of Terms**

The following terms were relevant to this research.

1. **Academic Achievement** - Students' grade point averages as reported at the end of grading periods in school records. Also included in academic achievement were Iowa Test of Basic Skills Composite total scores.

2. **Attendance** - Summation of the number of days absent from school, as indicated by percentage of absences.

3. **At-Risk Students** - For the purpose of this study, at-risk students were identified in terms of school performance characteristics. Students in this group demonstrated one or more of the following characteristics: behind in grade or failing current academic subjects, scored below the 50th percentile on the Iowa Test of Basic Skills composites, demonstrated disruptive behaviors and developed patterns of persistent or excessive absences.

4. **Bridge class** - An intact self-contained basic skills remediation class for students in grades six, seven, and eight at Churchland Middle School in Portsmouth.
5. **CAPP** - The Cradock At-Risk Prevention Project is a comprehensive dropout intervention program at Cradock Middle School in Portsmouth.

6. **Conflict Resolution Skills** - Techniques or strategies developed to manage personal and social conflicts as indicated by scores on subscale 4 (Sense of Control Over Performance) of the School Attitude Measures and the number of in and out of school suspensions.

7. **Dropouts** - Those students who exit a formal education program before completing the necessary requirements for high school diploma. The federal government has defined a dropout as "a student who leaves school, for any reason except death, . . . who has been in membership during the regular school term, and who withdraws . . . before or after compulsory school attendance age (U. S. Office of Education, 1974, p. 117)."
CHAPTER II
Review of Related Literature

The literature reviewed in this chapter provides a theoretical framework for conducting the research presented. The review first provides an overview of traditional strategies and practices that have been instituted for at-risk students at state and national levels. Secondly, the review addresses the needs of at-risk students at the middle school level. Thirdly, it explores the middle school comprehensive and holistic program concept for dropout prevention. The fourth and fifth topics identify school related and attitudinal factors that are most often associated with potential school dropouts.

Traditional Strategies and Practices for Dropout Prevention

The movement towards educational reform has returned education to the forefront of policy discussion at both state and national levels. The most recent evidence of this interest is the national education goal number two, which states: "by the year 2,000, the high school graduation rate will increase to 90 percent" (Department of Education, 1992). However, as with all widespread movements, this reform effort
has its own direction and momentum; while it directs to certain problems in school curricula, it fails to apply strategies to address the growing numbers of students who are at-risk of dropping out of school. And yet, there are those in society who wonder why the dropout rate continues to rise. In the wake of resolving the dropout dilemma, two questions prevail. First, what has been done previously to benefit the students who are at-risk of dropping out of school; and secondly, where do educators go from here?

Sequential skill-based and pull-out programs for at-risk students.

Traditionally, educators in America’s public schools have dealt with the at-risk population through isolated instructional strategies and programs that have been geared toward minority and disadvantaged students. For example, for over a quarter of a century, the at-risk child spent enormous amounts of time in compensatory skilled-based programs such as Chapter 1 and similar pull-out projects. Such programs have often been labeled as remedial in nature and have stressed a hierarchial development of basic skills. According to Knapp and Shields (1990), the underlying premises of the sequential skills-based programs are: 1) that certain skills are basic and must be mastered before advanced work can be introduced 2) that these skills can and should be taught one at a time and often in isolation from the activity to which they relate,
such as reading a story, writing a poem, or thinking through a new mathematic problem. After assuring mastery of the material presented in the classroom, the student moves into the next level of the hierarchical skills continuum (Knapp and Shield, 1990, p. 155). According to Deaten and Blair (1992), sequential skills-based programs insure only a minimal education. Attention is limited to the student’s passage of some type of basic competency test. Additionally, they fail to offer the freedom to build upon the interests of the students and accentuate their strengths. Deaton and Blair caution that "this kind of learning may, in effect, actually retard rather than enhance the progress of at-risk students" (p. 159).

Statistics show that 54 percent of all at-risk students have been pulled out of their non-academic and core courses and given state mandated remedial English or Mathematics. Chalker (1992) maintains that pull-out remedial work is not a good idea for middle schools because students involved find themselves in a strict academic regime of courses at a time when diversity and flexibility are needed to improve motivation, self-esteem, and attitude (Chalker, 1992, p. 139).

While most isolated or pull-out at-risk programs tend to concentrate on enhancing English and Mathematic skills, a moderate number have emphasized the value of using the arts and technology in working with at-risk students. Zenger (1992) acknowledges the Wil Lou Gray Opportunity School in
Columbia, South Carolina for its initiative in motivating at-risk students to want to stay in school. The Columbia program allows students to explore their interests in a creative process. This process involves a combination of artistic activities such as painting, weaving, music, mime troupes, poetry, and acting. Teachers work with students to inspire them and to develop critical thinking skills. School authorities expect that these skills will be transferred into the basic skill classrooms. Although Columbia teachers have commented that the arts program fosters a non-threatening environment that stimulates creativity and communication among students with poor socialization skills and poor grades, they have suggested that students could benefit from a more integrated approach to dropout prevention. Of particular importance to teachers involved in the project is the need to integrate community and parental involvement components (Zenger, 1992, pp. 185-186).

Tracking and ability grouping for at-risk students.

Another traditional strategy often used for working with at-risk students is tracking. This concept of grouping students according to ability level has received consistent criticism in at-risk literature. Slavin (1993), in the article "Ability Grouping in the Middle Grades: Achievement Effects and Alternatives", reports on his analysis of some 27 studies of ability grouping in the middle schools. Studies
selected for his research had to meet methodological criteria of random assignment or matching of subjects, the use of experimental and control groups, achievement measured by standardized tests, comparison of at least three classes and a time period of at least one academic school semester. The results of Slavin’s investigation reveal that ability grouping for academic achievement does nothing to raise the achievement level of at-risk student at the middle school level. Studies by Noland and Taylor (1986), George (1988), Oakes (1988) and Kulik (1992) have substantiated that ability grouping has little or no effect on the achievement of at-risk middle school students. They maintain that all forms of ability grouping are equally ineffective in all subjects. George (1993) adds that except for situations in which a group of students receive the very best learning situations, ability grouping fails to deliver academic success. He concludes that it is not the act of grouping which delivers the benefits for those at-risk, but the collaboration of the resources devoted to the achievement process (George, 1993, p. 20).

**Vocational education for at-risk students.**

One of the most popular practices for assisting students who may be at-risk of dropping out of school is vocational education. Kennedy (1988), discusses how vocational education programs have been expanded in many school districts. He contends that vocational education is an important educational
strategy for at-risk students and should be a key factor in our national effort to keep students in school and assist them in becoming productive citizens in society. According to Kennedy, vocational programs offer at-risk students training and skills that can be used for lifelong employment. He cites one high school in Philadelphia that has expanded its vocational components by working cooperatively with local industries to provide at-risk student skills in automotive mechanics, electronics, business, or health. The industries also provide students with paid jobs after school or during the summer, and place students in full-time positions after graduation. Assessment of the Philadelphia program indicate that almost all enrollees complete the program and 85 to 90 percent are placed in full-time jobs, join the military, or continue their education after graduation from high school. Vocational programs that involve the participation of industries have been successful for students in Cincinnati, Baltimore, and other large urban cities where the dropout rate exceeds the national dropout average (Kennedy, 1988, pp. 34-35). Weber (1988), in agreement with the benefits of vocational education for at-risk students, points out that longitudinal studies comparing school dropouts with completers have found a positive correlation between participation in vocational education and high school retention. Using the Dynamics of Secondary Classroom Profile, Weber concluded that an undimensional academic curriculum employed by most districts
falls short of meeting the needs of all students (Weber, 1988, pp. 36-37). Imel (1993) affirms the belief that vocational programs can encourage at-risk students to remain in school. She supports Kennedy's thesis that vocational programs, when implemented properly, can prepare at-risk students for lifelong jobs. According to Imel, vocational components offer students a choice among options such as a vocational education curriculum, job shadowing, community-based education, work experiences, and business enterprises.

In as much as vocational education has been an integral part of the high school's solution for dropouts, the literature indicates that it has not been overwhelmingly favored for a middle school mainstream setting. Morrow and others (1987), in an evaluation of a Pittsburgh middle school one-year vocational intervention known as Occupational and Academic Skills for the Employment of students (OASES), provided some evidence that middle school at-risk students are not inspired by vocational education. The study sample consisted of 502 former participants of OASES and 148 active participants who were compared to a control group of 157 students on perception of school, academic achievement, and school attendance. The Piers-Harris Children's Self Concept Scale and the Multi-Dimensional Measure of Children's Perception of Control were administered to active participants. Additionally, classroom grades and attendance rates were compiled. The results revealed that participants of OASES and
non-participants were comparable in terms of dropout rates. It was further determined that participants of OASES demonstrated declining grades in mathematics and reading after the first year of intervention. Similar results have been discovered by Snyer and Blis (1991) and Steinmiller and Steinmiller (1991). In an investigation of vocational educational programs for middle school age students, these researchers examined the impact of pre-vocational work skills courses and job opportunities on academic achievement. They concluded that the focus on job skills had no impact on student grade point averages or standardized test scores.

**Employment opportunities for at-risk students.**

The inclusion of Education for Employment (EFE) in middle and high school curricula has offered yet another strategy for helping at-risk students to become more successful in school. A national project that falls under the umbrella of Education for Employment is the Cooperative Federations for Education Experiences (COFFEE). According to Justiz and Kameen (1987), COFFEE is an alternative occupational training concept that offers computer-related and other work experience curricula to students who drop out of school in Oxford, Massachusetts. A three year assessment of the project revealed that 23 of 135 Oxford dropouts who participated in COFFEE were back in high school, 5 received diplomas, 57 remained in the program, and 19 had either left for full-time jobs or joined the armed forces.
forces. In contrast, all members of a comparison group remained out of school.

More recently, the National Dropout Prevention Center at Clemson University and the Center on Education and Training for Employment at Ohio State University have combined resources under funding from the United States Department of Education Office of Vocational and Adult Education to institute a national project known as Lifelong Options Programs (LOP). The project, initiated in 1992, is a replicate of project COFFEE. The project involves six components: 1) applied academic instruction 2) innovative occupational instruction 3) intensive counseling 4) employability instruction 5) life-coping instruction and 6) teambuilding and self-esteem activities. The LOP national project has been implemented in large southeastern urban cities with high dropout rates. Summative evaluation data is being compiled at the federal level. Proponents of the LOP project anticipate that this national education for employment incentive will make a difference for at-risk students targeted for intervention.

Alternative schools for those at-risk.

A vast number of states with high dropout percentages have resulted in developing alternative schools as a means to assist students who are at-risk of dropping out of school.
Florida, which has the dubious distinction of having the lowest graduation rate of the nation, now targets at-risk elementary students for alternative school placement. In St. Petersburg, the Pinellas County Challenge School is designed to impact problem areas for students in the fourth and fifth grades. According to Ratliff (1992) teachers at the St. Petersburg school utilize a positive action affective curriculum to assist children in developing social skills and self-esteem. The improvement of student behavior is a major emphasis of the school. The program also offers a career and computer lab for reinforcing reading and writing skills, intensive counseling and student assistance, and a parent and community involvement component. Though long term effects of the challenge school has not been ascertained, a formative evaluation has revealed that 17 of the 18 fourth grade students who initially entered the school were able to achieve their academic goals and were promoted to the fifth grade after one year of intervention (Ratliff, 1992, p. 129).

The use of alternative schools for serving at-risk students has been practiced by a number of districts and for students of all ages. However, most focus on providing an alternative program for middle and high school students. Two middle alternative schools that have received national recognition are the Howard Alternative School in Georgetown, South Carolina and the Phoenix, Arizona Center. Both schools house students from 13 years old and up who demonstrate poor
academic performance and poor school attendance. School curricula emphasize the cognitive, affective, and vocational development of each student (Ingle, 1992). Teachers are encouraged to rely less on textbooks and more on interactive strategies. Program objectives include improving self-esteem, basic skills, and developing career awareness. Statistically, no positive assessment can be attached to these alternative schools, however, teachers at the schools maintain that they have observed small increments of progress in students behavior (Ingle, 1992, p. 172). Although, the use of alternative schools has been widely practiced, a major concern being articulated by district superintendents has been program cost. Simply put, many school districts can no longer afford to operate alternative schools.

Alternative education for at-risk students.

A substantial number of at-risk programs have evolved into a school within-a-school approach to dropout prevention. According to Getse and Ehrle (1992), the school within-a-school concept offers at-risk students an alternative education option within a traditional educational setting. Students are identified as at-risk, based on school related factors and assigned to a self-contained classroom or team of three to four core subject teachers. The Waukesha, Wisconsin and Fayetteville, Georgia school districts have been recognized as pioneers in the use of the school within-a
school approach to dropout prevention and have experienced a moderate amount of success in academic achievement, school attendance and behavior. Even so, there is growing concern among educators that students involved in the at-risk program may once again fall into the pull-out and tracking modes of ability grouping. There is also concern that without adequate and consistent funding, school districts may not be able to provide adequate staffing and staff development. One evidence of the need for financial support is noted by Phillips, White, Dirring, Floyd and Helvig (1992) in their assessment of the Fayette County Learning Opportunities (LO) school within-a-school at-risk program. According to these researchers, the LO program was implemented during the 1989-90 school year. The objective of LO at that time was to assist ninth grade students, who had performed poorly in academic achievement and school attendance, in improving their basic skills. Staff development and personnel were the key components of the program. However, because of budget constraints, these components were not developed, and program results were said to be insignificant during the first year of implementation. During the 1990-91 school year, additional funding of approximately 60 thousand dollars were allocated, thus allowing for teacher in-service and a more comprehensive approach to working with the at-risk students. During this period, 96 percent of the students enrolled in the LO project passed English as compared with 63 percent in the 1989-90

Welch and McKenna (1988) discuss similar successes by students who participate in the Kinstrown, Rhode Island school within-a school project. They point out that the Rhode Island project emphasizes parental involvement in delivering programs to at-risk middle school children. When student's academic achievement returns to specified levels, they have the opportunity to return to their regular classrooms.

Guthrie and Guthrie (1989) caution that although the school within-a school concept has received substantial support in recent years, school-community collaboration has been lacking in many of the initiatives. They conclude that schools must rely on the involvement of business and community agencies to make their school within-a school projects successful, and thus, they advocate a more comprehensive and holistic approach for the school within-a-school concept.


Finally, in the quest to resolve the dropout dilemma, educators have looked to the establishment and implementation of policies and practices. Unfortunately, a number of the policies and practices that exist in educational systems today do not effect motivation for all students; and in many instances, they serve as stumbling blocks. In an article in the Virginian Pilot, Simpson (1989) poses the question of
whether or not the increase in Virginia's compulsory attendance age policy would have an impact on the dropout rate in Virginia. According to Simpson, the consensus is that the change in the minimum dropout age from 17 to 18 years old will do little to keep students from dropping out of school because the greatest problem with dropouts stems from students who are 13 to 15 years old.

The impact of policies on the school performances of at-risk students has been examined in studies. Tanner (1989), in his research on educational policy and the at-risk student developed and tested three null hypotheses: 1) there is no significant difference among race/ethnicity categories and the degree that higher academic standards have increased the dropout rate; 2) there is no significant difference among race/ethnicity categories and the degree that the extended number of school days have increased the dropout rate; 3) there is no significant difference among race/ethnicity categories and the degree that the extended school day has increased the dropout rate. Tanner's study included 2,755 high schools and represented eight states having a high percentage of at-risk students. A questionnaire instrument was used to collect data and was completed by school principals who were randomly selected. His findings revealed that on all three policy issues, the null hypotheses were rejected. Approximately 2,870 of the schools investigated
showed increases in dropout rates that were tied to increases in academic standards.

Wheelock (1986) affirms the belief that policies and practices regarding academic standards have only assisted in adding to the dropout problem. She suggests for example that rigid policies on attendance, suspensions, and non-promotion at McKinley Middle School in Boston, Massachusetts may have encouraged at-risk students to drop out of school. In a study to determine the impact of the McKinley school policies, school data on absentees, discipline and retention were reviewed, and students were interviewed. Findings of the study revealed that one out of every ten students was suspended annually, and African Americans and Hispanics had higher rates of absenteeism, retention, and suspension than the general school population. In short, at-risk students became more at-risk when more stringent requirements were implemented.

Summary of traditional strategies and practices.

Clearly traditional at-risk programs, strategies, practices and policies are in place in every city, county, and state in the nation. Some schools have at-risk programs that practice sequential skill-based strategies; others have pull-out programs in language arts, math, science, and social studies. Some school districts offer alternative educations for students at-risk of dropping out of school, while others
offer alternative schools. Yet, in a large number of educational settings, academic achievement continues to fall, absences and behavioral problems are on the rise, and the propensity towards dropping out of school is increasing. These sustaining issues bring to focus the second question posed earlier in this chapter: where do educators go from here?

Nationally, American educators are at a point in time in which the concern for meeting the needs of at-risk youth is receiving a significant amount of attention. DeBlois (1989) points out that the focus on dropout prevention should be aimed at meeting the needs of at-risk youngsters before they reach the high school level. He theorizes that educational programs for at-risk youth should embrace the concept of expanding curricula to address, with greater specificity, the physiological and psychological needs of these students (DeBlois, 1989, ps. 10-11). Frymier and Gansneder (1989) support the idea of addressing the needs of at-risk students via expanded curricula. They further note that when needs are not adequately addressed, at-risk students will likely fail in school or in life. With this idea in mind, it is paramount that educators first scrutinize the needs of their students, and secondly employ the kinds of strategies that will best address these needs.
Addressing The Needs of At-risk Middle School Students

One of the most important functions of an effective middle school program is to meet the physical, emotional, social, and intellectual needs of early adolescence. In this regard, at-risk student do not greatly differ from other middle school students. The critical difference is that at-risk students need specific individualized assistance with their academic skills and a warm and nurturing advocate to help them to achieve success in school (Rugg, 1993). A number of educators advocate that the way to address these needs is through the connection of teaching styles to learning styles.

The extent of identifying teaching styles to address student’s needs is not a major concern for this study. However, it must be recognized that when the focus is on addressing student’s needs, nothing is more integral to at-risk learners than effective teaching strategies. Farris (1990) notes that it would be ideal to have classrooms full of students who are eager to learn. However, in a "real" school environment, students come to their classes with different levels of needs. Teachers must therefore integrate strategies that connect teaching and learning styles so that student’s needs can be met.

One study that links dropout risk needs to effective teaching strategies is the Reidsville Middle School Dropout Prevention Project. This case study attempts to identify effective teaching strategies that will increase the academic
success of at-risk sixth grade students and expand the use of these strategies among the entire teaching staff at the middle school (O’Sullivan, 1990). The study points out that teachers often experience frustration in working with at-risk students and are quick to place the blame on students, parents, and community for the lack of achievement. Though parents, community, and students have their share of responsibility in the educational process, teachers play the key role in controlling or influencing student’s academic success. The Reidsville project emphasized innovative teaching strategies in math and science. During the first year of program intervention, students were randomly assigned to either the experimental or control groups. At the end of the year, the project’s staff agreed that the 23 students assigned to the experimental group had benefitted in math and science skills.

Theories regarding physiological and psychological needs have been documented. Farris (1990) suggests that educators in the middle school should employ the works of Glasser’s Control Theory and use it as a tool to make the connection between students’ needs and at-risk strategies for improving performance in school. Inclusive in these needs are the need for survival, belonging, power, freedom, and fun (Glasser, 1984). Although the need for survival can not be directly met in the school, it can be recognized and considered by educational program designers. Educators can play a role in this area by getting parents more involved and by soliciting
support and services from the community. Educators can incorporate a number of strategies to address the need for belonging. These may include creating an acceptable climate, creating ownership, giving praise, group and cooperative learning activities and conflict resolution skills. According to Glasser (1984) the needs for power and freedom can be addressed by allowing students to share in responsibilities, encouraging success, providing student-centered activities, offering program choices, involving students in rule-making, and providing opportunity for expression and creativity. Additionally, educators should provide opportunities for students to engage in the need to have fun. Glasser (1984) points out that this need can be addressed by affording students the opportunity to engage in wholesome recreational activities and display humor.

Tidwell (1988) provides support of Glasser's theory and adds that addressing the needs of the at-risk is crucial in the prevention of dropouts. Having interviewed almost 400 students on the question of why they dropped out of school, he concludes that students experience varying degrees of unmet needs which generally fall under the category of social or psychological. Examples of these unmet needs include: feelings of alienation in school and inferior social and communication skills. The study also reveals that because of these insecurities, students who drop out of school seldom, if ever, participate in extra curricula activities and
consequently find themselves coping with boredom during the course of the school day. Tidwell points out that few inexpensive opportunities for recreation are available to adolescents in the United States, as compared with other counties, particularly at the middle school level. Thus, school dropout intervention must address this concern (Tidwell, 1988, p. 940-941).

The focus on student's needs is indeed critical to the design of middle school at-risk programs. The research suggests that a moderate number of dropouts fail to complete school because traditional school programs are not comprehensive enough to meet all of their needs. To this end,

"Schools that are effective in educating at-risk youth not only match intervention strategies in response to differences in student needs, but also recognize some basic psychological needs" (Quinn, 1991, p. 76).

**Nurturing the psychological needs of those at-risk.**

Probably the single most critical factor in reducing the number of dropouts is an effective and caring teacher.

"No innovative program can replace the work of talented and dedicated teachers who make it their business to see that each of their students succeed. Students on a collision course with dropping out need special attention" (Grossnickle, 1986, p. 22).

They need school staff members who care for them and who will enjoy working with them (p. 22). Joyce Wiggins, the 1993-94
Portsmouth Middle School Teacher of the Year, agrees with the philosophy that students need teachers who care. She writes:

"Teaching is a gift of love that one extends to a significant other. It strives to help, not hurt. It seeks to understand not judge. It speaks with kindness, not vengeance. It exhibits patience, not indifference . . ." (Wiggins, 1994, p. 2).

One consistent criticism of the traditional secondary school is that the instructional environment does not adequately embrace the personal care and consideration that today's at-risk adolescence need. Sansone and Baker (1990), in a study on at-risk identification in Pittsburgh, examined the school experiences of ninth grade students. The purpose of this study was to explore school experiences of students to contribute to the knowledge base about students at-risk for dropping out of school. Data were collected from ninth grade students, school personnel, and student's school records. As expected, the researcher's results revealed that students perceive high school as impersonal. This study is supported by earlier reports from Wehlage (1986) and Maeroff (1988). They postulate that a climate which provides a caring and supportive environment that focuses on individuals is necessary for at-risk students. Maeroff further contends that traditional secondary schools are often impersonal institutions with "dispirited atmosphere which discourage learning" (Maeroff, 1988, p. 632). The following account by Norman Chansky best puts the concept of a nurturing and caring environment in perspective.
"As even the best 'seeds' must have suitable soil and adequate moisture to sprout and flourish, so too, must the school provide a nurturing environment for learning to flourish. Administrators must establish a learning climate that meets the particular needs of every student. Even with unfavorable home circumstances, students can succeed when teachers provide personalized attention ...", (Grossnickle, p. 24).

Research yields information about middle school students and their need to begin an emancipation process. According to Eichhorn (1987, p. 42), middle school students begin to depend less on parents as their base for personal security, interests, and values. Subsequently, the security base is transferred to their peers. Unfortunately, the emancipation process may be greatly enhanced for at-risk middle school youngsters. If the process is allowed to accelerate, schools may lose these youngsters too early. A challenge then for middle school education is to sponsor activities which are accepted and supported by parents and students, but do not depend on parental supervision. School at-risk programs would do well to sponsor activities that offer students opportunities to make choices or decisions, and to be responsible individuals.

The striking fact that middle school students are capable of assuming responsibility for self and others is well exemplified. Robledo (1990), in her study on dropout prevention strategies for at-risk, concurs that developing a sense of responsibility is important for at-risk youngsters. She maintains that a sense of responsibility can help students
heighten their self concepts and attitudes toward school (p. 256). Robledo's study allowed at-risk middle school students an opportunity to serve as tutors for elementary students. Her evaluation employed psychometric measures and surveys of 74 seventh and eighth grade students who participated in the after school project and 92 middle school students who served as a comparison control group. After two years of program intervention, this researcher found that the impact of the project on school dropout predictors was positive. Reading grades and academic achievement test scores improved. In addition, teachers observed that more students in the experimental group developed career goals.

In light of the fact that students will leave the middle school and go on to a more impersonal departmentalized senior high school, middle school education must combine activities that address the social, psychological, physical, and educational needs of all students. It must provide the kinds of interventions that will help students to successfully prepare for the high school setting without vastly changing the basic structure of the high school. Without such interventions, schools may lose students who are most at-risk by their first year in high school (Ascher, 1987).

In the process of addressing the aforementioned needs of at-risk students, a substantial number of educational researchers have called for a commitment among the school and community. In response to this call, comprehensive and
holistic approaches to dropout prevention are being explored by school districts across the nation, and more often associated with middle school curricula.

The Middle School Focus and Holistic Dropout Interventions

For the past few years much has been articulated about at-risk students. Unfortunately, little has been done to assist these students at the middle grade level. Middle school educators maintain that there is perhaps no other level of experiences in the educational flow more influential than the middle grades. Eichhorn (1987) reintroduces the term "transescence" with regard to middle school students, and attaches the following definition.

"Transescence is the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence" (Eichhorn, 1987, p. 3).

Kohut (1988), adds that transescent children grow more and faster than other children. Although their performance fluctuates, they are eager and able to learn. They often display emotional, erratic, inconsistent, and unpredictable behaviors. They are highly dependent on peer group acceptance and praise rather than adult approval.

These same characteristics are reiterated by Evans, Gatewood, and Green (1993). They also note that the self-concept of the young middle school adolescent is very fragile and undergoes many "zeniths and nadirs" (p. 4).
The characteristics of middle school age students reveal that they are most vulnerable to peer pressures during this period in their lives. Problems such as truancy, misbehavior, low self-esteem, experimentation with drugs and other substances, sex, and violence were once problems associated with high school students, but are now common at the middle school as well. Therefore, there is a paramount need to focus on interventions for students at the middle school level.

Dawson (1987) theorizes that without attention to those most vulnerable to peer and social pressures, most efforts for preventing students from dropping out of school are reactive rather than proactive. He maintains that the challenges of helping today's at-risk middle schoolers seem overwhelming, but they can be met. To substantiate this thesis, Dawson describes how Fleming Middle School in Grants Pass, Oregon developed a broad-based comprehensive program to meet the needs of the potential dropout students. The key to the Fleming project is that no single component is designated to be the "cure-all" for at-risk youngsters. The components of this holistic approach to dropout prevention and intervention include a formalized identification process that involves teachers, counselors, parents, administrators, and outside agency professionals. Other components involved are a school-wide discipline program, a three year advisory program, a secret pal program, a youth service team, an early work experience program, counseling and student contact time,
retention intervention and goals for removing labels and promoting self-concept. Documentations on the Fleming model reveal that the comprehensive program has been quite successful. Referrals for minor school infractions have been reduced by twenty-five percent. The early work experiences of some students have enabled them to obtain employment through high school. A number of students have been recognized for improvement in self-concept and attitudes toward school. Additionally, the number of retainees has dropped dramatically since the program began (Dawson, 1987, ps. 84-88).

Nevetsky (1991) recognizes the North Brunswick Township School District in New Jersey for committing itself to an ongoing holistic and comprehensive plan aimed at reducing the number of at-risk students and providing some of the services that troubled middle school adolescents need. The program, "Operation Transition", initially set out to improve student achievement by improving student discipline. However, as the program expanded and adjusted, other factors in the profile of the at-risk student became evident. Each of the students involved in the program was coming to school with a multitude of distinct problems such as: pregnancies, dysfunctional homes, substance abuse, and physical and mental abuse. Since these situations were found to affect the student’s behavior, performance and attitude in school, the program was further developed. Expansion of the program included intensive counseling for students at-risk, involvement of parents, and
a tutor/mentoring component. After one year of program intervention, 17 of the 36 students who initially started the program improved academically, and went on to the next grade level.

Rogers and Wildenhous (1991) offer three guiding principles for school personnel who are planning to implement dropout preventive programs. Their first principle is that since achievement of one goal affects achievement of others, a holistic approach to program planning should be employed. Secondly, they point out that because program tactics seldom have equivalent value, priority should be given to those who have the greatest potential impact for the largest number of youngsters. Thirdly, they point out that in as much as tactics most likely to have impact are those prized by the persons expected to implement them, teachers should be involved in the planning process (pp. 1-6).

Mann (1989) discusses some of these same principles and adds that dropout prevention programs should give students a chance to succeed and promote a sense of personal responsibility. According to Mann (1989), effective programs for dropout prevention at the middle school level, should employ a comprehensive approach to dropout intervention. Inclusive in this approach should be:

* providing an instructional environment that models care and concern for all students.
* providing instructional emphasis that lend additional
resources and time. The program should maximize the services of community and business agencies.
* using data to personalize instructional lessons.
* celebrating both academic and non academic accomplishments.
* providing opportunities for recreation and fun.

Herbert (1989) agrees that dropout prevention should be encompassed in a holistic approach of effective school strategies. He postulates that there should also be a collaboration with community agencies because dropout prevention cannot be an isolated effort undertaken by the school. Herbert (1989, p. 86) cites a 1985 school-based collaboration dropout prevention study in the New York City Schools that was credited for keeping thousands of students in school. The New York project maximized the services of community, business, and industrial agencies. Representatives from these sectors were assigned to participating secondary schools. In collaboration with school personnel, they planned and implemented strategies for reducing the number of dropouts. Plans were developed based on school needs. Some schools focused on attendance, achievement in reading, math, science, and school climate. The team managed the budget and provided human and financial resources to aid in goal accomplishments. After three years of intervention, significant improvements were reported in dropout rates across
schools. Prior to the Dropout Prevention Program (DPP) intervention, 42 percent of the students in New York City Secondary Schools dropped out before graduation. (Herbert, 1989, pp. 86-87).

The trend to extend beyond the scope of the schools for resources has been documented by other states. Hartford Connecticut has completed a ten year long effort aimed at dropout prevention for middle school age students. The program, titled "BRIDGE", is a multifaceted program that focuses on reducing the disengagement of at-risk students facing transition from middle school to high school. The program provides school attendance incentives, counseling, and academic support options for participating students. Although program enhancement in community involvement and mentoring strategies is being recommended, very favorable retention results have been achieved (Hartford Public Schools Research, 1991).

Hovland (1990) also advocates the integrated program approach for dropout prevention. According to Hovland, the overall instructional goal of any educational organization is to develop a comprehensive program that will allow middle school students to maximize their intellectual, physical, emotional, moral, and social capacities. He recommends that middle school staff develop well-structured and well thought out activities that complement and assist in achieving the goals of the total school. He further implies that
participation in such initiatives should include recreational activities that extend beyond the realm of school operating hours. Hovland shares that at Stillwater Junior High School in Minnesota, 80 percent of the student body became involved in after school program activities in 1990. During the season when students were involved, discipline problems dropped, attendance increased, academic achievement of participants increased, and out of school problems decreased dramatically. He concludes that there is a positive link between academic achievement and involvement in activities beyond the school day. The key is that the recreational and cocurricula programs must be all inclusive and should provide for a measure of success for every student.

The link between extended school day activities and school success for at-risk students has been established in a moderate number of studies. Eighty percent of the principals who attended the 1989 Missouri Association of Secondary School Principals spring conference concurred that by extending school hours, students have the opportunity to complete homework and projects that they might not get to at home. (Dorrell, 1980). Studies by Slizak and Bils (1988) and Nardini and Antes (1991) support what the Missouri principals have shared about comprehensive extended school hours dropout-risk programs. Hale (1993) provides documentation on the differences in school related performances of students in an urban middle school before and after an extended school day.
dropout intervention. The project known as CLUBS engaged at-risk students in a holistic dropout approach that strongly emphasized the building of self-esteem. Program activities were carried out before school started on three days per week. The objective of the project was to enhance self-esteem through student involvement in the school. A number of school activities were made available to students. School assembly programs were designed to include more students. In addition, teachers initiated a variety of activities and school sponsored clubs. Some of the activities involved overnight field trips. The Communicating, Learning, Understanding, and Believing in Self (CLUBS) strategy made a difference in the attitudes and performance of the students. Reports indicated that average daily attendance increased from 92.4 percent in 1988-89 to 93.2 percent in 1990-91. Teachers noticed that more students were volunteering to help with service projects and assisting others. Although suspensions for fights did not decrease drastically, there were more instances of conflict management sessions with peers and counselors. Some students commented that they also saw certain changes in teacher attitudes as a result of the project. Those interviewed felt that teachers were more understanding and sensitive to their needs and interests (p. 25). The literature, though limited in terms of middle school dropout holistic initiatives, is consistent in the belief that at-risk middle school students need multiple instructional strategies and resources if they
are to be successful in school. Middle schools, as they exist, can not adequately address all the needs of at-risk youngsters. For far too many students are becoming at-risk. In response to the at-risk explosion, dropout interventions for middle schoolers must be encompassed in comprehensive and holistic strategies that will impact on school dropout predictors, and ultimately assist students in becoming more successful in school.

School Related Factors To Dropouts

Used alone, the term at-risk can not be clearly defined. Levin (1989), for example, postulates that at-risk students are those who lack the home and community resources to benefit from conventional educational practices. He maintains that because of poverty, cultural differences, broken families or linguistic differences, these youngsters tend to have low academic achievement and are more likely to drop out of school.

Richardson, Casanova, Placier, and Guilfoyle (1989) point out that in the case of social phenomena such as school failure and withdrawal, early identification and treatment of those at risk based on social characteristics such as race, class or language are inexact and highly controversial.

Cunningham and Gresso (1993) also discuss the array of at-risk characteristics that exist in the 1990's. They describe the at-risk as those with minimal chances of success
and for whom growing up seems to be "risky business" (p. 13). Cunningham and Gresso articulate further that for these youngsters, the family structure systems have changed drastically. As a result of these new issues, there are growing demands on educators to move education beyond the scope of its traditional boundaries. Additionally, both the "rich and poor" students are experiencing societal handicapping conditions that can easily place them in an at-risk category (Cunningham and Gresso, 1993, p. 13).

In view of the rapidly growing social-risk population, many responses to the term "at-risk" students are being based on identification of these children through school-related behaviors such as low grades and test scores, excessive or persistent absenteeism and suspensions. It must be added however, that the ultimate cause of these school behaviors is still often attributed to background and social characteristics. In short, the students problems are seen as manifestations or symptoms of the characteristics that the students bring to school (Richardson, Casanova, Placier, and Guilfoyle, 1989).

School-related factors to dropping out have been identified in numerous studies. Hoover (1989) refers to a listing that he compiled of about 30 social, scholastic, and personal variables that at-risk students had in common in Washington County (Hagerstown) Maryland. In his research, he employed a quadrant graph to depict dropout categories. The
synthesis of Hoover's quadrant reveal that the more obvious predictors of dropouts were those categorized in the scholastic quad. These predictors include high absentee rate, multiple suspensions, and failing grades.

Attendance.

According to the Office of Educational Research and Improvement Urban Superintendent's Network (1987), the leading factor in the school-related category is attendance. The network affirms that attendance standards are important to urban school districts because students who fail to report to classes can not develop the sufficient skills required for school success. Vaughan (1991) echoes this same concern in his prediction analysis on dropouts and Hegner (1987) shares her affirmation on the relationship of school-related factors and dropouts. She writes:

"Success of the educational process depends on the presence of pupils in the classroom, continuity of instruction, class participation and well planned instructional activities." (Hegner (1987, p. 125).

She also points out that regardless of state and local mandates governing attendance, chronic absenteeism is a serious concern. Hegner (1987, p. 125) acknowledges that absenteeism is a symptom that is generally demonstrated following any number of home or environmental stresses. Examples of these factors include chemical abuse by a family member, sexual promiscuity, lack of home supervision and a breakdown of parent/child communications.
To focus on the home and social issues that confront students and contribute to absenteeism, Hegner alludes to an absentee preventive program that was implemented at the Rochester, Pennsylvania school district secondary level. The basic concept of the project was to determine the needs of students who demonstrated chronic attendance problems and to work with both students and family. During program implementation, conferences were held to determine students specific needs and follow-up calls and contacts were conducted with families. In addition, weekly conferences were held with students and parents, and students were channeled into support situations appropriate for their needs. At the end of each 12 week session, a decision was made as to whether the students could function independently or were in need of further support. According to Hegner (1987, p. 126), once students recognized that their problems were not unique and that they could get help, they began to experience success in school.

A vast number of other studies concur that chronic absenteeism is a leading school-related predictor for who will drop out of school (Vaughan, 1991). The question repeatedly asked is--how can one teach students who habitually aren't there? Ryan (1991) maintains that comprehensive innovations in dropout prevention can contribute to the reduction of student absences. Additionally, he notes that when at-risk students are engaged in programs that complement their learning styles and provide opportunities for enjoyable
experiences, they are less likely to be absent or truant from school.

The influence of middle school at-risk program practices on absenteeism is noted by Quinn (1991), Brubaker (1991) and Herbert (1990). These studies provide indication that school attendance can improve when successful educational alternatives and strategies are integrated in the total school program.

Conflicts and resolutions.

Discipline problems can also alienate some students from the school. Too often detention and suspension disciplinary actions have been determinants in the decisions to "stay in" or "drop out". Traditionally, school officials have disciplined students who failed to conform or comply with discipline policy by suspending them from school for a period of time. The action is a temporary solution for the school because it promotes a more conducive environment for other students to learn. More often though, suspensions further exacerbate the problem of the troubled students. These students seem to fall further behind and become frustrated when they are allowed to return to school. Subsequently, they become more disruptive and continue a cycle of self-dissatisfaction. If the cycle isn't broken, they eventually contribute to the dropout statistic (Stoffner, 1986).
Purkey and Strahan (1986) recommend a more positive approach to discipline. They maintain that successful discipline begins with an "inviting stance of trust, intentionality, respect, and optimism." (p. 7). According to Purkey and Strahan, this concept invites and encourages students to realize their abilities and self-directing powers, and ultimately helps them to manage or resolve their own behavioral conflicts.

Recent emphasis on students' rights and responsibilities have prompted local school districts to take a closer look at suspensions. Although students' rights have been legitimized by our society and educators in general have supported the notion that students should be given a greater role in determining their own destiny, few schools have modified their policies to provide the support required to translate students' rights into successful action (Araki and Takeshita, 1991).

Traditional school discipline methods for dealing with student conflicts or behavior problems have included suspensions as a consequence. However, Bagley (1967) cautions:

"It must be remembered that not every individual needs to be subjected to a penalty in order to ensure the inhibition of his social impulses. The infliction of a penalty is always the last resort, reserved for those cases in which all other means fail ... . The individual must, if necessary, be sacrificed to the mass; but the sacrifice must not be made unless the necessity is clear, nor in any greater degree than necessity demands. (Bagley, 1967, p. 105)."
Curwin and Mendler (1988) also caution that suspension may not be the appropriate solution for resolving conflicts of inner-city students because many of them have already lost hope and have been "overexposed" and "desensitized" (p. 43) to this kind of intervention. They contend that these students expect to routinely get sent to the principal's office for suspension notices. To this end, Curwin and Mendler extend their support of a confrontation resolution dimension for reaching troubled students in school. The conflict resolution approach to discipline encourages school counselors and administrators to listen to and provide for innovative peer and group strategies to assist students in working through their behavior problems.

One student confrontation project that has been acknowledged for assisting students in displaying an important role is the Dispute Management in the Schools Project (DMSP), a three year comprehensive project between the University of Hawaii and the Hawaii State Department of Education. A key characteristic of this project is that student mediators play a role in managing disputes. This project was instituted in a Honolulu school complex. The complex consisted of a high school, a feeder middle school, and a feeder elementary school. The first year of the program was designated for orientation and mediation training of students. Project data were collected during the second and third year of program intervention. Araki and Takeshita (1991) point out that, in
this study, 136 cases of conflicts were mediated over a two year period. Of the cases mediated, 133 cases reached agreements. Only seven of these cases were reported to have broken agreements. The data indicated that student-teacher disputes were also mediated successfully. Among the 136 cases of conflicts, 12 were student-teacher disputes. However, these cases required at least one adult co-mediator. A particular interest to this study is that the data revealed that higher proportions of disputants in the DMSP schools were in grades seven, eight, and nine. Thus, there is a strong implication that middle school level students can benefit significantly from a student mediation program.

Bergmann (1989), in a survey to ascertain how at-risk students perceive discipline and teaching at the middle level, interviewed 220 students between the ages of 11 and 16 in 20 middle schools. All of the students were identified by the principals as "at-risk" in terms of having frequently reported behavior problems. These students were interviewed on eleven questions. On the question of "What do you think should happen to students who act out in class or break other school rules", the number one ranked response was: "listen to them . . . ask them why they did it. Talk to them" (Bergmann, 1989, p. 13). As a result of the survey, peer confrontation became an integral part of programs at the schools where the survey was conducted and was cited as a positive initiative in the communication process.
Academic achievement.

Effective dropout preventive programs should encompass components that seek to address academic needs. A Chicago study on dropouts reveals that the most important predictor for determining the dropout rate at high schools are the numbers of overage students with low reading ability (U.S. General Accounting Office, 1986). In additional support of the achievement factor, a New York study points out that among 5,800 students targeted in 26 high schools, 85 percent had failed a minimum of three courses the prior year and at least half were reading below grade level. Additionally, almost 60 percent of 4,300 middle school students involved in the study failed two or more courses the previous year (U.S. General Accounting Office, 1986).

Low achievement ultimately results in higher retention rates. The idea of being one or more grades behind has been a significant factor in dropout prediction studies. Hahn (1987) maintains that students who have repeated grade levels are up to four times more likely to drop out as students who are working on grade level. An Urban Superintendent's Network report affirms that poor academic performance is the single best predictor of who will drop out of school. The report clearly points out that students who receive failing grades are more apt to quit school than those earning A's and B's. In addition, students who repeat grades stand a greater chance of leaving school before completing high school (OERI, 1987).
The literature suggests that poor academic achievement ranks at the top of the list in the prediction of student dropouts. Poor grades in the core subjects (English, Math, Science, Social Studies) can constitute a low grade point average and lead to retention of grade level. According to Curwin (1992), retained children perform more poorly when they go to the next grade than if they had been promoted without repeating a grade. In addition, dropouts are five times more likely to repeat a grade than high school graduates. Curwin implies that educators can assist students in improving their grades by individualizing curricular and program activities. He further articulates that administrators can establish a multitude of interventives to reduce the rate of retention. Curwin concludes that these activities can be set up at both the school and classroom levels.

In addition to seeking dropout risk intervention at the school level, cities are exploring models for seventh and eighth grade students who are possible candidates for dropping out and committing crimes. Project IMPACT, which stand for Interactive Mentoring and Peer Tutoring for Atlantic City teenagers, has received noteworthy recognition for its initiative in working with young teenagers at extreme risk. The IMPACT program, as described by Emmons (1992), is collaboratively run by Richard Stockton State College and the Atlantic City Board of Education. The program seeks to keep young people off the streets and in school by enriching their
education, building their self-esteem, and strengthening their network of support. According to Emmons (p. 218), academic achievement is highly emphasized in this project. Students are given specialized instruction in the core subjects. Of key to this project, is the incorporation of a mentoring and tutoring component. Students involved in IMPACT are selected based on the following factors:

* excessive absenteeism and tardiness
* disruptive behavior
* academic performance
* poor self-image
* lack of social skills
* conflicts at home and with peers
* low socioeconomic status (p. 218).

Project IMPACT’S mission echoes the view of the American Association of School Administration in Student At-Risk: Problems and Solution (Brodinsky and Keough, 1989) that successful at-risk interventions offer an alternative education, though not necessarily an alternative school. The IMPACT project has received wide spread recognition in New Jersey and is being considered for implementation at other sites.

The use of standardized test scores to measure academic achievement has been argued by political and educational leaders. Nonetheless, standardized test such as the Iowa Test of Basic Skills are employed in most states in the nation. In
1991, President Bush called for a national test of student achievement and the Governor of California signed into law a plan for a statewide test of all students (Curwin, 1992). Pipho (1988) provides the best rationalization for standardized testing. He writes:

"The politics of testing, due to the demands for accountability, have strong implications for what we teach and how we teach it . . ." (Pipho, 1988, p. 278).

At risk students are particularly sensitive and insecure when taking standardized tests. Low achieving students feel that they can not meet the standards of the tests and may give up trying. They perceive that the testing system is being used against them (Curwin, 1992) With this in mind, a goal of dropout risk intervention is to integrate ideas and strategies that will help to reduce testing phobia. This alone, may enable at-risk students to give standardized test their "best shot".

While poor academic achievement is noted in the literature as a predictor for dropout, it has not been heralded as a predictor for intelligence. In a report identifying national findings on why students dropout of school, Ekstorm, Goertz, Pollack, and Rock (1986) point out that intelligence is not the primary issue when looking at the academic achievement predictor. According to them, studies tend to concur that most dropouts possess the mental ability to be successful in school. How then, can educators best assist at-risk youngsters in academic improvement.

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McDaniel and Mack (1992) suggest that dropout prevention programs should include a component that encourages and embraces extensive collaboration between parents and teachers. They cite the Carrington Middle School’s project, known as Involving Minority Parents of At-risk Children (IMPAC), to support their thesis. In this project, a parent-school partnership has been integrated in a dropout intervention. Begun during the 1991-92 academic year, the program serves African American students who are at-risk of dropping out of school based on low academic achievement and poor school attendance. Activities encompass a parent workshop and a communication network with parents that involves dialogue and monitoring of student assignments. Additionally, the project offers academic tutoring for students and an incentive program for the purpose of increasing school attendance. The IMPAC program has been credited by teachers and parents for a 13 percent gain in student scores on the California Achievement standardized test over a one year period.

According to Silvestri (1986), the answer to the question of how educators can serve at-risk students in academic improvement lies in parental involvement in the school and the flexibility of alternative education. These components help students to see that they are supported and have options in how they learn. Silvestri postulates that standardized test scores of at-risk students can be raised when these students are engaged in flexible or non-traditional learning activities.
to improve their reading and math skills. He further suggests that such academic improvement can foster more positive attitudes toward school.

Attitudinal Factors and Dropouts

Attitudes toward self.

The terms self-concept and self-esteem have been used synonymously. Del Polito (1971) defines self-concept as self-regard, a label for an idea one has of himself/herself. Rosenberg (1965) defines it as the positive or negative attitude one has towards self. Coopersmith (1982) employs the term self-esteem and gives a similar definition. According to Coopersmith, self-esteem is a personal judgement of worthiness expressed in the attitudes one holds toward self. His thesis suggests that self-esteem is determined by one’s values, aspirations, successes and defenses. The way the individual views self depends on what the individual considers success and the importance one places on ability to perform. Coopersmith contends that the concept is:

"measured against his goals and standards and filtered through his capacity to defend himself against presumed or actual occurrences of failure" (Coopersmith, 1982, p. 4).

Young (1993) contends that nothing affects one’s health and energy so much as the health of self-esteem. She reiterates a philosophy that self-esteem is essential for all youngsters if they are to take on the challenge of learning. This challenge is particularly relevant when viewing the
impact of self-esteem from a work-force perspective. Young shares her belief that self-esteem is a legacy to students. Society leaves this legacy by creating an environment that supports and reinforces the practices that strengthen self-esteem. In today's society, and in preparing students for the work force, helping them to achieve a level of self-esteem that can result in inner strength and motivation, create a desire to achieve, and to care for self and others may be one of the most significant reforms we implement (Young, 1993).

Sarakon (1986) provides support to the relationship of self-esteem and success. He points out that student self-esteem is often viewed as an important variable in the academic and personal success of students. Also, it is an invaluable educational outcome in its own right. Sarakon alludes to the practice by some states to include the improvement of student's self-esteem among their goals that are measured.

One of the most significant by-products of academic achievement appears to be self-esteem. The literature indicates a moderate but consistent correlation between self-esteem and academic achievement (Leviton, 1975). Through the use of the 1978 and 1981 Pennsylvania Educational Quality Assessment scores in the goal area of self-esteem, Sarakon (1986) identifies 10 schools in his case study that had made the greatest improvements and 10 schools that experience the largest regression on 1st round self-esteem scores. He
concludes that students who scored high in self-esteem were enrolled at schools that stressed self-esteem as part of their school improvement goals and objectives. Students assigned to schools that minimized self-esteem importance did not score as well.

Attitudes toward self have often been noted as a contributing factor for dropouts. Strom (1964) concludes that students who quit school generally have negative and unrealistic views of themselves. Similar investigations on the relationship of attitudes toward self and school dropouts can be traced to the works of Williams and Cole (1968), Williams (1987) and Hahn (1987). These studies conclude that students who are held back academically are more likely to experience feelings of isolation, rejection and disconnectedness, and subsequently, more likely to drop out of school.

The impact of dropout intervention programs on self-concepts and achievement has been documented. A substantial number of projects for at-risk students have been identified as models for dropout intervention. Uroff and Green (1991) acknowledge the Apollo dropout prevention project in Southern California as a successful resource. The premise of this project is that when attention, acceptance, appreciation, and affection are given to students, their level of self-esteem will be raised.
An evaluation of the Apollo at-risk intervention suggests that student performance on standardized test was significantly improved. In addition, of the 150 students who graduated from Apollo between 1986-1989, only one student failed to pass a district proficiency test in reading, math, and writing. Other data indicate that attendance improved, school vandalism decreased, and suspension decreased from 16 percent in the 1986-87 school year to less than one percent in 1988-89 (Uroff and Greene, p. 57).

A multi-level approach to enhancing the level of self-confidence of at-risk students is presented by Kallmann (1991). In implementing a dropout risk program for middle school students, she exposed 35 students in grades seven, eight, and nine to a multifaceted program of individualized teaching strategies, parental involvement in motivation workshops, and faculty involvement in sensitivity training. Kallmann concludes that students displayed greater academic motivation due to an increase in self-esteem. At the end of the program, students expressed positive feelings about themselves.

Joseph (1992) provides support to Kallman’s conclusion that dropout intervention can make a difference in at-risk students self-esteem. She addresses the problem of low self-esteem by developing and implementing a 12 week dropout prevention project for 19 eighth grade students in an urban
middle school. She incorporated strategies for raising self-esteem. These strategies include:

* affective skills training using role playing, mapping, and brainstorming to help students learn to make decisions and solve problems.
* remediation of basic skills.
* an in house mentoring program to offer students support, encouragement and understanding.
* parent/teacher involvement sessions for monitoring assignments and lending support.

Pretest/Posttest results revealed that students improved in reading skills and demonstrated increased levels of positive self-concept.

Motivations toward school.

Though positive self-esteem is a critical component to student success in school, it is only half of the attitudinal dimension. The second half deals with motivations. Comer (1980), in his book School Power, announces that students are the most powerful people in many of the schools. They must be able to listen to instruction or receive information from school employees.

"They must be able to discipline themselves by tolerating the frustrations, errors, delayed rewards, waiting . . . without becoming unusually disruptive" (Comer, 1980, p. 27).

According to Comer (1980, p. 27) motivation of children to the point that they are capable of appropriate social behavior
cannot be provided adequately through symbolic acts alone. Instructional materials and intervening programs will not suffice without the modeling of positive treatment by the parents, principals, teachers, and others in the community. In short, children's experiences serve as the motivations for their treatment of other people and property.

Berube (1984), in his investigation on effective schools, shares his belief that student motivation is perhaps the most important contribution to school success, but is often overlooked in the process of effecting school improvement. Payne (1984) echoes this same thesis and adds that student motivations can be nurtured by their teachers. In a student survey of attitudes toward teachers in the Chicago Westside High School, forty respondents almost unanimously referred to the teacher who makes them "walk the straight and narrow" (p. 79) as the teacher who is concerned about teaching. The survey results suggest that students felt that the serious teacher persistently questioned them about homework and attendance and in general took an interest in their progress.

The review of literature clearly establishes a relationship between student attitudes toward school and school success. Hence, interventions planned to assist the schools' holding power would do well to integrate the kinds of activities and experiences that will enable students to develop and refine healthy attitudes. Strategies that most likely contribute to the attitudinal development are:
opportunities for volunteer participation, expression of praise and recognition, participation in cultural enrichment activities, delegation of student responsibilities, and advising students to make choices based on personal assessment of the outcomes (Curwin, 1992). These strategies are inherent in a successful holistic dropout prevention program.

**Summary**

Traditionally, American education has incorporated a number of strategies for assisting students at-risk of dropping out of school. In spite of the noblest of intent and efforts to keep students in school, studies reveal that the nation is still experiencing some difficulties. Recent national efforts in dropout prevention suggest that educators look at the reasons why students choose to drop out of school and to assess their needs at an early stage in the educational growth process. The review of literature reveals that middle school students who are at risk of dropping out of school need special assistance with academic skills. These students also need warm and nurturing advocates who will assist them in meeting their physiological and psychological needs. The sense of fun, belonging, acceptance, freedom, responsibility and interest are all bonafide needs for the middle school adolescence. The review points out that when these inherent needs are not addressed or inadequately addressed, at risk students may lose hope and eventually drop out of school.
The works of Glasser and Farris can be used as a background to make the connection between student's needs and effective dropout interventions. The premise of these citings is that students have a need for survival, belonging, power, freedom, and fun. Research provides evidence that programs addressing these needs have contributed immensely to students' successes in school.

A vast number of studies support a holistic approach to dropout prevention. They imply that this concept offers the best plan for addressing the needs of students. The holistic approach integrates a variety of elements such as counseling, peer assistance, tutoring, community service support, advisory or mentoring programs, parental involvement, and recreational activities. A few studies indicate that a holistic program can be of greater significance to at-risk students when program hours extend beyond the regular school operating hours. The research reveals that the number of children at risk based on social and environmental characteristics has reached epidemic proportions. In view of this phenomena, some studies have begun to identify students at risk in terms of school related behaviors. School factors such as attendance, suspensions, and academic achievement have ranked high on the listings of dropout indicators. Additionally self esteem and motivation toward school have been identified as significant determinants in whether or not students will be successful in school.
The literature supports that when students are engaged in a successful holistic program, some school-related and attitudinal factors can be immensely improved. The Portsmouth CAPP project may provide further documentation and support to what we know about a holistic dropout prevention for middle school at risk students.

**Hypotheses**

To assess the effects that the CAPP dropout intervention has on students who complete the program, the following hypotheses were selected for testing.

1. There is a significant difference between the grade point average of students in group one, who received the CAPP holistic treatment and the grade point averages of students in group two, who received no treatment, and group three, who received the academic remediation treatment.

2. There is a significant difference between the Iowa Test of Basic Skills scores of students in group one, who received the CAPP holistic treatment and the Iowa Test of Basic Skills scores of students in group two, who received no treatment and group three, who received the academic remediation treatment.
3. There is a significant difference between the absentee percentage of students in group one, who received the CAPP holistic treatment and the absentee percentages of students in group two, who received no treatment, and group three, who received the academic remediation treatment.

4. There are significant differences between the attitude scores of students in group one, who received the CAPP holistic treatment and the self concept and motivation toward school scores of students in group two who received no intervention, and group three, who received the academic remediation treatment.

5. There is a significant difference between the suspension percentage and sense of control over performance score of students in group one, who received the CAPP holistic treatment, group two, who received no treatment and group three, who received the academic remediation treatment.
CHAPTER III
Methodology

This chapter addresses the methodological process of the study. Inclusive in this chapter are an explanation of the purpose and setting, a description of the program, selection of subjects, design of study, instrumentation, data collection procedures and the method of data analyses. The chapter concludes with a summary statement.

Purpose

The purpose of this study was to determine the effects of an urban middle school dropout prevention program, known as CAPP, on the academic achievement, attendance, self concept and, motivation towards school and conflict resolution skills, as measured by suspensions and an attitude scale, of potential dropout students. The study investigated and compared the differences in grade point averages and Iowa Test of Basic Skills composite scaled scores, percentage of absences, self concept and attitudes toward school scores, and the percentage of suspensions of subjects in three defined groups at the end of the CAPP treatment. The study sought to determine if students who participated in the CAPP holistic dropout prevention approach were more successful in school than
students who received no treatment and students who received academic remediation during regular school operating hours. The goal of the study was to provide information that could contribute to the assessment of the Portsmouth Public Middle Schools dropout prevention program.

Setting

The setting of this study is Portsmouth, Virginia. Portsmouth is one of three cities that make up the port of Hampton Roads and has a population of approximately 105,000. This urban city lies across the Elizabeth River from Norfolk, Virginia. The city’s major employing agencies are the Norfolk Naval Shipyard and a Naval Hospital, both of which are operated by the United States Government. There are approximately 17,900 students enrolled in Portsmouth schools. Inclusive in this population are sixteen elementary schools, four middle schools, three high schools, two special centers, one vocational school, one alternative school, and one regional alternative center. This research study was conducted at Cradock Middle School, Hunt-Mapp Middle School, and Churchland Middle School. Each of these middle schools draws from inner city students, over half of which reside in public housings. Seventy-four percent of the students involved in this study are candidates for the free or reduced breakfast/lunch program.
Description of Program

Cradock at-risk Prevention Program (CAPP).

The Portsmouth Public School System has designed and instituted a program that focuses on reducing the number of potential school dropouts. The project, known as the Cradock At-risk Prevention Program (CAPP), was implemented at Cradock Middle School during the fall of 1991. CAPP was a multifaceted after-school program aimed at developing resiliency in school performance of at-risk youth (Shining Stars, 1993).

A program staff of seven school employees were selected by the student assistance counselor based on their expectations of students, enthusiasm, innovation, rapport with students, and overall contributions toward the total school program. Particular consideration was given to the qualities of flexibility, patience, and the employees sense of self-control when working with at-risk students. Consideration was also given to the modeling of professionalism. This group was comprised of five middle school teachers (one male and four females), a female security staff member, a male in school suspension coordinator, and a male student assistance counselor. The student assistance counselor served as program director. The CAPP staff collaboratively designed the program to address the needs and interests of students who made poor school adjustments indicated by low academic achievement, poor
school attendance, and repeated referrals to the office for disciplinary problems that resulted in suspensions and/or grade retention. Prior to program implementation, staff members participated in a week long intensive inservice that provided training on at-risk programs.

To address student needs, the staff integrated four essential components: academic instruction, social skills development, self-esteem enhancement, and recreational activities. The program coordinator believed that if students can experience success in these areas, schools can reduce the number of potential dropout candidates.

The program year for 1993-94 was from the third week in October to the third week in March. Program participants met after school from 2:45 p.m. to 4:50 p.m. on every Wednesday and Thursday. A two hour time block was subdivided, thus, allowing adequate time for the staff to complete activities that addressed the four components. Table 4 depicts the time schedule that was established for program intervention.
TABLE 2

CAPP Time Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:45 p.m. - 3:15 p.m.</td>
<td>Students reported to the cafeteria for refreshments and self-esteem building activities.</td>
</tr>
<tr>
<td>3:15 p.m. - 4:00 p.m.</td>
<td>Academic Tutoring, homework, and remediation instruction.</td>
</tr>
<tr>
<td>4:00 p.m. - 4:20 p.m.</td>
<td>Social Skills development.</td>
</tr>
<tr>
<td>4:20 p.m. - 4:50 p.m.</td>
<td>Recreational activities</td>
</tr>
</tbody>
</table>

Additionally, participants were scheduled for one cultural enrichment field trip each month. However, field trips were not scheduled on CAPP days. Enrichment activities included visits to the campuses of Old Dominion University and Norfolk State University to hear motivational presentations on self-esteem building and decision making. Trips were taken to Portsmouth City hall so that students could meet some of their mentors and community service agencies. Students were also provided opportunities to attend a movie at Military Circle in Norfolk and go skating at a local skating center for fun and recreation. Portsmouth Public Schools bus transportation was provided for all CAPP participants after each session and for all sponsored field trips.
**Academic Instruction**

A homework clinic was the major emphasis of the academic instruction component. Students were directed to the library and provided assistance in instruction on the core subjects. A daily homework log was maintained by each student and assignments were checked by the CAPP staff (Appendix A). Students who needed special tutoring or remediated instruction were also assisted during this period of time by teachers involved in the project. The CAPP staff was kept apprised of specific academic problems that their students may have encountered during the school day by communicating with the subject area teachers. Collaboration between the classroom teachers and CAPP staff provided a critical link for academic adjustments. The CAPP teachers met with subject cluster teachers once a week to discuss needs as indicated by the weekly checklist that students had to submit.

**Self-esteem building**

Cultural awareness was a paramount emphasis under the self-esteem component. Students engaged in guided group discussions regarding diversity. Community leaders from the City of Portsmouth presented a number of motivational topics on self-efficacy. In addition, cultural enrichment field
trips afforded students an opportunity to visit various historical and public business sites. Because of budget constraints, however, these visits were limited to local historic points in downtown Norfolk and Portsmouth, Virginia and city hall agencies in Portsmouth, Virginia. On the public or business field trips, the CAPP students were challenged to set career goals and allotted time to interview local public leaders in city management.

Social Skills

The term "choice" was echoed in most sessions on social skills. With the assistance of the Portsmouth Community Service Board, students were inundated with information regarding many of the social and health issues that confront America's youth today. Board members provided workshops and opportunities for students to engage in group "rap" sessions. Students were encouraged to use available resources as support mechanisms in problem-solving. Participants were reminded that they could also choose to serve as positive resources for one another in problematic situations. Peer mediation and conflict role playing were practiced periodically, and students were encouraged to seek the support of the student assistance counselor and his team of trained student mediators when confronted with personal or social conflicts. A peer mediation report form was employed so that program staff could
keep track of students who encountered conflicts that were resolved through peer confrontation (Appendix B). The report form provided information such as: name of mediators, type of conflict, source of referral and method of resolution (Wanysker and Hess, 1991).

Recreational Activities

All students in the CAPP project were encouraged to participate in calisthenics or aerobic exercises; however, they were given choices for other recreational activities. Basketball goal shooting, volleyball, kickball, flagball, dance and board games were among the activities offered during the twenty to thirty minute recreational time period.

Concluding Remarks on CAPP

The adults who guided CAPP participants maintained high expectations for their students and offered them caring and support. Students were expected to maintain good attendance, adhere to school and group rules, and strive for academic success. CAPP facilitators monitored students' progress and encouraged them to set challenging, yet attainable goals for themselves. As noted in the academic achievement description,
a homework-report list was used to monitor weekly progress on the completion of instructional assignments. Students were instructed to document daily homework assignments and submit them to the student assistance counselor once a week. Parents and teachers were requested to initial the form, in the notes section, for validation. The researcher attended bi-weekly staff meetings and reviewed homework-report forms. The CAPP group represented group one in this research.

Split grade levels control group.

Students in this group were enrolled in an intact English class for seventh and eighth grade students at Hunt-Mapp Middle School. Students were assigned to this class in September, 1993 based on the grade retention at-risk factor. These students failed one or more of their core subjects during the 1992-93 academic year. Program curriculum for this class was that set forth by the Virginia Department of Education Standards of Learning. No special treatment was assigned to this class of participants; however, the teacher was selected by the building principal based on her level of enthusiasm, philosophy on student expectation, and overall involvement in school programs. In the interest of this study, the split class was identified as group two and designated as a control group. Grade point averages, Iowa composite scaled scores, absences, attitude scores, and
suspensions of subjects in group two were compared with those of subjects in group one.

**Bridge class.**

The "Bridge" program was developed and implemented at Churchland Middle School during the 1987-88 school year. Students involved in this program were selected based on grade retention, irregular school attendance, and chronic behavioral problems. The current group of "Bridge" students were identified for program intervention during the spring of 1993 and assigned to the "Bridge" class in September of 1993. Students in this group were assigned to a self-contained classroom for English, Math, Science, and Social Studies. Curricula were modified, but not "watered down". To that end, remediation instruction provided the basic component for this program. Each core subject was taught by the same teacher for forty-five minutes. Students were allowed to take four minute breaks in between periods and a thirty minute lunch break. Additionally, they were scheduled for physical education and a non-academic subject of their choice. The Bridge teacher was screened and selected by the Portsmouth Public Schools dropout prevention specialists and building principal on the basis of professional experience in working with at-risk students and course endorsements or certifications. For the benefit of this study, the "Bridge" class was identified as group three and compared to subjects in group one on grade
point averages, Iowa composite scaled scores, absences, attitude scores, and suspensions.

Selection of Subjects

The subjects in this study were selected from three middle schools in Portsmouth, Virginia: Cradock, Hunt-Mapp, and Churchland. Students who participated in the Cradock Middle School (CAPP) project were recommended by teachers and counselors based on one or more of the following school-related at-risk variables: grade retention, failure in one or more core subjects, excessive absenteeism, and chronic discipline problems. However, most students involved in CAPP demonstrated a combination of these characteristics. Complete data were available for thirty-two students who participated in the CAPP intervention. In the interest of this study, CAPP subjects were labeled as group one.

An intact English class at Hunt-Mapp Middle School was selected as a control group of subjects. This naturally assembled group, as described by Campbell and Stanley (1963), was sought and matched based on similar school performance characteristics as participants in the CAPP project. Complete data were available for twenty-four students who were assigned to the class in September, 1993. This comparison group of students became group two.

The third group of subjects (group three) were participants in the "Bridge" assembled class at Churchland
Middle School. This group was also selected for comparison because students assigned to the class demonstrated similar dropout-risk traits as students in groups one and two. Complete data were accessible and collected on eighteen students in the "Bridge" class.

**Sample.**

The researcher selected the sample from a population of three urban middle schools. Students at Cradock Middle School participated in the CAPP experimental dropout intervention. Subjects involved in the two comparison groups were selected from an intact class at Hunt-Mapp Middle School and an intact class at Churchland Middle School. The three groups were matched, as closely as possible based on three essential factors. First, the researcher looked at the demographical area where students in each group resided. It was determined, through school data processing records, that the vast majority of the students lived in inner city neighborhoods that are represented by six urban housing developments.

Second, the researcher determined, through the Portsmouth Public Schools food service division reports that over 70 percent of the sample qualified for the Portsmouth Public Schools free and reduced breakfast/lunch program. A substantial number of these students' parents receive social service benefits.
Third, the researcher sought to determine if students in the sample groups demonstrated similar traits in academic achievement, standardize test scores, attendance, self-concepts and motivation towards school, and conflict resolution skills. To explore the possibility of similarities, the researcher obtained pre-measures on grade point averages, Iowa test scores, absentee percentages, and suspensions percentages. Computed mean scores suggested that the sample groups were fairly equal. Table 3 reports the mean scores and standard deviations on each group. Additionally, the School Attitude Measures (SAM) questionnaire was administered as a pre-test. This instrument allowed the researcher to investigate the five attitudinal scales on sample groups. Inclusive in the SAM instrument were scales on: motivation for school, self-concept-performance based, self-concept-reference based, sense of control over performance, and instructional mastery. Again, the mean data revealed no notable difference between sample groups. Table 4 reports the pre-test mean score data on each group. Because the premeasures on school-related and attitudinal factors of the sample were considered relatively equal, no further investigation was undertaken in reference to this study.
Table 3

Number of Observations, Mean Scores and Standard Deviations of Groups One, Two, and Three School-Related Pre-Measures

<table>
<thead>
<tr>
<th>NO. OF GROUP</th>
<th>GPA</th>
<th>IOWA</th>
<th>ABSENCES</th>
<th>SUSPENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBSERVATIONS</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
<td>1.40</td>
<td>.61</td>
<td>127.86</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>1.38</td>
<td>.56</td>
<td>129.98</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>1.61</td>
<td>.89</td>
<td>131.66</td>
</tr>
</tbody>
</table>

Table 4

Number of Observations, Mean Scores, and Standard Deviations of Groups One, Two, and Three Attitude Pre-Measures

<table>
<thead>
<tr>
<th>Gr</th>
<th>OBS</th>
<th>NFS</th>
<th>CPB</th>
<th>CRB</th>
<th>SCP</th>
<th>IM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
<td>40.75</td>
<td>7.28</td>
<td>38.78</td>
<td>7.16</td>
<td>9.87</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>41.21</td>
<td>6.70</td>
<td>36.71</td>
<td>5.82</td>
<td>6.87</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>42.59</td>
<td>6.50</td>
<td>41.13</td>
<td>6.51</td>
<td>8.68</td>
</tr>
</tbody>
</table>

Program.

Critical to this study were after school instructional time, mentoring, advising and academic monitoring. To a vast degree, any success of the program would be greatly dependent on the roles that the teachers played in the project. Therefore, it was not possible to control for all extraneous variables that may have infiltrated the study. While the researcher could not control for all threats to the internal
variables that may have infiltrated the study. While the researcher could not control for all threats to the internal validity, some consideration was given to teacher bias. First, the Cradock Middle School faculty was not made knowledgeable of the purpose of this study. Although it is conceivable that the students involved in CAPP shared information regarding the SAM instruments. Second, it was determined that only two of the five teachers involved in the intervention worked with students they taught during the regular school day, and only four students were identified in this group. This being the case, the CAPP director chose to leave these students in place. Finally, neither CAPP teachers nor the regular school day subject teachers had control over student attendance, administration suspensions and scores on the SAM questionnaire.

**Design of Study**

Confronted with a trend of an increase in dropout rate, the Portsmouth Public Schools initiated a dropout prevention project in 1991 that focused on the promotion of student success at the middle school level. The coordinator of at-risk programs and his staff designed the program, known as CAPP, with specific objectives in mind. These objectives were: to improve academic achievement, to improve student attendance, to develop conflict management skills, and to enhance self-concepts.
The focus of this study was to assess whether or not the aforementioned objectives were being accomplished, and to further examine the effectiveness of the CAPP holistic treatment in comparison to a no treatment program and an academic remediation treatment program. The study examined achievement by assessing the grade point averages and Iowa Test of Basic Skills Composite scaled scores of students in groups one, two, and three after the CAPP intervention. The study also explored the attendance patterns of these groups by looking at the absentee percentages of students from October, 1993 to March, 1994. An attitude survey pre-test on self and school was administered to all three treatment groups in October, 1993; and the same survey was administered as a post-test in March, 1994. Because premeasures on subscale mean scores of each group were relatively equal, they were not included in the analyses. The survey scrutinized how students felt about themselves and their attitudes toward school. Finally, the study examined the discipline records for suspensions of students in the three groups by analyzing their percentage of in and out of school suspensions from October, 1993 to the end of the CAPP treatment - March, 1994.

Instrumentation

A number of studies have reiterated how important it is to look at children of middle school age as entering into one of the most, if not the most, critical stage in their lives.

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during this period, students develop an identity about themselves and their future. By the time they prepare to leave the middle school, they will have a strong sense of their own level of competence and future expectations. They will also have a clear sense of how and where school fits into their lives. Elias and Branden-Muller (1994) point out that it is important to look at middle school students with a view towards how schooling interfaces with peers, community and family to nurture an identity that will allow them to grow as world class people. According to Elias and Branden-Muller (1994), the first vision of the kinds of skills necessary to help children accomplish this goal is that they possess a positive sense of self-concept. In the interest of this study, the sense of self-concept and feelings toward school were investigated via an attitudes inventory.

The School Attitude Measure, a component of the Comprehensive Assessment Program by American Testronics, was the formal instrument used to measure student attitudes toward self and school, and conflict resolution skills. This instrument has been used by Portsmouth Public Schools to measure students self-concept and motivation toward school during psychological screening processes. For the purpose of this study, the survey questions identified for level G/H (middle school) were administered. This lower middle grade level inventory was employed to accommodate the ranges of academic abilities that are associated with urban middle
school students. Level G/H inventory contains seventy-five items on a four point Likert Scale format. For each statement, students mark one of four response choices: never agree, sometimes agree, usually agree, or always agree.

The School Attitude Measure surveys and evaluates several dimensions of student attitudes. It also examines student's thoughts and ideas of themselves and their academic environment by providing information on five attitudinal scales.

**Scale 1: Motivation for Schooling**

The statements in this scale relate to the student's motivation for working in school. It includes statements that assess the student's willingness to participate in school, the perception of school as a meaningful experience, and the perception of the value of school for future needs or goals.

**Scale 2: Academic Self-Concept: Performance Based**

This scale is concerned with feelings about school performance and confidence in academic ability. Inclusive in this scale are statements that assess the student's perception of his or her ability to perform school tasks competently, involvement verses uninvolved in school tasks, feelings of
value to a class or school, and expectations of success.

**Scale 3: Academic Self-Concept: Reference Based**

This scale is concerned with how the student thinks others view or feel about his or her ability to succeed in school. It includes statements that assess the student’s perception of the discrepancy between his or her school performance and the expectations that teachers, family, and friends have of them.

**Scale 4: Student’s Sense of Control over Performance**

Statements in this scale deal with the student’s feelings about how much control he or she has over school outcomes. Included in this scale are statements that assess the student’s willingness to take responsibility for their actions and outcomes in school.

**Scale 5: Student’s Instructional Mastery**

Statements in this scale ask the student to report his or her actual school skills. These statements assess the student’s ability to use school time effectively and efficiently, and to do self
evaluations of school work. (Wick, Dolan, and Enos, 1993)

Validity and reliability.

Objectives for statements in the inventory were identified after literature reviews and interviews with educational specialists. Although the number of attitude scales was reduced to five, the number of test items and levels have been expanded. There are currently five levels of the SAM inventory for a total of 370 test items. Research by educators, psychologists, and ethnic groups validates that the inventory items were developed to avoid subjectivity. Additionally, over ten thousand secondary students across the nation participated in the inventory standardized sample.

Based on the Kuder-Richardson Formula 20, the reliability for internal consistency at the secondary level is .95 for the total test. The test - retest reliability is estimated to be in the .80s. Subscale reliabilities range from coefficients of .78 to .88. Reliabilities were computed on raw scores reported in a range from one to four (Wick and Smith, 1980). In this study, each subject’s responses were measured on five subscales.
Data Collection Procedures

Academic Achievement.

Grade point averages for students involved in the study were computed by the same criteria defined by the Portsmouth Public Schools for weighing grades. Letter grades were assigned the following numerical equivalent values: A=4.0, B=3.0, C=2.0, D=1.0, and F=0. Grade point averages were calculated by adding the numerical values for each grade and then dividing the sum by the total number of courses taken. Averages were computed on grades, recorded in school records, for the first three grading periods of the 1993-94 school year.

The Iowa Test of Basic Skills (ITBS) composite scaled scores were recorded from the cumulative record of each student in the sample. These raw scores were taken from the 1993-94 school year report. Walsh and Betz (1985) pointed out that these multi-level (K-8) battery of achievement tests are designed to measure the basic educational skills important for effective functioning in society. The ITBS have been highly reliable. Kuder-Richardson-20 reliability coefficients are in .90s for the test in grades three through eight for overall composites. Additionally, content validity of the tests is based on careful construction to reflect the educational curricula represented by the tests. Evidence pertaining to the content validity of the ITBS includes information regarding the relationship of the subtests, stability of test...
to other measures of achievement and ability. Correlations between test scores range from the .60s to the .80s, depending upon grade levels concerns. The tests have proven to be highly stabled. Test - retest correlations for ITBS subtests range from .70 to .88 after a one year time period. The stability of composite scores range from .90 to .94 from one to three years (Walsh and Betz, 1985).

Attendance.

The attendance records for students at each of the three schools involved in the study were utilized to record the number of days absent through the third nine weeks grading period of the 1993-94 school year. This data was made available from student records (report cards) provided by the office of data processing for Portsmouth Public Schools.

Daily attendance procedures, as set forth by the Portsmouth Public Schools Data Entry Center are enumerated as follows:

1. An attendance card on each student is maintained by the homeroom teacher. The homeroom teacher is requested to mark tardies during a 15 minute homeroom period.
2. At the end of homeroom time, attendance cards are sent to the attendance clerk in the main office. Students who report after homeroom are required to check in with the clerk in the main
office. The attendance clerk records the tardies on the cards and transfers this information to the main computer frame.

3. At the end of each month, attendance printouts are disseminated from central data processing department to school personnel.

4. Homeroom teachers are then asked to verify attendance data on tardies and absences and to return the corrected printout to the attendance clerk.

5. The attendance clerk keys the corrected data into the main frame computer terminal.

6. The central office data processing department is responsible for placing attendance information on student report cards at the end of each grading period.

Additionally, classroom attendance is monitored by the assigned teachers and transferred to report card entry bubble sheets at the end of each grading period.

**Attitudes.**

Scores on five scales of the School Attitude Measure (SAM) were obtained and recorded as a pre-test measure for students in the three treatment groups in October, 1993. The inventory was administered as a post-test in March, 1994 and scores were again recorded for the three groups. The student
assistance counselor and one of the CAPP staff members administered the pre and post tests to subjects in all three groups. These individuals administered the SAM inventory to the three groups during the latter half of the school day. Subjects at each site were tested in their group setting for thirty-five minutes each session. As discussed, however, in the design of this study, pre-measures on attitudes were found to be equal in terms of mean scores and were not used for evidence.

**Conflict Management.**

To ascertain the student's ability to resolve personal and social conflicts in school, disciplinary referral data on the number of in and out of school suspensions were collected from the student's cumulative record. Standard forms for in school and out of school suspensions are used throughout the school district. Students referred to the office for behavioral problems in class can only be suspended by the building principal and/or assistant principals. Once signed by the administrator, a copy of the suspension notice is forwarded to the parents, zone director and superintendent's office. Also, a copy is placed in the student's permanent school records. Data on suspensions for the 1993-94 school year were collected and recorded on students for the three groups in March, 1994 following the CAPP intervention. Additionally, scores on subscale four (Student's Sense of...
Control over Performance) were recorded and analyzed to provide a more indirect measure of conflict resolution skills. With the exception of suspensions, discipline referrals were not readily accessible on data base or in the student's cumulative folders. Because of this data collection constraint, the number and kinds of discipline referrals were not a focus of this study. Data on suspensions were collected and recorded in March, 1994.

Method of Analysis of Data

The focus of this study was to determine if significant differences in grade point averages, Iowa Test of Basic Skills Composite Scaled Scores, absentee percentages, attitude scores, and in and out of school suspension percentages occurred between the three treatment groups. A number of analysis of variances were employed to maximize the utility of the research. Specific statistical procedures used in this study are identified in Table 5. An analysis of variance (ANOVA) was used to analyze the grade point average achievement data for each group. An analysis of variance (ANOVA) was used to analyze the Iowa achievement data for each group. An analysis of variance (ANOVA) was employed to analyze the attendance data for each group. A multivariate analysis of variance (MANOVA) was used to analyze subscale's data on attitudes toward self and school. Additionally, an analysis of variance was used to analyze data on suspensions.
and sense of control over performance. This scale measured student's sense of control over performance. All tests for significance were set at the 0.05 level of probability. The data was reported in narrative and tabular forms. For the benefit of this research, the Analysis Based Statistical package - ABStat (1992) was employed to compute and process the data analyses.
Table 5

Methods of Data Analyses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Treatment Groups</th>
<th>Analysis</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade-point average</td>
<td>Group one vs Group two vs Group three</td>
<td>Analysis of variance (ANOVA)</td>
<td>4.0 grade scale carried to two decimal places</td>
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<tr>
<td></td>
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<tr>
<td>IOWA</td>
<td>Group one vs Group two vs Group three</td>
<td>Analysis of variance (ANOVA)</td>
<td>Composite Scaled Scores</td>
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<tr>
<td>Attendance</td>
<td>Group one vs Group two vs Group three</td>
<td>Analysis of variance (ANOVA)</td>
<td>Percentage of absences</td>
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<tr>
<td>Attitude Subscales</td>
<td>Group one vs Group two vs Group three</td>
<td>Multivariate Analysis of variance on subscales (MANOVA)</td>
<td>Student Attitude measures</td>
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<tr>
<td>Conflict resolution</td>
<td>Group one vs Group two vs Group three</td>
<td>Analysis of variance (ANOVA)</td>
<td>Percentage of suspensions and student Attitude Measures (Subscale 4)</td>
</tr>
</tbody>
</table>
Summary of Methodology

The intent of this study was to determine the effects of the Cradock At-risk Prevention Program (CAPP) on potential dropout students enrolled at an urban middle school in Portsmouth. School related and attitude factors were examined to determine program effectiveness. Cradock Middle School was the setting for the CAPP intervention. This holistic approach to dropout prevention was incorporated in the total school program. The project employed a staff that was trained in working with at-risk youngsters. It was designed to integrate the components of academic instruction, social skills, self-esteem, and recreational activities. The program convened after school hours on two days a week. Subjects for CAPP were recommended by their teachers or counselor. A second group of students from split grade levels at Hunt-mapp Middle School in Portsmouth served as a control group. Students in this group were assigned to a seventh/eighth grade English class based on retention or poor school performance. They were taught by a certified English teacher. The third comparison group was comprised of students in the "Bridge" class at Churchland Middle School in Portsmouth. Although this intact class was not directly involved in a holistic approach to dropout prevention, academic remediation in the core subjects was the element of emphasis. Subjects in this group were assigned to the "Bridge" class by their counselors and administrators based on poor school performance at the end of the 1992-93
school year. Subjects were taught by a certified middle school teacher who was particularly selected to teach this class. This selection was based on the teacher's job interview and experiences in working with at-risk students.

The study was designed to compare academic achievement, attendance, attitudes toward self and school, and personal or social conflicts of students in group one with groups two and three. Records on school-related factors were utilized to collect data. The School Attitude Measures (SAM) inventory, which tests five criteria on attitudes, was the formal instrument used in this research. Data was collected and recorded on grade point averages, Iowa Test of Basic Skills Composite scaled scores, absentee percentages, attitude scores and suspension percentages for seventy four students. Inclusive in this population were thirty-two students in the CAPP treatment, twenty-four students in the split grade levels class, and eighteen students in the "Bridge" class. Statistical measures used in this study were analyses of variance (ANOVA) and a multivariate analysis of variance (MANOVA).
CHAPTER IV

Presentations and Analyses of Data

This chapter provides a discussion pertinent to the findings of the study. The chapter presents the results of the analyses in narrative and tabular forms. Table 6 reports the treatment of students in the CAPP, split grade, and Bridge programs. Table results reported that a total of 74 students represented three treatment groups: a holistic dropout prevention, no prevention, and academic remediation.

Table 6

Treatment of Program Participants

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Participants</th>
<th>Dropout Prevention Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>holistic dropout prevention</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>none</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>academic remediation</td>
</tr>
</tbody>
</table>

Total 3    74

To investigate the hypotheses of this study, information on grade point averages, Iowa P-Scaled Scores, absences, attitudes, and suspensions were gathered from cumulative records on students assigned to the three treatment groups.
Pre-measures on the dependent variable were taken in October, 1993. Since mean measures were determined to be relatively equal, they were insignificant to this study. Post measures on grade point averages, Iowa P-Scaled Scores, absences, attitudes, and suspensions were collected on subjects for the three groups in March, 1994. These measures were relevant to the study and were therefore analyzed by analyses of variance.

One-way analyses of variance (ANOVAs) were employed on post-measures for grade point averages, Iowa scores, absences and suspensions. Borg and Gall (1989) point out that the analysis of variance is appropriate when determining whether groups differ significantly among themselves on the variables studied. The Scheffe post hoc T-tests were also used where F ratios were found to be statistically significant. To maximize the utility of this research, a multivariate analysis of variance (MANOVA) was used to determine whether the three groups differed on more than one of the five attitude subscales. A summary of the analyses relative to the hypotheses follows:

**Grade Point Averages (GPA)**

Hypothesis One states:

There is a significant difference between the grade point average of students in group one, who received the CAPP holistic treatment and the grade point averages of students in group two, who
received no treatment and group three, who received the academic remediation treatment.

Table 7 reports the number of observations, mean scores and standard deviation for the results on grade point averages of groups one, two, and three. Group measures for grade point averages were notably different between the samples. Group one showed an average of 1.91, group two showed an average of 1.00, and group three showed an average of .98.

Table 8 reports the results of a one-way analysis of variance (ANOVA) on grade point average data for groups one, two, and three. The ANOVA revealed that statistical significant differences (P < .05) existed between groups. According to Scheffe’s test, a conservative post hoc analysis for multiple comparisons, all possible comparisons with the experimental holistic treatment (group one) were significant at the .05 level of probability. Thus, subjects in the CAPP holistic treatment group maintained a higher GPA than subjects in the Split grade level class who had no treatment and subjects in the Bridge class, who were exposed to academic remediation. The analysis revealed that subjects in the CAPP experiment maintained a higher GPA than subjects in both comparison groups.
Table 7

Number of Observations, Mean Scores and Standard Deviation of Groups One, Two, and Three Grade Point Average Data

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Observations</th>
<th>Mean Score</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>1.91</td>
<td>.90</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>1.00</td>
<td>.54</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>.98</td>
<td>.75</td>
</tr>
</tbody>
</table>

Table 8

One-Way Analysis of Variance of Groups One, Two, and Three Grade Point Average Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F ratio</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>15.20</td>
<td>7.60</td>
<td>12.89</td>
<td>.00*</td>
</tr>
<tr>
<td>Within groups</td>
<td>71</td>
<td>41.86</td>
<td>.59</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>57.06</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

* P < .05

Iowa Scores

Hypothesis Two states:

There is a significant difference between the IOWA Test of Basic Skills scores of students in group
one, who received the CAPP holistic treatment and
the IOWA Test of Basic Skills scores of students in
group two, who received no treatment and group
three, who received the academic remediation
treatment.

Table 9 depicts the number of observations, mean scores
and standard deviation for the results of Iowa scores of
groups one, two and three. The IOWA mean score of students in
group one was 132.66 as compared to 132.79 for group two, and
119.61 for group three. The mean score for subjects in group
one was notably different than that of subjects in group
three.

A one-way analysis of variance on Iowa scores data for
groups one, two, and three is reported in Table 10. The ANOVA
revealed that a statistical significant difference (p<.05)
existed between subjects in group one and group three, but no
statistical difference occurred between groups one and two.
Again, the Scheffe’s post hoc test for multiple comparisons
concurred that there was a statistical significant difference
on Iowa scores between students in CAPP who received the
holistic dropout treatment and subjects assigned to the Bridge
academic remediation class. However, there was no statistical
significance in Iowa scores between CAPP subjects and the
control group. Since statistical significant differences did
not exist between all possible comparisons, it was concluded
that the CAPP experiment did not impact Iowa test scores.
Table 9

**Number of Observations, Mean Scores and Standard Deviation of Groups One, Two, and Three Iowa Scores Data**

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Observations</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>132.66</td>
<td>17.99</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>132.79</td>
<td>10.62</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>119.61</td>
<td>22.41</td>
</tr>
</tbody>
</table>

Table 10

**One-Way Analysis of Variance of Groups One, Two, and Three Iowa Scores Data**

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>2338.99</td>
<td>1169.50</td>
<td>3.92</td>
<td>.024*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>21165.50</td>
<td>298.11</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>23504.49</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

* P < .05 (group 1 vs group 3 only)
Attendance

Hypothesis three states:

There is a significant difference between the absentee percentage of students in group one, who received the CAPP holistic treatment and the absentee percentages of students in group two, who received no treatment and group three, who received the academic remediation treatment.

The data in Table 11 shows the number of observations, mean scores and standard deviation for the results of the percentage of absences of groups one, two, and three. The mean score on absences for subjects in CAPP was 5.59, 13.04 for subjects in the split group, and 13.50 for subjects in the Bridge group. Hence, CAPP subjects were absent on the average of 7.45 days less than subjects in the split group, and 7.91 days less than subjects in the Bridge Class.

Table 12 reports a one-way analysis of variance on absentee data for groups one, two, and three. The ANOVA provided evidence that statistical significant differences (P<.05) existed between groups one and two and groups one and three. At two degrees of freedom, the probability level was less than .01. Two explanations for this significant finding may be the effects of the field trip incentive encouraged in the CAPP program and parental involvement in verifying the assignment reports. The Scheffe post hoc test affirmed that
subjects in group one were absent significantly fewer days than subjects in group two and group three. All possible comparisons with group one were significant (P<.05). Statistically, the CAPP subjects had better school attendance than subjects in the two comparison groups.

Table 11

Number of Observations, Mean Scores and Standard Deviation of Groups One, Two, and Three Absence Data

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Observations</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>5.59</td>
<td>5.94</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>13.04</td>
<td>8.68</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>13.50</td>
<td>7.66</td>
</tr>
</tbody>
</table>

Table 12

One-Way Analysis of Variance of Groups One, Two, and Three Absence Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>1063.49</td>
<td>531.74</td>
<td>9.87</td>
<td>.00*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>3825.18</td>
<td>53.88</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>4888.67</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

* p < .05
Attitudes

Hypothesis four states:
There are significant differences between the attitude scores of students in group one, who received the CAPP holistic treatment, and the attitude scores of students in group two, who received no treatment and group three, who received the academic remediation treatment.

The data collection instrument used for examining students' attitudes toward self and school was the School Attitude Measures (SAM) inventory, a self-reporting questionnaire. The data in Table 13 reports the number of observations, mean scores and standard deviations on the results of the SAM for subjects in groups one, two, and three. There appeared to have been no difference in mean scores on subscale one - motivation for school, subscale two - self-concept performance-based, and subscale three - self-concept referenced-based in all three groups. However, the mean scores for group one's subscale on sense of control over performance and instructional mastery were notably higher than mean scores for groups two and three. Based on this information, it was concluded that students in CAPP felt they could deal with conflict better than students in the comparison groups and were able to use school time more
effectively and efficiently than students in the comparison groups.

Table 13

<table>
<thead>
<tr>
<th>Number of Observations, Mean Scores and Standard Deviations of Groups One, Two, and Three Attitude Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

To further explore the differences between groups, a multivariate analysis of variance (MANOVA) was employed. Table 14 reports a summary on the results of the multivariate analysis of variance on the attitude subscales for all groups. Inclusive in these scales were motivation for school (MFS), self-concept-performance based (SCP), self concept reference-based (SCR), sense of control over performance (SCP), and instructional mastery (IM). The MANOVA was employed to determine whether or not statistically significant differences existed between the centroids of the different groups. The F-value indicated that a statistical significant difference existed in overall attitude scores at .05.
Table 15 identifies the associated univariate analyses. Wilks Lambda was used to test for statistical significance of the difference between group centroids. Comparisons of this analysis indicated that at (2, 71) degrees of freedom, three attitudes subscales were significant at the .05 level. These scales included motivation for school, sense of control over performance, and instructional mastery. Significant differences between groups were expected because the CAPP project provided counseling and opportunity for conflict mediation. The checklist for mediation reporting may have also assisted students in monitoring their behaviors. Because of the academic structure of the CAPP intervention, it was expected that significant differences would occur in instructional mastery. Also of interest were the probability levels for the subscales on self concepts. The recorded levels of .148 for performance base and .056 for reference base depict only marginal insignificances. Essentially, significant differences occurred between groups, overall, thus indicating that CAPP students reported better attitudes toward self and school than students in the comparison groups.
### Table 14

**Summary of Multivariate Analysis of Variance Data for Attitude Subscales**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degree of Freedom</th>
<th>Sum of Squares</th>
<th>Mean of Squares</th>
<th>F Ratio</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Cells</td>
<td>71</td>
<td>14597.17</td>
<td>205.59</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Constant</td>
<td>1</td>
<td>543898.91</td>
<td>543898.91</td>
<td>2645.50</td>
<td>.000</td>
</tr>
<tr>
<td>Group</td>
<td>2</td>
<td>2495.46</td>
<td>1247.73</td>
<td>6.07</td>
<td>.004*</td>
</tr>
</tbody>
</table>

* P < .05

### Table 15

**Associated F-Values and Probability Levels on Attitude Subscales for Groups One, Two and Three**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Attitude Measure</th>
<th>F Ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MFS</td>
<td>6.09</td>
<td>.004*</td>
</tr>
<tr>
<td>2</td>
<td>CPB</td>
<td>1.97</td>
<td>.148</td>
</tr>
<tr>
<td>3</td>
<td>CRB</td>
<td>3.01</td>
<td>.056</td>
</tr>
<tr>
<td>4</td>
<td>SCP</td>
<td>4.50</td>
<td>.014*</td>
</tr>
<tr>
<td>5</td>
<td>IM</td>
<td>8.90</td>
<td>.000*</td>
</tr>
</tbody>
</table>
Conflict Resolution

Hypothesis five states:

There is a significant difference between the suspension percentage and sense of control over performance scores of students in group one, who received the CAPP holistic treatment, and the suspension percentage and sense of control over performance scores of students in group two, who received no treatment and group three, who received the academic remediation treatment.

To access the ability of CAPP students to resolve conflicts in school, analyses of variance were conducted on suspensions and subscale four, students sense of control over performance, of the School Attitude Measures inventory. Table 16 shows the number of observations mean scores, and standard deviation for the suspension of groups one, two, and three on in and out of school suspensions. The suspension mean difference for the CAPP group was 1.00 less than the mean score for the Bridge participants. A second observation, though indirectly related, was that the control group (group two) illustrated a suspension mean difference of .97 less than the academic remediation group (group three).

Table 17 reports the results of a one-way analysis of variance on suspensions for groups one, two, and three.
Essentially, subjects assigned to the CAPP holistic approach to dropout intervention accumulated fewer suspensions than subjects in the Bridge-academic remediation class. However, CAPP subjects showed no statistical significant difference on suspensions when compared to subjects in the split grade level or control group. At two degrees of freedom, the probability level was .01 (P = .01). Again, the Scheffe post hoc test affirmed the specific group difference.

Table 16

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Observations</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>.72</td>
<td>1.22</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>.75</td>
<td>.90</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>1.72</td>
<td>1.56</td>
</tr>
</tbody>
</table>
Table 17

One-Way Analysis of Variance of Groups One, Two, and Three

Suspension Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>13.37</td>
<td>6.68</td>
<td>4.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>106.58</td>
<td>1.50</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>119.95</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

P < .05 (between group one and group three and groups two and three)

Table 18 shows the number of observations, mean scores, and standard deviation of groups one, two, and three subscale scores on sense of control over performance. Table 19 reflects a one-way analysis of variance on the School Attitude Measures inventory. Data on student’s sense of control over performance provided an indirect measure for assessing the student’s ability to resolve conflicts. As was expected, subjects in group one maintained a higher mean score than students in group two and three. The analysis of variance supported the data on the attitude dimension, and thus reported the probability level at .0145. In contrast, no statistical significance occurred between groups one and two in terms of suspensions and the attitude subscale scores for sense of control over performance. Subsequently, it is
concluded that students in CAPP did not do any better in resolving their conflicts than students in the comparison groups, overall.

Table 18

Number of Observations, Mean Scores, and Standard Deviation of Groups One, Two, and Three Sense of Control Over Performance

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Observations</th>
<th>Mean Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32</td>
<td>44.38</td>
<td>7.18</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>39.63</td>
<td>8.77</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>38.50</td>
<td>6.22</td>
</tr>
</tbody>
</table>

Table 19

One-Way Analysis of Variance of Groups One, Two, and Three Sense of Control Over Performance Data

<table>
<thead>
<tr>
<th>Source</th>
<th>Degree of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior Groups</td>
<td>2</td>
<td>510.21</td>
<td>255.11</td>
<td>4.50</td>
<td>.014*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>4025.63</td>
<td>56.70</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>4535.84</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

* P < .05 (Between groups one and three)
Summary of Analyses of Data

The analyses presented in this chapter provided an interpretation of the data relative to the hypotheses. To examine the effects that the CAPP intervention had on academic achievement, attendance, attitudes, and conflict resolution skills of potential dropouts students, a number of variables were measured. Comparisons were made between students assigned to the CAPP project and students assigned to a split grade level class and a Bridge class.

Analyses of the data on academic achievement revealed that grade point averages for students assigned to group one were significantly higher than students who were assigned to group two and three. Averages were recorded as: 1.91 for group one, 1.00 for group two, and .98 for group three. The greatest difference occurred between groups one and three. It was also pointed out that, although a statistical significant difference existed between group one and group three on Iowa scores, no significant difference was established between group one and group two.

The percentage of absences for students in group one were significantly lower than the percentage of absences for students in groups two and three. It was also evident that significant differences existed in overall attitude scores. However, it must be pointed out that not all attitude subscales had F-values that were found to be significant. Additionally, the data on motivation for school and
instructional mastery revealed only a marginal degree of difference.

The final analysis examined variables associated with conflict resolution skills. Data on suspension provided evidence that the suspension percentage for group one was significantly lower than the suspension percentage for group three, but not lower than group two’s suspension percentage. Data on sense of control over performance provided additional support that students in group one scored higher in this attitudinal dimension than group three, but not higher than students in group two.
CHAPTER V

SUMMARY, CONCLUSIONS, LIMITATIONS and RECOMMENDATIONS

This chapter presents a summary of the study, conclusions drawn from the study, limitations of the study, and recommendations for further implementation and investigation.

Summary of the Study

The purpose of this study was to determine the effects of an urban middle school dropout prevention, Cradock At-risk Prevention Program (CAPP), on the academic achievement, attendance, attitudes, and conflict resolution skills of at-risk students. The study was conducted at three middle schools in the Portsmouth Public School District. The study examined how students in the CAPP holistic dropout intervention at Cradock Middle compared to at-risk students at Hunt-Mapp Middle who received no treatment, and at-risk students in the Churchland Middle School Bridge class, who received academic remediation. At-risk characteristics for all groups were based on one or more of the following: grade retention, low achievement, low Iowa test scores, poor school attendance, and persistent behavior problems. However, most
students were found to have demonstrated a combination of these traits.

The review of literature revealed that at-risk students have special needs, particularly at the middle school level. In addition to the physiological needs, middle school students need to belong to a group or accepted by peers, and are often vulnerable to negative influences in school. To address the personal, school, and community issues, the literature suggested that educators explore the concept of a comprehensive holistic approach to dropout intervention as an alternative for dropout prevention. The literature also provided evidence that dropout components such as those outlined in the CAPP project have been known to foster improvements on school-related factors and attitudes.

The objectives of the CAPP program were to improve academic achievement, improve attendance, develop conflict management skills, and enhance self-concepts. Students assigned to the project participated in a comprehensive holistic treatment for dropout prevention. The program focused on four essential components: academic achievement, social skills, self-esteem, and recreation. Inclusive in the project were strategies designed to assist students in academic improvement. A homework clinic, tutoring sessions, and academic monitoring were incorporated in the program to address the academic dimension. Program staff offered conflict management, peer mediation and group activities to
assist students in the development of social skills. Self-esteem building activities included motivational presentations by community and business leaders, cultural enrichment field trips to Portsmouth City hall and local universities, and opportunities for recognition. Program time was also devoted for recreational activities such as aerobics and team and lifetime sports. These activities were integrated to assist in the development of social skills and self-esteem.

Participants in CAPP met after school on Wednesdays and Thursdays from 2:45 p.m. to 4:40 p.m.

Students in the split grade level comparison class (group two) were assigned to an intact English class for seventh and eighth grade students. These students received no special treatment. However, students in the Bridge comparison class (group three) received academic remediation in English, Mathematics, Science, and Social Studies. Students in both comparison groups were assigned to their classes at the beginning of the 1993-94 school year, based on recommendations from their counselors and teachers.

The subjects in this study were middle school students. Complete data were available on 74 students across the three middle schools. These subjects made up the three treatment levels on dropout intervention. Group one (n=32) was identified as the CAPP participants. Group two (N=24) comprised the split grade level class and group three (n=18) represented the Bridge intact class.
In order to assess the impact of CAPP on the academic achievement of students in each program, grade point averages and Iowa scores were collected and recorded at the end of the CAPP treatment. Absences and suspensions for the period of October, 1993 to March, 1994 were collected from school records on each group of students. Additionally, subjects were administered the School Attitude Measures (SAM) inventory in October, 1993 and in March, 1994. However, premeasures on all groups were determined to be equal in terms of mean scores, and were therefore not relevant to this study. All post measures were recorded. The SAM, a self-reporting questionnaire, evaluated several dimension of student attitudes. Included were scales on motivation for schooling, self-concept performance based, self-concept references-based, sense of control over performance, and instructional mastery. To complete the collection of data process, suspension data were taken from the student's cumulative record and recorded on each student for the period of October, 1993 to March, 1994. Grade point averages, Iowa scores, percentage of absences, suspensions and a subscale of the SAM (sense of control over performance) were analyzed using one-way analyses of variance. The attitude scales were measured by a multivariate analysis of variance. The Analysis Based Statistical (AB stat) package was used to process all data. All levels for significance were set at the .05 level of probability.
Results of the study.

The first hypothesis examined the differences between the grade point average of students in group one and the grade point averages of students in group two and three. Findings indicated that the average of students in group one was 1.91, while groups two and three averaged 1.00 and .98 respectively. Thus, the average for students in group one was significantly greater than the averages of students in groups two and three.

The second hypothesis examined differences between Iowa scale scores of students in group one and students in group two and three. The findings revealed that students in group one scored significantly higher on the Iowa than students in group three. It was determined, however, that scores between students in groups one and two were not significantly differently. Since statistical significant differences were not discovered between all comparisons, it was concluded that no overall difference existed across groups.

The third hypothesis discussed the difference in the percentage of absences between students in group one and students in groups two and three. The results rendered evidence that the percentage for students in group one was significantly less than the percentage for students in groups two and three.

The fourth hypothesis explored the attitude scores, on five scales, of students in group one, two and three. The findings revealed that significant differences existed between
groups on motivation for school, sense of control over performance, and instructional mastery. The marginal difference between two of these scales may raise some question regarding reliability between the two subscales. It was also evident that no significant difference existed in the two scales that focused on self-concept. Nonetheless, significant differences were found in the attitude scores overall between groups one and two, and groups one and three.

The fifth hypothesis examined the percentage of suspensions between groups and the differences in group scores on subscale four of the SAM. Findings revealed that the percentage of suspensions for students in group one were significantly fewer than students in group three. However, the suspensions between groups one and two were comparable. The findings on subscale four, students sense of control over performance, revealed that attitude scores for students in group one were significantly greater than the scores for students in group three. Because differences did not exist between all possible comparisons, it was concluded that no overall significant differences existed on group suspensions and subscale four of the SAM.

Conclusions Drawn from the Study

The information and data discussed in this study lend support to the effectiveness of the CAPP project. The study has demonstrated that the CAPP dropout intervention has had
some impact on academic achievement, attendance, attitudes toward self and school, and conflict management.

The CAPP program may be said to have achieved significant effects on grade point average. When compared to two groups similar on school performance characteristics, students in CAPP achieved a significantly higher group average than students in groups two and three. It may be concluded that the significance is attributed to the program's academic component: homework clinic, tutoring, and monitoring.

While the CAPP program appears to have had an insignificant overall impact on Iowa test scores, it may be inferred that the usage of a holistic approach to improve achievement works better than the use of an isolated academic remediation component. When compared with students in the Bridge academic remediation class (group three), students involved in the CAPP holistic project (group one) scored almost 12 points higher on Iowa scale scores. This significant difference could lend further support to the thesis of Deaton and Blair (1992, p. 159) and Chalker (1992, p. 139), that the use of academic remediation alone can be academically detrimental for at-risk students.

The CAPP project can be viewed as being most powerful in terms of school attendance. CAPP students were absent from school fewer days than students assigned to the comparison groups. It is likely that the recreational and social opportunities provided through the after school activities,
allowed at-risk students to view school from a different perspective. It is also likely that success in other school related factors influenced attendance.

The analysis indicates that students in the CAPP project feel better about themselves and school than students in the two comparison groups across the five attitude scales. However, when the subscales are isolated, CAPP students feel better only in their motivation and ability to master instruction. To this end, the effects of the CAPP program on attitudes should be viewed with caution.

The effect of the CAPP program on suspensions is somewhat questionable. Suspensions for groups one and two remain virtually unchanged as well as how students feel about their ability to control conflicts that evolve during the school day. There are however, differences in the suspensions and the sense of control over performance between groups one and three. Because differences only occur between the CAPP group and one comparison group, it should not be concluded that the CAPP program will change students attitudes toward self and school.

The results of this study indicate that a holistic approach to dropout intervention can be of value to at-risk students at the middle school level. It is conceivable, though not generalizable, that the CAPP holistic program can have a positive impact on the academic achievement,
attendance, attitudes, and conflict resolution skills of potential dropout students.

**Implications from a theoretical perspective.**

A unique feature of the middle school concept is that it is underguided by a body of middle grade research which emphasizes consensus among middle grade education. The middle school research, though limited, clearly focuses on organization and curricula which emphasize team work, flexible programs and classes, the personalization of instruction, and supports an advisory and mentoring component which addresses the cognitive and affective needs of the learners. In creating a middle school environment whereby students who are at-risk of dropping out can be successful, middle school educators should be guided by middle grade research.

The results of the CAPP study concludes that at-risk middle school students who participate in a holistic dropout prevention program can achieve higher grade point averages and lower rates of absenteeism than students who are not involved in dropout risk intervention and students involved in academic remediation. Additionally, the findings conclude that at-risk middle school students who participate in a holistic dropout prevention program feel better about themselves and school than at-risk students involved in no intervention or academic interventions.
This research endeavor is consistent with the literature. The findings from the CAPP study provide data to support three major propositions based on the theories of researchers in the area of dropout prevention. The first proposition is that dropout prevention at the middle school level should focus on the needs of at-risk students. The philosophies of Glasser (1984), Quinn (1991, p. 76) and Tidwell (1988, p. 953) suggest that these needs are physiological, social, psychological and educational. Richardson, Casaviva, Placier, and Guilfoyle (1989) as well as Cunningham and Gresso (1993) offer an idea that at-risk students have an array of needs; thus, the school is challenged to broaden its educational emphases. The CAPP concept mirrors this premise in that it integrates social skills, self-esteem building activities, recreational activities, and academic instruction aimed at addressing these needs.

The second proposition is that the needs of at-risk middle school students can best be addressed when they participate in a holistic approach to dropout intervention. At-risk middle school students have been characterized as being most vulnerable to outside pressures. They have been described by Eichhorn (1987) as "transescence" (p. 3). Mann (1989), Herbert (1989) and Hovland (1990) concur that the inconsistent and erratic behaviors become even more notable in at-risk middle school students. The CAPP study identifies community and business agencies that can be integrated in a
middle school comprehensive program and discusses how these agencies can be utilized to provide services for at-risk students.

The final theoretical proposition is that when at-risk students are engaged in a holistic approach to dropout prevention, they are more successful in school. The CAPP data implies that at-risk students can improve their grade point averages, attendance, and attitudes about themselves and school when they participate in a holistic intervention. This data is consistent with other studies on school-related and attitudinal factors and dropouts. De-mesquita, Paul, and others (1992) in a presentation at the 1992 Annual Meeting of the Mid-South Educational Research Association report on a Community and Business resource network that was instrumental in helping at-risk secondary students to improve their grade point averages. Ryan (1991), in support of community and business involvement, adds that outside agencies can assist students with school attendance by offering career opportunities, support, and jobs. Also, there is an implication of the CAPP study to support the relationship of academic success and self-esteem, as reported by Sarakon (1986) and Uroff and Green (1991). It can be implied that the emphasis placed on the academic component of the program caused CAPP students to do better on grade point averages and subsequently self-esteem and motivation for school were enhanced.
It can be implied from a theoretical perspective, that not all variables in the academic achievement domain can be influenced by a holistic intervention such as CAPP. Findings relative to the Iowa standardize test conclude that no significant differences existed among the three groups in the study. One critical element not addressed in the study is standardized testing skills. Curwin (1992), theorizes that at-risk students have "testing phobia" (p. 157). Thus, there is implication that holistic dropout interventions should include a component that addresses testing preparation and strategies.

Lastly, the finding on suspension data implies, from a theoretical perspective, that behavioral patterns and attitudes of at-risk students do not necessarily change when they participate in a holistic intervention such as CAPP. Hence the CAPP research has not been influenced by the social skills component. This being the case, there is implication that further research is needed to offer alternative solutions or components in an effort to assist students in conflict resolution skills.

*Implication from a practical perspective.*

The findings of the CAPP study offer opportunities for practical applications. The CAPP holistic program first has implication for overall school improvement at Cradock Middle School. In one of the most historical educational reform
eras, Ron Edmonds (1979) introduced an effective schools model that influenced school improvement. One of the major premises of the effective schools reform is that principals must not only be administratively talented, but must also model educational behaviors which promote, create and encourage a positive environment for learning. As the principle leader in the school building, the principal must be cognizant of the educational practices that contribute to student success. To this end, the principal must take the lead in providing staff development for school personnel. This study has implications for middle school principals. The body of literature coupled with the CAPP project components can assist the building principal in the planning and implementation of inservice activities to keep staff members abreast of what’s working effectively or ineffectively for at-risk students. Many principals are concerned about the growing numbers of at-risk students, and to what extent teachers are prepared to assist these youngsters in the classroom. Hence, principals are looking for programs and strategies that teachers can use to work more effectively with at-risk students. As a result of this study, principals can aid teachers by:

* disseminating current literature on at-risk and dropout preventions.
* allowing CAPP personnel and student participants to present an overview of the CAPP project so that teachers will become aware of program
components and results. This can be done during a general faculty meeting or on early release/staff development days.

* developing and sharing a resource guide of community and business agencies available to assist in the instruction of at-risk students.

Petersen and Lezotte (1991) redefine the correlates of effective schools to emphasize the new characteristics of successful schools. The new characteristics include change, improvement programs, leadership, and school culture. The Portsmouth Public School district has adopted the acronym CAMEL as a vision for how it addresses school improvement. The acronym identifies climate, achievement, monitoring, expectation, and leadership components for school success. The results of the CAPP data have implications for the Cradock Middle school improvement team.

In May, 1993, the Cradock Middle School improvement team developed three objectives for school improvement. These objectives are to improve student attendance, reading skills, and math skills. The results of the CAPP study have implication for the improvement of attendance. Teachers can draw from the motivations and incentives used in the CAPP program to further promote regular school attendance. Additionally, mentoring, tutoring, and parental involvement practices employed in the CAPP project can be transferred into the regular school day climate.
Lastly, this study has implications for citywide and statewide program implementation. Any number of the program components can be adopted by or transferred to other programs. While Ryan (1991), Herbert (1989) and Hovland (1990) promote a holistic approach, to dropout prevention, they acknowledge that comprehensive intervening components can often be shared among programs in an effort to provide students the best possible holistic approach. With this in mind, local and state schools can adopt the homework clinic instrument, peer mediation, CAPP project schedule, or similar community resource to further enhance existing programs.

Implication from a Policy Perspective.

In response to Virginia’s unacceptably high dropout rate of 28.2 percent for ninth grade students, (Virginia Department of Education, 1993), the Virginia department of education has implemented a statewide initiative known as Project Youth Experiencing Success (YES). This project began during the 1989-90 school year and is currently in the fifth year of implementation. Over 10 million dollars in YES funds have been appropriated, based on funding formula, among 103 Virginia school divisions to enhance their dropout prevention efforts. The Portsmouth Public School district has received notification that approximately 300 thousand dollars of project YES funds will be awarded to the city during the 1994-95 school year.
In an effort to maximize the utility of these funds, Dr. Thomas Cimino, Assistant Superintendent for Curriculum and Instruction has established an action team specifically charged with developing a city-wide youth risk model for all Portsmouth schools. The action team is exploring the use of a unified model for implementation in September, 1994.

The CAPP holistic study has implications for the Portsmouth Public Schools dropout initiative. The Program concepts have been introduced to the action team as one alternative for the new city-wide model. The information and data gathered in the CAPP study can offer the Portsmouth Public School Board a theoretical framework as well as a program evaluation model to make decisions on dropout risk issues and policies. Board members need to be apprised and knowledgeable of dropout prevention models that have been proven to be successful. This way, they will be able to make decisions that are in the best interest of students in the district. Data on the CAPP initiative could encourage the Portsmouth School Board to continue or expand the CAPP project.

Additionally, the CAPP study has implications from a statewide perspective. The Portsmouth Public school district is accountable to the Virginia State Department of Education for effective and productive use of the YES funds. Although CAPP has not impacted Iowa standardized test and conflict resolution skills, program data has provided documentation
that grade point average, school attendance, and student attitudes toward self and school have been enhanced by program components. Such results can provide evidence, that the Portsmouth Public School’s dropout efforts are worthy of continuous funding.

Limitation of the Study

The sample used for comparisons in this study came from the student population of three Portsmouth Middle schools. Hence, the results found may not be generalizable to other school districts.

Recommendations for further Implementation and Investigation

The Cradock At-risk Prevention Program (CAPP) has by no means been suggested as a panacea for improving the performances of potential dropout students. However, the findings in this study do provide evidence that the Portsmouth Public School District is experiencing some success in improving the academic achievement, attendance, attitudes, and conflict management skills of at-risk students at the middle school level. It is incumbent upon educators to capitalize on the strengths and minimize the weaknesses of this program. With this in mind, the following recommendations should be taken into consideration.
Implementation.

1. The CAPP project should be continued at Cradock Middle School and additional funding allocated for program enhancement. Through additional funding, more students could be served. Program staff and instructional resources could be increased, and more cultural and enrichment activities could be implemented. In addition, an afternoon parent component could be incorporated so that parents could benefit from instructional and other support programs.

2. There are currently four middle schools in the City of Portsmouth; three of which have been introduced in this study. The CAPP project emphases could be beneficial to students across the city. To this end, it is recommended that the CAPP holistic concept be expanded to include all middle schools in Portsmouth.

3. As discussed in this study, students at the middle school level, particularly those at-risk, have specific psychological needs that must be addressed in the school. It is therefore recommended that the CAPP concept serve as a model for middle school teachers as they develop and refine teaching styles.
Investigation.

1. Further study is needed to involve a larger population sample in neighboring school districts to determine if the same effects can be derived in other schools.

2. Further consideration should be given to conducting the research as a longitudinal study so that CAPP students can be followed through their senior year in high school. To do so, could enable a researcher to ascertain the long term impact of the program on dropout. This study could serve as the benchmark for the longitudinal research.

3. A replication of the study should be conducted using additional independent variables such as age, gender, and ethnic background. This would allow a researcher to determine, more specifically, which students benefitted the greatest or the least from the program and in which direction the program should focus.

4. Further study should be conducted using additional direct measures of discipline referrals. Data on discipline conferences, parent contacts, time outs, and detentions could be examined and used as additional measures in assessing conflict resolution skills.
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Imel, S. (1993). Vocational education's role in dropout prevention. ERIC Digest - Clearinghouse on Adults, Careers, and Vocational Education.

Columbus, Ohio, 4.


**C.A.P.P. Homework Sheet**

Instructions: Write your homework in the space provided for each class period, if you do not have homework in that class write "NO HOMEWORK." Have your teachers place their initials on the provided lines. Have your guardian sign in the note section.

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APPENDIX B

Four Rules
Do not interrupt
No name calling or putdowns
Be as honest as you can
Work hard to solve the problem

Checklist for Resolution
Is it specific enough?
Who, what, when, where, how
Can they do what they promise?
Will it solve the problem?

Peer Mediation Report Form

Mediators ____________ Date ________

Who Had the Conflict? #1 ________________ #2 ________________

What kind of conflict??
Argument ______ Name-calling/picking ______
Rumor ______ Other ________________

Referred by:
Student _______ Teacher _______
Assistant _______ Counselor _______
Administrator ___ Yourself _______

What was the conflict about?:


Was the conflict resolved? Yes [ ] No [ ]

Resolution:
Student #1 agrees to: Student #2 agrees to:


Signature Signature

MEDIATORS: Do you think the agreement will work? Yes [ ] No [ ]

Were there any problems in the mediation? ______________