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**A STUDY OF PROFESSED AND INFERRED SELF-CONCEPT-AS-LEARNER
OF MALE AFRICAN-AMERICAN MIDDLE GRADE STUDENTS**


by

Joan Patricia Kimbrough Finger

**A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education**

**Greensboro
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Approved by


Dissertation Advisor

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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School of the University of North Carolina at Greensboro.

Dissertation Advisor William W. Runkley

Committee Members John VanHoose
Keith A. Howell
David Strahan

March 28, 1995
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Date of Final Oral Examination

FINGER, JOAN PATRICIA KIMBROUGH, Ed.D. A Study of Professed and Inferred Self-Concept-As-Learner of Male African American Middle Grade Students. (1995). Directed by: W. W. Purkey. P. 145.

Four hundred and three African American and Caucasian male and female students from two middle schools were administered the Florida Key to obtain professed self-concept-as-learner measure scores (P-SCAL). The teachers of these same students completed the Florida Key to obtain inferred self-concept-as-learner scores (I-SCAL). A total score and four sub-scale scores (relating, asserting, coping, and investing) were obtained from scoring the Florida Key. These five scores were subsequently used to test differences in the professed and inferred self-concept-as-learner measures between: (1) Caucasian and African American students, (2) male and female students, (3) male African American and other students, (4) male African American and female African American students, and (5) male African American and male Caucasian students.

The testing of the hypotheses in this study revealed that:

- When the total P-SCAL and total I-SCAL scores were employed in an analysis of variance (ANOVA) test, girls scored significantly higher than boys and Caucasian students scored significantly higher than African American students.
- When the total P-SCAL scores were employed in a univariate analysis (t-test), (1) the P-SCAL scores for other groups of students were significantly higher than for male African American students, (2) the P-SCAL scores for female African American students were significantly higher than for male African American students, (3) male Caucasian students scored significantly higher than male African American students.
- When the total I-SCAL scores were employed in a univariate analysis (t-test), (1) the I-SCAL scores for other groups of students were significantly higher than male African American students, (2) the I-SCAL scores for female African American

students were significantly higher than for male African American students, and (3) there were no significant differences observed between the I-SCAL scores for male African American and male Caucasian students.

- When the combined P-SCAL and I-SCAL four sub-scale scores were involved in a multivariate analysis (MANOVA), no overall gender/race differences were observed. This finding negated the need for testing of gender/race main effect and gender by race interaction.
- When the combined P-SCAL and I-SCAL four sub-scale scores were involved in a Hotelling T^2 test, (1) the sub-scale scores for other groups of students were significantly higher than for the male African Americans, (2) the sub-scores for female Caucasian students were significantly higher than for the male African American students, and (3) the four sub-scale scores for male Caucasian students were significantly higher than for the male African American students.

Findings of this study support two major conclusions:

1. Female and Caucasian middle grade students have higher P-SCAL and I-SCAL self-concept-as-learner scores than their male and African American counterparts.
2. Male African American students, in general, have significantly lower P-SCAL and I-SCAL self-concept-as-learner scores than (1) other students, (2) female African American students, and (3) male Caucasian students.

The findings of this study, coupled with results of pertinent, related literature suggest the need to investigate theories relative to the self concept of students and to replicate programs that enhance their self concept. To insure that such investigations and replications contribute fully to the welfare of students in the schools, programs should be well planned and implemented.

DEDICATION

This dissertation is dedicated with endearing love and gratitude to my parents and first teachers, Ozella Feimster Kimbrough and the late Robert Gaston Kimbrough, and to the seed of our seed Brandi Olivia Tiara Finger.

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To simply say thank you does not seem adequate enough to express appreciation to committee members, Drs. W. W. Purkey, Keith Howell, David Strahan, and John Van Hoose for their endurance throughout this study. The researcher is most appreciative to Dr. Purkey for his direction, advice, support, and encouragement; to Dr. Howell for being a personal cheerleader; to Dr. Strahan for his keen observations and probing questions; to Dr. Van Hoose for his attention to every detail.

Additionally, the researcher expresses appreciation to the teachers and students who participated in this study. The entire school system is to be commended for their commitment to raising student achievement and student self-concept-as-learner.

Finally, the researcher is deeply indebted to her husband, William A. Finger, for the love, support, understanding, encouragement and never ending patience displayed throughout this entire process.

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CHAPTER I

INTRODUCTION

The purpose of this study was to examine the professed and inferred self-concept-as-learner (SCAL) ratings of male African American sixth, seventh, and eighth grade middle-school students. Self-concept-as-learner ratings were obtained by having a random sample of 403 African American and Caucasian middle-level students assign self-concept ratings to themselves (professed ratings) and by having the teachers of the same students assign self-concept ratings to students in their particular classes (inferred ratings).

The Florida Key, an unobtrusive, nonreactive self-concept instrument, designed by Purkey, Cage, and Graves (1973), was used to obtain inferred self-concept-as-learner (SCAL) ratings of students from teachers. An adaptation of the Florida Key was used to obtain professed self-concept of students.

Statement of Problem

Despite the great attention that has been directed at self concept in terms of theory and opinions, evaluations and research, and the implementation of innovative activities and programs, there remains a lack of consensus in dealing with the term "self concept". While there is general consensus among leaders in education regarding the relationship between self-concept measures and academic performance (Liu and Kapland, 1992; Lowey, 1993; Purkey, 1970; and Youngs, 1993), authorities differ on the role the school should play in developing positive and realistic self concepts in students. Also, research findings do not consistently support the contention that self concept is associated with academic performance (Beane, 1991; Finn, 1986; Liu and Kaplan, 1992; Schmoker,

1990; and Weaver and Matthews, 1993). However, a positive association between self concept and academic achievement has been reported by a majority of researchers (Darakjian, Michael, and Knapp-Lee, 1985; Hansford and Hattie, 1982; Harter, 1986; and Lowery, 1993). Since there appears to be a positive correlation between academic performance and students' self concept, educators need to know as much as possible concerning the self concept of individual students and groups of students, particularly male African Americans, who are most often at-risk in many schools.

Self Concept of African American Students

There are studies that refute the popular contention that African American students, especially male students, have lower self concepts than their Caucasian counterparts. After reviewing studies of African American students that were conducted between 1968 and 1978, Porter and Washington (1979) concluded that there were no significant differences between the self-concept levels of African American and Caucasian students. At least one author, Humphrey (1992), believes that low self concept is not exclusively reserved for low achieving, low-potential, and low-income minority students. She points out that many Caucasian secondary, academically-gifted students suffer from feelings of inferiority and low self concept.

Possible explanations of the varied and conflicting findings by researchers include (1) the use of different instruments and procedures for obtaining self-concept measures, and (2) the failure of researchers to differentiate among various aspects of self. A review of available literature revealed that a large number of instruments, as well as many observation techniques, have been employed to measure students' self concept. Also, some self-concept ratings were obtained from students, while other ratings were provided by teachers and others. Finally, there was often no clear indication of whether the self

that was being measured was self-in-general, self-as-a-student, or self-as-an-athlete. This present study focused solely on one self: self-concept-as-learner.

Self Concept of Male African Americans

Research concerning the status of self concept for male African American students have produced mixed results. For example, Graham (1994), after an extensive review of literature, concluded that there was little to support the contention that African American students, both male and female, have lower self concepts than Caucasian students. On the other hand, Stanley (1991, 1993) found lower self-concept-as-learner scores for African American students. Lay and Wakstein (1985) found that African American male and female students had significantly higher self concept than male and female Caucasian students when the two genders were matched on the basis of SAT scores. Such variations in the findings of these studies suggest the need to study the self concept of male African American students.

Purpose of Study

The purpose of this study was to examine the professed and inferred self-concept-as-learner (SCAL) ratings of male African American and Caucasian middle-grade-students on the four sub-scales and total score of the Florida Key self-concept scale. The four sub-scales are relating, asserting, investing, and coping. The students in the study were enrolled in language arts and reading classes in two middle schools in central North Carolina.

Prior to formulating the final hypotheses that would be adopted for this study, it was necessary to propose and answer three exploratory questions to assure that the two schools were comparable. One question was concerned with the similarity of reading

achievement scores obtained from students enrolled in the two middle schools (A and B); a second question was concerned with the similarity of professed self-concept-as-learner (P-SCAL) and inferred self-concept-as-learner (I-SCAL) scores for students in schools A and B; the third question was concerned with the degree that the set of four professed self-concept-as-learner (P-SCAL) scale scores and the set of four inferred self-concept-as-learner scale scores were intercorrelated. The degree in similarity between the reading scores and self-concept-as-learner scores (SCAL) was used to indicate whether the students from schools A and B should be considered as one or two separate study populations. The degree of intercorrelations among the four professed self-concept-as-learner (P-SCAL) sub-scores and among the four inferred self-concept-as-learner (I-SCAL) sub-scores was used to determine whether each of the four sub-scale scores could be reliably used as dependent variables.

In addition to answering the three exploratory questions, this study sought to answer basic questions for the professed self-concept-as-learner (P-SCAL) scores and the inferred self-concept-as-learner (I-SCAL) scores. Questions were directed at obtaining answers for total scores as well as for the four sub-scale scores for the P-SCAL and I-SCAL measures.

Exploratory Question 1 (Differences between reading scores for students in schools A and B)

When the end-of-year reading scores are employed, are there differences between students from School A and B?

Exploratory Question 2 (Differences between self-concept-as-learner (SCAL) scores for students in Schools A and B)

When the P-SCAL and I-SCAL total and four sub-scale scores are employed, are there differences between students from Schools A and B?

Exploratory Question 3 (Degree of correlation among self-concept-as-learner scores)

When the P-SCAL and I-SCAL four sub-scale scores are employed, are the scores intercorrelated?

The basic questions and corollaries for the professed self-concept-as-learner (P-SCAL) scores follow:

Question 1 (Overall gender/race differences among the four scale scores)

When the professed self-concept-as-learner (P-SCAL) four sub-scale scores are employed, are there overall gender/race differences?

Corollary 1A (Gender/race main effect differences among the four sub-scale scores)

When the professed self-concept-as-learner (P-SCAL) four sub-scale scores are employed, are there gender/race main effect differences?

Corollary 1B (Gender/race interaction among the four scale scores)

When the professed self-concept-as-learner (P-SCAL) four sub-scale scores are employed, is there gender by race interaction?

Question 2 (Overall gender by race differences for total score)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, are there overall gender race differences?

Corollary 2A (Gender by race main effect differences for the total score)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, are there gender/race main effect differences?

Corollary 2B (Gender by race interaction for total score)

When the professed self-concept-as-learner (P-SCAL) scores is employed, is there gender/race interaction?

Question 3 (Differences between four scale scores for African American males and other students scores)

When the professed self-concept-as-learner (P-SCAL) scale scores are employed, are there differences between African American males and other students?

Corollary 3A (Differences between four scale scores for African American males and African American females)

When the professed self-concept-as-learner (P-SCAL) four scale scores are employed, are there differences between African American males and African American females?

Corollary 3B (Differences between the four scale scores for African American male and Caucasian male students)

When the professed self-concept-as-learner (P-SCAL) four scale scores are employed, are there differences between African American males and Caucasian males?

Question 4 (Differences between the total scores for African American males and other students)

When the professed self-concept-as-learner (P-SCAL) total score is employed, are there differences between African American males and other students?

Corollary 4A (Differences between total scores for African American male and African American female students)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, are there differences between African American male and African American female students?

Corollary 4B (Difference between total score for American males and Caucasian males)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, are there differences between African American male and Caucasian male students?

Question 5 (Differences between relating, asserting, coping, and investing scores for African American males and other students)

When the professed self-concept-as-learner (P-SCAL) relating, asserting, coping and investing scale scores are employed, are there differences between African American males and other students?

Corollary 5A (Differences between relating, asserting, coping, and investing scores for African American males and African American Females)

When the professed self-concept-as-learner (P-SCAL) relating, asserting, coping, and investing scale scores are employed, are there differences between African American males and African American females?

Corollary 5B (Differences between relating, asserting, coping, and investing scores for African American males and Caucasian males)

When the professed self-concept-as-learner (P-SCAL) relating, asserting, coping, and investing scale scores are employed, are there differences between African American males and Caucasian males?

The basic questions and corollaries for the inferred self-concept-as-learner (I-SCAL) scores follow:

Question 6 (Overall gender/race differences among the four scale scores)

When the four inferred self-concept-as-learner (I-SCAL) scale scores are employed, are there overall gender/race differences?

Corollary 6A (Gender/race main effect differences among the four scale scores)

When the four inferred self-concept-as-learner (I-SCAL) scale scores are employed, are there any gender/race main effect differences?

Corollary 6B (Gender/race interaction among the four sub-scale scores)

When the four inferred self-concept-as-learner (I-SCAL) scale scores are employed, is there gender by race interaction?

Question 7 (Overall gender by race differences for total score)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, are there overall gender race differences?

Corollary 7A (Gender by race main effect differences for the total score)

When the inferred self-concept-as-learner (I-SCAL) total score is employed, are there gender/race main effect differences?

Corollary 7B (Gender by race interaction for total score)

When the total inferred self-concept-as-learner (I-SCAL) scores are employed, is there gender/race interaction?

Question 8 (Difference between four scale scores for African American males and other students)

When the four inferred self-concept-as-learner (I-SCAL) scores are employed, are there differences between African American males and other students?

Corollary 8A (Differences between four scale scores for African American males and African American females)

When the four inferred self-concept-as-learner (I-SCAL) scale scores are employed, are there differences between African American males and African American females?

Corollary 8B (Differences between the four scale scores for African American male and Caucasian male students)

When the four inferred self-concept-as-learner (I-SCAL) scale scores are employed, are there differences between African American males and Caucasian males?

Question 9 (Differences between the total scores for African American males and other students)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, are there differences between African American males and other students?

Corollary 9A (Differences between total scores for African American male and African American female students)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, are there differences between African American male and African American female students?

Corollary 9B (Difference between total scores for American males and Caucasian males)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, are there differences between African American male and Caucasian male students?

Question 10 (Differences between relating, asserting, coping, and investing scores for African American males and other students)

When the inferred self-concept-as-learner (I-SCAL) relating, asserting, coping and investing scale scores are employed, are there differences between African American males and other students?

Corollary 10A (Differences between relating, asserting, coping, and investing scores for African American males and African American Females)

When the inferred self-concept-as-learner (I-SCAL) relating, asserting, coping, and investing scale scores are employed, are there differences between African American males and African American females?

Corollary 10B (Differences between relating, asserting, coping, and investing scores for African American males and Caucasian males)

When the inferred self-concept-as-learner (I-SCAL) relating, asserting, coping, and investing scale scores are employed, are there differences between African American males and Caucasian males?

Data for answering the above questions were obtained through the administration of the Florida Key (SCAL) (Purkey, 1973) to a selected sample of classes of middle grade students and their teachers from two middle schools in a large school district in the Piedmont section of North Carolina. Students involved in the study were enrolled in English and Reading classes that were selected randomly from 56 English classes in two middle schools. Since the emphasis of the study was to measure the self-concept-as-learner of African American students in contrast with other gender/race groups of students, the study population at one school (labeled School B) was chosen first to ensure that the study involved more African American than Caucasian students. Twelve classes from classes at school B were randomly chosen to participate. After the participants in school B were chosen and placed in gender/race categories, approximately the same population of students in each gender/race category was chosen at random from twelve classes at the second school (labeled School A). Students assigned self-concept-as-learner (P-SCAL) ratings (professed ratings) to themselves for each item in the Florida Key. Simultaneously, teachers assigned self-concept-as-learner ratings to the same student in their classes (inferred or I-SCAL ratings). Ratings from each source were computerized and statistically analyzed to test the hypotheses proposed for this study.

The hypotheses were tested through the use of correlational multivariate, analysis of variance, and t-test analyses. Observed relationships and differences were declared significant at the .05 confidence level.

Significance of Study

This study should prove valuable to educators and others who are interested in and will benefit from empirical findings concerning African American students' self-concept-as-learner, particularly at-risk male African American students. The findings may provide practitioners with (1) more insight into students' self-concept-as-learner at a critical period (adolescent years) in their lives; (2) a better understanding of race differences regarding self-concept-as-learner; and (3) knowledge relative to the extent that students and their teachers differ in their perceptions of students' self-concept-as-learner.

This study addresses students' self-concepts at one of the most critical periods in their lives, grades six, seven and eight. Many specialists in middle school education (Fenwick, 1986 and Jackson, 1990) argue that the self concept of the students at this period of their educational career is one of the most critical factors in providing the students with a relevant and quality education. The findings of this study should provide relevant information to teachers as they make decisions to provide students with better learning opportunities.

A relatively unique feature of this study centers around the extensive disaggregation of the self-concept research findings for middle-grade students by a number of gender/race groupings. For example, in addition to contrasting self-concept scores by male and female students and African American and Caucasian students, there are analyses of differences between male and female African Americans, male and female

Caucasians, African American males and male Caucasians. The disaggregation by gender and race to some extent responds to the plea of Coble (1991) that researchers and those who report test scores disaggregate research findings and test results to the lowest "common denominator" of students' populations. The breakdown by the various groups of gender/race populations in this study not only provide teachers and other educators with more detailed information about special groups of students, but also provides additional insight into previous questions addressed by research studies. For example, this study could provide additional insights to whether there are significant differences between self-concept-as-learner (SCAL) for African American and Caucasian students and especially African American male students and other gender/race sub-groups.

Finally, this study should make a contribution to the body of knowledge about self-concepts in general, and about the use of the Florida Key in particular, because the professed and inferred self-concept-as-learner of students and their teachers respectively are analyzed by the use of a total score and four factor scores. Differences between groups might be observed for the total score, but only for two of the four sub-scale scores. More specifically, differences between groups might occur on the relating and coping sub-scales and not on the asserting and investing factors.

Definition of Terms

The following definitions were used throughout this study:

Self concept - Self concept is defined as "the perceptions individuals hold regarding their own personal existence..their view of who they are and how they fit into the world (Purkey and Schmidt, 1987, p. 10).

Self-Concept-As-Learner (SCAL) - Self-concept-as-learner (SCAL) is defined as the perceptions which students have about themselves that relate to their academic ability and school success.

Professed Self-Concept-As-Learner (P-SCAL) - Professed self-concept-as-learner (SCAL) is defined as reported perceptions students have about academic ability and school success.

Inferred Self-Concept-As-Learner (I-SCAL) - Inferred self-concept-as-learner is defined as the perceptions that teachers report they have about their students' academic ability and school success.

Relating reflects a basic trust in people. The student who scores well on relating probably identifies closely with classmates, teachers, and school. He or she thinks in terms of our school, our teachers, my classmates, as opposed to the teacher, that school, and those students. Being friendly is easy for these students and they are able to take a natural and spontaneous approach to school life (Purkey, 1973).

Asserting suggests trust in one's own value. Students who score high on asserting have learned to view themselves as having some control over what happens to them in school. Students who are assertive are willing to challenge authority to obtain a voice in what takes place in the classroom (Purkey, 1973).

Investing implies trust in one's potential. Students who feel good about themselves as learners are more willing to risk failure or ridicule at school and in the classroom. A high score on this factor suggests an interest in being original, creative, and willing to try something new. Students who score high on investing volunteer in class, even though their good intentions may sometimes backfire (Purkey, 1973).

Coping indicates a trust in one's own academic ability. Students who score well on coping are interested and involved in what happens in the classroom and in school.

Pride is taken in school work and attempts are made to obtain closure on assignments (Purkey, 1973).

Middle Grades include grades six, seven and eight.

Limitations of the Study

The limitations of this study follow:

- Students and teachers in only two middle schools were involved in the study.
- Due to the increased number of responsibilities assigned to teachers near the close of school (May, 1994), the completion of the self-concept evaluation forms (I-SCAL) by teachers might have been rushed.
- Self-concept-as-learner measures in this study were based on the reported perceptions of students and teachers which might have resulted in invalid assignments of self-concept scores.
- Analysis of data in the study was limited to determine differences between students' professed ratings by race and gender, and between teachers inferred ratings by race and gender. No attempt was made to relate students' or teachers' self-concept-as-learner ratings to measures of end-of-year academic student performance. This analysis is planned for a future study.
- No attempt was made to analyze differences between self-concept ratings assigned by African American males and Caucasian females or African American females and Caucasian males. This comparison was

not a focus of this study. In addition, it would confound race and gender.

- Since the four P-SCAL and four I-SCAL sub-scale scores are significantly intercorrelated, caution should be exercised when interpreting findings with these scores.

Overview of Remaining Chapters

Chapter II provides a summary of literature that is judged to be most relevant to the purposes of this study. Included in the chapter are background information on the definition of self concept, the importance of self concept, the role of the school in developing self concept, the middle school and students' self concept, the rationale for the middle school, and characteristics of the middle school. Also, it presents research related to self-concept, findings of studies using the Florida Key, research related to male self-concept-as-learner, relationship between self concept and achievement, differences between self concept for Caucasians and African Americans, and relationship between gender and self concept. Finally, it includes strategies used or recommended to enhance self concept, general strategies to enhance self concept, strategies used and recommended for African American males, factors related to African American self concept, statistical data related to African Americans in North Carolina and opinions regarding factors related to African Americans' self concept.

Chapter III describes the procedures that were employed to ensure that the purpose of the investigation was realized. The discussion includes procedures, the participants, data collection, administration of the Florida Key, hypotheses investigated, and summary of procedures.

Chapter IV presents the findings that were observed from testing the hypotheses selected for the investigation. Findings are presented in both tabular and narrative form.

Chapter V presents the summary of findings, the conclusions drawn from the findings, implications of the findings, the comparison of the findings of this study with previous studies, recommendations for future research, and personal observations and recommendations.

CHAPTER II

REVIEW OF LITERATURE

A thorough and reliable review of literature provides the researcher with background information that assists in formulating pertinent hypotheses, designing research procedures, selecting data, gathering instruments and procedures, replicating significant studies, and relating current findings to results observed in similar studies of the past. The summary of the review also provides readers, in general, and other researchers, in particular, with more concentrated viewpoints on a well-defined and somewhat limited part of a broad topic of concern. To fulfill the purpose of this study, the review of literature will include background information about self concept as well as more specific information relative to how self concept impacts on African American and other gender/race student categories enrolled at the middle grade level.

SELF CONCEPT

To assist in formulating the design of this research and interpreting the findings, a literature search was made to obtain and summarize relevant information concerning the definition and nature of self concept. A special effort was made to include writers' views on self concepts as they relate to how they impact on individuals in general and on students-as-learners in particular.

Lowery (1993) reported that self concept is a difficult construct to define and measure. Joseph (1992) added that throughout the literature, the word self concept is used interchangeably with self-esteem, self-worth, and self-congruency. Self concept is defined as the perceptions persons have regarding their existence, how they view themselves and their place in the world (Purkey and Schmidt, 1987), Steffenhagen and

Burns (1987) define self concept more concisely as the totality of the individual's perception of what he/she is. According to another author, self concepts are the perceptions, attitudes and feelings we hold about ourselves (Marshall, 1989).

The Importance of Self Concept

A review of literature reveals that there is a general unanimity among writers concerning the importance of self concept in ensuring that humans enjoy a happy and productive life. Blitzer, Petersen, and Rogers (1993) forcefully state self concept is the single most powerful force in existence. Earlier Maslow (1956) maintains that self-actualization is necessary for people to view themselves as worthy. According to Burns (1990, p. 57): "High self concept is the greatest gift you can give yourself. If you feel good about yourself, chances are that you'll seek the self-fulfillment that you - and every human being - deserves." Westman (1990) suggests that an optimal level of self concept is a condition of being at home in one's body, a sense of self-confidence, and an assurance of recognition and acceptance by those who are important in one's life. Youngs (1993, p. 59) states that "perhaps nothing affects one's health and energy quite so much as the health of our self concept." Necessary and Parish (1993), in a brief statement, suggest that self concepts are thought to permeate who we are. Kaiser (1993), also in a brief statement, argues that self-concept building can be viewed as the fabric of which the future is woven. In commenting about the Florida Key, an instrument designed to measure self concepts of students, Purkey, Cage, and Graves (1973) report that much research had confirmed that self concept might well be the central ingredient in understanding human personality and behavior.

The Importance Of Self Concept In Learning

Self concepts of individuals are developed and changed throughout life (Purkey, 1970). Every experience that an individual has impacts to a certain extent upon one's self concept and determines the nature and extent of learning and other behaviors. This is especially true when children attend school, for it is in this environment they are introduced to such a variety of individuals and experiences that affect their self concepts. Silvernail (1987) points out the obvious in saying that positive experiences develop positive self concepts and that negative experiences create negative self concepts.

Many leaders in the field of education believe that students' opinions of themselves have a great deal to do with how well the students learn. Among the authors who argue that learners' self concepts are related to academic achievement are Lowery (1993), Marshall (1989), Purkey and Schmidt (1987), Westman (1990), and Youngs (1993). Furthermore, educators think that self concept is important to all types of learners at all grade levels and all walks of adult life. Marshall (1989) points out the importance of self concepts of young children; Silvernail (1987) states that self concept is critical among the adolescents, Liu and Kaplan (1992), explain the importance of self concept among college students; and Blitzer, Petersen, and Rogers (1993) relate the importance of a positive self concept among adults in the workplace. The importance of self concept appears to be associated with all types of individuals. For example, the importance of self concept for the handicapped learner is reported by Westman (1990); the academically gifted learner by Humphrey (1992), the Native-American students by Lowery (1993), and the African American learner by Joseph (1992).

A positive correlation between self concept and academic performance has been illustrated by numerous research studies (Darakjian, Michael, and Knapp-Lee, 1985; Hansford and Hattie, 1982; Harter, 1986). The results of research studies have also

revealed that there is a relationship between the students' evaluation of themselves as learner and their level of academic achievement (Burns, 1990; Chapman, 1988; Purkey, 1970, 1978; Purkey and Purkey and Novak, 1988).

Coble (1990) makes a strong case to the effect that the survival of American education in the 21st century is dependent on ensuring that students become independent responsible learners. He further states that the degree that students become independent and responsible is directly related to students' self concept. In Coble's opinion, students with low self concept do not have the personal strengths and resources to work independently, accept responsibility, use initiative, plan for the future, take chances, and continually adjust to demands brought about by a rapidly changing society. He adds that independent and responsible behavior are strongly interrelated with self concept in that the higher the self concept, the higher the degree of independence and responsibility and vice versa.

The Role of the School in Developing Self Concept

Despite almost total unanimity regarding the importance of self concept for the learners, there is not total consensus relative to the extent that the schools should try to enhance students' self concept. In a debate on the role of the school in enhancing self concept, sponsored by AERA, Glenn (1992) argues that the true purpose of the schools is to help students develop intellectual competency rather than ensure that every child experiences a sense of satisfaction for a job well done, regardless of whether completed tasks meet reasonable performance standards. This emphasis, according to Glenn (1992), fosters two fundamental flaws of the American educational system: (1) the reluctance to give students tasks which they dislike and (2) the tendency to have low expectations for minority and poor students. Finn (1986) regrets the fact that the emphasis on making all

students feel good about themselves has made many American teachers and principals give students and their parents only positive feedback. Yet, Finn is more concerned that the schools have established low expectations for minority and poor students. In commenting about attempts to develop self concept among American school children Schmoker (1990 p.56) states: "Too much groundless praise can breed complacency. It can and it has. Even a good thing, well intended, can become excessive."

In an article critical of a local school boards' decision to phase out the naming of valedictorians and salutatorians in lieu of recognizing a larger number of students with high grade-point averages, Ford (1994) warns of a trend by the schools to let academic standards slip so that students will not have to face disappointment and disillusionment from not doing well. He argues that the building of students' self concept should be based on honest hard work and proven success.

Nunnallee (1994) finds fault with a local school principal's belief that public schools have a fundamental responsibility to instill self concept and a sense of social responsibility in all students. In contrast, the author believes that a school should focus on its exclusive responsibility for substantive teaching and leaving instilling self concept and social awareness to the family.

Beane (1991) makes the point that in the 90's, the question is not whether schools should enhance self concept, but how they propose to do so. He relates that there are three arguments why schools should work to improve students' self concept. The first arguments center around the schools' role as a social agency that should contribute to the general health and well being of young people. The second and more practical argument is the perceptions, supported by some research findings, that there is a relationship between self concept and academic performance. Finally, there is a line of reasoning that

says the development of positive personal development will assist in the resolution of wealth, power, and justice.

Despite the need for schools to help young people enhance self concept, the self-concept efforts in America, according to Beane (1991), is somewhat ill defined and full of radical individualism. To correct this deficiency, he suggests that we move away from viewing self concept only in individualistic terms and adopt an integrated view of self and social relations. Such a transition should include at least three components: (1) personal meaning should emerge through interaction with the environment; (2) self concept is a part of an effect that also includes values, morals, and the like and is connected to cognition; and (3) self concept must include a sense of personal efficiency.

THE MIDDLE SCHOOL

The purpose of this study was to investigate the self-concept-as-learner for middle school African American and Caucasian students. Specialists in the middle school movement, such as Fenwick (1986), believe that the self concept of students is a critical factor in the teaching-learning process as well as for the general welfare of the students.

Van Hoose and Strahan (1987) point out that due to turbulent changes in early adolescents' intellectual and physical development, those young people experience drastic changes in self-concept. It follows, according to the authors, that the need for adolescents to develop understandings of themselves as valuable, able, responsible people.

The Rationale For Middle Schools

The move from a junior high organization to a middle school organization by local school personnel was primarily motivated by the need to provide for the unique needs of early adolescent youth. Fenwick (1986) points out these in brief form:

The middle grades represent the troubled years in American education. They are years characterized by intense physical, emotional, social, and intellectual changes in the lives of students. They are also the years in which students begin to experience more fully the spiritual dimensions of those personalities. Hard moral and ethnic choices are also increasingly confronted and the framework of adult values begin to arise. (p.88)

The author elaborates on the rationale for developing the middle-school organization when he states that the middle school is necessary because of basic intellectual, psychological, social, spiritual, moral and ethical needs of students in the middle grades. The students have special intellectual needs because they are experiencing increased cognitive ability, expanded curiosity, increased distractibility, heightened ability to think independently and critically, increased need to challenge authority, and maximized dependency on personal literacy as the key to the future.

According to Fenwick, the psychological needs of the middle school students include increased self-consciousness related to rapid growth and change, heightened potential for interpersonal conflicts, and lowered risk-trust levels in relationship with parents, teachers, and other adults. Social problems faced by these students include increased peer group dependency, diminished parental influence, heightened desire for personal independence and autonomy, and accelerated need to define male and female sex roles. Finally, Fenwick defines the spiritual, moral and ethical needs of the students as heightened concerns about the deeper meaning of life, expanded social consciousness, and increased confrontation with hard moral and ethical choices.

Eichorn (1986) states that the middle school should be provided for prepubescents, early adolescents, and adolescents who are going through a stage he calls transescence. He defines transescence as:

. . . the stage of development which begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does

not occur for all precisely at the same chronological age in human development, the transescent designation is based on many physical, social and emotional changes in body chemistry that appear prior to the puberty cycle to the time in which the body gains a practical degree of stabilization over these complex pubescent changes. (p. 3)

Other writers provide specific recommendations regarding the need for a unique middle school program. Overly, Kingham and Preston (1993) contend that humanizing education is the main function of the middle school. Presenting a broader view are Wiles and Bondi (1986) who state that there is a need for the middle-school program so that there can be a focus on individual student development rather than mastery of content subject areas; a balance between the social, emotional, and intellectual dimensions of the curriculum; and a comprehensive curriculum addressing all aspects of growth.

According to Van Hoose (1991), one of the best ways to provide compassionate support and careful attention to the personal and social adjustments needs of middle school students is through an advisor/advisee program. He further suggests that the quality of the relationship between teachers, as advisors, and students, as advisees, is the single most important component of middle school education.

Van Hoose and Legrand (1995) described a program called Teaching our Pupils Success (TOPS) that addresses the complex needs of potential dropouts. A major component of the program is the involvement of parents and community participation. Among the strategies of the program were efforts to promote academic success and greater interest in school through after-school assistance and tutoring and to provide opportunities for success that would contribute to personal growth and a positive self-concept. To ensure that a program such as TOPS changes the performance of students, Van Hoose (1989) argues that you must change the attitudes of students; and to meet this objective, you have to change the attitudes of teachers. Strahan (1989) states that the

success of programs designed to assist disconnected and disruptive middle grade students have more to do with personal dynamics than to any particular programmatic consideration.

Characteristics of the Middle School

Kindred (1976) lists the general characteristics of a Middle School as articulation, emphasis on self-actualization, development of self-direction, and use of innovative techniques. From a review of research on the Middle School, Jackson (1990) concluded that students in the middle grades can best be served through the implementation of six essential elements. The six essential middle school elements, which are student centered, include: An interdisciplinary team organization, teacher-based guidance, an exploratory program, varied instructional support, and continued orientation for students and parents.

RESEARCH RELATED TO SELF CONCEPT

This summary of research studies related to self concept is limited primarily to studies conducted with the use of the Florida Key and studies concerned with self-concept-as-learners (SCAL). A special effort was made to incorporate reviews that investigated the self concept of African American students or contrasted the self concepts of African American and Caucasian students as well as the gender/race differences in self concept.

Findings Of Studies Using the Florida Key

A review of literature revealed that there are several significant studies that involved the use of the Florida Key, an instrument designed to measure self-concept-as-learner (SCAL). One study, conducted by Harper and Purkey (1993), involved 400 students from two middle schools in North Carolina. Of the 400 students, 300 students

were classified as average and 100 students as academically gifted. All students were administered the student form of the Florida Key twice over a five-month period to obtain professed self-concept-as-learner (P-SCAL) scores. Teachers of the students also administered the teacher form of the Florida Key to obtain inferred self-concept-as-learner (I-SCAL) scores for the students.

Significant differences were observed across grade levels for both forms of the test and the scores obtained for sixth grade students were significantly higher than those for seventh and eighth grade students. Also, significant differences were observed between the scores for sixth and seventh grade students and sixth and eighth grade students for average and gifted students, male and female students, urban and rural scores, and professed and inferred scores.

When the SCAL scores were compared over a five-month period across grade levels, no significant differences were discovered for inferred SCAL but a significant decline was observed in the professed SCAL during the same time period. Teachers inferred significantly higher SCAL for both average and gifted students than the SCAL professed by the students themselves.

Lowery (1993) also used the Florida Key in investigating self-concept-as-learner (SCAL) of Native-American middle-grade students. The study was designed to measure the differences in self-concept-as-learner due to grade (6, 7, 8), gender (male and female), race (Native-American, African American, Caucasian), school setting, and achievement (California Achievement Test score). Only the professed SCAL score of the Florida Key was used in the investigation.

Results of the study indicated that achievement of the middle-school student was the best predictor of self-concept-as-learner. In contrast, students' grades, gender, race and school assignment are not associated with self concept. No significant differences

were observed among SCAL scores for Native Americans, African Americans, and Caucasians, but there was a significant correlation between the students' achievement test scores and the students SCAL scores. The students with higher achievement scores had higher SCAL scores.

Purkey and Cage (1993) summarize several other studies that involved the use of the Florida Key. The Florida Key was used by Branch in 1973 to determine whether there were significant differences between disruptive and nondisruptive students in four middle schools in Florida. Results of the study revealed that disruptive students scored significantly lower on all four factors of the Florida Key. In 1987, Damico and Purkey administered the Florida Key to 96 eighth-grade students identified as "class clowns" and 237 "non-clown" classmates. No significant difference was found between the Florida Key total scores for the two groups, but significant differences were found on the two factors, asserting and coping. Clowns scored significantly higher on asserting and significantly lower on coping than their counterparts. In 1984, Weeden employed the Florida Key to study the effects of a contrived treatment program on self concept. Differences between the experimental and control groups were found for the Florida Key total score and the asserting and coping factors. Stanley and Purkey (1994) used the Florida Key in a study designed to determine the relationship between an approach called "invitational learning" and student self-concept-as-learner. The Florida Key was administered to 175 students in the seventh grade and readministered to the same during the ninth grade. During the time between the pre-testing and the post-testing, the students were involved in the "invitational learning" project. The analyses of the SCAL scores revealed that the students' scores remained constant over the three-year period and did not decline as hypothesized on the basis of the findings of other studies.

Research Related to Self-Concept-As-Learner

The importance of self-concept-as-learner can be well illustrated by the number of studies that have been conducted on the topic, as well as by the strong recommendations that have been made to study the topic even more thoroughly. Such investigators as Lowery (1993), Harper and Purkey (1993), and Weaver and Matthews (1993) urge educators and other professionals to become involved in studies that will provide more insight into self concept and its impact on human behavior. Coble (1991) was more specific in the recommendations he made. In a paper on accountability and testing that Coble read to the North Carolina school superintendents at their annual summer conference, the author and reader, among other points, emphasized the need for the disaggregation of test scores and other pertinent student data so that more valid plans, decisions, and instructional strategies could be developed to improve learning among students. Such breakdown in information should prove invaluable in identifying the unique needs and learning styles of various categories of students (i.e., African American males, handicapped students, academically gifted students). Coble also makes a strong appeal for the use of affective instruments (i.e. self-concept scores) and procedures for identifying students' needs and performance. He then urged educators and those who develop tests and other data collecting instruments to conduct research with their tests and scales and to disseminate findings among interested parties.

Graham (1994) points out that there has been a dearth of recorded studies of the psychological functioning of African Americans during the last decade. To support this contention, she reports that it has been fifteen years since an article concerned with achievement, motivational variable among African Americans appeared in Review of Educational Research. Also, during the last ten years, only a handful of articles dealing

with the aspect of the psychological functioning of African Americans were reported in the journal. In regard to studies that focused on achievement among African Americans, Graham's reviews of literature indicated that most research on the topic was conducted between 1960 and 1970. Although most of the studies on achievement reported higher achievement for Caucasian students, self concept of ability is higher among African Americans or the races do not differ.

Relationship Between Self Concept and Achievement

Some studies have been conducted to determine the relationship between self concept and achievement, however, in a study of self concept of at-risk students, Weaver and Matthews (1993) reported that students in an experimental group met twice a week for 14 weeks for self-concept training during a regular class period. Students in a control group continued with their regular instructional activities during the same period of time. At the end of the 14 weeks, students in the experimental and control group were administered the Piers-Harris Children's' Self Concept Scale. Simultaneously, grades, reading, mathematics, social studies and science were collected along with the number of discipline referrals. The collected data were analyzed to determine whether there were significant differences between the self concept and achievement for the experimental and control groups. The analysis revealed that the experimental group scored significantly higher than the control group on self concept and physical appearance. However, no significant differences existed between the experimental and control groups on achievement and discipline referrals.

Unlike the Weaver-Matthews (1993) findings, a number of studies have shown a relationship between self concept and school achievement. For example, Shaavik (1983) discovered that there was a relationship between low self concept for boys in grades four

through eight. Rubin, Dorle, and Sandrige (1977) found a moderate relationship between self concept and school achievement. A significant relationship between academic achievement and self concept was found for both boys and girls in a study conducted by Primavera, Simon, and Primavera (1974). Bledsoe (1967) reports that studies that use self-report inventories generally found a stronger relationship between achievement and self concepts in boys than in girls. In the area of underachievement, the sex difference is more pronounced.

Howerton, Enger, and Cobbs (1994) conducted a study with forty-two junior high students to determine the relationship between self concept and achievement of adolescent African American males identified as "at-risk" by their teachers. The students were administered the Coopersmith Self-Esteem Inventory and the Stanford Achievement Tests. The investigators found that self concept was significantly related to the achievement test scores as well as academic grades assigned by teachers.

Differences Between Self Concept For Caucasian and African American Students

Research concerning differences between self concept of ability for Caucasian and African American students also have produced mixed results. Some studies found lower scores for African American students while other research revealed lower scores for Caucasian students. In a review of literature conducted by Graham (1994), there was little evidence to support the contention that African American students have lower self concept. Stanley (1991;1993) found lower self-concept-as-learner scores for African American students.

In disputing the belief on the part of some that minority students have lower self concept than their white counterparts, Porter and Washington (1979) report that a review of ten years of American research had not clearly indicated that there is low esteem

among black children and youth. In studies conducted in The Netherlands, results did not lead to the conclusion that minority children suffer from low self concept. On the basis of these studies and observations of the educational process, Glenn (1992) concludes that the mission of the school is to teach academic skills and through meeting this mission students are afforded the opportunity to develop healthy self concept through effort and persistence.

Simmons, Brown, Bash, and Blyth (1978) conducted a study involving 798 African American and Caucasian students in the sixth and seventh grades. To the surprise of the authors, they found that African American students have significantly higher self-concept scores than Caucasian students. They also discovered that school racial composition had no effect on the self concept of the sixth and seventh grade students involved in the study. The latter findings also surprised the authors because, as they pointed out, theorists had believed that African American children in predominantly Caucasian schools would obtain higher ratings on self-concept instruments than their counterparts in predominantly African American schools. Furthermore, data supported the fact that African American students in desegregated schools had lower grade point averages but scored higher on standardized achievements than African American students in all-African American schools.

In a study involving 211 eleventh grade African American students in five public schools in the Pacific Northwest, Mboya (1986) explored the linkage between self concept and academic achievement. He obtained a global measure of self concept from the students through the use of Coppersmith Self-Esteem inventory. The study revealed that there was no significant relationship between global self concept and academic achievement. A somewhat different finding came about when academic achievement was compared with a more restricted measure of "self concept of academic ability". Mboya

found a significant positive relationship between the self concept of academic ability and academic performance. Among the conclusion that the author drew from his investigation were these two: (1) Academic self concept is very important and plays a crucial role in the academic performance of African American students, and (2) that there might be elements of self concept that effect academic achievement that need further study.

Lay and Wakstein (1985) conducted a study that compared the self-concept scores of African American and Caucasian students with the same Scholastic Aptitude Test scores. Their investigation revealed that the African American students had significantly higher self-concept levels than their Caucasian counterparts. They also discovered that positive self concepts among the African American students depended less on academic performance at the high school level than it did among the Caucasian students.

Haynes and Hamilton-Lee (1987) involved 148 African American high school sophomores in a study to show the link between students' self concept and academic performance. They administered a self-concept scale that measured six components of self concept (behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness/satisfaction). The authors discovered that higher achieving students had the highest scores on all six areas of the concept test. Within the low achieving group of students, the highest mean score was on the anxiety part of the self-concept survey. The author also found that failure in one dimension of self concept can sometimes generalize to other tasks.

In a study conducted by Perkins (1975), the author pointed out that many young African American males cope with the pressures of life by developing role-playing strategies. They identify with the popular world of fad and fashion and leisure and fun to

put out a front and to cover up deep feelings of impending doom. The author points out that young African American ghetto males learn role playing at an early age as follows:

By the time he is 8, he:

- begins to hang out with small groups
- begins to learn how to signify and play dozens
- knows the meaning of "pussy" and "fuck"
- has a fair understanding of his poverty
- begins to develop certain inferiority feelings about race
- begins to have negative attitudes toward the community
- begins to develop a poor attitude toward school

(p.46)

By the time he is 10, he:

- becomes more inquisitive about sex
- becomes more acquainted with weapons
- learns how to rap
- becomes more active with groups
- begins to establish his street image
- is able to see certain ambiguities in society
- becomes more proficient with street language
- is aware of community "hot spots"
- begins to perfect his coping skills
- begins to experiment with cigarettes and sometimes with alcohol and
- dope.

(p. 46)

By the time he is 12, he

- is ready for street gang activities
- has a good awareness of street culture
- becomes more clothes-conscious
- knows the lifestyle of the pimp, hustler, street man, militant, etc.
- can rap with the adults
- may begin having sexual relations
- has formed an image of himself
- may begin smoking reefer or dropping pills
- becomes skeptical of social institutions

(p. 46)

Graham (1994) summarized research literature concerning African Americans' self concept and motivation. It follows:

Close to 140 studies comprising an African American empirical literature on motivation were reviewed. The review was organized around five topics subsumed under three broader assumptions about the relationship between ethnic minority status and motivation. First, research on the achievement motive was reviewed to examine the belief that African Americans lack certain personality traits deemed necessary for achievement strivings. Second, the empirical literature on locus of control and causal attributions were summarized to investigate the assumption that African Americans are less likely to believe in internal or personal control of outcomes, the belief system that theoretically should accompany high achievement-related behavior. And third, research on expectancy of success and self concept of ability was reviewed to examine the hypothesis that African Americans have negative self-views about their competence. None of these assumptions was supported in the review. In fact, African Americans appear to maintain a belief in personal control, have high expectancies, and enjoy positive self-regard. (p.55)

Relationship Between Gender and Self Concept

Studies conducted to show the relationship between gender and self concept have shown conflicting results. Some studies have indicated that girls scored higher than boys and other studies show the opposite. Studies using the SCAL to assess the self concepts of middle school students revealed that girls scored higher than boys on self-concept-as-learner (Harper and Purkey, 1993; Stanley, 1991; Stanley, 1993). In contrast, Kelly and Jordan (1990) reported that girls in their study scored lower than boys on scholastic competence and job competency components. Similar findings were reported in a study conducted by the American Association of University Women (1991). The AAUW report concluded that boys are more likely than girls to believe themselves as good enough and smart enough to achieve career goals.

The report issued by the American Association of University Women (1991) documents the ways in which public schools discriminate against girls. The report is based on research on the accomplishments, behaviors, and needs of girls from preschool through high school. The findings of the study lead to the conclusion that the schools are not meeting the needs of female students as well as of male students regardless of whether you are considering achievement scores, curriculum design, self-concept levels, or staffing patterns. To bring about desirable change, AAUW makes the recommendations that follow:

- Strengthen reinforcement of Title IX to ensure sex and gender equitable education.
- Prepare and encourage teachers, administrators and counselors to bring about gender equity and awareness to every aspect of schooling.

- Incorporate in the formal school curriculum the experiences of women as well as men from all walks of life.
- Help female students understand that mathematics and sciences are relevant to their lives.
- Emphasize gender equity in vocational education.
- Develop new tests and testing techniques that adequately reflect the abilities of both girls and boys.
- Empower girls and women to play a central role in educational reform.
- Assist students to deal effectively with the realities of their lives, particularly in areas such as sexuality and health.

The AAUW (1991) Report emphasizes the relationship between the practice used in administrating the schools and the self concept of females. It points out the although research has not documented cause and effect in developing self concept, education needs to be aware that the curriculum sends strong messages to students.

An earlier survey by the American Association of University Women (1990) revealed that there were patterns of declining self concept, negative body image, and depression that begins at early adolescence and does not disappear as girls mature. For example, results of the survey revealed that 69 percent of the elementary school boys and 60 percent of elementary school girls reported that they were "happy the way I am"; whereas among high school students, the percentages were 46 percent for boys and only 29 percent for girls.

Following the American Association of University Women's reports regarding how schools shortchange girls, Orenstein (1994) spent a year in a middle school in the San Francisco Bay area and two middle schools in Northern California to write a book

about girls and self concept. In the main, the researcher concluded that there was a "hidden curriculum" that reinforces gender stereotypes, elevating boys and putting girls down. The hidden curriculum and teachers communicate behavioral norms and let boys and girls know their roles in the school culture. Orenstein points out that the hidden curriculum also provides the students with insight relative to their place in the hierarchy of larger society.

An article, "Schooled In Failure" in the *U.S. News and World Report* (1994) attempts to clarify whether such studies as those sponsored by AAUW and Orenstein contain myth or fact. *U.S. News and World Report*, following a look at recent studies and interviews with dozens of educators, psychologists, students, parents, and teachers, concluded that girls may indeed have self-concept problems that could negatively affect their performance in certain academic subjects. The news magazine raises the questions as to whether the findings, both the extent and cause of low self concept among girls, have been obscured by zealousness and sloppy research. The issues to be addressed in judging the validity of the conclusions that were drawn from the recent studies include:

- Do schools favor boys?
- Do girls' self concept suffer more in early adolescence?
- Is self-esteem tied to academic success?
- Does self concept affect career choice?

Insight into, but no definite answers for, the four above questions are provided in the article by quoting a number of educators and researchers. They point out for example that many experts believe that the misbehavior of boys and the technique teachers use to discipline them, rather than a bias against girls, decrease girls' self concept. They also alluded to a 1993 study conducted by William Purkey, a professor of education in

Greensboro, that both students and their teachers reported that more girls than boys answered "very often" or "fairly often" to such statements as "I offer to speak in front of classes" and "I speak up for my own ideas." In regard to whether self concept is related to academic success, the article was reluctant to draw any definite conclusion because of conflicting opinions and findings. The connection between self-concept problems and education and career choices was also elusive. As with the issue of whether self concept is tied to career choice, the article concludes that studies and research provide no clear answer as to the relationship between self concept and career choice.

FACTORS RELATED TO AFRICAN AMERICANS' SELF CONCEPTS

An inordinate amount of statistics and opinions are available to indicate that African Americans live in a unique environment that might directly impact their self concepts. This is especially true for an adolescent male African American. Some suggest (Kunjufu, 1984; Overly, 1993; and Tobias, 1989) that the environment in which many African Americans live is more detrimental to self concept than the environment in which Caucasians live. Despite these suggestions, some research indicates that the self concepts of African Americans is just as strong or if not stronger than those of the Caucasians (Graham, 1994 and Joseph, 1992).

Statistical Data Related to African Americans In North Carolina

An example of the difference between the school, home, and community environments in which African American and Caucasian live is well presented in the

African American Male Task Force report issued by the North Carolina State Department of Public Instruction in 1992. Some of the most pertinent statistics from this report follow:

Although North Carolina Scholastic Aptitude Test (SAT) scores have gradually been increasing for African American students, SAT scores for African American students are consistently below those for whites. North Carolina's average SAT scores for 1991 were 400 for verbal and 444 for math. Scores for African American students increased by a total of eight points -- two points on verbal (336) and six points on math (374). The combined SAT score for African American students (710) was 134 points lower than the state average and 206 points lower than the national average (NCDPI: Education Report, 1991, p.15).

Statewide, the actual high school dropout rate decreased from 6.6% to 6.3% during the 1989-1990 school year (Child Index, 1991, p.15).

During the same year the number of African American male dropouts increased from 19.7% to 20.0%. African American males drop out of school at a much higher rate (9.2%) than do their white counterparts (7.0%). The three major reasons for dropping out were absenteeism, employment and academic problems. (NCDPI: Dropout Data Report, 1991, p. 6).

While there have been some improvements in the placement of African American students in special education classes, African Americans are still disproportionately placed in special education programs. Representation of African American students in special education has declined gradually from 38% in 1987 to 36.3% in 1991. The representation of African American students in educable mentally handicapped programs has gradually declined from 59.4% in 1987 to

58.1% in 1991. (NCDPI: Division of Exceptional Children's Services, 1987-1991, p.16).

Disproportions are starkest among African American students who make up less than 8% of all students placed in academically gifted programs; however, African American representation in academically gifted programs has gradually increased from 6.8% in 1987 to 7.9% in 1991. The only special education area showing no improvement among African Americans was in the programs for the behaviorally-emotionally handicapped. African American students placed in behaviorally-emotionally handicapped programs showed a steady increase from 39.1% in 1987 to 42% in 1991 (NCDPI: Division of Exceptional Children's Services, 1987-1991, p. 16).

At the postsecondary level the North Carolina college enrollment rates of African American students as a percentage has increased from 17.7% in 1984 to 18% in 1991. Total enrollments of African American students in two- and four-year colleges and universities have increased from the fall of 1990 (60, 603) to the fall of 1991 (63, 940) - an increase of 5.2%. African American males account for 38% of the total African American student college enrollments. Only seven percent of North Carolina's 1991 college enrollees are African American males compared to 35% for white males. African Americans' greatest increase between 1990 and 1991 was experienced in community college enrollments (12.7%), while enrollments in technical community colleges (without transfer programs) suffered the only decline of African American enrollments

(3.2%). Currently 58% of African American college enrollments are in 4-year colleges and universities (Statistical Abstract, 1984-1991, p. 16).

Although most teenagers live in two-parent families, nearly 50% of all African American teens live with only one parent, usually the mother. (Children's Defense Fund, 1990, p. 18).

More than 56% of families headed by single African American women are poor. (Pine, 1990, p. 18)

Poor children are much more likely than others to be exposed to lead from old paint and old plumbing fixtures and from the lead in household dust. (Pine, 1990, p. 18)

Sixty percent of all lead poisoning cases come from African American children of families earning less than \$6,000 annually. (Pine, 1990, p. 18)

Children suffering from exposure to lead have an average I.Q. four to eight points lower than unexposed children, and they run four times the risk of having an I.Q. below 80. (Pine, 1990, p. 18).

Race, class, and education all affect youth employment. Eighty percent of high school graduates from affluent families were employed, compared to one-fifth of African American dropouts. (Employment Security Commission, 1986, p. 18).

The unemployment rate for African American youth 16-19 years of age is three times that of white youth. (Employment Security Commission, 1986, p. 191).

22% of African Americans under the age of 65 are not covered by private health or medical insurance. (National Research Council, 1989, p. 19).

STRATEGIES USED OR RECOMMENDED TO ENHANCE SELF CONCEPTS

The review of literature revealed that there are a number of strategies that have been used or have been recommended for use to enhance self concepts. Some strategies are recommended for students or people in general; others have been suggested for special population such as African Americans. Furthermore, some strategies are general in nature and are expressed in terms of operational principles as guidelines and other are specific in nature. In a few cases, the proposed strategies have been field tested and evaluated. When strategies were evaluated, they were alluded to in the Findings of Studies section of this chapter.

General Strategies To Enhance Self Concepts

Purkey (1978) believes that a major key to building self concept among students is how teachers feel about themselves and others. These feelings, in addition to determining teachers' behavior, are transmitted to pupils and impact on their general behavior and performance as well. It follows then that teachers who wish to build positive self concepts must analyze the attitudes they convey to students and the classroom climate they create. Purkey defines six ways that are important for creating a classroom environment to enhance positive self concepts in students. They are: (1) challenge, (2) freedom, (3) respect, (4) warmth, (5) control, and (6) success. He makes the following observations about each:

Challenge - A good way to create challenge is to wait until the chances of success are good, and then say: "This is hard work, but I think you can do it."

Freedom - It is difficult for self concept to grow in an environment where there is little or no freedom of choice. If the student is to grow ..., he needs the opportunity to make meaningful decisions for himself ... to make mistakes, and to laugh at his inadequacies.

Respect - A basic feeling by the teacher for the work and dignity of students is vital in building self concepts in them ... If the teacher genuinely values and respects students, it will be reflected in everything he does.

Warmth - A warm and supportive atmosphere is one in which each student is made to feel that he belongs ... and teachers care about what happens to him.

Control - It is important for the teacher to maintain discipline, ... for the type of control under which a child lives has considerable effects on his self-image.

Success - People learn that they are able, not from failure but from success. (p.47).

Adams (1993) reports on a middle-school project that was designed to get students involved in service to others as a means to help students develop positive self concept and feel value. Along with building self concept, the rationale for the project centered around the belief that students learn responsibility through community service. Projects that were selected for the schools must have met the criteria of having value for the student as well as the community and having a direct relationship to the middle school curriculum.

Blitzer, Peterson, and Rogers (1993) list five keys that they believe should be incorporated in strategies or activities that are planned to develop a positive self concept. These five key behaviors make people feel: (1) uniquely valuable, (2) competent, (3) secure, (4) empowered, and (5) connected or accepted, appreciated, and respected.

Burns (1990) provides recommendations regarding how people can help themselves to improve their self concept:

High self concept is the greatest gift you can give yourself. If you feel good about who you are, chances are you'll seek the self-fulfillment that you - and every human being - deserves. Self-Esteem means knowing that you have value as a person, believing that you're worth something-to yourself, to your friends and family, and to the outside world. It's self-confidence in the truest sense- not a mask of superiority put on to impress other people, but a deep-down feeling of inner worth. It's that voice inside you that says, I like myself. I'm good. I'm capable. I have something positive to offer myself and other people. The more open you are to believing positive things about yourself, the easier it is to develop self-esteem. But if something about yourself or your life is making you feel less than worthy, consider talking with a therapist, who may be able to pinpoint what is hampering your efforts to develop self-esteem and who can give specific suggestions for eliminating the problems. All of us suffer from low self-esteem at times. Even people who seem to radiate self-confidence have moments of doubt. Developing true self-esteem is a lifelong pursuit, but you can take positive steps now - and every day - to start feeling good about yourself. (p. 57)

Kaiser (1993) writes that he has identified six areas that need to be addressed to build self concept in the Middle School, as well as in other areas of education. He suggests that the six areas that follow are just as important to the teachers as the students: (1) connected and belonging - people need to know that they belong and are wanted, (2) models - people learn from what others do, (3) uniqueness - people need to like their own unique qualities and the unique qualities in others, (4) risk - people need to take chances to reach their goals, (5) power - people need to have the power to make choices in regard to their attitudes, actions, and reactions. and (6) validation and appreciation - people need to be valued and appreciated.

Purkey and Schmidt (1987) proposed that there are three ways in which people change their self concept in a positive or negative direction. They follow:

The first way is through an extremely traumatic or ecstatic event. The second way that people change their self-perceptions is through a professional helping relationship, such as spiritual guidance, medical

treatment, or professional counseling. But the third and greatest influence on self-concept takes place in repeated everyday experiences and events. Repeated experiences, either inviting or disinviting, witting or unwitting, can have a profound effect on self. (p.39)

In making recommendations for improving the schools, (Youngs, 1993) argues that efforts at school reform will fail unless we initiate efforts that promote self concept as a basis for learning and achieving. He goes on to say that the schools, if they are to make a difference in the future, must help students attain the six facets of self concept: (1) a sense of physical safety, (2) a sense of emotional security, (3) a sense of identity, (4) a sense of belonging, and (5) a sense of purpose.

Necessary and Parish (1993) mentioned that special strategies such as behavior modification, conflict management, and change management might be used to enhance self concepts. They were personally involved in a study designed to determine the effect on students' self concepts from participation in the "Let's Get Excited About Life" program. The researcher concluded that this particular program had a positive impact on the students' self concepts at the close of the experimental period as well as one year later.

Strategies Used and Recommended For Male African Americans

Authors who recommend strategies for improving the self concepts of African Americans include many of the strategies suggested in general as well as some specific activities for African Americans. Recommendations for this group seem to focus more on juvenile male African Americans than any other sub-population of African Americans.

The Raleigh, North Carolina News and Observer (1994), in an editorial, calls for an attack by the public schools to help African American boys who are overrepresented in unemployment rates, prison statistics, and school dropout figures. The article encourages

local schools to obtain grants, to implement strategies, and to reach black male youngsters.

Of the many issues that influence the quality of education, Tobias (1989) believes that four appear to be especially pertinent, particularly for African American adolescents. These four are: Curriculum relevancy, teacher competency, parental involvement, and competent guidance and counseling. In regard to curriculum relevancy, the object is to make subject matter come alive by making reference to real life experiences of students and making concrete examples. For African American students, curriculum relevancy is essential. The major concern relative to the preparation of teachers is that teacher training institutions are not doing a good job of preparing teachers to work in urban inner schools where the enrollment is predominantly the minority race. To help remedy this situation, advice from spokespersons from the African American Community is needed. The author's recommendations in regard to improving guidance and counseling programs center on recruiting and employing more African American counselors, reversing the trend of placing African American students in "vocational education" tracks, and raising education and career expectation levels of African American students. Finally, suggestions for improved parental involvement include parents being more proactive than reactive in dealing with the school, showing that they are willing to cooperate with the school, demanding more accountability from their children.

According to Clark (1983), there are a variety of parental activities that will help poor black students cope with various school problems. Among these activities the author lists those that follow:

- (1) Parents clearly define and fully accept their responsibilities for 'parenting' by being a provider, teacher, nurturer, coach, and source for hope for the child.
- (2) Help child establish relationships with other achievement-oriented persons
- (3) Establish rules for every conceivable

social situation by openly discussing 'appropriate' behavior for that situation. (4) Parent should use their influence to establish educational activities in the household and routinely monitor the young child's use of time and space, while providing the child with consistently enforced rules for behavior. (5) Family members should work to uncover and accentuate the positive characteristics of one another. (6) Parents should emphasize the importance of dedication to tasks. (7) Parents should encourage the child to be reasonably ambitious in school and to pursue higher education. (8) Insist that homework and other educational activities be regularly performed in the home. (9) Students should be taught by example to love and respect parents and other authority figures. (10) Parents should organize the siblings into a cooperative unit of persons for playing, working, and learning together. (p. 215 & 216)

Kunjufu (1984) argues that parents should assume the major responsibility for students' school performance and positive discipline and self-image. Supplementary responsibility should be assigned to teachers. He adds, however, that if parents do not fulfill this primary responsibility, every available agency and institution must intervene in ensuring positive discipline and self-images in African American students. Intervention strategies include:

- Recognize the fact that a majority of Black children have not been educated because of a lack of priority of one percent of the ruling class in America and Black apathy.
- Develop an African frame of reference which would be the criteria for image selection.
- Encourage thinking skills and relational applications to ensure students' enthusiasm and curiosity to learn.
- Insist that parents develop home programs to develop their children's talents.

- Allocate the best service available to children, establish high expectations, create supplemental programs, and build independent African American Institutions.

Kindred (1976), Kunjufu (1984), Overly, Kingham and Preston (1993), and Tobias (1989) list various strategies for enhancing the self-images and academic performance of African American students. Among the strategies and activities mentioned are: The inclusion of African American history and other relevant courses in the school curriculum; the implementation of more supplemental activities such as dance, drama and music that are related to the African American culture; the establishment of special classes and schools for at-risk African American students; the employment of more African American teachers and counselors, especially males; and increase in the use of tutors and role model relationships; the establishment of visitation programs or field trips to prisons, drug abuse centers, teenage pregnancy centers, computer-oriented businesses, stock market, etc.; and local replication of successful African American projects such as the Westside Prep in Chicago and forty independent pre and elementary schools nationwide that are sponsored by the Council of Independent Black Institutions (Kunjufu, 1984).

Jones (1991) gives some examples of exemplary public schools that are designed to assist African American males in becoming better educated. In two Baltimore public schools, young African American males, who by the second grade were exhibiting "at-risk" behavior, were placed in third grade classes taught by African American male teachers. The purpose was to provide young African American males with positive examples of African American men. In New York City, in a specialized high school, the student body is neither single sex or single race. The special focus of the school is to

provide a multicultural education to reflect the melting pot of the city. Dr. James Comer of Yale University has been working with two schools in New England since 1968. His purpose is to enhance the achievement in those schools, to enhance the morale of the teachers, and to make them great learning environments. Finally, in Boston there is a school for 200 at-risk young Hispanic, Asian, and African American students that are males and females. This program emphasizes higher expectations and an environment characterized by help, support, and morale.

According to Ascher (1991), a number of new programs have been developed recently to address the unique needs of African American male students. In a general sense, these programs are designed to isolate the African American youth from negative community influences such as unemployment, drugs, violence, and poverty while giving them a strong gender and cultural identity. To be more specific programmatically, these new programs attempt to strengthen discipline, social skills, self concept and redefine what it means to be "manly" by using African American male adults as teachers, mentors, and role models as well as African American materials. To date, these programs have decreased the suspension rates of African American males, lowered the enrollment of African American males in general tracks and vocational courses, and increased the representation of African American males in gifted and talented classes.

Linton and Forster (1990) present a most optimistic point of view in regard to a revolutionary paradigm to change the attitude and habits of what they call the underclass. They see this paradigm as:

The new school that would create a mystique and school spirit centered on the culture of success and achievement. Successful black and white citizens in various fields of work would be honored by the school and invited to teach classes. ..News and current affairs relating to black progress and new social opportunities for blacks would be highlighted. All the usual means of creating and maintaining a feeling of all being

involved in something special, a 'we are the best' sentiment, would be employed: school songs, slogans, emblems, athletic teams, and school band-...The implementation of powerful environments in America's urban schools is imperative.. (p.31)

Opinions Regarding Factors Related to African American Self Concepts

The review of literature revealed that many authors base their perceptions regarding the factors that impact on the self concept of African American students on personal opinion. These perceptions might or might not have been based on empirical data. Finn (1986) voices a concern that is often heard among educators in that the schools have established low expectations for minority students. Beane (1991) contests the tendency of comparing self concept across cultures without clarifying culture differences. The implication here is that the beliefs of a particular group of people (i.e., African Americans) might be most proper for that group and that their attitudes, beliefs, and behaviors should not be compared with others.

A negative perception of the impact of the schools on African Americans is presented by Kono (1991). He states:

Something is seriously wrong with the educational system of society. It teaches our people to be self-hating, confused, subservient to whites and believe in white supremacy, black inferiority, social Darwinism, capitalism and other wills. It is not accidental that many Black students have low self-esteem, despise their blackness, and African roots and lack of hope. (pp. 4 and 5).

Kunjufu (1984) lists the major obstacles to high expectations as sex, race, economics, test scores, residency, appearance, language, behavior, and tracking. In regard to sex, there are lower expectations for elementary boys and older girls; in regard to socioeconomic factors, there are lower expectations based on parental education, types of jobs held, place of residence, etc.; in regard to race, there are lower expectations for

African Americans; in regard to test scores, previous scores preclude possibility of improvement; in regard to type of school, rural and inter-city schools are associated with lower expectations; in regard to appearance, lower expectation associated with clothes or appearance that are out of style or reflect cheaper material; in regard to oral language patterns, lower expectations for those who speak non-standard English; in regard to student behavior, lower academic expectations for students with poor behavior; and in regard to tracking lower expectations for those students enrolled in vocational and general curricula.

Tobias (1989) contends that the self-image in the African American in general is associated with unemployment, poor health, poor housing, racism and caste, and other inner urban problems. These problems, coupled with the tendency to provide African American neighborhoods with fewer city services, send a strong negative message to African Americans concerning their worth.

Many authors including (Kono, 1991), Kunjufu (1984), and Tobias (1989) point out the association between being a child in "fatherless" single-parent homes and the self concept of African American children. This environment is especially critical to the African American male who often fails to react to male authority.

SUMMARY

The review of literature for this study revealed that there was general unanimity among the writers regarding the relationship between self concept and enjoying a happy and productive life. There was less agreement, however, on the exact definition of self concept. Lowery (1993) states self concept is a difficult concept to define and measure. This difficulty might be partially attributed to the fact that self concept is used interchangeably with such terms as self concept, self-efficiency, self-esteem, self-worth,

and self-actualization and the term is used to define many selves, such as self-as-mate, self-as-athlete, and self-as-learner.

Most studies conducted on the relationship between self concept and academic performance warrant the conclusion that there is a positive correlation between the two factors. This conclusion is especially appropriate when the measure of self was self-concept-as-learner (SCAL) as measured by the Florida Key. There is less agreement, however, on the role that the school should play in trying to improve the self concept of students. Glenn (1992), Finn (1987), and Schmoker (1990) urge caution regarding the stance the school should take in developing positive self concepts.

Purkey (1970, 1973, 1978, and 1993) has brought a relatively new concept to the area of self concept. This work centers around the use of and investigation with the Florida Key, an instrument that solicits self-concept-as-learner ratings (SCAL) from both students (professed) and teachers (inferred). In a study using the Florida Key, Harper and Purkey (1993) obtained form I and form P ratings on a pre and post test basis from 300 average and 100 students who were classified as academically gifted. Analysis of data revealed significant differences across grade levels for both test forms with the scores obtained from sixth grade students being significantly higher than those for seventh and eighth grade students. Also, significant differences were found between the scores for sixth and seventh grade students and sixth and eighth grade students for average and gifted students, male and female students, urban and rural scores, and professed and inferred scores. When the SCAL scores were compared over a five-month period across grade levels, analysis revealed: (a) no significant difference for inferred SCAL, (b) a significant decline in professed SCAL, and (c) teachers inferred significantly higher SCAL for both average and gifted students than the SCAL professed by the students. In a study investigating self-concept-as-learner among Native-American middle-grade students,

Lowry (1993) found that achievement was the best predictor of self-concept-as-learner but students' grades, gender, race, and school assignment are not associated with self concept. No significant differences were observed between the SCAL scores for Native Americans, African Americans, and Caucasians. In an early study by Branch (1973), it was revealed that disruptive students scored significantly lower than the typical students on all four factor scores of the Florida Key. Later, Damico and Purkey (1978), found there was no significant difference between the SCAL total scores of "class clowns" and non-clowns, but significant differences between the two groups were found in two of four factors: asserting and coping.

Studies conducted to show the relationship between self concept and gender and race have shown conflicting results. In gender/self-concept studies, Harper and Purkey (1993) and Stanley (1991 and 1993) reported that girls scored higher than boys on self concept; whereas, in contrast, studies by Kelly and Jordan (1990) and the American Association of University Women (1991) revealed that boys scored higher. Similar mixed results were found when the self concepts of African Americans and Caucasians were compared. Stanley (1991, 1993) found lower self-concept-as-learner scores for African American students. In contrast, a review of literature by Graham (1994) revealed little evidence to support that African American students have lower self concepts than other students. Lowery (1993), using the Florida Key to measure self concept, discovered no relationship between gender, race and self concept.

The importance of self concept for middle-grade students and the type of programs that the middle school should administer to address the self-concept need are emphasized in education literature (Fenwick, 1986; Eichorn, 1986; and Jackson, 1990). Most agree that a unique middle school program should be administered to meet the

psychological needs of middle-school students. Jackson argues that the program should be student centered as well as curriculum centered.

Literature related to the development of positive self concept carries numerous general suggestions and specific program recommendations for enhancing self concepts. Recommended projects include such projects as students' involvement in community service, adult tutors, and conflict management; general suggestions include such suggestions as making people feel uniquely valuable, connecting and belonging, taking risks.

Recommendations for improving African American students' self concepts tend to be different and more specific than those suggested for Caucasian students. For example, curriculum relevancy, parental involvement, and the employment of African American male teachers as role models were recommended highly for enhancing the self concepts of African Americans.

There is no shortage of statistical data or expressions of opinions in the literature that indicates that the environment in which students live and the behaviors the students manifest are quite different for African Americans as compared with Caucasians. These differences are prevalent in home and community as well as the school. In general, African American students are more likely to make poor grades, be discipline problems, drop out of school, not attend college, be employed in unskilled jobs, make less money, be unemployed, and be arrested and convicted. Opinions of the plight of African American students, which is not always supported by empirical data, include such factors as the failure of the school to have high expectation levels for minority students, the tracking of African American students into vocational and general courses, and racism and costs.

Chapter III

DESIGN OF STUDY

The purpose of this study was to examine professed and inferred self-concept-as-learner (SCAL) measures of male African American middle-grade students. Professed measures were the perceptions of students in regard to their own self-concept-as-learner; the inferred measures were the perceptions of teachers in regard to how they viewed their students' self-concept-as-learner.

Procedures

After the purpose of this study was defined, a number of steps were undertaken.

These steps included:

- The formulation of null hypotheses that would be tested to meet the purposes of the study.
- The selection of appropriate statistical procedures that would be employed to test the proposed hypotheses. These statistical procedures included the calculation of the zero order correlation, the two-way analysis (ANOVA), the multivariate analysis (MANOVA), the Hotelling T^2 , and the *t*-test.
- The selection of a sample of students to participate in the study.
- The identification of two middle schools that would provide a representative sample of African American male, African American female, Caucasian male, and Caucasian female students.

- The determination of whether the students from the two schools were similar in terms of reading performance.
- The administration of the Florida Key (P-SCAL) to the student participants to obtain professed self-concept-as-learner measures.
- The administration of the Florida Key (I-SCAL) to the teachers of the students in the study population to obtain inferred self-concept-as-learner scores.
- The entry of the professed and inferred SCAL measures, as well as gender/race data for students, on computer disk.
- The completion of the statistical analyses to determine:
 - the degree that the four sub-scale professed and inferred SCAL were intercorrelated
 - differences between the professed and inferred SCAL measures for schools A and B
 - differences between the reading scores for schools A and B
 - the differences between the professed and inferred SCAL measures for (1) African American males and all other students, (2) African American male and African American female students, and (3) African American male and Caucasian male students
 - differences in gender/race main effect for professed and inferred SCAL measures
 - extent of gender by race interaction for professed and inferred SCAL measures
 - differences between professed and inferred scores within race between sexes and between race within sex.

- Following the testing of all hypotheses, findings were summarized and interpreted.

TABLE 1

Student Participation In Study By Race and Gender For Schools A and B.

| <u>Student Sub-Population</u> | <u>School A</u> | | <u>School B</u> | | <u>Total</u> | |
|-------------------------------|-----------------|----------------|-----------------|----------------|---------------|----------------|
| | <u>Number</u> | <u>Percent</u> | <u>Number</u> | <u>Percent</u> | <u>Number</u> | <u>Percent</u> |
| African American | 120 | 62 | 133 | 63 | 253 | 63 |
| Caucasian | <u>73</u> | <u>38</u> | <u>77</u> | <u>37</u> | <u>150</u> | <u>37</u> |
| Total | 193 | 100 | 210 | 100 | 403 | 100 |
| Male | 105 | 53 | 106 | 52 | 211 | 52 |
| Female | <u>94</u> | <u>47</u> | <u>98</u> | <u>48</u> | <u>192</u> | <u>48</u> |
| Total | 199 | 100 | 204 | 100 | 403 | 100 |
| Male Caucasian | 50 | 64 | 42 | 60 | 92 | 61 |
| Female Caucasian | <u>29</u> | <u>36</u> | <u>29</u> | <u>40</u> | <u>58</u> | <u>39</u> |
| Total | 79 | 100 | 71 | 100 | 150 | 100 |
| Male African American | 59 | 47 | 60 | 46 | 119 | 47 |
| Female African American | <u>64</u> | <u>53</u> | <u>70</u> | <u>54</u> | <u>134</u> | <u>53</u> |
| Total | 123 | 100 | 130 | 100 | 253 | 100 |

Participants

The participants in this study were 403 middle grade students and their 24 English and Reading teachers from two public schools of the Guilford County School District, North Carolina. Two schools, schools A and B, were chosen to participate in the study (Table 1). School A was chosen because the enrollment in the school had a relatively large Caucasian student population; whereas, School B was selected because of a relatively large African American student population. School A is classified as an urban school; School B serves a suburban population. The 1993-94 enrollment at School A was 734, of which 38 percent were African American. The enrollment for the same time at School B was 685, with 73 percent being African American students. Of the 24 teachers involved in the study, five or approximately 21 percent were African American and 19 or 79 percent were Caucasian.

Since the focus of this study was to measure the self-concept-as-learner of African American males as compared to other gender/race student groups, the study population at School B was chosen first to ensure that the study included more African American students than Caucasian students. After the participants in School B were chosen at random and placed in gender/race categories, approximately the same population of students in each gender/race category were chosen at random from School A.

Prior to administering the Florida Key to the students from the two schools, a t-test was conducted to determine whether there was a significant difference between the 1993 end-of-year reading scores for schools A and B. The mean score of 154 for school A and the mean score of 153 for school B were not statistically different.

The total number of middle grade students involved in the study was 403. Of this total, the number and percent by student sub-populations were as follows: 253 (63 percent) African American and 150 (37 percent) Caucasian; 211 (52 percent) male and

192 (48 percent) female; 119 (47 percent) male African American and 134 (53 percent) female African American; and 92 (61 percent) male Caucasian and 58 (39 percent) female Caucasian. The proportions of students in schools A and B by gender and race were close to 50 percent. For example, the largest differences between any two gender/race categories were observed between male Caucasians: 54 percent of the total male Caucasians enrolled in School A and 47 percent enrolled in School B.

Description of Florida Key

The Florida Key (Harper, 1989; Purkey et al., 1973) was used to measure the self-concept-as-learner (SCAL). Both professed (P) and inferred (I) forms of the instrument were used. The professed form was used to obtain self-report SCAL measures directly from students and the inferred form (I) was used to obtain teachers' evaluations of students' SCAL. The Florida Key was developed by asking selected groups of teachers to list classroom behaviors of students that would indicate positive self-image-as-learner. From the recommendations of the teachers, 23 statements or items were selected to be included in the Florida Key. Respondents to the instrument are requested to read each item and indicate to what degree the statement represents their behavior (professed, if student) or the behavior of their students (inferred, if teachers) on a five-point scale. The responses are coded as follows: 0 = never, 1 = very seldom, 2 = once in a while, 3 = occasionally, 4 = fairly often, and 5 = very often. The Florida Key was subjected to typical validation procedures during the development of the instrument. It proved to have an internal consistency ratio of 0.86; a factor analysis rating of at least .40 for all items; an index reliability of .84; and a split-half estimate of reliability of 0.93 (Purkey, et al., 1973).

A slightly modified version of the professed form of Florida Key was used in this study. The instrument was modified to allow respondents to circle ratings opposite each statement on the form as well as to allow teachers to record the gender and race of students. The decision to use a form that requires the circling of ratings, rather than a mark sensing form, was based on the inability of some students to use mark sensing forms and the ease of imprinting circled scores on a computer disk. (See Appendix A for student form and Appendix B for teacher form).

One total score and four sub-scale scores were obtained for each teacher and each student who completed the Florida Key. The scores were as follows: a total score, a relating score, an asserting score, a coping score, and an investing score (See Appendix C). The relating score measures the students' positive relationship in the actual classroom; asserting is demonstrated by the students socially appropriate assertive behavior in the classroom; investing measures the students' willingness and confidence to trust self and try new things; and coping refers to the students' ability to cope or achieve in school.

Collection of Data

Conferences were held with the principals at each of the two individual schools for the purpose of explaining the purpose of the proposed study and the involvement of students and teachers. Following the conference, the two principals endorsed the study and gave the researcher permission to meet with their teachers for the purpose of explaining the role of the teachers in conducting the study. Subsequently, the researcher held separate meetings with the teachers at the two schools and explained the study and the procedures that would be involved in obtaining self-concept ratings from each student as perceived by the students themselves. Teachers were instructed to use separate forms

for their own responses and their students' responses. The teacher form was colored blue; the student form was red. Teachers were requested to complete the scale for each student in his/her class as well as to record the gender and race information for the students. Emphasis was placed on encouraging teachers to do everything in their power to assure that students provide the most valid responses to the 23 items in the instrument. They were requested to inform students that no attempt would be made to identify the self-concept ratings assigned by individual students.

Teachers and their students completed the Florida Key instrument during the month of May, 1994. The responses from the teachers and students, along with gender and race information, were recorded on a disk for computer analysis.

Hypotheses

This study was designed to answer exploratory and basic questions in Chapter I. The exploratory questions, which gave direction and set parameters for subsequent analyses, in this dissertation were translated into the null hypotheses that follow:

- There are no significant differences between the reading performance of students who were enrolled in schools A and B.
- There are no significant differences between the professed self-concept-as-learner (P-SCAL) scores of students who were enrolled in schools A and B.
- There are no significant differences between the inferred self-concept-as-learner (I-SCAL) scores of students who were enrolled in schools A and B.
- There are no significant correlations among the four professed self-concept-as-learner (P-SCAL) sub-scale scores.

- There are no significant correlations among the four inferred self-concept-as-learner (I-SCAL) sub-scale scores.

The major focus of the study was to answer the ten major questions proposed for the study. To meet this focus, the ten basic questions and corollaries listed in Chapter I were stated in null form. Five of the questions and ten corollaries were concerned with the professed self-concept-as-learner (P-SCAL) scores. Five similar questions and ten corollaries involved inferred self-concept-as-learner (I-SCAL) scores. The hypotheses and corollaries that involve professed self-concept-as-learner (P-SCAL) scores follow:

Hypothesis 1 (Overall gender/race differences among the four scale scores)

When the professed self-concept-as-learner (P-SCAL) four scale scores are employed, there are no significant overall gender/race differences.

Corollary 1A (Gender/race main effect differences among the four scale scores)

When the four professed self-concept-as-learner (P-SCAL) scale scores are employed, there are no significant gender/race main effect differences.

Corollary 1B (Gender by race interaction among the four sub-scale scores)

When the four professed self-concept-as-learner (P-SCAL) scale scores are employed, there is no significant gender by race interaction.

Hypothesis 2 (Overall gender/race differences for total score)

When the total professed self-concept-as-learner (P-SCAL) scores are employed, there are no significant overall gender/race differences.

Corollary 2A (Gender/race main effect differences for the total score)

When the total professed self-concept-as-learner (P-SCAL) scores are employed, there are no significant gender/race main effect differences.

Corollary 2B (Gender by race interaction for total score)

When the total professed self-concept-as-learner (P-SCAL) scores are employed, there is no significant gender by race interaction.

Hypothesis 3 (Differences between four scale scores for African American males and other students)

When the four professed self-concept-as-learner (P-SCAL) four scale scores are employed, there are no significant differences between African American males and other students.

Corollary 3A (Differences between four scale scores for African American males and African American females)

When the four professed self-concept-as-learner (P-SCAL) scale scores are employed, there are no significant differences between African American males and African American females.

Corollary 3B (Differences between four scale scores for African American male and Caucasian male students)

When the four professed self-concept-as-learner (P-SCAL) scale scores are employed, there are no significant differences between African American male and Caucasian male students.

Hypothesis 4 (Differences between total scores for African American males and other students)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, there are no significant differences between African American males and other students.

Corollary 4A (Differences between total scores for African American male and African American female students)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, there are no significant differences between African American male and African American female students.

Corollary 4B (Differences between total scores for African American male and Caucasian male students)

When the professed self-concept-as-learner (P-SCAL) total scores are employed, there are no significant differences between African American male and Caucasian male students.

Hypothesis 5 (Differences between relating, asserting, coping and investing scores for African American males and other students)

When the relating, asserting, coping, and investing professed self-concept-as-learner (P-SCAL) scores are employed, there are no significant differences between African American males and other students.

Corollary 5A (Differences between relating, asserting, coping and investing scores for African American male and African American female students)

When the relating, asserting, coping, and investing professed self-concept-as-learner (P-SCAL) scores are employed, there are no significant differences between African American male and African American female students.

Corollary 5B (Differences between relating, asserting, coping and investing scores for African American male and Caucasian male students)

When the relating, asserting, coping, and investing professed self-concept-as-learner (P-SCAL) scores are employed, there are no significant differences between African American male and Caucasian male students.

The hypotheses and corollaries that involve inferred self-concept-as-learner (I-SCAL) scores follow:

Hypothesis 6 (Overall gender/race differences among the four sub-scale scores)

When the inferred self-concept-as-learner (I-SCAL) four sub-scale scores are employed, there are no significant overall gender/race differences.

Corollary 6A (Gender/race main effect differences among the four sub-scale scores)

When the four inferred self-concept-as-learner (I-SCAL) sub-scale scores are employed, there are no significant gender by race main effect differences.

Corollary 6B (Gender by race interaction among the combined four sub-scale scores)

When the four inferred self-concept-as-learner (I-SCAL) scores are employed, there is no significant gender by race interaction.

Hypothesis 7 (Overall gender/race differences for total score)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there are no significant overall gender by race differences.

Corollary 7A (Gender/race main effect differences for the total score)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there are no significant gender by race main effect differences.

Corollary 7B (Gender/race interaction for total score)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there is no significant gender by race interaction.

Hypothesis 8 (Differences between combined four scale scores for African American males and other students)

When the inferred self-concept-as-learner (I-SCAL) four scale scores are employed, there are no significant differences between African American males and other students.

Corollary 8A (Differences between four scale scores for African American males and African American females)

When the inferred self-concept-as-learner (I-SCAL) four scale scores are employed, there are no significant differences between African American males and African American females.

Corollary 8B (Differences between four scale scores for African American male and Caucasian male students)

When the inferred self-concept-as-learner (I-SCAL) four scale scores are employed, there are no significant differences between African American male and Caucasian male students.

Hypothesis 9 (Differences between total scores for African American males and other students)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there are no significant differences between African American males and other students.

Corollary 9A (Differences between total scores for African American male and African American female students)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there are no significant differences between African American male and African American female students.

Corollary 9B (Differences between total scores for African American male and Caucasian male students)

When the inferred self-concept-as-learner (I-SCAL) total scores are employed, there are no significant differences between African American male and Caucasian male students.

Hypothesis 10 (Differences between relating, asserting, coping and investing scores for African American males and other students)

When the relating, asserting, coping, and investing inferred self-concept-as-learner (I-SCAL) scores are employed, there are no significant differences between African American males and other students.

Corollary 10A (Differences between relating, asserting, coping and investing scores for African American male and African American female students)

When the relating, asserting, coping, and investing inferred self-concept-as-learner (I-SCAL) scores are employed, there are no significant differences between African American male and African American female students.

Corollary 10B (Differences between relating, asserting, coping and investing scores for African American male and Caucasian male students)

When the relating, asserting, coping, and investing inferred self-concept-as-learner (I-SCAL) scores are employed, there are no significant differences between African American male and Caucasian male students.

Statistical Procedures

To investigate the main hypotheses of the study, factorial analysis of variance procedures were used. Because the four sub-scales of the Florida Key are known to be significantly intercorrelated, separate analyses of variance for each of the four sub-scales of the instrument are inappropriate. Instead, two separate multivariate analyses of

variance (MANOVA) were performed, one for the inferred self concept (i.e., teachers ratings) and one for the professed self concept (student ratings). Specifically, a 2 x 2 (race and sex) unequal N multivariate analyses of variance were conducted for the inferred and professed ratings on the four scales. The two levels of the first factor (African American, Caucasian) were crossed with the two levels of the second factor (male, female).

If the overall multivariate Fs from the MANOVA were significant, two other comparisons would be appropriate. Specifically the main effects for sex and race would be examined for all four sub-scales of the inferred and professed self-concept-as-learner ratings. In addition, interaction effects (race by sex) would be investigated. On the other hand, if the overall multivariate Fs were not significant, the main and interaction effect tests would not be conducted. (Huck, Cormier, and Bounds, 1974).

Hotellings T^2 was used to compare the means of African American male students to the combined means of the other three demographic groups on the four sub-scales of the inferred self-concept-as-learner scales and the four sub-scales of the professed self-concept-as-learner sub-scales. When Hotellings T^2 proved statistically significant, ordinary t-tests were used to compare means of African American males on the four sub-scales of both instruments with the means of other students, Caucasian males, and African American females. As was indicated earlier, these comparisons did not result in entirely independent information, since the sub-scales were known to be correlated.

When the total SCAL scores were employed in the gender/race comparisons, two-way analysis of variance (ANOVA) and t-tests were used. The ANOVA was employed to determine overall gender/race differences, gender/race main effects, and gender by race interactions. The t-test was used to compare the mean ratings between two groups of students.

Observed differences between means were declared significant at the .05 confidence level.

A summary of the statistical procedures by purpose that were used in this study follows:

Purpose

- 1) Intercorrelations among sub-scale scores
(Preliminary Analysis)
- 2) The differences between SCAL scores and reading scores for schools A and B (Preliminary Analysis)
total score
- 3) Overall calculation of F value for SCAL sub-scores
- 4) Test for gender/race main effects and gender race interaction, when overall F value in 3 above was significant
- 5) Calculation of overall F Value, gender/race main effects and gender by race interaction for total SCALs
- 6) Differences among SCAL sub-scores for African-American males and other gender/race groups
- 7) Differences among SCAL sub-scores and total score for other gender/race groupings when overall T² in 6 above was significant.
- 8) Differences among total SCAL scores for African-American males and other gender/race groups

Statistical Procedure

- 1) Zero-order correlation
- 2) Hotellings T² for four sub-scores, t-test for
and reading score
- 3) MANOVA
- 4) MANOVA
- 5) Two-way ANOVA
- 6) Hotellings T²
- 7) t-test
- 8) t-test

Attention is directed to the fact that the P-SCAL and I-SCAL measures for female Caucasian students are used in calculating the MANOVA and ANOVA procedures but were not employed in conducting the Hotelling T² and t-tests. In the MANOVA and ANOVA tests, the purpose was to test overall gender/race differences and interactions; in

the Hotelling T^2 and t-tests, the objective was to contrast one group of students with other groups of students. Caucasian female students were excluded from such comparisons.

Chapter IV

RESULTS

INTRODUCTION

The findings of this study are presented in three major parts. The first part presents the results of preliminary exploration to (1) determine whether there were statistically significant differences between the end-of-year reading tests for students participating in the investigation from schools A and B; (2) determine whether there were significant differences between the professed self-concept-as-learner ratings (P-SCAL) for schools A and B; (3) determine whether there were significant differences between the inferred self-concept-as-learner ratings (I-SCAL) for schools A and B; (4) determine the extent that the professed four self-concept-as-learner sub-scale ratings (P-SCAL) assigned by the student study population were significantly intercorrelated; and (5) determine the extent that the four inferred self-concept-as-learner sub-scale scores (I-SCAL) assigned to students in the study population by their teachers were significantly intercorrelated.

The results of testing the significance of differences between the reading scores and the two types of self-concept-as-learner scores for schools A and B were used to determine whether it was appropriate to combine the students from schools A and B or use them as two separate populations when subsequently testing the hypotheses proposed for the study. On the other hand, the results of determining the extent that the four professed self-concept-as-learner sub-scale scores (P-SCAL) and the four inferred self-concept-as-learner sub-scale scores (I-SCAL) were intercorrelated were used to determine whether it were appropriate to use each of the four sub-scale scores independently when testing the hypotheses proposed for the study.

The second part presents the results of testing all hypotheses that are concerned with professed self-concept-as-learner scores (P-SCAL). Separate and different statistical analyses are used with the total SCAL scores and the four SCAL sub-scale scores. The hypotheses involving the four sub-scales include tests to determine (1) whether there was a significant overall F obtained when a multivariate analysis of variance (MANOVA) was calculated when using two independent variables (race and gender) and four dependent variables (the four P-SCAL sub-scale scores); (2) whether there were significant gender and race main effect differences; (3) whether there was significant race by gender interaction; (4) whether there were significant differences between the P-SCAL scores for African American males and all other students, for African American males and African American females, and for African American males and Caucasian males; and (5) whether there were differences between P-SCAL scores for various other gender/race student groupings.

It is important to understand that if the overall F obtained from the MANOVA analyses is not statistically significant, it is inappropriate to test for gender/race main effects and gender by race interaction (Huck, Cormier, and Bounds, 1974). A significant overall F demonstrates that the four P-SCAL sub-scale scores are significantly intercorrelated. For the same reason, it is inappropriate to test for univariate gender/race P-SCAL differences involving the four sub-scale scores when the differences between African American males vs. Caucasian males, African American females, and all other students are not statistically significant. For example, if the Hotellings T^2 between the African American males and the three other sub-groups were not significant, it would be inappropriate to compare African American males and African American females on the coping sub-score.

The hypotheses involving only the P-SCAL total scores and two independent variables (gender and race) also require the calculation of a total F value, gender and main effect differences, and gender by race interaction, but the statistical procedures employed with the total scores required the two-way analysis of variance (ANOVA). The simple t test was employed when the differences between total scores (dependent variable) for two independent variables (i.e., Caucasian males and African American females) were tested.

The third section of the report of findings is concerned with the results from testing the hypotheses that involve the use of the inferred self-concept-as-learner (I-SCAL) total and four sub-scale scores assigned to students by teachers. The procedures and principles presented for the P-SCAL scores above also apply for the analysis involving I-SCAL scores.

Five different standard statistical procedures were used in testing the proposed hypotheses in this study. They included the zero order correlation, the multivariate analysis (MANOVA), the Hotellings T^2 , the two-way analysis of variance, and the t test. The zero order correlation was used in a preliminary test to determine whether the intercorrelations among the four sub-measures of self-concept-as-learner professed and inferred ratings were significantly greater than zero. If these four measures were significantly intercorrelated, the use of multivariate analyses rather than univariate analyses are appropriate in testing the major hypotheses in the investigation. MANOVA, a multivariate technique, was employed to determine whether the overall Fs for the professed and inferred self-concept measures for the four sub-scale scores were significant; whether the main effects for gender and race for the four sub-scales of the professed and inferred measures were statistically significant; and whether interaction effects (gender by race) for the four sub-scales of the professed and inferred measures

were significant. Hotellings T^2 was used to compare the means of African American male students to the combined means of the other three demographic groups on the four sub-scales of the professed self-concept-as-learner measures and the four sub-scales of the inferred self-concept-as-learner measures. The two-way analysis of variance was employed to test for gender/race main effects and gender by race interaction for the total professed and inferred measures. Finally, the t test was used to make within race comparisons between the genders and between gender comparisons with race for the professed and inferred measures.

PRELIMINARY STATISTICAL EXPLORATIONS

Prior to testing the major hypotheses formulated for this study, three different exploratory hypotheses were tested. First, statistical analyses were made to determine whether there were significant differences between the end-of-year reading test scores obtained from students enrolled in schools A and B. The second analyses were completed to determine whether there were significant differences between the professed (P) and Inferred (I) self-concept-as-learner scores for students enrolled in schools A and B. Finally, an analysis was conducted to determine the extent that each set of four P-SCAL and I-SCAL scale scores were intercorrelated.

Exploratory Hypothesis 1: Differences Between Reading Scores For Students in Schools A and B.

Table 2 presents the results of testing the hypothesis that there were no significant difference between the end-of-year reading test scores for students enrolled in schools A and B by gender and race categories. The t test used to test this hypothesis revealed that there were no significant differences between the reading scores observed for male

Caucasians enrolled in schools A and B, between the female Caucasians enrolled in schools A and B, between the male African Americans enrolled in schools A and B,

TABLE 2

Differences Between Reading Scores For Students For Schools A and B
By Gender/Race (N=403)

| <u>Gender/Race</u> | <u>School A Mean</u> | <u>School B Mean</u> | <u>Diff. in Means</u> | <u>t</u> | <u>P</u> |
|----------------------------|--------------------------|--------------------------|---------------------------|----------|----------|
| Male Caucasian | 149.32 | 146.92 | 2.40 | 1.21 | .216 |
| Female Caucasian | 168.24 | 169.03 | -.79 | 0.24 | .926 |
| Male African American | 141.23 | 139.86 | 1.37 | 1.06 | .318 |
| Female African American | 145.18 | 143.82 | 1.36 | 1.19 | .229 |
| Total | 150.31 | 148.60 | 1.71 | 0.87 | .872 |

between the female African Americans enrolled in schools A and B, and all students enrolled in school B. The similarity in the magnitude of the reading scores between the students can be readily observed by comparing the reading scores for the total study population in the two schools. It was observed that there was only a difference of 1.71 between the reading score of 150.31 for the total study population in school A and the reading score of 148.60 for the total study population in school B. The analyses of the difference between the reading scores for the students in the school resulted in a t of 0.87 and probability ratio of .8724. This probability ratio far exceeded the criteria probability of .05, and, therefore, the hypothesis of no differences between the reading scores for the total groups of students in school A and the total group of students in school B was not rejected. The t test results for male Caucasians, female Caucasians, male African Americans, and female African Americans were very close to the results observed for the total populations. The results of testing the hypotheses that there were no statistical significance between the reading scores for students in schools A and B, therefore, warrant the conclusion that students participating in this study from schools A and B were essentially performing at the same reading level.

Exploratory Hypothesis 2: Differences Among Professed (P) and Inferred (I) Total and Sub-Scale Scores For Students In Schools A and B

In addition to determining whether there were significant differences between the reading scores of students enrolled in schools A and B, tests were performed to determine whether the students from the two schools differed in the professed self-concept scores (P-SCAL) they assigned to themselves and the inferred self-concept-as-learner scores (I-SCAL) assigned to them by their teachers. Hotellings T^2 were calculated to determine whether there were significant differences between the students in schools A and B (independent variables) for the four sub-scale scores (four dependent variables). The test

was employed to determine whether there were significant differences between the total SCAL scores for students enrolled in schools A and B. Table 3 presents the results of the Hotellings T^2 and t test results for both the professed (P) and inferred (I) self-concept-as-learner scores (SCAL).

The Hotellings T^2 s and the t-tests for both the professed and inferred self-concept-as-learner total and four sub-scale scores indicate that there were no significant differences between the professed and inferred self-concept-as-learner scores assigned to students in schools A and B. The T^2 and probability ratio for the professed scores were $F=1.02$ and $p = .6438$; the t-test result and the probability ratio for the total self-concept score was $t = 0.98$ and $p = .7639$. For the inferred self-concept-as-learner ratings, the F and p ratios for the Hotellings T^2 test were 1.32 and .2893 respectively; the t-test results showed a t of 1.44 and a p of .1962.

These analyses of the differences between the professed and inferred self-concept-as-learner (SCAL) between the study populations in schools A and B, coupled with the analyses of the differences between the reading scores between the students from the two schools, point out emphatically that the students from school A and the students from school B are very similar in reading ability as well as professed self-concept-as-learner scores they assign to themselves and the self-concept scores teachers assign the same students. On the basis of these findings, the 403 students involved in this study were regarded as one rather than two populations.

Exploratory Hypothesis 3: Intercorrelations Among Sub-Scores For Professed (P) and Inferred (I) Self-Concept-As-Learner Ratings

A major concern of this study centered around the possibility that the four professed and inferred self-concept-as-learner sub-scales were too highly correlated and therefore each could not be used appropriately as individual measures of self concept.

TABLE 3

Differences Among Self-Concept-As-Learner (SCAL)
Total and Sub-Scale Scores For Students in Schools A and B

Professed Self-Concept-As-Learner Rating

| Sub-Scores | School A (N=193) | School B (N=210) |
|------------|------------------|------------------|
| Relating | 16.18 | 16.42 |
| Asserting | 10.94 | 11.04 |
| Coping | 21.13 | 21.04 |
| Investing | 22.18 | 21.99 |
| Total | 63.92 | 62.40 |

Hotelling T² for sub-scales: F=1.02, p=.6438

T-test for total score: t=0.98, p=.7639

Inferred Self-Concept-As-Learner Ratings

| Sub-Scores | School A (N=123) | School B (N=130) |
|------------|------------------|------------------|
| Relating | 14.93 | 15.02 |
| Asserting | 10.90 | 10.86 |
| Coping | 19.94 | 20.01 |
| Investing | 18.69 | 18.36 |
| Total | 62.14 | 60.18 |

Hotellings T² for sub-scales: F = 1.32; p=.2893

t-test for total score: t=1.44; p=.1962

Significant intercorrelations among the four sub-scales for the professed measures and inferred measures indicate that multivariate analyses, rather than t tests, should be employed in testing the hypotheses in the study. Table 4 presents the results of testing the hypothesis that there are no significant intercorrelations among the professed (P) and inferred (I) sub-scale scores. Results reveal that all the correlations among the four sub-scales for both the professed and inferred self-concept-as-learner ratings were statistically significant at the .001 confidence level. The range in the observed correlations among the four sub-scales from the professed measures was from .312 between asserting and relating to .849 between coping and investing. For the four sub-scales for the inferred measures, the range in zero order correlation was from .440 between relating and asserting and to .790 for asserting and investing. The findings of these correlational analyses suggest that caution should be exercised in using sub-scale scores because the various scores were so highly interrelated.

RESULTS OF ANALYZING PROFESSED SELF-CONCEPT-AS-LEARNER RATING (P-SCAL) ASSIGNED BY STUDENTS

Prior to testing the hypotheses that were concerned with the professed self-concept-as-learner scores (P-SCAL), a multivariate analysis of variance (MANOVA) was calculated to determine whether there were overall gender/race differences among the four P-SCAL scale scores. This MANOVA analysis further tests the theory that the four scale scores are too intercorrelated to be used as four independent self-concept-as-learner measures that were previously tested in the zero-order correlation analysis (See Table 4).

The MANOVA test, as a multivariate technique, is more reliable than the intercorrelation analysis for determining whether an overall F will be significant when the four sub-scale scores are analyzed simultaneously (with the two levels of gender male and female are correlated with the two levels of race Caucasian and African American). If the

TABLE 4

Intercorrelations Among the Professed Self-Concept-As-Learner Four Sub-Scales (P-SCAL) and Intercorrelations Among the Inferred Self-Concept-As-Learner Four Sub-Scales (I-SCAL)

Professed Self-Concept-As-Learner Rating (P-SCAL)

N=403

| | Relating | Asserting | Coping | Investing |
|-----------|---------------|---------------|---------------|--------------|
| Relating | 1.00 0.00 | | | |
| Asserting | .312 .0001 | 1.00 0.00 | | |
| Coping | .667 .0001 | .655 .0001 | 1.00 0.00 | |
| Investing | .534 .0001 | .736 .0001 | .849 .0001 | 1.00 0.00 |

Inferred Self-Concept-As-Learner Rating (I-SCAL)

N=403

| | Relating | Asserting | Coping | Investing |
|-----------|---------------|---------------|---------------|--------------|
| Relating | 1.00 0.00 | | | |
| Asserting | .440 .0001 | 1.00 0.00 | | |
| Coping | .696 .0001 | .497 .0001 | 1.00 0.00 | |
| Investing | .620 .0001 | .545 .0001 | .790 .0001 | 1.00 0.00 |

resulting F from the MANOVA is statistically significant, the use of each of four subscale scores independently and the calculation of gender/race main effects and gender by race interactions are inappropriate (Huck, Cormier, and Bounds, 1974).

Regardless of the MANOVA results, the total professed self-concept-as-learner (P-SCAL) appears to be a valid measure and, as such, may be used in analyses involving a simple dependent variable (total self-concept score) and two independent variables (gender and race).

Professed Self-Concept-As-Learner Mean Scores By Gender and Race

To help facilitate the understanding of the magnitude of the various gender/race scores and the variation of the scores among the gender/race classifications of students, the professed self-concept-as-learner mean scores for the total student population (403) are presented in Table 5. The magnitude of the scores can be determined by observing the ranges for high, moderate, and low scores that were copied from the Florida Key manual (Purkey and Gage, 1993, pp. 21 and 22) and presented at the bottom of the table.

Based on the publishers' standards for determining the magnitude of the professed self-concept-as-learner mean scores, the total mean as well as the relating, asserting, coping, and investing means fall within the moderate level range of scores. In rank order from high to low, the part score means students assigned to themselves (P-SCAL) were coping (24.87), investing (17.95), relating (17.20), and asserting (12.07). The observed standard deviation of 18.34 for the total score for the 403 students indicates that 68 percent of the P-SCAL mean scores fell between a mean score of 90.44 and 53.76.

TABLE 5
 Mean, Standard Deviation, and Range For
 Professed Self-Concept-As-Learner Scores For Students
 (N=403)

| <u>Student's Professed Scores</u> | <u>Mean</u> | <u>Standard Deviation</u> | <u>Range</u> | <u>Maximum</u> |
|---------------------------------------|-------------|-------------------------------|--------------|----------------|
| Total | 72.10* | 18.34 | 105 | 115 |
| Relating | 17.20* | 4.67 | 23 | 25 |
| Asserting | 12.07* | 4.37 | 20 | 20 |
| Coping | 24.87* | 6.43 | 35 | 35 |
| Investing | 17.95* | 6.86 | 35 | 35 |

Magnitude of Total and Four Component Scores

| <u>Score</u> | <u>High</u> | <u>Moderate</u> | <u>Low</u> |
|--------------|-------------|-----------------|------------|
| Total | 81 - 115 | 35 - 80 | 0 - 34 |
| Relating | 18 - 25 | 9 - 17 | 0 - 8 |
| Asserting | 14 - 20 | 6 - 13 | 0 - 5 |
| Coping | 25 - 35 | 11 - 24 | 0 - 10 |
| Investing | 25 - 35 | 11 - 24 | 0 - 10 |

* = Moderate

** = High

Hypothesis 1: Testing Overall Gender/Race Differences

Table 6 presents the results of the multivariate analysis of variance to test the overall gender/race differences among the four sub-scale scores for the professed self-concept-as-learner ratings assigned by students. The overall F value of 1.32 from this analysis not statistically significant. An F value of this magnitude would be expected to occur 26 times in 100 times by chance, a ratio that far exceeds a confidence level of .05 (5 in 100 times) which was the criterion level adopted for this study. The results of this MANOVA warrant the conclusion that there were no overall gender/race differences among the four sub-scale scores. Further, the results indicate that the four professed self-concept-as-learner sub-scale ratings are significantly correlated and therefore caution should be exercised in using each of the four sub-scale scores as independent measures of self concept. In addition, the results negate the necessity of using the four sub-scale ratings in gender/race main effects and gender by race interaction analyses.

One of the major objectives in this investigation was to determine whether there was any statistically significant differences between the professed self-concept-as-learner (P-SCAL) ratings assigned by students on the four scale scores and the total score for all African American and all Caucasian students (main effect for race) and between all male and female students (main effect by sex). The results of the previous MANOVA test indicated that it is not appropriate to use the four P-SCAL scale scores in gender/race main effects and gender by race interaction analyses. It is appropriate, however, to make these analyses when using the total P-SCAL score as the dependent variable.

Hypothesis 2: Overall Gender/Race Differences

Table 7 presents the results of the analysis of variance (ANOVA) to test the overall gender/race differences, gender and race main effects differences, and gender by

TABLE 6

Multivariate Analysis of Variance (MANOVA) To Test Overall
Gender/Race Differences Among the Four Sub-Scales For the
Professed Self-Concept-As-Learner Ratings By Students
(N=403)

Characteristic Roots and Vectors

| Characteristic Root | Percent | Characteristic Vector | | | |
|------------------------|---------|-----------------------|------------------|---------------|------------------|
| | | <u>Relating</u> | <u>Asserting</u> | <u>Coping</u> | <u>Investing</u> |
| .0133 | 100.00 | -.0128 | -.0057 | .0035 | .0037 |
| .0000 | 0.00 | -.0073 | .0120 | .0054 | .0006 |
| .0000 | 0.00 | .0038 | -.0024 | -.0105 | .0089 |
| .0000 | 0.00 | -.0001 | -.0030 | .0086 | .0000 |

F statistic for MANOVA Test:

F = 1.3238

p = 0.2604

TABLE 7

Analysis of Variance (ANOVA) To Test Overall Gender/Race Differences, Gender and Race Main Effects, and Gender By Race Interaction For The Total Professed Self-Concept-As-Learner Ratings Assigned By Students
(N=403)

Mean Totals P-SCAL Ratings By Gender and Race

| Caucasian | African American | Male | Female |
|-------------|------------------|-------------|-------------|
| <u>Mean</u> | <u>Mean</u> | <u>Mean</u> | <u>Mean</u> |
| 74.98 | 70.40 | 69.24 | 75.24 |

Overall F Value:

F = 10.90

p = .0001

Main Effect - GENDER

| | Mean | Diff. in Mean | F | p |
|--------|-------|---------------|-------|-------|
| Male | 69.24 | -6.00 | 27.91 | .0001 |
| Female | 75.24 | | | |

Main Effect - RACE

| | Mean | Diff. in Mean | F | p |
|------------------|-------|---------------|------|-------|
| Caucasian | 74.98 | 4.58 | 4.64 | .0318 |
| African American | 70.40 | | | |

Gender By Race Interaction:

F = 0.14

p = .7043

race interaction for the total professed self-concept-as-learner ratings assigned by students. The observed total P-SCAL mean ratings assigned by the students in the four gender/race categories were as follows: all Caucasians = 74.98, all African Americans = 70.40, all males = 69.24 and all females = 75.24. The overall F value from comparing the four means was 10.90 with a p value of .0001. There were, therefore, statistically significant differences among the total P-SCAL scores that are assigned by the four categories of students.

When the total P-SCAL scores were compared for all male and all female students (main-effect comparison), it was observed that there was a difference of 6.00 between the mean total P-SCAL score of 75.24 for females and the total mean score of 69.24 for the male students. The difference in favor of the female students was statistically significant ($F = 27.91$; $p = .0001$).

There was also a significant main effect difference between the total P-SCAL scores for Caucasian and African American students. An F value of 4.64 and probability of .0318 was observed between the difference of 4.58 between the total mean P-SCAL score of 74.98 for Caucasian students and the total mean P-SCAL score for African American students of 70.40. Gender by race interaction for the total P-SCAL scores was not statistically significant. The observed F and p ratio for these analyses were 0.14 and .7043 respectively. A lack of gender by race interaction indicates that students of like gender and race tend to have similar score patterns. Gender and race interaction would have been observed if male African American and female Caucasian students' scores had been similar and vice versa for male Caucasian and female African American students. This did not occur. For example, the difference between the mean of 66.82 for African American males and the mean of 79.10 for female Caucasians was 12.28; the difference

between the mean of 72.38 for Caucasian males and the mean of 73.57 for female African American students was 1.19.

Hypothesis 3: Differences Between the Four Sub-Scale Score Ratings For African American Males and Other Students

Another major objective of this study was to test the null hypotheses that there were no statistically significant differences between the professed self-concept-as-learner (P-SCAL) total and four sub-scale scores for (a) African American males and other students, (b) African American males and African American females, and (c) between African American males and Caucasian males. The Hotellings T^2 was used to test the hypotheses that were concerned with the four SCAL sub-scores as dependent variables whereas the t test was employed to test the hypotheses concerned with the total score as the dependent variable. When the overall T^2 values from the analyses proved to be statistically significant, the t-test was employed to compare the P-SCAL means of the four sub-scales with the means of African American females and Caucasian males.

Table 8 presents the results that were obtained from analyzing the P-SCAL ratings with the Hotelling T^2 procedure. These analyses revealed that there were significant differences among the four P-SCAL scale scores when the score of African American male students was compared with all other students; when African American males' scores were compared with African American females' scores; and when African American males' scores were compared with Caucasian males' scores. The observed T^2 and probability ratios for the paired groups were as follows: for African American males and all other students, $T^2 = 16.76$ and $p = .001$; for African American males and African American females, $T^2 = 12.98$ and $p = .0001$; and for African American males and Caucasian males, $T^2 = 4.65$ and $p = .0045$.

TABLE 8

Differences Between The Professed Self-Concept-As-Learner Ratings Assigned
By Students For The Four Sub-Scale Scores For African American Male
Students and Three Other Student Gender/Race Groups
(Number African American males = 211)
(Number other students = 192)

FOUR SUB SCORES (Hotellings T^2 Results)

African American Males vs. All Other Students

Hotellings T^2 Results: $T^2 = 16.76$; $p = .0001$

African American males vs. African American Females

Hotellings T^2 Results: $T^2 = 12.98$; $p = .0001$

African American Males vs. Caucasian Males

Hotellings T^2 Results: $T^2 = 4.64$; $p = .0045$

Hypothesis 4: Differences Between Total Scores For African American Males and Other Students

The t-tests that analyzed the differences between the total P-SCAL scores revealed that there were significant differences between the mean scores for African American males and other gender/race categories (Table 9).

The differences between the total P-SCAL scores for African American males and all other students, for African American males and female students, and for African American males and Caucasian males were statistically significant. The t and p values for African American males vs. all other students was 3.61 and .0001; for African American males and African American females, 2.97 and .0030; and for African American males and Caucasian males, 2.11 and .036.

Hypothesis 5: Differences Between Four Sub-Scale Scores For African American Males and All Other Students

Since the T^2 obtained from comparing the four combined P-SCAL sub-scale ratings assigned by African American males and all other students, African American males and African American females, and African American males and Caucasian males were statistically significant, t-tests were used to compare the means of African American males on each of the four P-SCAL sub-scale scores with the means of other students, African American females, and Caucasian male students.

Table 10 presents the results from analyzing the differences in means between the professed self-concept-as-learner (P-SCAL) differences in means between the professed four sub-scales for male African American and other students. The other students in the study scored higher than the male African American students on relating, coping, and investing. No significant differences were observed between the asserting ratings assigned

TABLE 9

Differences Between The Professed Self-Concept-As-Learner Ratings Assigned
By Students For The Total Scores For African American Male
Students and Three Other Student Gender/Race Groups

TOTAL SCORE (T-test Results)

African American Males vs. All Other Students

| | Mean | Diff. in Mean | t | p |
|------------------------------|-------|---------------|------|-------|
| African American males (119) | 66.82 | -7.50 | 3.61 | .0001 |
| Other Students (284) | 74.32 | | | |

African American males vs. African American Females

| | Mean | Diff. in Mean | t | p |
|--------------------------------|-------|---------------|------|-------|
| African American males (119) | 66.82 | -6.75 | 2.97 | .0030 |
| African American females (134) | 73.57 | | | |

African American Males vs. Caucasian Males

| | Mean | Diff. in Mean | t | p |
|------------------------------|-------|---------------|------|------|
| African American males (119) | 66.82 | -5.56 | 2.11 | .036 |
| Caucasian Males (92) | 72.38 | | | |

TABLE 10

Differences Between the Mean Professed Four Sub-Scale Measures For
African American Male Students and All Other Students

| <u>Sub-Scale Measure</u> | Mean Af. African Male (N=119) | Mean Other Students (N=284) | Diff. in <u>Mean</u> | t | P |
|--------------------------|-------------------------------------|-----------------------------------|-------------------------|------|--------|
| Relating | 15.29 | 18.00 | -2.71 | 5.34 | .0001* |
| Asserting | 11.42 | 12.34 | -0.91 | 1.94 | .0525 |
| Coping | 23.25 | 25.55 | -2.30 | 3.22 | .0015* |
| Investing | 16.85 | 18.42 | -1.57 | 1.97 | .0500* |

*All other students mean significantly higher than African American Male mean.

to the two groups of students. The t and probability ratios for three sub-scale measures for which the two groups differed were: relating ($t = 5.34$, $p = .0001$), coping ($t = 3.22$, $p = .0015$), and investing ($t = 1.97$, $p = .0500$).

African American females assigned statistically significantly higher relating, coping P-SCAL sub-scale ratings to themselves than their African American male counterparts (Table 11). No significant difference was observed between asserting and investing ratings assigned by the two groups. The t and p values on the sub-scale score on which the two groups differed follow: relating, a t of 3.87 and a p of .0001, and coping, a t of 2.66 and a p of .0084. The difference of 1.08 between the asserting mean score of 11.68 for African American females and the asserting mean of 10.60 for African American males was not statistically significant ($t = 1.67$ and $p = .0954$). Also, the difference of 0.70 between investing mean of 17.55 for African American females and 16.84 for African American males was not significant ($t = 0.72$ and $p = .4740$).

Caucasian male students assigned significantly higher relating P-SCAL ratings than their African American counterparts, but no significant difference was observed between the mean asserting coping and investing sub-scale scores for the two groups (Table 12). The mean of 17.67 for the Caucasian males was 2.38 higher than the mean of 15.29 for the African American males on the relating score. The p values for asserting, coping, and investing were .0647, .1385, and .4780 respectively.

RESULTS OF ANALYZING INFERRED SELF-CONCEPT-AS-LEARNER RATINGS (I-SCAL) ASSIGNED BY TEACHERS

The testing of hypotheses and the application of statistical procedures that were used with the professed self-concept-as-learner ratings (P-SCAL) were also employed in analyzing the inferred self-concept-as-learner ratings that were assigned to students by

TABLE 11

Differences Between the Mean Professed Four Sub-Scale Measures of Self-Concept-As-Learner For African American Male and African American Female Middle Grade Students

| <u>Score</u> | <u>Mean Male African Am. (N=119)</u> | <u>Mean Female African Am. (N=134)</u> | <u>Diff. in Means</u> | <u>t</u> | <u>P</u> |
|--------------|--|--|-------------------------------|----------|----------|
| Relating | 15.29 | 17.57 | -2.26 | 3.87 | .0001* |
| Asserting | 11.42 | 12.13 | -0.71 | 1.29 | .1980 |
| Coping | 23.25 | 25.38 | -2.13 | 2.66 | .0084* |
| Investing | 16.85 | 17.55 | -0.70 | 0.72 | .4740 |

*African American Female mean significantly higher than African American Male Mean.

TABLE 12

Differences Between the Mean Professed Four Sub-Scale Measures of Self-Concept-As-Learner For Caucasian Male and African American Male Middle Grade Students

| <u>Score</u> | <u>Mean Male Caucasian (N=92)</u> | <u>Mean Male African Am. (N=119)</u> | <u>Diff. in Means</u> | <u>t</u> | <u>P</u> |
|--------------|---|--|-------------------------------|----------|----------|
| Relating | 17.67 | 15.29 | 2.38 | 3.66 | .0003* |
| Asserting | 12.50 | 11.42 | 1.08 | 1.85 | .0647 |
| Coping | 24.65 | 23.25 | 1.40 | 1.49 | .1385 |
| Investing | 17.55 | 16.85 | 0.70 | 0.72 | .4780 |

* Caucasian Male mean significantly higher than African American Male Mean.

their teachers. The initial step in analyzing the inferred self-concept-as-learner ratings was to determine through the use of the MANOVA, a multivariate analysis technique, whether the four inferred sub-scale scores provided a significant F when the two levels of the race factor (African American and Caucasian) were crossed with the two gender factors (male and female). When the overall F value was found to be significant, gender and race main effects and gender by race interaction tests were applicable. The two-way analysis of variance (ANOVA) was used to test for gender and race main effects and gender by race interaction when the total P-SCAL score was the dependent variable.

The Hotellings T^2 statistic procedure was employed to test the hypothesis that there was no statistical significant difference between the four inferred self-concept-as-learner scores that were assigned by teachers to (a) African American males and all students, (b) African American males and African American females, and (c) African American males and Caucasian male students. Significant Hotellings T^2 results lead to the use of t-tests to determine whether there were significant differences between each of the four I-SCAL scores for the African American males and Caucasian males and for African American males and African American females.

Inferred Self-Concept-As-Learner Mean Scores By Gender and Race

The magnitude of the inferred self-concept-as-learner scores by student gender/race classifications and the variations of the mean scores among the gender/race groups are presented in Table 13. The ranges for determining whether an observed mean is high, moderate, or low are presented at the bottom of the table as listed in the Florida Key Manual (Purkey and Gage, 1993, pp. 21 and 22).

TABLE 13
 Mean, Standard Deviation, and Range For
 Inferred Self-Concept-As-Learner Scores For Students
 (N=403)

| <u>Inferred Scores Assigned By Teachers</u> | <u>Mean</u> | <u>Standard Deviation</u> | <u>Range</u> | <u>Maximum</u> |
|---|-------------|-------------------------------|--------------|----------------|
| Total | 64.87* | 21.42 | 98 | 115 |
| Relating | 17.64* | 4.51 | 22 | 25 |
| Asserting | 11.31* | 5.32 | 20 | 20 |
| Coping | 22.21* | 7.31 | 33 | 35 |
| Investing | 13.72* | 8.31 | 33 | 35 |

Magnitude of Total and Four Component Scores

| <u>Score</u> | <u>High</u> | <u>Moderate</u> | <u>Low</u> |
|--------------|-------------|-----------------|------------|
| Total | 81 - 115 | 35 - 80 | 0 - 34 |
| Relating | 18 - 25 | 9 - 17 | 0 - 8 |
| Asserting | 14 - 20 | 6 - 13 | 0 - 5 |
| Coping | 25 - 35 | 11 - 24 | 0 - 10 |
| Investing | 25 - 35 | 11 - 24 | 0 - 10 |

* = Moderate
 ** = High

As with the P-SCAL mean scores, the I-SCAL mean scores assigned to students by their teachers fell within the magnitude range that is classified as moderate. In rank order, the magnitude of the four I-SCAL part scores were 22.21 for coping, 17.64 for relating, 13.72 for investing, and 11.31 for asserting. The extent of variation among the I-SCAL ratings assigned to the 403 students by their teachers appears to be substantial. This conclusion is based on the fact that the ranges of scores assigned to students are relatively close to the possible maximum score. For example, the maximum I-SCAL total score is 115; the observed range was 98. Similarly, the range and maximum scores for the part-score were 22 and 25 respectively for relating, 20 and 20 for asserting, 33 and 35 for coping, and 33 and 35 for investing.

Hypothesis 6: Testing Overall Gender/Race Differences Among Four Inferred Self-Concept-As-Learner Ratings (I-SCAL)

Table 14 presents the results of applying the multivariate analysis of variance (MANOVA) test to determine whether gender/race differences among the four inferred self-concept-as-learner sub-scale scores were statistically significant. The overall F value of 0.2780 was not significant; the probability level for an F of this magnitude was very high (.8921).

The results of the MANOVA indicate that further gender/race analyses with the four inferred self-concept-as-learner sub-scale scores are inappropriate. Gender and race main effects and gender by race interaction tests with the four I-SCAL sub-scores, therefore, were abandoned. Although the MANOVA results using the combined four inferred self-concept-as-learner (I-SCAL) sub-scale scores negated the testing of gender and race main effects and gender by race interaction, the results did not eliminate the need to conduct these tests with the total inferred self-concept-as-learner measure (I-SCAL)

TABLE 14

Multivariate Analysis of Variance (MANOVA) To Test Overall
Gender/Race Differences Among the Four Sub-Scales For the
Inferred Self-Concept-As-Learner Ratings By Teachers
(N=403)

Characteristic Roots and Vectors

| Characteristic Root | Percent | Characteristic Vector | | | |
|------------------------|---------|-----------------------|------------------|---------------|------------------|
| | | <u>Relating</u> | <u>Asserting</u> | <u>Coping</u> | <u>Investing</u> |
| .00279 | 100.00 | -.0125 | .0003 | .0033 | .0031 |
| .00000 | 0.00 | .0037 | -.0068 | -.0107 | .0096 |
| .00000 | 0.00 | .0054 | .0013 | .0035 | .0000 |
| .00000 | 0.00 | -.0054 | -.0124 | .0092 | .0000 |

F statistic for MANOVA Test:

$$F = 0.2780$$

$$p = 0.8921$$

Hypothesis 7: Overall Gender/Race For Total Score

Table 15 presents the results of analyzing the total inferred self-concept-as-learner ratings assigned to teachers to determine the significance of the overall F value, gender and race main effects, and gender by race interaction. The overall F value of 6.68 was found to be significant at the .0002 confidence level. On the basis of this finding, tests for main effects and interaction were conducted. The test for gender main effect revealed that the differences of 10.17 between the I-SCAL mean ratings of 70.18 for females and the I-SCAL mean rating for males was statistically significant ($F=13.90$, $p=.0002$). The main effect difference of 4.59 between the mean of 67.73 for Caucasian students and the mean of 63.14 for African American students was also significant ($F=6.13$, $p=.0137$). In contrast, no significant gender by race interaction was observed. The lack of significant gender by race interaction indicates that the difference between the mean I-SCAL for male African American students and the mean I-SCAL for male Caucasian students was statistically the same as the difference between the mean I-SCAL for female African Americans and the mean I-SCAL for female Caucasian students.

Hypothesis 8: Differences Between Inferred Self-Concept-As-Learner Ratings (I-SCAL) For African American Males and Other Students

Table 16 presents the results of testing the null hypothesis that there were no statistically significant differences between the inferred self-concept-as-learner four sub-scale scores for (a) male African American students and all other students, (b) between male African American students and male Caucasian students, and (c) between male African American students and female African American students. The Hotellings T^2 was used to test the hypothesis when the combined four sub-scale scores were used as the dependent variable; the t-test was employed when the total I-SCAL represented the dependent variable.

TABLE 15

Analysis of Variance (ANOVA) To Test Overall Gender/Race Differences,
Gender and Race Main Effects, and Gender By Race Interaction For The Inferred
Self-Concept-As-Learner Ratings Assigned By Teachers

Mean Totals I-SCAL Ratings By Gender and Race

| Caucasian Mean (N=150) | African American Mean (N=253) | Male Mean (N=211) | Female Mean (N=192) |
|------------------------------|-------------------------------------|-------------------------|---------------------------|
| 67.73 | 63.14 | 60.01 | 70.18 |

Overall F Value:

F = 6.68

p = .0002

Main Effect - GENDER

| | Mean | Diff. in Mean | F | p |
|--------|-------|---------------|-------|-------|
| Male | 60.01 | -10.17 | 13.90 | .0002 |
| Female | 70.18 | | | |

Main Effect - RACE

| | Mean | Diff. in Mean | F | p |
|------------------|-------|---------------|------|-------|
| Caucasian | 67.73 | 4.59 | 6.13 | .0137 |
| African American | 63.14 | | | |

Gender By Race Interaction:

F = .000

p = .9923

TABLE 16

Differences Between The Inferred Self-Concept-As-Learner Ratings Assigned By Teachers On The Four Sub-Scale Scores For African American Male Students And Three Other Student Gender/Race Groups
(Number African American males = 211)
(Number other students = 192)

FOUR SUB SCORES (Hotellings T^2 Results)

African American Males vs. All Other Students

Hotellings T^2 Results: $T^2 = 14.83$; $p = .0001$

African American males vs. African American Females

Hotellings T^2 Results: $T^2 = 7.56$; $p = .0034$

African American Males vs. Caucasian Males

Hotellings T^2 Results: $T^2 = 8.30$; $p = .0006$

The results from the Hotellings T^2 tests indicated that there were statistically significant differences between the four inferred sub-scale scores for all three comparisons: (a) between male African American students and all other students, (b) between male African American students and male Caucasian students, and (c) between male African American students and female African American students. The F and p values for the three sets of comparisons follow: African American males vs. all other students ($T^2=14.83$ and $p=.0001$); African American male students vs. Caucasian male students ($T^2=8.30$ and $p=.0006$); and African American males vs. African American females ($T^2=7.56$ and $p=.0034$). In each comparison, the African American males had lower scores.

Hypothesis 9: Differences Between Total I-SCAL For African American Males and Other Student Groups

The t-test analysis with the use of the total I-SCAL score as the sole dependent variable revealed that there was no significant difference between the mean score of 63.08 for Caucasian males and 57.46 for African American males (Table 17). In contrast, the difference of 10.24 between the total I-SCAL mean score of 67.88 for other students and 57.64 for African American males was significant at the .0001 confidence level, and the difference of 10.40 between the total I-SCAL mean of 68.04 for African American females and the mean of 57.64 for African American males was significant at the .0001 confidence level.

Hypothesis 10: Testing Differences Between Inferred Self-Concept-As-Learner Four Sub-Scale Ratings For African American Males and Other Students

Since the Hotellings T^2 revealed that there were statistically significant differences between the four sub-scale scores for male African American students and all

other students, for male African American students and male Caucasian students, and for male

TABLE 17

Differences Between The Inferred Self-Concept-As-Learner Ratings Assigned
By Students For The Total Scores For African American Male
Students and Three Other Student Gender/Race Groups

TOTAL SCORE (T-test Results)

African American Males vs. All Other Students

| | Mean | Diff. in Mean | t | p |
|------------------------------|-------|---------------|------|-------|
| African American males (119) | 57.64 | -10.24 | 4.69 | .0001 |
| Other Students (284) | 67.88 | | | |

African American males vs. African American Females

| | Mean | Diff. in Mean | t | p |
|--------------------------------|-------|---------------|------|-------|
| African American males (119) | 57.64 | -10.40 | 4.03 | .0001 |
| African American females (134) | 68.04 | | | |

African American Males vs. Caucasian Males

| | Mean | Diff. in Mean | t | p |
|------------------------------|-------|---------------|------|-------|
| African American males (119) | 57.64 | -5.44 | 1.89 | .0598 |
| Caucasian Males (92) | 63.08 | | | |

African American students and female African American students; the path to exploring the hypothesis related to the differences between selected gender/race for each of the four I-SCAL sub-scale scores was open.

When the inferred four sub-scale means for male African American students were compared with the inferred four sub-scale means for all other students (Table 18), significant differences were observed for the relating scores ($t=4.24$, $p=.0001$), the coping scores ($t=4.94$, $p=.0001$), and the investing scores ($t=3.97$, $p=.0001$). No significant difference was observed between the asserting scores for the male African American students and all other students.

Significant differences were observed between I-SCAL relating, coping and investing sub-scale scores assigned to male African American and female African American students by their teachers (Table 19). No difference between the I-SCAL asserting score was observed between the two groups. On the relating, coping, and investing score, African American females received higher ratings from teachers than their male African American classmates. The differences between the means of the two groups were as follows: relating, a difference of 1.88 between the mean of 18.04 for African American females and a mean of 16.16 for African American males (t of 3.30 and $p=.0011$); for asserting, a difference of 1.08 between the mean of 11.68 for female African American students and a mean of 10.60 for male African American students ($t=1.67$, $p=.0954$); coping, a difference of 3.98 for the mean of 23.46 for female African American students and a mean of 19.48 for male African American students ($t=4.43$, $p=.0001$); and investing, a difference of 1.30 between the mean of 17.64 for female African American students and a mean of 16.16 for male African American students ($t=4.57$, $p=.0390$).

TABLE 18

Differences Between the Mean Inferred Four Sub-Scale Measures For
African American Male Students and All Other Students

| <u>Sub-Scale Measure</u> | Mean Male African Am. (N=119) | Mean Other Students (N=284) | Diff. in <u>Mean</u> | t | P |
|--------------------------|-------------------------------------|-----------------------------------|-------------------------|------|--------|
| Relating | 16.16 | 18.25 | -1.09 | 4.24 | .0001* |
| Asserting | 10.60 | 11.59 | -0.99 | 1.79 | .0744 |
| Coping | 19.49 | 23.35 | -3.86 | 4.94 | .0001* |
| Investing | 11.40 | 14.69 | -3.29 | 3.97 | .0001* |

*Other students mean is significantly higher than African American Male mean.

TABLE 19

Differences Between the Mean Inferred Four Sub-Scale Measures
of Self-Concept-As-Learner For African American Male
and African American Female Middle Grade Students

| <u>Sub-Scale Scores</u> | Mean Male Af Am. (N=119) | Mean Female Af. Am. (N=134) | Diff. in Means | t | P |
|-------------------------|--------------------------------|-----------------------------------|----------------------|------|--------|
| Relating | 16.16 | 18.04 | -1.88 | 3.30 | .0011* |
| Asserting | 10.60 | 11.68 | -1.08 | 1.67 | .0954 |
| Coping | 19.48 | 23.46 | -3.98 | 4.43 | .0001* |
| Investing | 16.16 | 17.46 | -1.30 | 4.57 | .0390* |

* African American Female mean significantly higher than African American Male Mean.

Table 20 reveals that Caucasian male students scored significantly higher than African American males on the I-SCAL relating and coping measures. No differences were observed between the I-SCAL asserting and investing scores. The t and p values for the relating and coping scores were 2.08 and .0386 and 2.24 and .0263 respectively.

TABLE 20

Differences Between the Mean Inferred Four Sub-Scale Measures Of
Self-Concept-As-Learner For Caucasian Male and
African American Male Middle Grade Students

| <u>Sub-Scale Scores</u> | Mean Male Cauc. (N=92) | Mean Male Af. Am. (N=119) | Diff. in Means | t | P |
|-------------------------|------------------------------|---------------------------------|----------------------|------|--------|
| Relating | 17.46 | 16.16 | 1.30 | 2.08 | .0386* |
| Asserting | 10.83 | 10.60 | .23 | 0.31 | .7583 |
| Coping | 21.72 | 19.48 | 1.24 | 2.24 | .0263* |
| Investing | 13.08 | 11.40 | 1.68 | 1.55 | .1240 |

* Caucasian Male mean significantly higher than African American Male Mean.

Chapter V

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

INTRODUCTION

The purpose of this study was to explore the professed and inferred self-concept-as-learner scores of male African American middle school students. To meet the purpose of the study, 403 students from two middle schools were administered the Florida Key. Teachers of these same students also completed the Florida Key for each of these same students. The ratings obtained from students are called professed self-concept-as-learner (P-SCAL) scores; the ratings assigned by teachers to their students are called inferred self-concept-as-learner (I-SCAL) scores.

The Florida Key tests were scored to obtain five scores assigned by the students to themselves and five identical scores assigned to the same students by their teachers. The five scores were: a total score, a relating score, an asserting score, a coping score, and an investing score. In addition to obtaining scores from and for the students, the students' reading scores, gender, and race were recorded to complete the database needed for completion of the study.

A total of 403 middle school students participated in the study. Of this total, 92 or approximately 20 percent were male Caucasian students; 58 or approximately 15 percent were female Caucasian students; 119 or 30 percent were male African American students; and 134 or 35 percent were female African American students. The male/female participation in the study was about equal; the African American/Caucasian ratio approached three to one.

To meet the purposes of the study, three categories of hypotheses were formulated and tested. Three hypotheses were tested to set the stage for and give direction to the analyses of data that were directly related to the major focus of the study. One exploratory hypothesis was concerned with determining whether there were significant differences between reading scores of students from schools A and B. A second exploratory hypothesis was devoted to determining whether there were significant differences between the students from schools A and B for P-SCAL ratings and I-SCAL ratings. The last exploratory hypothesis was directed at determining whether there was significant intercorrelation among the four scale scores that we obtained from students (P-SCAL) and among the four scale scores obtained for students from teachers (I-SCAL).

Since no significant statistical differences were found between students in schools A and B for both the reading score and the P-SCAL and I-SCAL scores, the students were considered as one population, rather than two, for testing the major hypotheses of the study. The findings relative to the significant intercorrelation among the four P-SCAL scale scores and among the four I-SCAL scale scores suggested that caution should be exercised in using the two sets of scale scores in making gender/race comparisons.

Following the testing of the exploratory hypotheses, additional hypotheses were formulated to focus on gender/race differences for the P-SCAL scores and I-SCAL total and four scale scores. For the sake of brevity, the hypotheses for the P-SCAL and the I-SCAL total and four scale scores are combined as follows:

- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there are no significant overall male and female and African American differences.

- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there are no significant gender and race main effect differences.
- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there is no significant gender by race interaction.
- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there are no significant differences between African American male students and all other students.
- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there are no significant differences between African American male and African American female students.
- When the self-concept-as-learner (SCAL) total and four scale scores are employed, there are no significant differences between African American male and Caucasian male students.
- When each of relating, asserting, coping, and investing scores are employed one at a time, there are no significant differences between African American male students and other students.
- When each of relating, asserting, coping, and investing scores are employed one at a time, there are no significant differences between African American male and African American female students.
- When each of relating, asserting, coping, and investing scores are employed one at a time, there are no significant differences between African American male and Caucasian male students.

The hypotheses formulated for the study were analyzed through the use of several standard statistical procedures. The zero order correlation was used to determine the relationship or intercorrelation among the four sub-scale scores of the Florida Key. In situations where two independent variables, race and gender had two levels each (African American and Caucasian and male and female) and one dependent variable (total score) were analyzed, a two-way analysis of variance (ANOVA) was employed. The multivariate analysis of variance (MANOVA), an extension of ANOVA, was used to test hypotheses that involved two levels of two variables (male Caucasians, male African Americans, female Caucasians, and female African Americans) and more than one independent variable (the four sub-scale ratings).

The t-test was conducted when two independent variables (i.e., male Caucasians and male African Americans) and one dependent variable (total score) was involved. The Hotellings T^2 , an extension of the t-test, was used to test a hypothesis when two dependent variables (male African Americans and male Caucasians) and more than one dependent variable (the four sub-scale scores) were included in the analyses.

As an initial step in testing hypotheses that involved the SCAL four sub-scale scores, an overall T^2 value for the Hotellings T^2 test and an overall F value for multivariate analysis of variance (MANOVA) were calculated. When the T^2 value proved to be significant, ordinary t tests were employed to determine gender/race differences between each of the sub-scale scores. If the overall F in the MANOVA was found to be significant, tests to determine gender/race main effects and race by gender interactions were appropriate. In addition to determining whether additional analyses were appropriate with the four sub-scale scores, the results of the Hotellings T^2 and MANOVA, along with the intercorrelation analyses, provided insight into the use of the four sub-scale scores as individual dependent variables.

SUMMARY OF FINDINGS

The summary of the results from testing the major hypotheses in this study is presented in Table 21. The main findings from testing these hypotheses follow:

TABLE 21

Summary of Results From Testing Hypotheses Concerning Gender/Race Differences
For Self-Concept-As-Learner Professed and Inferred Scores

| <u>Null Hypothesis</u> | <u>Statistical Procedure</u> | <u>Hypothesis Rejected?</u> | |
|--|------------------------------|----------------------------------|---------------------------------|
| | | <u>P-SCAL</u> | <u>I-SCAL</u> |
| 1. When the four SCAL scale scores are employed in a multivariate analysis, there are no overall gender/race differences. | MANOVA | No | No |
| 1A. When the four SCAL scale scores are employed in a multivariate analysis, there are no gender/race main effect differences. | MANOVA | Not Applicable | Not Applicable |
| 1B. When the four SCAL scale scores are employed in a multivariate analysis, there is no gender by race interaction. | MANOVA | Not Applicable | Not Applicable |
| 2. When the total SCAL score is employed in a univariate analysis, there are no gender/race differences. | ANOVA | Yes | Yes |
| 2A. When the total SCAL score is employed in a univariate analysis, there are no gender/race main effect differences. | ANOVA | female > male Cauc. > Af. Am. | female > male Cauc > Af. Am. |
| 2B. When the total SCAL score is employed in a univariate analysis, there is no gender by race interaction. | ANOVA | No | No |
| 3. When the four SCAL scale scores are employed in a multivariate analysis, there are no overall differences between African American male and other students. | Hotellings T ² | Yes | Yes |

(Table continues)

TABLE 21 (Cont.)

| <u>Null Hypothesis</u> | <u>Statistical Procedure</u> | <u>Hypothesis Rejected?</u> | |
|---|------------------------------|--------------------------------|--|
| | | <u>P-SCAL</u> | <u>I-SCAL</u> |
| 3A. When the four SCAL scale scores are employed in a multivariate analysis, there are no overall differences between African American male and African American female students. | Hotellings T ² | Yes | Yes |
| 3B. When the four SCAL scale scores are employed in a multivariate analysis, there are no overall differences between African American male and Caucasian male students. | Hotellings T ² | Yes | Yes |
| 4. When the total SCAL scale score is t-test employed in a univariate analysis, there are no differences between African-American males and other students. | other | students > Af. Am. males | other students > Af. Am. males |
| 4A. When the total SCAL scale score is t-test employed in a univariate analysis, there are no overall differences between African American male and African American female students. | Af. Am | females > Af. Am. males | Af. Am. females > Af. Am. males |
| 4B. When the total SCAL scale score is t-test employed in a univariate analysis, there are no overall differences between African American male and Caucasian male students. | Cauc. | males > Af. Am. males | No |

(Table continues)

TABLE 21 (Cont.)

| <u>Null Hypothesis</u> | <u>Statistical Procedure</u> | <u>Hypothesis Rejected?</u> | |
|--|------------------------------|---|---|
| | | <u>P-SCAL</u> | <u>I-SCAL</u> |
| 5. When the relating, asserting, coping, and investing scores are employed one at a time in univariate analyses, there are no significant differences between African-American male and other students. | t-test | No for asserting; Other Students > Af. Am. for relating, coping and investing | No for asserting; Other Students > Af. Am. for relating, coping and investing |
| 5A. When the relating, asserting, coping, and investing scores are employed one at a time in univariate analyses, there are no significant differences between African-American male and African American female students. | t-test | No for asserting; and investing Af. Am. females > Af. Am. males for relating and coping | No for asserting; Af. Am. females > Af. Am. males for relating, coping and investing |
| 5B. When the relating, asserting, coping, and investing scores are employed one at a time in univariate analyses, there are no significant differences between African-American male and Caucasian male students. | t-test | No for asserting, coping and investing. Cauc. males > Af. Am. males for relating | No for asserting, and investing; Cauc. males > Af. Am. males for relating and coping. |

- There were no overall gender (male and female) and race (African American and Caucasian) significant differences when either the four professed self-concept-as-learner (P-SCAL) sub-scale scores or the four inferred self-concept-as-learner (I-SCAL) sub-scale scores were analyzed through a multivariate analysis (MANOVA). Since there were no overall gender/race differences for either of the two sets of sub-scale scores, further analyses to determine gender and race main effect differences and gender by race interaction were not calculated.
- There were overall gender/race differences when the total professed self-concept-as-learner (P-SCAL) scores and the total inferred self-concept-as-learner (I-SCAL) scores were analyzed through the use of univariate analysis (ANOVA). Since overall gender/race differences were observed for the P-SCAL total score and the I-SCAL total score, additional analyses to determine gender/race main effect differences and gender by race interaction were appropriate. The gender/race main effect analyses revealed that the females scored significantly higher than males and Caucasians scored significantly higher than African Americans on both the professed self-concept-as-learner (P-SCAL) total score and inferred self-concept-as-learner (I-SCAL) total score.
- No gender by race interaction was observed for either the P-SCAL or I-SCAL total score.
- Overall differences were found between (1) African American males and other students, (2) African American males and African American females, and (3) African American males and Caucasian male students were observed when the four professed self-concept-as-learner (P-

SCAL) sub-scale scores were analyzed through a multivariate analysis (Hotellings T^2).

- Overall differences were found between (1) African American males and other students, (2) African American males and African American females, and (3) African American males and Caucasian male students were observed when the four inferred self-concept-as-learner (I-SCAL) sub-scale scores were analyzed through Hotellings T^2 .
- Overall differences between the four P-SCAL scores and four I-SCAL scores indicated the necessity to explore gender within race differences with each set of the four scale scores through a univariate analysis.
- Other groups of students scored significantly higher than African American male students on both the P-SCAL and I-SCAL **investing** sub-scale scores when studied through a univariate analysis (t-test). No significant difference was observed between either the P-SCAL or I-SCAL **asserting** sub-scale score for African American male and other students. Similar results were observed between the four P-SCAL and four I-SCAL sub-scale scores for African American male students and African American female students versus African American males. African American female students scored significantly higher than African American male students for the P-SCAL and I-SCAL **relating** and **coping** sub-scale scores. No significant difference was observed between the two groups of students for the **asserting** and **investing** sub-scale score.
- The pattern of results between the four P-SCAL sub-scale scores for African American male and Caucasian male students is somewhat

different from the one that was observed for the other two paired groups. On the P-SCAL sub-scale score, Caucasian male students scored significantly higher than African American males on only the **relating** score. No difference was observed for **asserting**, **coping**, and **investing** sub-scale scores. In contrast, Caucasian males scored higher on the I-SCAL **relating** and **coping** scores, but no differences were observed between the **asserting** and **investing** scores for the two groups.

- When the total P-SCAL score was employed in a univariate analysis (t-test), other students, African American females, and Caucasian male students scored significantly higher than their African American male counterparts. No significant difference was found between the total I-SCAL total score for Caucasian male students and African American male students. Other students and African American females scored significantly higher than the African American male students, however, for the total I-SCAL score.

CONCLUSIONS

The major focus of this study was to determine whether the professed self-concept-as-learner (P-SCAL) scores and inferred self-concept-as-learner (I-SCAL) scores assigned to African American male middle grade students were significantly different from the P-SCAL and I-SCAL rating assigned to the other middle grade students. The study was also designed to determine whether there were gender/race main effect differences and gender by race interaction for the P-SCAL and I-SCAL scores. The findings of this study in regard to these purposes warrant the conclusions that follow:

- In general, African American male middle grade students assigned significantly lower professed self-concept-as-learner (P-SCAL) total and four scale scores to themselves than the other students, African American females, and Caucasian male students. Exceptions to this rule were:
 - No significant differences were found between the asserting P-SCAL sub-scale scores for (1) male African Americans and other students, (2) male African American and female African American students, and (3) male African American and male Caucasian students.
 - No significant differences were found between the investing P-SCAL sub-scale scores for (1) male African American and female African American students and (2) male African American and male Caucasian students.
 - No significant differences were found between the coping P-SCAL sub-scale scores for male African American and male Caucasian students.
- Also, in general, teachers assigned significantly lower inferred self-concept-as-learner (I-SCAL) scores to male African American students than to other students, female African Americans, and male Caucasians. The exceptions were:
 - No significant differences were observed between the total I-SCAL scores for male African Americans and Caucasian African Americans.
 - No significant differences were observed between the asserting I-SCAL sub-scale scores for (1) African American males and other

students, (2) African American males and African American females, and (3) African American males and Caucasian male students.

- No significant differences between the investing scores were observed for African American male and Caucasian male students.
- In a multivariate analysis when all four P-SCAL and all four I-SCAL scores were employed together, the scores for African American males were significantly lower than other students and their African American female and Caucasian male classmates.
- Female and Caucasian students in the study scored significantly higher on the total professed self-concept-as-learner (P-SCAL) and total inferred self-concept-as-learner (I-SCAL) than their male and African American counterparts. No significant overall gender/race differences were observed for the four P-SCAL sub-scale scores and the four I-SCAL sub-scale scores when each set of four sub-scales was employed in multivariate analysis. This latter finding suggests that caution should be exercised in using the four P-SCAL and four I-SCAL scales scores when investigating gender/race differences.
- No significant gender by race interaction was observed for either the P-SCAL or I-SCAL total or four scale scores.

COMPARISON OF FINDINGS WITH OTHER SELECTED STUDIES

To assist in placing the findings of this study in a clearer perspective, the major results of this investigation were contrasted with other studies that had a degree of similarity or general purpose. The other studies include selected investigations that were concerned with gender differences in self-concept; differences between self-concept

measures for African American males and other student gender/race classifications; and differences between gender/race for students who were administered the Florida Key. In comparing the results of this study with the results of other investigations, it is obvious that there will be differences between study populations, methods and instruments for collecting self-concept data, and research design and data analysis. With these limitations in mind, comparisons between the major findings of this study and other investigations follow:

- In a study designed to compare the self-concept of male and female students in kindergarten through high school, the American Association of University Women (1991) concluded that female students' self concept was lower than male students' self-concept. By comparison, the present study indicated that female middle grade level students have significantly higher professed (P-SCAL) and inferred (I-SCAL) scores than their male counterparts.
- In a report that summarized close to 140 studies concerning African Americans' self-concept, Graham (1994) stated that the assumption that African Americans have negative self-views about their competence was not supported in the review. By comparison, the present study found the professed self-concept-as-learner (P-SCAL) scores students assigned to themselves and the inferred self-concept-as-learner (I-SCAL) scores were generally significantly higher for middle grade Caucasian students than middle grade African American students.
- In disputing the belief on the part of some that minority students have lower self concept than their Caucasian counterparts, Porter and Washington (1979) report that a review of ten years of American research had not clearly indicated that there is low esteem among African American children and

youth. By comparison, the present study found that middle grade Caucasian students and their teachers generally assigned higher self-concept-as-learner scores to Caucasian students than African American students.

- A study conducted by Bash, Blyth, Brown, and Simmons (1978) that involved 798 African American and Caucasian students in the sixth and seventh grade found that African American students have significantly higher self-concept scores than Caucasian students. By comparison, the present study found the opposite to be true.
- Studies using a self-concept-as-learner (SCAL) instrument (Florida Key), to access the self concepts of middle school students revealed that girls scored higher than boys on self-concept-as-learner. The present study supported (Harper and Purkey, 1993; Stanley, 1991; and Stanley, 1993) in their findings.

IMPLICATIONS AND RECOMMENDATIONS FOR ADDITIONAL RESEARCH AND DEVELOPMENT

The possibilities for research and development with the Florida Key, as with any new instrument that obtains measures in the affective domain for people, are almost unlimited. This study measured the self-concept-as-learner at the middle grade level. Similar studies might prove to be interesting and profitable at other grade levels, including the elementary, high school, and college levels.

This study was also designed to measure gender/race self-concept-as-learner differences. Other student characteristics and behaviors such as absences, tendency to dropout of school, and discipline problems might well be correlated with self-concept-as-learner measures. Likewise, school organizational patterns such as groupings, tracking, and mainstreaming might be investigated as possible correlates of self-concept.

One of the most unique features of the Florida Key is the ability to obtain the following two measures for a student: (1) the professed self-concept-as-learner ratings (P-SCAL) assigned to a student by himself and (2) the inferred self-concept-as-learner ratings (I-SCAL) assigned to the same student by his teacher. While the two measures might provide additional valuable insight into the students' self-concept, large differences between the professed and inferred measures may create a dilemma for teachers and others who work with the students. The basic problem associated with large differences between the student's and teacher's perception is determining whose perceptions are correct. Obviously, there is a great need to conduct studies to determine the degree to disagreement relative to students' and teachers' perceptions of the students' self-concept-as-learner. Such studies should determine the relationship between professed and inferred differences and other factors such as gender, race, family income, academic performance, and discipline. It is especially important to factor in socio-economic variables when comparing the self-concept-as-learner (P-SCAL) measures of Caucasian and minority students. Also, further steps should be taken to determine which of the perceptions, professed and inferred, are the most valid measures of students' actual self-concept-as-learner. Independent third-party observers could be employed in validation studies of this nature.

Most, if not all, of the studies conducted with the Florida Key have used the total and four sub-scale scores as measures of professed and inferred self-concept-as-learner. Although the five scores for students are interesting and useful to the classroom teacher, many teachers state that they would obtain additional insight into their students' behavior and self-concept through an item analysis. For example, teachers wish to know whether students believe that they can "get along with teachers" or whether they think they "show an interest in being a leader."

The findings of this study revealed that the four sub-scale scores for the professed self-concept-as-learner (P-SCAL) and the four sub-scale scores for the inferred self-concept-as-learner (I-SCAL) are highly intercorrelated, and, as a result, might lack reliability as independent measures of self-concept-as-learner. This discovery suggests two considerations. First, caution should be exercised if researchers plan to use the four SCAL sub-scales in future empirical studies. Second, the use of self-concept-as-learner measures might be limited to the total SCAL or to only one of the four sub-scale scores.

This study also pointed out that the asserting ratings, both inferred and professed, did not differ between paired student gender/race categories. To a slightly lesser degree, the same finding was observed for the investing score. These findings suggests that more study might be directed at determining how these variables react in other research designs.

The review of related literature that provided a background for this study revealed that many innovative experimental programs had been implemented to help improve the self-concept of students. Such programs have been especially designed to impact on the self-concept and behavior of African American males. Despite the fact that most of these programs received favorable evaluation reports, many of the evaluations were based on subjective opinions rather than objective findings obtained from empirical evaluation and research. Furthermore, those programs that were proven to be productive through appropriate validation standards and procedures were seldom replicated at other sites. To assure the adoption of programs that are worthy of emulation and, at the same time, the dismissal of invalid efforts; school officials, evaluators and researchers, and others who have a vested interest in children and youth must adopt appropriate standards and procedures for identifying exemplary practices and then adopt and adapt them in other locations.

Finally, this study revealed that there were no significant differences between the P-SCAL total scores that African American male and Caucasian male students assigned to themselves. This finding suggests that consideration might be given to including all male students, in addition to African American male students, in innovative experimental programs designed to improve the self concept among middle-grade students.

PERSONAL OBSERVATIONS AND RECOMMENDATIONS

Professional educators have an obligation to promote and participate in research and development activities that keep them abreast of current instructional strategies which address needs of society and the workplace. This obligation is especially important in the area of self concept which impacts so strongly on student performance as well as the general welfare of children and youth.

To be successful, however, research and development activities must be conducted in scientific and systematic ways and the responsibility for research and development must be shared by all who have a vested interest in educational outcomes. This means that research and development projects need to be well planned. Research priorities need to be identified through needs assessments, research objectives and strategies need to be well defined, responsibilities for research tasks need to be assigned, research outcomes need to be evaluated, and successful and exemplary programs need to be expanded and replicated.

Responsibility for conducting research and development activities must be shared within the educational establishment as well as between educators and other share owners. For example, teachers and administrators at the elementary/secondary school level must work with their counterparts at the institutions of higher learning, and viable partnerships must be formed between educators and such client groups as parents,

business and industry, and local and state government. All efforts must be supported by financial and personal commitments.

New theories as well as the replication of exemplary programs must be included in the research and development menu. Exploratory theories might include the testing of hypotheses that deal with the relationship between the use of alcohol by the mother during pregnancy and the child's self concept or the impact of watching various types of television programs on children's self concept.

Fortunately, there are a number of proven programs in existence which are worthy of emulation and replication. One of these, invitational education (Stanley and Purkey, 1994) suggests that the combined factors of people, places, policies, and processes invite individuals to develop intellectually, socially, physically, psychologically, morally and to maintain a positive and realistic self-concept-as-learner .

Purkey (1978) argues that a major factor in building self concept among students is how teachers feel about themselves and others. Teachers can create an environment to enhance the self concept of students by: (1) challenge, (2) freedom, (3) respect, (4) warmth, (5) control, and (6) success. Such an environment as described needs to be created and the impact on students and teachers alike should be evaluated.

Adams (1993) reports on the success of a project that involves middle grade students in community projects to help students develop positive self concept and value. On the other hand, Necessary and Parish (1993) suggest the consideration of behavior modification, conflict management, and change management as strategies to enhance self concept.

Educational literature is rich with recommendations for improving the self concept of male African Americans. For example, Tobias (1989) believes that there are issues that are especially pertinent in developing self concept. These four are:

curriculum relevancy, teacher competency, parental involvement and guidance, and counseling. Clark (1983) and Kunjufu (1984) propose that parents are the key to children's self concept. Jones (1991) provides some examples of exemplary public schools that are designed to assist male African Americans to become better educated. Finally, Linton and Forster (1990) recommend a revolutionary paradigm to change the attitude and habits of the underclass. They see the paradigm as a brand new school that would be designed to create a mystique and school spirit centered on culture and achievement.

Needless to say, there is not a dearth of exemplary programs to be replicated and the human mind is certainly not incapable of developing viable theories and hypotheses for exploration and testing. Bringing about desirable change is rather dependent on such factors as attitude and commitment. Professional educators should be eager to develop the mind set to make significant improvement in the schools.

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APPENDIX A
FLORIDA KEY SELF-CONCEPT SCALE (Student Form)

Name: _____

Please write your name at the top of this page. You and a selected number of other middle grade students are being invited to provide teachers with some information about you that can be used to help him/her instruct you more effectively. For each of the 23 statements below, indicate how you compare with other students in your grade by circling either 0 = never, 1 = very seldom, 2 = once in a while, 3 = occasionally, 4 = fairly often and 5 = very often.

Compared with other students my age:

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1. I get along with other students | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. I get along with teachers | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. I keep calm when things go wrong | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. I say good things about my school | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. I tell the truth about my work | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. I speak up for my own ideas | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. I offer to speak in front of the class | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. I offer to answer questions in class | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. I ask meaningful questions in class | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. I exhibit confidence in my school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. I persist in my school endeavors | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. I talk to others about my school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. I join in school activities | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. I seek out new things to do in school on my own | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. I offer to do extracurricular work in the classroom | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. I spend time helping others | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. I show an interest in others' work | 0 | 1 | 2 | 3 | 4 | 5 |
| 18. I show an interest in being a leader | 0 | 1 | 2 | 3 | 4 | 5 |
| 19. I initiate school projects | 0 | 1 | 2 | 3 | 4 | 5 |
| 20. I finish my school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 21. I pay attention to class activities | 0 | 1 | 2 | 3 | 4 | 5 |
| 22. I do my school work carefully | 0 | 1 | 2 | 3 | 4 | 5 |
| 23. I talk to teachers about personal concerns | 0 | 1 | 2 | 3 | 4 | 5 |

APPENDIX B
FLORIDA KEY SELF-CONCEPT SCALE (Teacher Form)

Student's Name: _____
 Race: White _____ African-American _____ Other _____
 Sex: Male _____ Female _____
 Teacher _____

Please write your name and your student's name at the top of this page. Place a check by the student's race and sex. This scale is to assist you, the teacher, in evaluating how the student perceives his/her "learner" self. Please indicate how the students compare with others by circling 0=never, 1=very seldom, 2=once in a while, 3=occasionally, 4=fairly often and 5=very often.

For Official Use: Reading _____ Math _____

Compared with other students of the same age, does this student:

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1. Get along with other students | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Get along with teachers | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Keep calm when things go wrong | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Say good things about school | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Tell the truth about work | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Speak up for own ideas | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Offer to speak in front of the class | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. Offer to answer questions in class | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Ask meaningful questions in class | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. Exhibit confidence in school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. Persist in school endeavors | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Talk to others about school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. Join in school activities | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. Seek out new things to do in school on own | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Offer to do extracurricular work in the classroom | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. Spend time helping others | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. Show an interest in others' work | 0 | 1 | 2 | 3 | 4 | 5 |
| 18. Show an interest in being a leader | 0 | 1 | 2 | 3 | 4 | 5 |
| 19. Initiate school projects | 0 | 1 | 2 | 3 | 4 | 5 |
| 20. Finish school work | 0 | 1 | 2 | 3 | 4 | 5 |
| 21. Pay attention to class activities | 0 | 1 | 2 | 3 | 4 | 5 |
| 22. Do school work carefully | 0 | 1 | 2 | 3 | 4 | 5 |
| 23. Talk to teachers about personal concerns | 0 | 1 | 2 | 3 | 4 | 5 |

APPENDIX C
Items That Contribute To Each Of the Florida Key Scale Scores

| <u>Scale Measure</u> | <u>Item</u> |
|----------------------|--|
| Relating | <ul style="list-style-type: none"> 1. Get along with other students 2. Get along with teachers 3. Keep calm when things go wrong 4. Say good things about school 5. Tell the truth about work |
| Asserting | <ul style="list-style-type: none"> 6. Speak up for own ideas 7. Offer to speak in front of the class 8. Offer to answer questions in class 9. Ask meaningful questions in class |
| Coping | <ul style="list-style-type: none"> 10. Exhibit confidence in school work 11. Persist in school endeavors 12. Talk to others about school work 13. Join in school activities 20. Finish school work 21. Pay attention to class activities 22. Do school work carefully |
| Investing | <ul style="list-style-type: none"> 14. Seek out new things to do in school on own 15. Offer to do extracurricular work in the classroom 16. Spend time helping others 17. Show an interest in others' work 18. Show an interest in being a leader 19. Initiate school projects 23. Talk to teachers about personal concerns |