

EFFECTS OF CLASS ASSIGNMENT BY GRADE LEVEL ON THE
SELF CONCEPTS OF JUNIOR HIGH STUDENTS
IN HOME ECONOMICS

by

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A Thesis Submitted to the Faculty of the
SCHOOL OF HOME ECONOMICS

In Partial Fulfillment of the Requirements
For the Degree of

MASTER OF SCIENCE
WITH A MAJOR IN HOME ECONOMICS EDUCATION

In the Graduate College

THE UNIVERSITY OF ARIZONA

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ACKNOWLEDGMENTS

The author wishes to gratefully acknowledge several groups of people whose help and faith in my abilities have not faltered throughout the project.

To the State Department of Education through the office of Clio Reinwald, State Supervisor of Home Economics, thank you for the Vocational funding for this project. To Hazel Coatsworth, Coordinator of Home Economics, Tucson District #1 and her staff, a special thank you for helping to obtain and process the funding. To the administrators of both schools, a sincere thank you for ideas, facilities and time so freely given. To Emily Strahler, home economics teacher from the other school, thank you for numerous hours and helpful suggestions.

To my Graduate Committee, Dr. Amy Jean Knorr and Dr. Glen Nicholson and my advisor Dr. Doris Manning a heartfelt thank you for the many hours of time and thought that goes into advising a project such as this.

And to my beloved husband, thank you for your sacrifice of me during these months, and your pride and faith in me. For without your concern, support and help, the project would surely have been abandoned long ago.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
ABSTRACT	vii
1. INTRODUCTION	1
Purpose of the Study	3
Objectives	3
Hypotheses	4
Assumptions	5
Limitations	5
Definition of Terms	5
Organization of the Report	6
2. REVIEW OF LITERATURE	7
Self Concept	7
Self Concept and Academic Achievement	10
Self Concept and Differences in Sex	12
Methods of Measuring Self Concept	12
Methods of Class Assignment	14
3. PROCEDURES	16
Selection of the Instrument	16
Procedure for Collection of Data	17
Population and Sample	19
Data Analysis Plan	20
4. RESULTS, CONCLUSIONS AND IMPLICATIONS AND RECOMMENDATIONS	21
Results	21
Teacher Observations	24
Conclusions and Implications	25
Recommendations	28
APPENDIX A: COVER SHEET	30
APPENDIX B: INSTRUCTIONS TO READ BEFORE ADMINISTERING THE <u>PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE</u>	31

TABLE OF CONTENTS--Continued

	Page
APPENDIX C: INSTRUCTIONS FOR THE <u>PIERS-HARRIS</u> <u>CHILDREN'S SELF CONCEPT SCALE</u>	32
SELECTED REFERENCES	33

LIST OF TABLES

Table	Page
1. All Students given the <u>Piers-Harris Children's Self Concept Scale</u> from both the Heterogeneously and Homogeneously Grouped Schools Divided by Subgroup	19
2. Analysis of Variance for Self Concept Scores	22
3. Means of Self Concept Scores	23
4. Means of Self Concept Scores for the Students from the Heterogeneously and Homogeneously Grouped Schools as Divided by Grade and Sex	23

ABSTRACT

Self concept theory has influenced educational philosophy and is currently making a reappearance. The self concepts of junior high students was thought to be affected by sex, grade and method of class assignment as well as be an influential factor of academic achievement. Five hypotheses were tested: 1) there is no difference between the self concepts of the boys and the girls, 2) there is no difference between the self concepts of the seventh and eighth graders, 3) there is no difference between the self concepts of the group of students taught heterogeneously by grade level as compared to the group taught homogeneously by grade level, 4) there are no significant interaction effects between sex, grade level and method of class assignment, and 5) there is no correlation between the self concept scores and achievement in reading and/or math. Hypothesis number two was rejected because a significant difference between the seventh and eighth graders was reported with the seventh graders scoring significantly higher than the eighth graders.

A total of 282 students was given the Piers-Harris Children's Self Concept Scale and of this population 156 tests were randomly chosen for statistical analysis.

CHAPTER 1

INTRODUCTION

Throughout the history of psychology the study of the self has been an important concept. Self concept theory has been influential on educational philosophies and is currently making a reappearance within the educational structure. The 1965 Elementary-Secondary Education Act gave guidelines which emphasized the need for concern with variables such as attitude toward self and concept of self (Bills 1975).

Many factors influence the development of the self concept. Experts agree that there are three areas within the self concept; 1) the self perception or how the individual views himself as compared to others, 2) the self-other perception or how the individual views how others see him, and 3) the self-ideal or the way in which one wishes he could be seen (Mangieri 1974). Experts also agree that development of an individual's self concept is largely based upon his contacts with those persons who are important to him or significant others (Mangieri 1974). Quandt (1973) stated that children's significant others are usually parents and teachers.

Several authors (Quandt 1973, Mangieri 1974) report that development of the self concept is a learned behavior and that teachers can help in its development. Teachers can help students develop positive images of themselves. Not only will the child feel better about his abilities but many authors (Bills 1975, Brookover and

Gottlieb 1964, Purkey 1972) report that self concept is directly related to academic achievement. The authors were careful not to indicate a causal relationship because one can assume that either self concept determines academic performance or that academic performance shapes the self concept (Purkey 1972). Purkey (1972, p. 23) stated that "there is a continuous interaction between the self and academic achievement and that each directly influences the other." Brookover and Gottlieb (1964) stated that self estimates of ability seemed to be relatively efficient predictors of academic achievement and that it was most effective if students were asked to compare themselves with their peers (Baird 1976).

Purkey (1972) was among several authors who reported some differences in self concepts between sexes. The question of sex and performance in school when related to self concept needs to be studied further because of conflicting results reported.

School schedules are usually thought to be developed for the benefit of the students. Many scheduling methods have been tried, such as open classes, modular classes and non-graded classes. This study compares the self concepts of students from two different schools. One school is considered to be "normal" in assigning students to classes. The other is labeled "non-graded" and assigns students to all classes regardless of the grade the student is in.

The area of self concept has been recognized as an important influence on a student's school performance. Much research has been done on the self concepts of grade school and high school students in

relation to academic achievement but the self concepts of junior high students in relation to academic achievement has been neglected in the literature.

The area of sex and self concept at the junior high level as related to school achievement has also been neglected in the related literature. The literature reviewed did not refer to methods of assigning students to classes in relation to multi-aged groups being in the same classes. For the above reasons the purpose of this study follow.

Purpose of the Study

The purpose of this study was fourfold: 1) to discover if there were any differences between the self concepts of the boys as compared to the self concepts of the girls at junior high level, 2) to discover if there were differences between the self concepts of the seventh graders as compared to the eighth graders, 3) to discover if there were any differences between the self concepts of the students taught heterogeneously by grade level as compared to the group taught homogeneously by grade level, and 4) to discover if there was a correlation between self concept scores and achievement scores in reading and/or math.

Objectives

Objectives of this study were:

1. Is there a difference between the self concepts of boys and girls at the junior high level?

2. Is there a difference between the self concepts of the seventh and eighth graders?
3. Is there a difference between the self concepts of the students from the heterogeneously taught group as compared to the students from the homogeneously taught group?
4. Are there significant interaction effects between sex, grade level and class assignment on self concept?
5. Is there a correlation between the self concept scores and achievement in reading and/or math?

Hypotheses

Hypotheses were set forth as:

1. There is no difference between the self concepts of the boys and the girls.
2. There is no difference between the self concepts of the seventh and eighth graders.
3. There is no difference between the self concepts of the group of students taught heterogeneously by grade level as compared to the group taught homogeneously by grade level.
4. There are no significant interaction effects between sex, grade level and class assignment on self concept.
5. There is no correlation between the self concept scores and achievement in reading and/or math.

Assumptions

In this research, the following assumptions were made:

1. Student self concept is a measurable variable.
2. The students will give honest answers on the questionnaire used.
3. The experimental and control groups are approximately equal with regard to background, socioeconomic group and race.

Limitations

This study was limited to the self concept questionnaire responses and achievement scores in reading and/or math of two groups of home arts students enrolled in the homogeneously and heterogeneously grouped schools during the Spring of 1977.

The findings were further limited to the sampling plan. The groups used were intact groups and the most convenient to the researcher. Random sampling of scores was used, however.

Seventh and eighth graders are affected by variables too numerous to control for, therefore it was impossible for the researcher to conclude that a causal relationship between the class assignment methods and student self concept existed.

Definition of Terms

The following terms were used in this study and are defined for the reader's benefit.

Self concept: The person's attitudes, feelings, and knowledge about his abilities, skills, appearance, competencies and social acceptability (LaBenne and Green 1969).

Homogeneous by grade level: Students assigned to classes only with students in their same grade level. Also referred to as the control group.

Heterogeneous by grade level: Students are assigned to classes independent of grade level. Also referred to as the experimental group.

Grade level: The grade in school the student is in, either seventh or eighth.

Organization of the Report

This report is organized in four chapters. Chapter 1 introduces the study. The related literature is described in Chapter 2. Methodology is presented in Chapter 3. The findings, conclusions and implications and recommendations are presented in Chapter 4.

CHAPTER 2

REVIEW OF LITERATURE

The literature was reviewed and is presented in five sections; self concept, self concept and academic achievement, self concept and differences in sex, methods of measuring self concept and methods of class assignment.

Self Concept

The study of the self has been an important concept throughout the history of psychology. The self played an important role in many traditional personality theories including those of Allport, Lewin, and Mead, and many approaches to therapy including theories of Rogers and Freud, as well as many general behavior theories, such as Combs and Snygg (West and Fish 1973). Self concept is usually defined as the person's attitudes, feelings and knowledge about his abilities, skills, appearance, competencies and social acceptability (LaBenne and Green 1969).

Development of a person's self concept seems to rely heavily on contact with people important to the individual or significant others. For children, these others are usually parents and teachers (Mangieri 1974 and Quandt 1973). Teachers play a major role in the development of a student's self concept and this role must be actively sought by the individual teacher. According to Quandt (1973) the teacher should provide a positive classroom atmosphere, make the child feel accepted

and provide the child with success in order to help the child develop a more positive self concept.

The literature reviewed indicated that a positive self concept is more desirable than a negative self concept (Purkey 1972, Combs n.d., Quandt 1973). Quandt (1973, p. 6) said that "a good or positive self concept is one in which the person perceives himself as capable and or important and is therefore able to perform at a normal or superior level." A negative self concept is the exact opposite in which "the person perceives himself as incapable or unimportant to such an extent that he is unable to perform at a normal level" (Quandt 1973, p. 6). Combs (n.d., p. 4) states that "a positive view of self gives a person a great internal feeling of security that makes it possible for him to deal effectively with the world in which he's living."

The literature indicates that self concept is related to both intelligence and learning. Combs (n.d.) states that self concept is related to intelligence. He believes that it makes a difference if a student thinks he can do something as compared to the student who thinks he cannot do something. "If you believe that you can, you will try; if you don't believe that you can, you will not try, and that will affect your intelligent behavior" (Combs n.d., p. 3).

Combs (n.d., p. 2) also states that the "self concept affects every aspect of human behavior; for example, we know that the self concept is intimately related to the problem of learning." He goes on to say that the self concept must always be involved in any kind of

learning situation, because it has to do with the involvement of the person with the subject matter.

The field of psychology has had many areas of emphasis surface and resurface throughout the years and "psychological theories have always had a strong influence on education. So it happened that when psychology abandoned the self, so did education" (Purkey 1972, p. 4). It is only recently, within the last ten to eleven years, that the importance of the student's self concept has made a reappearance in educational philosophies. Self concept, along with academic achievement is currently viewed as an expected output of educational programs. The 1965 Elementary-Secondary Education Act gives guidelines which emphasize the need for concern with variables such as attitude toward self and concept of self (Bills 1975). Currently only twelve states use self concept tests as part of their statewide assessment programs (Lynch and Chaves 1975). In other states, including Arizona, more emphasis is placed on achievement scores in cognitive areas such as math and reading rather than in affective areas such as self concept. Bills (1975, p. 1) states that "little concern has been shown for the student as a person during the learning process."

The research indicates several reasons why a positive self concept is important to develop. Students need a positive self concept to perform at an optimum level in school because self concept is related to learning and intelligence (Combs n.d.). Self concept is currently being included in educational guidelines as an important factor related

to academic achievement because of the effect it has on student performance.

Self Concept and Academic Achievement

Many authors report findings that student's self concepts are related to school performance (Baird 1976, Bills 1975, Brookover and Gottlieb 1964, Chang 1975, Felice 1975, Grabe 1975, Lynch and Chaves 1975, Mangieri 1974, Purkey 1972, Quandt 1973, Swartz 1972, and West and Fish 1973).

Brookover and Gottlieb (1964) tested 1,050 seventh graders using his self concept of ability scale and found a significant positive relationship between self concept of ability and grade point average. He also stated that self concept scores seemed to be a better indicator of academic performance in seventh, eighth, and ninth graders than I.Q. tests. "Self estimates of ability seem to be relatively efficient predictors of academic achievement" notes Baird (1976) referring to Brookover and Gottlieb's 1964 study.

Chang (1975) studied the self concepts of fourth, fifth and sixth graders in relation to academic achievement using the Piers-Harris Children's Self Concept Scale. Significant correlations between self concept scores and academic achievement scores in reading and math were reported.

Felice (1975) did a three year study of high school students in Waco, Texas. He reported that self concept was a significant determinant of student achievement performance regardless of the student's I.Q., race or family socioeconomic position.

Grabe studied 934 ninth through twelvth graders in Iowa in 1975. The self concept instrument used was comprised of the instructional and school status, physical appearance and attributes and popularity sub-scales from the Piers-Harris Children's Self Concept Scale. He concluded that self concept scores were shown to increase with increased numbers of academic achievements.

Swartz (1972) compared self esteem inventory scores of third graders with informal reading inventory scores. She reported a positive correlation between instructional reading and the self esteem scores.

However, no one can assume that either self concept determines academic performance or that academic performance shapes the self concept. "The best evidence now available suggests that it is a two-way street, that there is a continuous interaction between the self and academic achievement and that each directly influences the other" (Purkey 1972, p. 23).

Bills (1975) states that little concern has been shown for the individual during the learning process. Since there is some evidence that self concept tests are reliable predictors of academic achievement (Brookover and Gottlieb 1964, Baird 1976), self concept tests could be used more often for this purpose instead of academic achievement tests. This would also serve the purpose of assessing the student's self concept. It follows also that if academic achievement scores are not available, self concept of ability scores might be referred to as an indicator of ability.

Self Concept and Differences in Sex

Many researchers have established that sex is an important variable on self concept. Several studies have been done in the area of self concept and academic achievement in relation to sex.

Purkey (1972) states that Campbell and Bledsoe have completed research which indicates a significant positive relationship between self concept and academic achievement. These authors also found some differences between sex in regard to the strength of the relationship. In many instances boys had a stronger relationship between self concept and school achievement than did girls but the girls had higher self concepts as a group than did the boys. Purkey (1972, p. 15) does advise that "this question of the influence of sex on the self concept is a rich field of exploration and needs much more research."

Piers (1969) reports no significant sex differences in the means and standard deviations of total scores using the Piers-Harris sample of 1964. She recommends that any significant sex differences in a single study be reported but not given too much emphasis until further evidence has been accumulated.

Relationships between sex and self concept were reported by some authors (Purkey 1972) and denied by others (Piers 1969). All seem to agree however, that more research needs to be done relating these two variables.

Methods of Measuring Self Concept

There have been more than 200 self concept measures reported in the literature (Lynch and Chaves 1975). Many of these measures have

not been validated against independent measures on theoretical constructs of self concept. Three constructs of self concept have been treated in various measures. These are 1) the actualized or idealized self, 2) the empathetic or looking glass self, and 3) attitude toward self or self worth (Lynch and Chaves 1975). Before a researcher makes any conclusions it is important to see which, if any, of the general theoretical constructs of self concept will be measured. Because of the numerous measures, reliability and validity must often be taken at face value. A common problem of measuring self concept was found to be that many authors used their own methods and measurement tools for their studies for which validity and reliability had not been established.

Perhaps the major difficulty in interpreting results lies in some researcher's definitions of self concept versus self report. Combs (n.d.) is one researcher who adamantly differentiates between self concept and self report. He states (in LaBenne and Green 1969, pp. 115-116):

The 'self concept' as it is generally defined, is the organization of all that seems to the individual to be 'I' or 'me'. It is what an individual believes about himself. On the other hand, the 'self report' is a description of self reported to an outsider. It represents what the individual says he is. To be sure, what an individual says of himself will be affected by his self concept. This relationship, however, is not a one-to-one relationship. The self report will rarely, if ever, be identical with the self concept. The self report is essentially an introspection and is no more acceptable as direct evidence of causation in modern phenomenological psychology than in earlier, more traditional schools of thought.

The fact that self concept may be difficult to measure must be recognized in order to avoid errors in interpretation. The instruments available are the best developed thus far and it is easy to observe why no one instrument has emerged to become widely used by investigators.

Methods of Class Assignment

Assigning students to classes at the junior high level is usually thought to be done to better meet the needs of the students. District and school administrators are constantly looking for new and/or revised methods of setting up school programs. School programs with labels such as "open", "non-graded", "ungraded", and "middle schools" have been tried nationwide. Tucson District #1 is no exception and the researcher has access to a "non-graded" junior high school and a "regular" junior high school. In this instance "non-graded" is defined as having the seventh and eighth graders assigned to all classes independent of the grade level they are really in or heterogeneously by grade level. The theory "allows different students at a similar point in learning, regardless of their age or grade, to be grouped together for instruction in a certain skill or concept area for a period of time" (McCarthy 1972, p. 9).

The "regular" school involved has students assigned to all classes homogeneously by grade level. In other words, the seventh graders are in classes only with other seventh graders and the eighth graders are in classes only with other eighth graders.

In the review of literature two studies dealt with multi-aged students in the same classes.

Hoan (1972) studied the effectiveness of three multi-age classes on the student's development of self concepts and attitudes toward school. Each class at Carnarvan School, Vancouver, B. C., Canada had a three year age range; ages 6 to 8, 7 to 9, and 8 to 11. He reported no significant difference between the multi-age classes and regular classes in the mean raw scores on the self concept scale used. He wrote that the area needed more study under tighter controls.

The second study was one done by Trinka in 1973. She compared the self concepts of 103 fifth graders in a traditional school to 94 fifth graders from an open school. The Piers-Harris Children's Self Concept Scale was used. She reported no significant differences between the mean self concept scores. Her study did not support the theory that openness promotes a more positive self concept than does a traditional program.

The literature neglected the area of seventh and eighth graders in relation to their self concepts, however considerable research has been done in both the elementary and high school grades on self concept. The areas of seventh and eighth grader's self concepts in relation to academic achievement and sex were neglected in the research also. Research has been done on various methods of assigning students to classes but, again, mostly at the grade school level. Moreover, the methods of class assignment used were not comparable to these heterogeneous and homogeneous methods.

CHAPTER 3

PROCEDURES

The chapter describing methodology is presented in four sections: selection of the instrument, procedure for collection of data, description of the sample and data analysis plan.

Selection of the Instrument

The Piers-Harris Children's Self Concept Scale, an 80-item "yes" or "no" questionnaire, was used for several reasons. The instrument was designed primarily for group testing, therefore fitting the researcher's situation. Norms were established on 1,183 public school children ranging from grades four to twelve. The norms were established in one large Pennsylvania school district and the researcher felt that the Arizona district used was comparable. Although the test items tended to be middle class in origin, again, the researcher felt no problems would arise because of the middle class background of the students in the sample.

The Piers-Harris was reported as being highly reliable, with internal consistency coefficients ranging from .78 to .93. The Piers-Harris has been compared with similar measures to establish content validity and has reported high correlations (Piers 1969). The Piers-Harris provided data that related the student's self report to peer's and teacher's ratings, thus construct validity was provided. The use of control groups was suggested when the scale was to be used for

post-testing and retesting situations, thus allowing for predictive measures. The Piers-Harris appeared to be a carefully developed test to the researcher, thus establishing its face value.

Procedure for Collection of Data

The Piers-Harris Children's Self Concept Scale was prepared for administration by gluing a cover sheet inside each booklet because the researcher did not need some of the information which was on the author's cover sheet. The cover sheet (see Appendix A) required the student to circle his sex and state what grade he was in. A blank line for the test number was placed at the top of the cover sheet. The researcher stamped the schools' names on the tests for each school. The researcher also code numbered each test according to the period number and student number in the teacher's grade books. For example, test number 2-1 was student one listed in the grade book for period two. The tests were passed out so that student 2-1 received test number 2-1. The code numbers had to be retraceable to the names of the students for the purpose of looking up the student's achievement scores.

The tests were administered by each home arts teacher in her respective school. Beforehand, the teachers had studied together the directions written for the test by Piers and Harris (1969) and a direction sheet written by the investigator (see Appendix B and Appendix C). When the teachers administered the tests to each class the main points of the investigator-written instructions were explained

and the Piers-Harris instructions were read aloud to the class while the class followed along.

The tests were administered on Tuesday and Wednesday of a week which was located approximately half way through a semester grading period. Past experience indicated that there would be fewer absentees on the middle two days of the week, thus a Tuesday and Wednesday were chosen for test administration days. The students had developed trust with the teachers by the middle of a grading period thus the reason for administration during mid-semester.

A list of test numbers was randomly prepared for data analysis and each teacher looked up the available reading and math scores for each student's number. If a score was not available for some reason, another test number was randomly placed on the list and that person's scores recorded. The list of test numbers and matching achievement scores was completed before any scoring of the self concept tests thus assuring the student's anonymity. All eighth graders had both math and reading achievement scores, but the seventh graders in both schools had only the reading achievement scores available.

The sample self concept tests were hand scored by the researcher using the purchased key which was hole-punched for ease of scoring. A total self concept score was recorded on the master data list next to the student number and achievement scores. If any response on the self concept test had been left blank or if both the "yes" and "no" had been circled, one half point of credit was given to that response.

Population and Sample

The population consisted of all seventh and eighth grade male and female home arts students from the homogeneously and heterogeneously grouped schools enrolled at the time of the administration of the Piers-Harris Children's Self Concept Scale in the Spring of 1977. The students who were absent on administration day were not used in the sample. The completed tests were divided into four subgroups by schools: seventh grade girls, seventh grade boys, eighth grade girls and eighth grade boys. The tests in each subgroup were then thoroughly shuffled and assigned a number. A table of random numbers was used to select 20 tests from each subgroup. The homogeneous eighth grade boys group was the only exception, the total in that subgroup was 16 so all tests were used in the data analysis (Table 1). There were 156 total tests used for final data analysis.

Table 1. All Students given the Piers-Harris Children's Self Concept Scale from both the Heterogeneously and Homogeneously Grouped Schools Divided by Subgroup

	7th Grade Girls	7th Grade Boys	8th Grade Girls	8th Grade Boys	Total
Heterogeneous Group	49	40	33	41	163
Homogeneous Group	28	36	39	16	119
Total	77	76	72	57	282

Data Analysis Plan

The school, grade, sex, self concept scores and achievement scores in reading and/or math of each sample student were coded on computer sheets by the investigator. Computer cards were key-punched and processed to obtain summaries of the scores.

A three-way analysis of variance was calculated using self concept scores as the dependent variable. The independent variables were grade, method of class assignment (school) and sex. Math achievement scores were correlated with self concept scores and reading achievement scores were correlated with self concept scores to see if there were any correlations between achievement in reading and math and self concept.

CHAPTER 4

RESULTS, CONCLUSIONS AND IMPLICATIONS AND RECOMMENDATIONS

Chapter 4 is divided into three sections: results, conclusions and implications and recommendations.

Results

The section on results will answer in sequence each question stated in the objectives.

A total of 282 students participated in the study. This included 49 seventh grade girls, 40 seventh grade boys, 33 eighth grade girls and 41 eighth grade boys from the heterogeneously grouped school, and 28 seventh grade girls, 36 seventh grade boys, 39 eighth grade girls and 16 eighth grade boys from the homogeneously grouped school (Table 1). Analysis of variance was performed on the tests from each subgroup. Results are shown in Table 2.

The first objective asked if there were any differences between the self concepts of the boys and girls. The differences reported were not significant. In this study the total boys from both schools did slightly better than the total girls (Table 3) but the differences were not statistically significant.

The second objective questioned if there were differences between the self concepts of the seventh and eighth graders. Table 4 indicates that the mean self concept score for the seventh grade boys

Table 2. Analysis of Variance for Self Concept Scores

Source	df	SS	MS	F
School	1	204.41	204.41	1.57
Grade	1	3390.62	3390.62	26.18*
Sex	1	266.19	266.19	2.06
Grade x School	1	391.50	391.50	3.02
Sex x School	1	37.33	37.33	.29
Sex x Grade	1	463.93	463.93	3.58
Sex x School x Grade	1	13.96	13.96	.11
Within	148	19166.75	129.50	
Total	155	23934.69		

* $p < .05$

Table 3. Means of Self Concept Scores

	Heterogeneous Group	Homogeneous Group	Total Sample
Total Boys	54	58	56
Total Girls	53	54	53

Table 4. Means of Self Concept Scores for the Students from the Heterogeneously and Homogeneously Grouped Schools as Divided by Grade and Sex

	Heterogeneous Group	Homogeneous Group	Total Sample
Seventh Grade Boys	56	62	59*
Seventh Grade Girls	57	62	60*
Eighth Grade Boys	53	54	53*
Eighth Grade Girls	48	46	47*

*
p < .05

was 59 and the seventh girls' mean was 60. The eighth grade boys' mean self concept score was 53 and the eighth grade girls' mean self concept score was 47. The analysis of variance reported a significant difference between the total seventh and total eighth grader's self concept scores. The seventh graders scored significantly higher than the eighth graders on self concept.

The third objective was directed to the question about a difference between the self concepts of the students from the two methods of class assignment. Once again, a slight difference was reported but the difference was not great enough to be statistically significant.

The fourth objective asked if there were interaction effects among grade, method of class assignment and sex on the self concept. There were no significant interaction effects reported. The effects of class assignment by grade and grade by sex on self concept approached but did not reach significance at the .05 level.

Objective number five asked if there were any correlation between reading and/or math achievement scores and self concept. The statistical correlations performed on the data showed no significant correlations present.

Teacher Observations

Both teachers observed interesting student behavior during the administration of the self concept test. Several students in each class from both schools giggled and snickered when they read question number 57 "I am popular with boys" and question number 69 "I am popular with girls." If the student was of the same sex as mentioned in the

question, comments were made regarding the normality of the student. Both teachers explained that having friends of the same sex did not indicate abnormal behavior and that particularly at the junior high level they probably had more friends of the same sex than of the opposite sex.

At the junior high level it is recommended that self concept be explained to the students in detail before test administration. Many students were hesitant to put "yes" answers for many questions because they thought that numerous positive answers indicated conceit. They were reluctant to admit that they had positive feelings about themselves.

These observations were included to help future researchers be prepared for reactions by some junior high students.

Conclusions and Implications

Conclusions and implications will be made in sequence from each of the five hypotheses and objectives.

Hypothesis number one, there is no difference between the self concepts of the boys and the girls, must be retained on the basis of this study. The differences reported were not significant. This result was somewhat different from the trend reported in the review of literature. Campbell and Bledsoe reported the self concepts of girls as being higher than those of boys (Purkey 1972). This study's conclusions that there were no differences between boys and girls in self concept strengthened Purkey's (1972) statement that the difference of sex in self concept needed more research.

Hypothesis number two, there is no difference between the self concepts of seventh and eighth graders was rejected. The data showed a significant difference between the seventh and eighth graders with the seventh graders performing significantly better than the eighth graders. These results were somewhat surprising. To have higher self concepts overall meant that seventh grade boys and girls from both schools scored higher on the self concept tests than did the eighth graders from both schools. The fact that a group of younger seventh grade students reported better self concepts than the older eighth grade students seemed to go against what might be predicted.

The third hypothesis, there are no differences of self concept between the homogeneously and heterogeneously grouped students, was also retained. The differences were slight but not enough to be statistically significant. Looking at Table 4 it is observed that the highest single mean for all the subgroups is a 62, reported by the seventh grade girls and boys in the homogeneously taught school. While not significant, three of the four subgroup means of the homogeneously taught group were slightly higher than in the heterogeneously taught group.

The researcher had originally speculated that the seventh graders from the heterogeneously grouped school would have higher self concepts than the seventh graders from the homogeneously grouped school. The researcher felt that the seventh graders when mixed with the eighth graders would have to accelerate somewhat to keep up with the eighth graders. Further study could be done and may indicate that

students have better self concepts when assigned to classes with students of their same grade, rather than assigned to classes independently of grade level.

The fourth hypothesis, there were no significant interaction effects between sex, grade and method of class assignment was retained. The interaction effects of method of class assignment by grade and grade by sex on the variable self concept approached significance. Perhaps the method of class assignment did have some influence on the self concepts of the students although the significance level was not reached. The means in most of the subgroups of the homogeneous group were slightly higher than those means in the heterogeneous group (Table 4).

The fifth hypothesis, there was no correlation between the self concept scores and the achievement scores in reading and/or math was also retained. This result did not correlate with the trend indicated in the literature. The research showed many significant studies indicating predictive results between self concept and school achievement. One reason for this result may be the fact that a total self concept score was used. The Piers-Harris has several sub-scores within the test, one of which is Intellectual and School Status. This sub-score was not calculated from the data because the authors of the test label this "cluster" score information as only tentative and in need of more research.

Therefore, of the five hypotheses, one was rejected and the other four were retained on the basis of the data.

Recommendations

On the basis of this study the use of self concept tests instead of achievement tests could not be recommended by the investigator. Perhaps if the study were to be done by a more sophisticated researcher using a larger population and sample, more information would be available. The review of literature indicated significant differences between sex and self concept and a larger population and sample could cause any differences to become more visible.

The small groups used in this research represented just two schools. The interaction effects of method of class assignment, grade and sex which approached significance in this study needs to be studied further. Perhaps an investigator could locate groups of schools which use each method of class assignment. Those results would be truly more representative of the method of class assignment instead of the comparison between two schools, which in reality was what this study compared.

There is little information about the age group including seventh and eighth graders. Although not a part of this study, a possible reason may be because of the unstable developmental stage these students are going through. The investigator recommends that more work in the area of self concept be done with this age group. Perhaps some of the reasons for being a difficult group to study may be documented through such research.

The Piers-Harris was also recommended for a test-post-test design. Perhaps with such a group of students as seventh and eighth

graders, a post-test at a later time would be a valid suggestion for the purpose of checking the reliability of the answers. The investigator recommends such a design for a future study.

The researcher also recommends that the subgroup scale for Intellectual and School Status be used in a future study. Piers and Harris (1969) recommended that more work needed to be done developing norms for the subgroups within the total self concept test.

In summary, the area of self concept in relation to methods of class assignment, sex and academic achievement at the junior high level needs further research. In further studies a larger population and sample which includes larger groups of schools with different methods of class assignments is recommended. The use of a post-test and the subgroup scores for Intellectual and School Status in the Piers-Harris Children's Self Concept Test is also recommended.

APPENDIX A

COVER SHEET

TEST NUMBER _____

The Way I Feel About Myself

SCHOOL _____

BOY OR GIRL (circle one)

GRADE _____

When you answer these questions, it is assumed you have given the researcher your permission to use your answers in the intended research study. If any of the questions bother you, or if you feel they are too personal, feel free to leave them blank. Your answers will remain anonymous and confidential.

APPENDIX B

INSTRUCTIONS TO READ BEFORE ADMINISTERING THE
PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE

TEACHER READS:

Research is being done in this district to see if the way you are assigned to classes affects your self concepts. Some schools have seventh graders together with only other seventh graders and one school has seventh graders taking their classes with eighth graders. This self concept scale you are about to take will help in the research."

PASS OUT THE SCALE, THEN CONTINUE READING:

You may use pen or pencil, and write directly on this booklet. On the cover sheet please circle whether you are a boy or girl and fill out what grade you are in.

READ THE DIRECTIONS PRINTED ON THE TEST TO THE STUDENTS AS THEY FOLLOW ALONG. AT THE END, ADD THESE WORDS:

There are no right or wrong answers and this will not count as a grade for this class. If any of the questions bother you, or if you feel they are too personal, feel free to leave them blank. These answers will remain anonymous and confidential.

Thank you for your help and cooperation. When you are finished hand the booklet in to me and sit quietly until all booklets are turned in.

APPENDIX C

INSTRUCTIONS FOR THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE

The Piers-Harris Children's Self Concept Scale was administered to the students on the test day.

The investigator was advised to write instructions indicating that if any questions bothered the students they could feel free to leave them blank (Appendix B). The following paragraph was inserted on the first page of the test because the author's original instructions requested that the students answer all of the questions.

Here are a set of statements. Some of them are true of you and so you will circle the yes. Some are not true of you and so you will circle the no. Do not circle both yes and no. Remember, circle the yes if the statement is generally like you, or circle the no if the statement is generally not like you. There are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark the way you really feel inside.

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