

THE RELATIONSHIP BETWEEN INTENSITY OF COMPETITION
AND CHANGES IN THE SELF CONCEPT
OF SELECTED THIRD GRADERS
AND SIXTH GRADERS

A THESIS

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We hereby recommend that the thesis prepared under
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entitled "The Relationship Between Intensity of
Competition and Changes in the Self Concept of
Selected Third Graders and Sixth Graders"

be accepted as fulfilling this part of the requirements for the Degree of
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DEDICATION

To my parents, Mr. and Mrs. Eugene J. Hughes, for
18-carat, 17-jewel precision care and love,
24 hours a day plus overtime.

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CHAPTER I

ORIENTATION TO THE STUDY

Introduction

Competition is a necessary part of growing and working together in a democratic society.^{1,2,3,4,5} The desire to compete has long been an integral part of the developmental process.^{6,7,8} Youngsters strive to outdo

¹Paul H. Mussen, John J. Conger, and Jerome Kagan, Child Development and Personality, (New York: Harper and Row, 1969), p. 394.

²Bruce D. Gardner, Development in Early Childhood: The Preschool Years, (New York: Harper and Row, 1964), p. 278.

³James M. Sawrey and Charles W. Telford, Psychology of Adjustment, (Boston: Allyn and Bacon, 1968), p. 166.

⁴Horace B. English, The Dynamics of Child Development, (New York: Holt, Rinehart, and Winston, Inc., 1961), p. 221.

⁵Frances E. Merrill, Society and Culture: An Introduction to Sociology, (Englewood Cliffs: Prentice-Hall, 1965), p. 31.

⁶Ronald C. Johnson and Gene R. Medinnus, Child Psychology: Behavior and Development, (New York: John Wiley and Sons, 1967), p. 377.

⁷Lester D. Crow and Alice Crow, Child Development and Adjustment, (New York: MacMillan Co., 1962), p. 318.

⁸Elton B. McNeil, The Psychology of Being Human, (San Francisco: Canfield Press, 1974), p. 588.

each other intellectually, physically and socially. Physical education classes provide a situation where physical prowess is regarded with great respect. The competitive desire is observable in an elementary physical education class in activities which are not always designed to be highly competitive. As an example, the activity of rope jumping often results in competition between one or more children to see who can jump the longest or the greatest number of times. Given a creative play period, it may be observed that the youngsters invariably set up competitive situations -- racing around backstops, wrestling, throwing and catching balls better than anyone else. One can usually observe, be it subtle or not, the undercurrent of competitiveness in most play periods where children are left to entertain themselves.^{1,2,3}

The effects of the competitive climate of adulthood pervade the elementary school activities.^{4,5,6} The problem

¹Sawrey and Telford, Psychology of Adjustment, p. 167.

²English, The Dynamics of Child Development, p. 177.

³Merrill, Society and Culture: An Introduction to Sociology, p. 37.

⁴Mussen, Conger, and Kagan, Child Development and Personality, p. 394.

⁵Sawrey and Telford, Psychology of Adjustment, p. 166.

⁶Merrill, Society and Culture: An Introduction to Sociology, p. 37.

of the child whose stage of development is not commensurate with that of others in his peer group is frequently encountered in the elementary physical education program. How is one's perception of oneself affected? Ambrose Brazelton noted that "bruises can be more than skin deep";¹ the damage done to a child's self concept because he is made to feel inadequate may be irreversible.^{2,3,4} Competition can be an area where the student's inadequacy physically will be obvious -- and painful.

Competition in a physical education class is almost inevitable but the level of intensity may be controlled. Extracurricular competition, however, is believed to be harder to maintain at a low level of intensity and it is thus feasible to presume that the effects of the demands from extracurricular competition are present in any type of competition. Several authors such as Schurr,⁵ and Bucher⁶

¹Ambrose Brazelton, "Bruises Can Be More Than Skin Deep," (unpublished poem), 1971.

²A. T. Jersild, Child Psychology, (Englewood Cliffs: Prentice-Hall, 1954 4th ed.), p. 226.

³Sawrey and Telford, Psychology of Adjustment, p. 167.

⁴Crow and Crow, Child Development and Adjustment, p. 318.

⁵Evelyn L. Schurr, Movement Experiences for Children: Curriculum and Methods for Elementary School Physical Education, (New York: Appleton-Century-Crofts, 1967), p. 62.

⁶Charles A. Bucher, "Athletic Competition and the Development Growth Pattern," The Physical Educator 28:1 (March, 1971), p. 3-4.

report that the intensity of the competition and the emotional demands placed on the youngsters could be detrimental at the elementary school age level. Bucher believes that "athletic competition should be characterized during the early years of childhood by a very low intensity of athletic competition and then gradually be increased through the years as the child becomes older and more mature."¹ Dowell reports that "the desirability of highly organized athletics for boys below the ninth grade has become a major controversial issue."² He also states that a "lack of agreement in policies, practices, advantages and disadvantages,"³ is evidenced by those directly connected and concerned with the growing child, so perhaps a careful evaluation of the issue is in order. For this reason and because of the great interest of the investigator in competition for elementary age children the study was undertaken.

Statement of the Problem

The proposed study entailed an investigation of the

¹Bucher, "Athletic Competition and the Development Growth Pattern," p. 3.

²Linus J. Dowell, "Environmental Factors of Childhood Competitive Athletics," The Physical Educator 28:1 (March, 1971), p. 17.

³Ibid., p. 17.

relationship between changes in self concept and the intensity of athletic competition in selected groups of elementary school students enrolled in the Hurst-Euless-Bedford Independent School District. Approximately ninety-six sixth grade boys and girls and seventy third grade boys and girls enrolled at Wilshire Elementary School in Euless, Texas, participated in the study. The investigator proposed to determine whether the intensity of competition was related to the self concepts of elementary age children.

The Piers-Harris Children's Self Concept Scale was administered initially to all participants involved in the study. The subjects in the sixth grade were then divided into teams; the teams were assigned to group A, B, or C. The same procedure was followed with the third graders who were assigned to Group A, B, or C. Group C experienced "limited competition" for ten weeks. Of the other two experimental groups, Group B experienced competition with a "minimum amount of pressure"; Group A experienced "intense competition" through the offering of rewards, recognition and championship games.

At the end of the experimental period, the Piers-Harris Children's Self Concept Scale was again administered to all participants. Based on the data collected and analyzed, a conclusion was drawn by the investigator

regarding the relationship between changes in self concept and varying intensities of competition.

Definitions and/or Explanations

For the purpose of clarification the following definitions and/or explanations of terms were established for use in the study.

Competition: The investigator accepted the definition of competition by Good.

A conscious struggle or rivalry in which one person or group seeks to gain advantage over other persons or groups, rivalry short of open conflict.¹

Intensity of Competition: The investigator accepted the following explanation by Bucher.

Starting at an early age sports competition is stimulated by such practices as: arranging a contest between two or more players, scheduling a game with a school in another community, offering an award, encouraging spectators to be in the stands, charging gate receipts, printing a player's name in the newspaper, having a sports writer in attendance, and planning a playoff for a championship. Each of these factors when introduced into a child's athletic experience results in added motivation with additional pressure on the participant to produce. In other words, there is a little more at stake in the competition. People other than the player and participant have now become involved in the outcome of the athletic compe-

¹Carter V. Good, ed. Dictionary of Education, (New York: McGraw-Hill Book Co., Inc.).

tition. Thus, the intensity of the competition has increased.¹

Self Concept: For use in this study, the investigator accepted Purkey's definition of the self concept:

. . . a complex and dynamic system of beliefs which an individual holds true about himself . . .²

Incentives: The investigator accepted Good's definition of incentives:

Factors and forces that incite or motivate one to action.³

Rewards: The investigator accepted the following definition by Good:

Pleasant, satisfying experience consequent upon a certain course of behavior and meditated by an external agent or by the self acting as an agent in the hope of encouraging the repetition of the behavior.⁴

Piers-Harris Children's Self Concept Scale: The Piers-Harris Children's Self Concept Scale is a self-report instrument designed for use with children over a wide age. The present scale, consisting of eighty (80) self report items, is the result of careful scrutiny and elimination

¹Bucher, "Athletic Competition and the Development Growth Pattern," p. 3.

²William W. Purkey, Self Concept and School Achievement, (Englewood Cliffs: Prentice-Hall, 1970), p. 7.

³Good, Dictionary of Education.

⁴Ibid.

from an original list of one hundred sixty-four (164) items. The statements used in the instrument were developed from a collection of statements developed in a study by Jersild. In order to determine reliability of the scale, the Kuder-Richardson Formula 21 was employed. Resultant coefficients ranged from .78 to .93.¹ The Spearman-Brown odd-even formula was also applied for half of grade ten and half of grade six; resultant coefficient were .90 and .87 respectively.² Another study, using a test-retest analysis after a two and a four month interval, resulted in a coefficient of .77.³ An attempt was made by the authors to build in content validity by defining "the universe to be measured as the areas about which children reported the qualities they liked or disliked about themselves." Also through a comparison of scores on the Piers-Harris scale with scores on Lipsitt's Children's Self-Concept Scale, a correlation of .68 was obtained. The Piers-Harris Children's Self Concept Scale was considered to be reliable and valid as an instrument for obtaining information as to how children

¹Ellen V. Piers and Dale B. Harris, The Piers-Harris Children's Self Concept Scale, (Counselor Recordings and Tests, Nashville, Tenn., 1969), p. 2.

²Ibid., p. 2.

³Ibid., p. 2.

feel about themselves.¹

Limited Competition: For use in this particular study, the following definition was established by the investigator.

Limited competition will mean that the group will be exposed to very few structured games of team against team or individual against individual in the physical education period during the treatment period. Activities such as square and folk dance, gymnastics and physical fitness stunts will be activities involving limited competition.

Minimum Pressure: The following definition was established by the investigator for use in the study.

Minimum pressure in competition will mean that the least amount of emphasis possible concerning winning will be exerted on the subjects. While the subjects in this group will experience competition in tournament play during physical education, no teacher incentives or rewards will be given for winning.

Intense Competition: The following definition was

¹Piers and Harris, The Piers-Harris Children's Self Concept Scale, p. 2.

established by the investigator for use in the proposed study:

Intense competition will apply to pressure on the group exposed to tournament games of team against team in which winning will be the most important factor and the only means of earning rewards.

Incentives such as playing on an all-star team or playing against another school will be offered and rewards such as trophies or certificates and recognition in the newspaper will be awarded to the winners.

Purpose of the Study

The general purpose of the study was to determine whether any changes in self concept occur after exposure to competition at varying levels of intensity.

Delimitations of the Study

The present study was subject to the following delimitations.

1. The objectivity, validity and reliability of the Piers-Harris Children's Self Concept Scale.
2. The cooperation of the third graders and sixth graders at Wilshire Elementary School, Euless, Texas, who participated in the study.

3. The abilities of the persons involved as referees to subjectively referee competitive games.
4. The loss of students from inclusion in the study due to the fact that the parents moved from the district.
5. The participation of some members of the control group in extracurricular competitive activities.
6. The absence of any of the subjects for more than ten days during the treatment period, or the inability to participate for more than two weeks due to injury.
7. The inclusion of new students who did not participate for the full term of the treatment period.

Summary

The American society is one which fosters competitive behavior in children at a very early age. In almost any situation where youngsters play together, competitive behavior is observable because of previous experiences influenced by the competitive climate of adulthood and school. Because a child is maturing and developing in stages unique to oneself, one's ability level may not be equal to that of one's peers. If one becomes involved in a competitive situation in which one's ability is not equal to that of one's peers, the child may experience feelings of frustration and anxiety which in turn may affect one's self concept.

The present study entailed an investigation of the relationship between changes in self concept and the pressure of competition in two age groups of pre-adolescent children. The subjects involved in the study were either third or sixth graders in an elementary school in Euless, Texas. They were randomly divided, at each grade level, into two experimental groups and one control group and were then subjected, after testing, to a treatment period in which the pressure of competition was apparent at different levels of intensity. The control groups were under no pressure at all as they didn't compete during the scheduled physical education class time.

Any terms used in the study unfamiliar to the reader were defined in order to clarify their meaning as used in this study. The purpose of the study was to investigate whether changes, if any at all, in the self concept, occurred when pressure in competitive situations was applied.

Chapter II presents an overview of related literature applicable to the present study.

CHAPTER II

SURVEY OF RELATED LITERATURE

Introduction

There are a great number of studies concerning self concept and/or competition, but there are relatively few studies involving those two factors that have considered elementary age children. Since it is a feasible assumption that success or failure in competitive situations could effect changes in the self concept, the review of literature was confined to those studies of self concept and competition using elementary age children as subjects. The focus of this study is on changes in the self concepts of students after exposure to competition at varying levels of intensity. A thorough review of literature indicated that this study did not duplicate any other in purpose, scope, or content.

The review of related literature was categorized under three topics for facility in reporting: (1) Self concept studies of elementary children, (2) Self concept tests appropriate for the elementary child, and (3) Studies of competition at the elementary level.

Self Concept Studies of Elementary Age Children

The concept of self is not a new idea, but the research on the factors affecting self concept has become more prevalent because of the tenor of society today. Of particular concern, is the self concept of young children; feelings of inferiority or inadequacy may inhibit a child's successes in later life.¹ It has long been recognized that there is a relationship between self concept and success or failure. It is a responsibility of the home and the school to promote and provide for favorable self concepts in these young children by providing an atmosphere in which a child can succeed. Therefore, more attention is given to this subject at the elementary age level, but still there is not an abundance of completed research on the subject.

Perkins² reported a study designed to investigate changes in self concepts in fourth and sixth grade students based on the effects of four factors, (a) social-emotional climate, (b) teacher participation in an in-service child study program, (c) teacher acceptance of self and others, and (d) grade level.

¹Jersild, Child Psychology, p. 226.

²Hugh V. Perkins, "Factors Influencing Changes in Children's Self Concepts," Child Development 29:1 (June, 1958), p. 221-229.

The subjects involved in the study included two hundred fifty-one children from seven elementary schools in a relatively large district in Maryland. Data concerning the self concepts and ideal self concepts of the subjects were obtained using a Q-sort instrument consisting of fifty self-referrent statements.

Correlating the child's self-sort with his ideal sort provides a measure of his self-ideal self congruency and may be expressed in terms of a Q-correlation coefficient. Change in self concept in this study was defined as change in self-ideal congruency.¹

Though the reliability of the instrument used to test self concept was not believed by the author to be an important factor, the findings nonetheless indicate that there was a consistency in the childrens' reported self concepts. Furthermore, the findings indicated that the girls' scores revealed a greater consistency in their reported self concepts than did the boys; there was also a greater consistency in the reported self concepts of sixth graders as compared to fourth graders.

With regard to changes in children's self concepts as determined by changes in self-ideal self congruency,

¹Perkins, "Factors Influencing Changes in Childrens' Self Concepts," p. 225.

the findings were summarized as follows:

1. The self concepts and ideal selves become increasingly and significantly congruent through time.¹
2. The self-ideal self congruencies of girls generally are significantly greater than those of boys.²
3. Sixth grade children and children whose teachers have completed a child study program show significantly greater self-ideal self congruency than do children, respectively, in fourth grade and those whose teachers have never participated in a child study program.³
4. There is little or no relationship between changes in children's self-ideal self congruency and (a) changes in their school achievement, and (b) changes in their acceptance by peers.⁴

Reading coping strength and comprehension coping

¹Perkins, "Factors Influencing Changes in Childrens' Self Concepts," p. 230.

²Ibid., p. 230.

³Ibid., p. 230.

⁴Ibid., p. 230.

strength as they relate to variables of self-concept, anxiety, reading achievement, intelligence and academic ability was investigated by Hughes.¹ Using delayed auditory feedback distraction, Hughes measured the coping strength of sixth grade Negro and white children in an attempt to establish the relationship of coping strength with other variables. Reading coping strength was determined by the child's ability to maintain vigilance during distraction by delayed auditory feedback thus keeping his errors of omission, substitution, and pronunciation at a minimum. Comprehension coping strength was determined by the child's ability to maintain vigilance in order to retain material read under the conditions of delayed auditory feedback, and to keep errors at a minimum on a test of comprehension. The purpose of the study was threefold; to describe the underlying principles of feedback, self concept, anxiety, academic achievement and reading comprehension; to contribute to the development of a tool for predicting academic ability on the basis of a child's performance on a coping strength test, his self-concept and level of anxiety; and to determine the significance of differences between the

¹Thomas M. Hughes, "The Relationship of Coping Strength to Self-Concept, School Achievement, and General Anxiety Level in Sixth Grade Pupils," The Journal of Experimental Education, 37:2 (Winter, 1968), pp. 59-63.

performances of the groups.

Fifty-one sixth grade students from three schools were subjects for the study. All the subjects were given the Children's Manifest Anxiety Scale and the Tennessee Self-Concept Scale. They were then given reading tests without delayed auditory feedback. Then each was given a practice session to become familiar with the effects of DAF while reading. The reading tests were again administered but with DAF this second time. The reading tests were followed by the comprehension test. A level of coping strength was thus established for each child by total number of errors on the reading and comprehension tests under conditions of DAF. Fewer errors on the test meant higher coping strength.

A statistical analysis utilizing analysis of variance, t-tests, intervariable and multiple correlations yielded the following results for the hypotheses tested. Only five of the eight tested provided information on the self concept.

1. There was no significant difference between reading coping strength and comprehension coping strength in the prediction of grades.
2. There were no significant differences in self-concept scores of high and low coping strength

groups.

3. Children with higher self-concepts tend to earn higher grades than children with low self-concepts.
4. Reading coping strength of Negroes was statistically superior to that of whites, but whites showed less anxiety and more positive self-concepts.
5. Self-concepts did not vary significantly between boys and girls though girls had a slightly higher mean self-concept.

Caplin¹ conducted a study to investigate the relationship between self concept and academic achievement. He hypothesized that black children and white children in de facto segregated schools have less positive self concepts than do children in integrated schools. Also, he hypothesized that there is a significant positive relationship between self concept and academic achievement.

One hundred and eighty intermediate grade subjects from three elementary schools participated in the study. A fifty item self report form was administered to each of

¹Morris D. Caplin, "The Relationship Between Self Concept and Academic Achievement," The Journal of Experimental Education, 37:3 (Spring, 1969), pp. 13-16.

the subjects, as Caplin felt that self report techniques ought to offer some insight into the area of self concept. Sixty percent of the items concerned the subjects' feeling about himself as a person and/or social being. Forty percent of the items concerned his feelings about school. Computation of data by analysis of variance was done on the self concept scores of the whole group, for boys only, for girls only, among the white pupils, among the Negro pupils, between the white and Negro pupils and between girls and boys. Analysis of variance was also computed for items concerning the pupils feelings about himself and again for those items concerning his feelings about school.

The findings indicated that the self concepts of white and Negro children attending the de facto segregated school were significantly lower than those attending an integrated school. It was also concluded that children with a more positive self concept were higher academic achievers.

A study to determine the relationship between anxiety and self-esteem was conducted by Felker¹ in 1969. The basis for his major hypothesis evolved from Ausubel's

¹Donald W. Felker, "The Relationship Between Anxiety, Self-Ratings, and Ratings by Others in Fifth Grade Children," The Journal of Genetic Psychology, 1969, 115, pp. 81-86.

explanation of transitional anxiety. Ausubel felt that the transitional period, in which an organism moved to a new state of equilibrium from an accustomed state, presented a threat to the self-esteem and therefore produced a state of anxiety.¹ Ausubel's theory was directed toward situations where status is transitional, Felker chose to examine also situations in which status is lower than self-esteem and those in which status is higher than self-esteem. He felt that situations with observable discrepancies as in low status/high self-esteem and high status/low self-esteem would produce a state of anxiety in periods other than just transitional periods.

Thirty-eight subjects in two fifth grade classes were given the Children's Manifest Anxiety Scale and a "Guess Who" type test consisting of six parts. The children's teachers were given the same "Guess Who" test. The testing procedure provided information on self-ratings of each child, peer ratings of each student on every other student and teacher ratings of each student. The major hypotheses tested were (1) Discrepancy between self-ratings and ratings by others will be associated with high anxiety

¹Felker, "The Relationship Between Anxiety, Self-Ratings, and Ratings by Others in Fifth Grade Children," p. 81.

when the self-ratings are higher than the ratings by others, and (2) Discrepancy between self-ratings and ratings by others will be associated with low anxiety when the self-ratings are lower than the ratings by others. The results supported the hypotheses when dealing with the discrepancies between self-ratings and peer ratings. The analysis of discrepancy between teacher ratings and self-ratings supported the hypotheses at a significant level, although the teacher ratings were not as influential in determining anxiety as were peer ratings.

Self Concept Tests Appropriate for the
Elementary Age Child

There are a great many self concept or self report tests available for use in studies but only those appropriate to the elementary age level or appropriate for use in the proposed study will be reviewed.

The How I See Myself Scale was developed by Gordon¹ to meet the need for a reliable and valid measure of self concept. A forty item scale, for use at the elementary level, was developed from the material in Jersild's In

¹Ira J. Gordon, "A Test Manual for the How I See Myself Scale," The Florida Educational Research and Development Council, June, 1968.

Search of Self. The scale consists of forty sets of paired statements such as, "I get along well with teachers -- I don't get along well with teachers," and the subjects are asked to circle a response on a one to five scale indicating which statement best fits them "most of the time." The statements are randomly reversed to decrease the tendency of a student to go down the five column in making responses. In scoring, five represents the positive end of the scale; therefore the higher the scores, the more positive the child's self concept which Gordon believes is a composite of concepts the child has of himself rather than one single trait. According to Gordon, the scale measures the child's view of his body, of his peers, of his teachers, of his school and of his own emotional control.¹

Reliability for the scale was established by the test-retest method on a group of eighty high school students who were enrolled in summer school. The factors, teacher, appearance, body build, and academic achievement were used to obtain reliability coefficients. The reliability coefficients were sufficient to indicate that the scale was reliable enough to use with groups. Reliability

¹Gordon, "A Test Manual for the How I See Myself Scale," p. 4.

was also obtained by the test-retest from a study using third, fifth, eighth and eleventh graders. After a time interval of nine days, reliability coefficients obtained were .78, .89, .82, and .87 for each of the four grades respectively. The resultant correlations from the two studies indicated that the scale is usable for comparisons between groups of children.

Content validity for the How I See Myself Scale was mentioned briefly. The scale does not yield a total self concept score because items referring to self in relation to family members were not included. Gordon reports that scores revealed that subjects tend to rate themselves slightly higher than the midpoint on the scale, but the tendency to overestimate was not a real problem. Construct validity is discussed at length and correlations between self concept and other variables such as behavior, inferred self concept and environment were reported. Few of the correlations reported for construct validity were significant; there were low but significant correlations between the self concept and observed classroom behavior.

According to reviewer Richard M. Suinn,¹ the Thomas Self Concept Values Test is not particularly valuable as a

¹Richard M. Suinn, "The Thomas Self-Concept Values Test," The Seventh Mental Measurements Yearbook, (Vol. 1, 1-544, 1972), pp. 372-374.

tool for individual diagnosis or prediction. The test is designed for administration to children from three to nine years old. The child is asked to respond to fourteen self value factors yielding a total of nineteen scores to be evaluated, which should give the investigator information concerning the child's self-image. The fourteen factors were chosen because they apparently represent approved cultural values and they seem to be necessary for personality growth assumptions made about the test: (a) the self-concept involves self-evaluative descriptions; (b) the crucial dimensions for self-evaluation are those assumed to be highly valued by "cultural demands of middle-class" society; (c) the self-concept is shaped by others (namely mother, teachers, classmates), and therefore the scores include a total self-concept score which is the sum of the scores derived from answers to questions of how "mother, teacher, your classmates think of you"; (d) young children are able to assume the role of these "significant" others in replying to questions; and (e) the fourteen self-value factors represent the basic demands and cultural values which, if measured, will provide the needed information for assessment and prediction.

Reliability was obtained by a test-retest method. The coefficients for reliability on fourteen scores yield

a reliability of .78. The reliability provokes some doubt as to the stability of the scores and the fact that the manual states that some parts of the test may be given after a delay of as long as three weeks. Tetrachoric correlations for reliability fell within a range of .10 to .93 which further adds to the dilemma of TSCVT's value as a self-concept test.

The test also provides for two types of validity data. Construct validity is established by the author's definition of terms and concepts; further validation is given by citing the relationship between TSCVT scores and membership in various criterion groups. Validation data for the TSCVT were less than adequate. Suinn concludes by stating that because of the lack of acceptable reliability and validity scores, the test should be used only as an experimental tool.

The Piers-Harris Children's Self Concept Scale (CSCS) is an eighty item test of yes-no responses. The responses are worded so that approximately half of them indicate a positive self concept and about the same number of responses indicate a negative self concept. The use of negative terms is avoided to preclude the possibility of confusing or influencing the children. The test is appropriate for age groups from grades three to twelve.

In Bentler's¹ review of the CSCS, he mentions that the scale was standardized on 1,183 children in grades four to twelve. "The internal consistency of the scale ranges from .78 to .93 and retest reliability from .71 to .77. Correlates with similar instruments are in the mid-sixties, and the scale possesses teacher and peer validity on the order of .40."² Bentler ascertains that the scale is acceptable for use in research. Studies which involve changes in self concept are practicable and are recommended for use of the CSCS test.

There are some limitations on the test such as the fact that statistics indicate that six factors might be present in the test though it was designed to be unidimensional. There are also some technical errors in the manual such as the fact that internal consistency is not reported for the final scale. The test-retest reliability might also be different from .77 because a lengthy test-retest interval was used to establish reliability. In addition the norms, presented in percentile and stanine fashion, are seemingly not the "true norms"; apparently the negative

¹Peter M. Bentler, "The Piers-Harris Children's Self Concept Scale," The Seventh Mental Measurements Yearbook, (Vol. 1, 1-544), 1972, pp. 306-307.

²Ibid., p. 306.

skewness of the scores were normalized through area equivalents prior to computation of percentile data.^{1,2} With regard to the advantages and disadvantages of the instrument though, the CSCS test is appropriate and acceptable for the age group given and for the information on self concept needed for research.

Studies of Competition for Elementary Age Children

There is a lack of research studies involving competition at the elementary level or even the junior high school level. The impact of competition on our culture is profound;^{3,4} children are exposed to competitive situations at an early age, primarily in the home. "The American competitive spirit has produced children who have been shown to act in systematically irrational ways."⁵ The opportunity to compete in sports is now being offered

¹Bentler, "The Piers-Harris Children's Self Concept Scale," p. 306.

²Piers and Harris, "A Manual for the Piers-Harris Children's Self Concept Scale," p. 10.

³Gardner, Development in Early Childhood: The Preschool Years, p. 278.

⁴McNeil, The Psychology of Being Human, p. 588.

⁵Ibid., p. 588.

to children at the primary level. The child's self concept is not very stable and unfortunate experiences in competitive situations may result in an emotional setback which could prevent success in ensuing situations.¹

Nelson, Gelfand, and Hartman² investigated the effects of competition and exposure to an aggressive model on the aggressive behavior of five-and six-year-olds. Ninety-six subjects were divided into twelve experimental groups. There were sixteen matched sex pairs in each group. Six groups were exposed to an aggressive adult model; after engaging in structured play with the children for a short time, the model then began expressing aggressive behavior toward a big clown toy. The aggressiveness was exhibited both physically and verbally, after which the model left the room. The other six groups were engaged in structured play only with the model and witnessed no aggressive behavior. A third of each group then experienced induced success, and a third of each group experienced induced failure in competitive games while the other third of each group was engaged in non-competitive play. All the subjects were then placed in rooms by themselves with iden-

¹Sawrey and Telford, Psychology of Adjustment, p. 167.

²Janice D. Nelson, Donna M. Gelfand and Donald P. Hartmann, "Children's Aggression Following Competition and Exposure to an Aggressive Model," Child Development, 1969, Vol. 40, 1085-1097.

tical toys in each room including those which the model had used in his aggressive sequence. The children were left to play by themselves while observers, unknown to the children, wrote brief accounts of their behavior over a ten-minute period.

The results of the study indicated the following:

1. The boys who witnessed the non-aggressive model were significantly more aggressive than the girls.
2. The boys and girls who were exposed to the aggressive model were equally aggressive.
3. The girls in the aggressive-model situation were significantly more aggressive than the girls who were not; the boys did not become more aggressive following exposure to an aggressive model.

With regard to the effects of competition, the authors concluded that those who played competitively were significantly more aggressive than those in the non-competitive group. Furthermore, according to the authors, competition-induced frustration increases imitative and total aggression for children, and success as well as failure in competition consistently increased aggression as opposed to non-competitive play.

Kagan and Madsden¹ conducted a study involving competition and rivalry in Anglo-American and Mexican children ages five to six and eight to ten. In previous studies by the same authors, notable differences were found to exist in the development of competition and rivalry in the two cultures. Previous studies had also indicated that competitiveness increased with age. The intention of the authors in the present study was to trace the development of rivalry in two groups of children in similar settings where marked differences in competitiveness were observed.

The subjects for the study included forty-eight children each of Anglo-American and Mexican descent. The children were paired, six boy pairs and six girl pairs, at each age level. A set of choice cards was developed for the assessment of rivalry. The cards required one of each of the pairs to choose marbles from the left (nonrivalrous) side or the right (rivalrous) side. The chooser was to select the left or right half of the card, take the marbles from his half of the selected alternative and give the rest of the marbles to his peer. The rivalrous alternative was intended to offer fewer opportunities for rewards for the

¹Spencer Kagan and Millard C. Madsden, "Rivalry in Anglo-American and Mexican Children of Two Ages," Journal of Personality and Social Psychology, (1972, Vol. 24, No. 2), pp. 214-220.

child as well as his peer, because the rivalrous alternative had fewer marbles from which to choose. Before making their choices the children were told that they could use their marbles to trade for toys.

The results of the study indicated that Anglo-American children tended to be more rivalrous than their Mexican counterparts. The older age group also tended to be more rivalrous than the younger group and the boys were more rivalrous than the girls. The study also revealed that the rivalrous children will accept a loss in their gains in order to lower the gains of their peers. Further, the authors suggest that for children of Anglo-American and Mexican cultures, rivalry is likened to an interpersonal conflict. Mexican children tended to evade conflict while Anglo-American children entered into conflict even at the expense of goals which they have set for themselves.

Kagan and Madsden¹ also conducted a set of four experiments on Anglo-American city and Mexican rural children in order to determine cooperative and competitive behavior in the two groups. The first experiment was designed

¹Spencer Kagan and Millard C. Madsden, "Experimental Analyses of Cooperation and Competition of Anglo-American and Mexican Children," Developmental Psychology, (1972, Vol. 6, No. 1), pp. 49-59.

to assess the ability of the children to cooperate when there was seemingly no conflict of interests in the problem situation. As there were no marked differences between the cultural groups, the last three experiments were designed to increase the possibility of conflict each time.

Since Kagan and Madsden had found in a previous study that Mexican children seemed to avoid competition, Experiment I was designed to measure cooperative ability in a situation where no cues for competition or avoidance of competition were provided. The task was presented so that the researchers could obtain information on the child's ability to cooperate when motivated and to measure his spontaneous motivation to cooperate to his friend's advantage rather than his own.

The subjects were paired and given a pretrial test on a small cooperation box which they were to open in order to receive a toy. Half of the children were then tested under the "cooperative condition" and the other half in the "help condition" where the gain was not for themselves. The results of Experiment I indicated that there was no significant difference in the ability of the children in either culture to cooperate.

Experiment II dealt with an analysis of rivalry and

competition. The study reviewed previously had already established that the Anglo-American children were more competitive than Mexican children. The authors assumed in this study that the competitiveness of the Anglo-American's masked their motivation and ability to cooperate, while the Mexican children, though not more cooperative, were reluctant to express competitive behavior. Therefore, in an attempt to separate absence of competitiveness and rivalrous motivation from inhibition of such motivation in active interpersonal interaction, in Experiment II the children were presented with a situation relatively free of social interaction.¹

The subjects were randomly assigned to competitive and rivalrous conditions, with eight pairs of boys and eight pairs of girls in the seven to nine year age group from each culture for each condition. For the competitive experience, each pair of subjects was seated on opposite sides of a circle matrix board which had seven rows of circles with seven circles to a row. A marker was put in the middle of the board. One child was handed a pen and asked to put it on the circle directly in front of him. The other child was instructed that he could move the

¹Kagan and Madsden, "Experimental Analyses of Cooperation and Competition of Anglo-American and Mexican Children," p. 52.

marker anywhere along the lines connecting the circles up to six moves. If the marker entered the circle closest to the first child's pen, the second child could keep the pen for himself. If the child moved the marker so that it landed in the circle closest to the one directly in front of him, the first child kept the pen. The rivalry condition was the same except that the second child could not keep the pen if he moved the marker closest to the other child's circle. Rather, if he moved the marker close to the pen, the pen would be taken away from the first child.

Results of the experiment indicated that the children took the pen from the other children more often under the competitive situation than under the rivalry situation, and the Anglo-American children took the pen more often than the Mexican children. There was a significant cultural difference under the rivalry condition, but not under the competitive condition. Anglo-American children took the pen seemingly to keep the other children from having it under the rivalry condition, while the Mexican children most often allowed the other child to have the pen.

The third experiment created a rivalry situation in which the children had to react to the moves of their peers. The subjects were between seven and nine years old. Eight pairs of boys and eight pairs of girls from both

cultural groups participated in the experiment. They were seated on opposite sides of the circle matrix board; one child was asked to put a pen on one of the circles while the other child moved the marker. The instructions and goals were the same as in Experiment II, but the children were instructed to take turns moving the marker up to a total of twenty moves if no goal were reached. The pairs were allowed four trials and the child without the toy moved first.

The data were analyzed according to the first move of each trial, the responses to the first move by the other child and the number of take, let keep and avoidance outcomes. The results of the "first move" analysis indicated that the Anglo-American children most often moved to separate the other child from the toy. On the responses to the first move, the results indicated that most Anglo-American children make a conflict move in response. Most of the Mexican children responded to the initial take move with a sideways move rather than a conflict move. In both cultures the most infrequent response was that of submission which meant moving the marker in the direction of the other child's move toward the take goal.

Experiment IV was directed toward involving the

child in a situation that would necessarily result in conflict. The experimental situation was designed so that if the child submitted, he could never earn a toy and if he refused to move he could not earn a toy either. The seven to nine year age group of eight pairs of boys and eight pairs of girls was seated by the circle matrix board as in the two previous experiments. This time each child was to move his own marker along the lines toward the original position of his opponent's marker for a total of twenty-four turns. The markers could not occupy the same circle and the child could choose to move or stay. On each of eight trials a plastic chip, which could be traded for toys, would be awarded to the child who got his marker to the original position of his opponent's marker first. The situation was set up so that after a few turns the markers could not be moved unless one child was willing to move aside. The other choice was to stay and thus block the other child from moving.

The results of Experiment IV indicated that there was a culturally significant difference in the amount of blocking done by the Anglo-American children as opposed to the Mexican children. The Anglo-American child resisted moving aside. The results also indicated that the Anglo-American children lost more toys by blocking than did the

Mexican children who did not lose a toy by blocking. There was also a significant cultural difference in the distribution of toys between the pairs. Most of the Mexican children divided the toys between the two. Only in two pairs of the Anglo-American group were the toys divided evenly. Experiment IV indicated that both cultural groups tended to be irrational in their decisions. The Anglo-American children most often remained in conflict even when it prevented them from getting as many toys as possible. The Mexican children would avoid the conflict when to do so was irrational in terms of their individual interests. The authors concluded the study by suggesting that perhaps some type of cultural therapy is in order due to the fact that one culture is producing children who are irrationally competitive while the other culture is producing children who are irrationally cooperative.¹

Nelson² conducted several experiments to investigate the social interaction of Anglo-American children in Los Angeles. The marble-pull game which he used to measure competition and cooperation had been developed earlier by

¹Kagan and Madsden, "Experimental Analyses of Cooperation and Competition of Anglo-American and Mexican Children," p. 59.

²Linden L. Nelson and Spencer Kagan, "Competition: The Star-Spangled Scramble," Psychology Today, Sept., 1972, pp. 53-56, 90-91.

Madsden. The object of the game was to pull the string so the marble fell in the goal at either end of the board. If both subjects pulled their string at the same time, however, the plastic marble holder would break apart and neither child would get a prize. The children, if they had cooperated and taken turns in pulling their strings, would have gotten an equal number of prizes. Nelson had predicted that the older children would understand the strategy involved and cooperate. However, regardless of age, all of the teams got only a fourth of the available prizes because they would not cooperate.

In a second experiment, using a cooperation board designed by Madsden, Nelson explored the possibility of whether or not the children enjoyed the competitive interaction of the game more than the prizes they could have gotten by cooperating. The object of the cooperation board was for both children to move a plastic pointer manipulated by two strings to a point equidistant from each child. If the pointer touched the middle target within ten seconds, both children got a prize. If not, neither got a prize. This time, the ten year olds cooperated to gain more prizes than the five year olds did. Nelson inferred that the reason for this was because no conflict-or-interest situation existed in the second experiment. The ten year olds were

more highly competitive in the marble-pull game because their competitive response to a conflict-of-interest situation interfered with their cooperative thinking.

Nelson further investigated the hypothesis that competitiveness increases with age which had been suggested by the results of the first two experiments. He and Madsden designed a new two-person game in which pairs of children would attempt to pull two strings of blocks through a square opening in a sheet of transparent plastic. In order for both children to pull their blocks through the opening in the allotted twenty second time limit, one child had to hold his string aside in a notch. When a conflict-of-interest situation was introduced using this game, the older children spent most of the twenty seconds trying to block each other. If no conflict-of-interest situation existed they could cooperate to pull the blocks through. Through further experimentation, Nelson also found that competitive or cooperative behavior influenced subsequent behavior in the same type of situation. He also found that other cultures produce children who tend to exhibit irrationally competitive behavior and that, in all cultures studied, rural children are more cooperative than urban children.

Summary

A thorough review of related literature supported the assumption that little research had been done in the areas of self concept and competition at the elementary level. Many studies were found concerning a self concept related area, but they did not seem pertinent to this study. Also, because of the necessity of reviewing literature in the realm of self concept studies, self concept tests, and studies of competition for elementary children, the literature was so categorized.

Perkins reported a study in which he discovered that a child's self-ideal self becomes more congruent with age. Hughes, Caplin, and Felker investigated the relationship between self concept and other selected variables.

Of the self concept tests reviewed, the How I See Myself Scale, the Thomas Self-Concept Values Scale, and the Piers-Harris Children's Self Concept Scale, the latter best met the criteria established by the investigator. Though there were a great many other self concept tests, most were eliminated because they could not be used with children as young as third graders.

Several interesting studies concerning competition among preadolescents were reviewed. Nelson, Gelfand, and Hartmann's study of aggressive behavior following competition

and exposure to an aggressive model indicated that competition increases aggression and that children tended to imitate aggressive behavior. Kagan and Madsden conducted two separate studies involving competition and cooperation among two cultural groups; they discovered that the Anglo-American culture and the Mexican culture produced children who behaved irrationally in competitive and cooperative situations. Nelson found that Anglo-American children from five to ten years old preferred competition to cooperation when conflicts-of-interests were involved. He, too, found that Anglo-American children tended to make irrational decisions when competing.

Chapter III details the procedures for the development of the study.

CHAPTER III

PROCEDURES OF THE STUDY

Introduction

The purpose of the study was to determine the relationship between intensity of competition and changes in the self concepts of selected elementary children. The subjects used in the study were third and sixth graders in an elementary school in Euless, Texas. A self concept scale was administered to all subjects before and after a ten week treatment period during which time the subjects were involved in four competitive sports. The procedures utilized in the conduct of the study are presented in this chapter under the following headings: (1) Preliminary Procedures, (2) Selection of the Subjects, (3) Selection and Description of the Instrument, (4) Administration of the Instrument, (5) Procedures for the Treatment Period, (6) Collection of the Data, (7) Treatment of the Data, (8) Summary.

Preliminary Procedures

Prior to the conduct of the study, several preliminary procedures were necessary. First, permission to con-

duct the study was requested and granted by the Dean of the College of Health, Physical Education and Recreation and the Human Research Council at the Texas Woman's University, Denton, Texas. Then, permission was also secured from Mr. J. E. Waller, principal of Wilshire Elementary School, Euless, Texas, to conduct the study using the third graders and sixth graders.

A review of related literature deemed relevant to the scope of the study was also among the preliminary procedures. Based upon this review of literature, a tentative outline of the proposed study was developed and submitted to members of the thesis committee for suggestions and approval. With the approval of the thesis committee, the tentative outline was presented in a Graduate Seminar in the College of Health, Physical Education and Recreation at the Texas Woman's University in Denton, Texas. Following the presentation of the outline in a Graduate Seminar, a prospectus of the proposed study was submitted to the Office of the Dean of the Graduate School.

Selection of the Subjects

In accordance with established procedures, criteria were developed for the selection of subjects. The criteria established were as follows:

1. The subjects must be students enrolled in the third or

sixth grade in Wilshire Elementary School in Euless, Texas, during the 1973-74 academic year.

- a. It was felt by the investigator that children younger than third grade would be unable to complete a paper-pencil test on a group basis. Therefore, the third graders were selected as the lowest level that could be sampled under these conditions.
 - b. The sixth graders were chosen as subjects because they had had at least three years to compete in extra-curricular sports if they chose to do so. They were also selected because there was a greater age difference between third and sixth than between third and fourth or fifth.
2. The subjects must be participating in physical education for thirty or forty-five minutes five days a week.
 3. All subjects were volunteers. They were told before the administration of the pretest that they did not have to participate in the study if they so desired.

One hundred sixth graders and seventy-three third graders were accepted as subjects on the basis of the established criteria. During the treatment period, however, six third graders withdrew from school and did not complete the post-test. Therefore, the data collected and analyzed were pro-

vided by one hundred and sixty-seven subjects who persevered throughout the study.

Selection of the Instrument

In order to measure the self concept of each individual participating in the study, criteria were established by the investigator relevant to the selection of the instrument. The criteria were as follows:

1. The instrument should be one which is available and economical.
2. The instrument should be one which can be administered on a group basis.
3. The instrument should be one which can be administered and scored by the investigator.
4. The instrument should be of a length of time commensurate with the attention span of the subjects who will take the test.
5. The instrument must be suitable to the reading comprehension level of the subjects taking the test.
6. The instrument should be acceptably reliable and valid.
7. The instrument should be appropriate to the study and its' outcomes.

An evaluation of eleven self concept scales indicated that the Piers-Harris Self Concept Scale met the criteria established for selection of the instrument. The scale was

available through Counselor Recordings and Tests at a nominal cost which met the first criterion. Criteria two and three were met by directions in Piers' Manual which indicated that the scale could be administered on a group basis and be scored by responsible, educated non-psychologists.¹ Since the scale was a quickly completed self report instrument appropriate for a third-grade reading level, criterion four and criterion five were met.

The information given for reliability and validity met criterion six. The reliability data for the scale resulted primarily from the original standardization study using 1,183 subjects in grades four through twelve. The reliability coefficients ranged from .78 to .93. A reliability coefficient of .77 was obtained after a two-month and four-month test-retest period.² Most of the information regarding validity refers to construct validity. Confirmation of the scale's validity was established through administration of the scale to eighty-eight adolescent institutionalized retarded females. The group, as was predicted, scored significantly lower on the scale than normal adolescents of the same age or adolescents of the same mental age.

¹Piers and Harris, Manual for the Piers-Harris Children's Self Concept Scale, p. 2.

²Ibid., p. 2.

A comparison of scores on the Piers-Harris Scale with scores on the Lipsitt Children's Self Concept Scale resulted in a correlation of .68.¹ For use as a research tool, the Piers-Harris Children's Self Concept Scale was acceptable and was recommended for studies in which changes in self concepts were being studied²; thus, criteria seven was met.

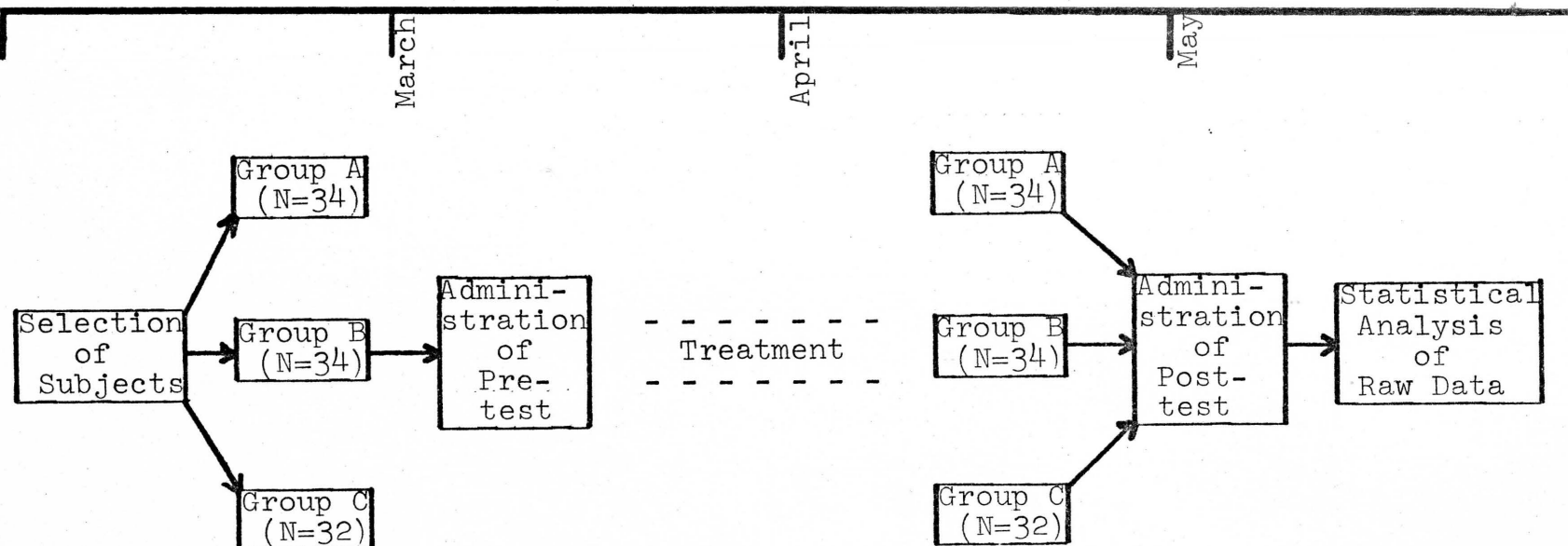
Administration of the Instrument

Preceding the treatment period, the Piers-Harris Children's Self Concept Scale was administered to the subjects as a group by a sixth grade teacher. The same teacher administered the instrument to both grades during their regularly scheduled physical education period. The administrator followed the standardized instructions for giving the scale.

The Piers-Harris Children's Self Concept Scale was administered initially to both grades on March 13, 1974. The administration of the pretest was followed by a treatment period of ten weeks which was the amount of time in the last school grade reporting period. After the treatment period, the posttest was administered to both grades on

¹Piers and Harris, Manual for the Piers-Harris Children's Self Concept Scale, p. 19.

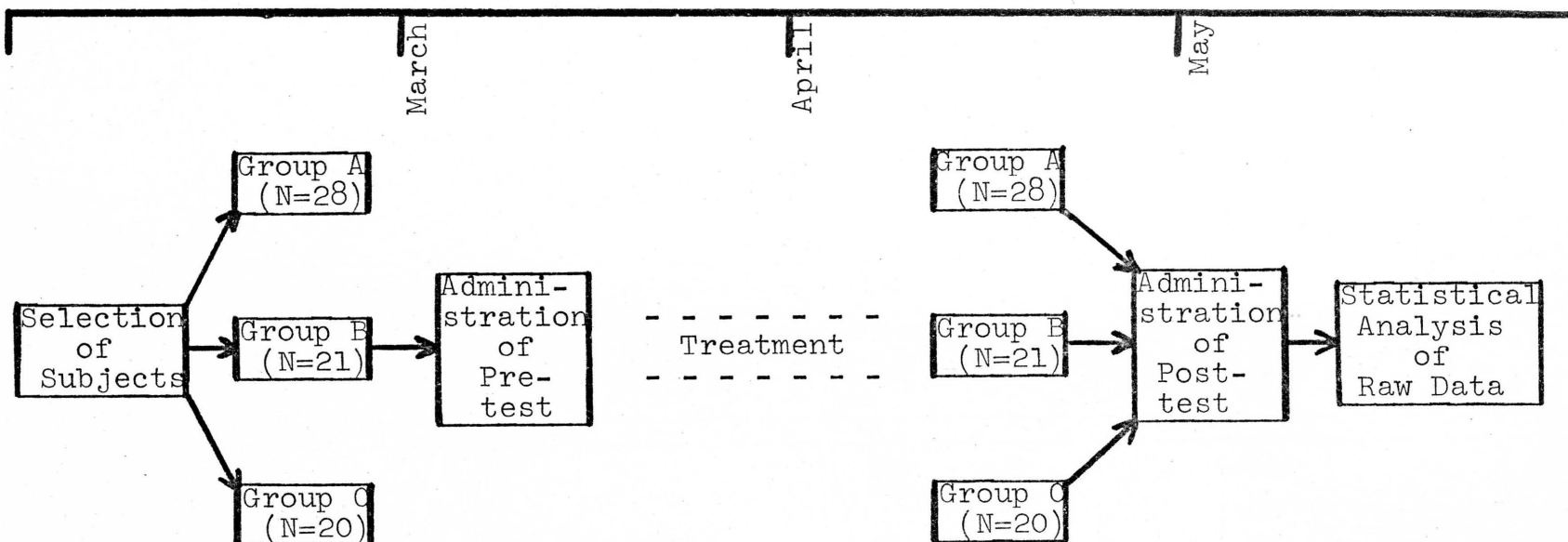
²Bentler, "The Piers-Harris Children's Self Concept Scale," p. 307.



Legend:

- Group A - Highly Competitive
- Group B - Competitive
- Group C - Non-competitive

Fig. 1.--Procedures followed in the development and conduct of the study on self concept and competition of sixth graders.



Legend:

- Group A - Highly Competitive
- Group B - Competitive
- Group C - Non-competitive

Fig. 2.--Procedures followed in the development and conduct of the study on self concept and competition of third graders.

May 28, 1974. The pretest and posttest were both given to the third and sixth grades by the sixth grade teacher.

Procedures for the Treatment Period

After the initial administration of the Piers-Harris Children's Self Concept Scale, the subjects were divided into three groups at each grade level. The number of subjects in each of the two grades was used to determine the number of teams per grade level. The investigator felt that there should be at least seven people on each team. Since there were enough students in the sixth grade to comprise twelve teams, all the students names were placed in a box and randomly drawn by another teacher. The first name drawn was put on team one, the second name drawn was put on team two and so on until all students were assigned to teams. Thus, in the sixth grade, there were at least eight people on each of the twelve teams though teams one, two, three and four had nine members. The team numbers were then put in a box and randomly drawn and put in Group A, B, or C. The teams in Groups A and B were designated as the highly competitive and competitive teams respectively, while the teams in Group C were designated as the non-competitive or control group. The same procedure was followed in comprising teams for the third grade, but there were only enough students to provide ten teams. Therefore, four teams were

designated as the highly competitive group (Group A); each of the other two groups consisted of three teams in each.

The teams in Groups A and B were told prior to the beginning of tournament play that they would compete against each other. It was believed that greater pressure to win was applied to Group A by offering them incentives and rewards for winning such as trophies, recognition in the newspaper, certificates of achievement and competition against another school. No further mention of incentives and rewards was made by the investigator. Some peer pressure was applied to the teams in Group A as the subjects in the control group would often watch the games and cheer for their friends on one of the highly competitive teams. The subjects in the control group, if they chose to watch the games, were instructed not to encourage or cheer the teams in Group B. It was believed that little external pressure was applied to the teams in Group B, the competitive group, as they were offered nothing for winning or losing. Furthermore, no record was kept of the games they won even when they played a team in Group A.

During the treatment period, the teams in Groups A and B, at both grade levels, competed against one another in four sports. The subjects chose those four sports in which they wanted to compete since the investigator felt

that a higher interest level would be maintained if the students were playing games they liked. The sixth grade chose to play soccer, softball, nation ball and kickball. The third grade chose to play nation ball, Score Keepaway, kickball and Soccer Snatch. The rules for soccer, softball and kickball were modified somewhat to account for the age level and for expediency because of lack of time. It was felt, by the investigator, that thirty to thirty-five minutes was not enough to get too involved in a game, so by modifying the rules there was less concern for strategy and they were able to play more innings in softball and kickball.

For ten weeks, each of the highly competitive teams were scheduled to play each other and the teams in Group B; the schedule was arranged so that each of the teams in Group A, the highly competitive group, played each of the four selected sports the same number of times. The winning team in Group A was chosen on the basis of number of winning games.

Group C, the non-competitive group, was not scheduled to play any competitive games during the treatment period. Instead, they were involved in gymnastic, folk dance, square dance and physical fitness activities such as apparatus work (chinning, hanging and climbing) and jogging. Eleven of the

subjects in Group C (sixth grade only) volunteered to serve as referees for the games played by the teams in Group A. As long as they exhibited a thorough knowledge of the rules, determined by a test, and as long as they proved satisfactory to the competing teams, they were allowed to referee the games. If they had proved to be unsatisfactory, which none did, they would have resumed regular activity with Group C. All the competitive games at the third grade level were refereed by the investigator. All the third graders in Group C participated in the same activities as did the sixth graders in Group C.

Collection of the Data

Prior to the administration of the pretest, all of the subjects were told of the general purpose of the proposed study, and the purpose of the Self Concept Scale. The scale was then administered to the subjects. The subjects were divided into groups. The scale was hand-scored by the investigator and the raw scores for the pretest were recorded according to each group. Each group was subjected to the treatment period of ten weeks and the Piers-Harris Self Concept Scale was then administered for the second time. Again, the raw scores were recorded for each of the subjects according to the group they were in.

Treatment of Data

The raw scores for each of the subjects on the pre-test and posttest were recorded. The mean and standard deviation were computed for each of the six groups on their raw scores. The mean, standard deviation and standard error of the mean were used to describe the performance of the groups on the Piers-Harris Children's Self Concept Scale. A two-way analysis of variance with repeated measures was computed for comparison of the data collected from the two administrations of the scale to each of the three groups. A conclusion was drawn from the statistical analysis with reference to the relationship between self concept and competition as designed in this study.

Summary

The procedures to be followed by the investigator in the development of the study were presented in Chapter III. Permission was obtained by the investigator to conduct the study. Criteria were established for use in the selection of subjects and selection of an instrument for measurement of the self concept. One hundred and sixty-seven subjects were selected according to the established criteria. The Piers-Harris Children's Self Concept Scale was selected as the instrument for measurement. The subjects

were divided into groups and they were tested before and after a ten week treatment period. The data collected from a pre-and posttest were evaluated using a two-way analysis of variance. The results of the statistical analysis of the data collected are presented in Chapter IV.

CHAPTER IV

RESULTS OF THE STUDY

The purpose of the study was to determine whether the intensity of competition was related to the self concepts' of selected elementary children. The subjects who participated in the study were third and sixth graders at Wilshire Elementary School, Euless, Texas. The Piers-Harris Children's Self Concept Scale was administered to the subjects prior to the ten week treatment period. The subjects were assigned to one of three groups; there were two experimental groups and one control group in both the third and sixth grade. The two experimental groups in both the third and sixth grade were involved in selected competitive activities of varying intensity during the treatment period; the control groups from third and sixth grade were not.

Following the administration of the posttest, statistical treatment of the data was applied to test the hypothesis of the study. Chapter IV contains the results of the statistical analysis presented in narrative and tabular form.

Description of the Subjects

One hundred sixth graders and sixty-nine third

graders served as subjects for the study. All the subjects were students at Wilshire Elementary School, Euless, Texas during the spring semester of 1974. All the subjects participated in physical education classes daily for either thirty or forty-five minutes. The classes were coeducational. There were forty-two third grade boys and twenty-seven third grade girls. In the sixth grade, there were fifty-four boys and forty-six girls. The subjects in the third grade and in the sixth grade were randomly divided into three groups. Group A was designated as the highly competitive group; Group B was designated as the competitive group; Group C was designated as the non-competitive or control group.

Presentation and Interpretation of the Findings

The raw scores obtained from the Piers-Harris Children's Self Concept Scale were subjected to statistical treatment to determine whether the intensity of competition affected the subjects' self concepts. The null hypothesis being tested was that there was no difference in the self concepts of the subjects participating in competitive activities of varying intensities. The one hundred and sixty-nine subjects completed a pretest. The subjects were then

randomly assigned to one of three groups, A, B or C. Following a ten week treatment period the subjects completed a posttest. Group A, the highly competitive group, was believed to have been subjected to a more intense level of competition than had Group B. Group A was offered incentives and rewards for winning; Group B, the competitive group, received nothing for winning, though they did participate in the same competitive activities as did Group A. Group C, the non-competitive group, participated in selected activities which did not involve competition of team against team or individual against individual.

The descriptive data reported in Table I revealed the mean scores and standard deviations for the three third grade groups.

TABLE I

MEANS AND STANDARD DEVIATIONS OF THE THREE
THIRD GRADE GROUPS ON THE SELF CONCEPT
PRETEST AND POSTTEST

Group	Pretest		Posttest	
	Mean	S.D.	Mean	S.D.
A	52.2143	11.8082	54.8214	12.6111
B	40.1429	20.5968	48.4762	19.1380
C	49.8000	12.4714	49.7000	15.0021

A study of Table I revealed that the mean scores of the subjects in Groups A, B, and C on the pretest varied considerably. Group B, the competitive group had a mean score considerably below the other two groups. This could possibly be due to the make-up of the group since no information concerning the purpose of study was revealed before the administration of the pretest. Following the administration of the posttest, there was an increase in the mean scores of Groups A and B. This could possibly have resulted from the subjects' familiarity with the self concept scale. The Group B scores approached the mean value of the other two groups. The non-competitive group, Group C, had a slight change in mean score from pretest to posttest.

An analysis of the second part of Table I indicated that the standard deviation for the highly competitive group was 11.81 on the pretest. The standard deviation for the same group was 12.61 on the posttest. There was a slight decrease in the standard deviations of Group B from pretest to posttest. Furthermore, the standard deviation of Group B on the pretest was considerably higher than Groups A or C on the pretest, and much higher than A and somewhat higher than C on the posttest. The standard deviations for Group C increased from 12.47 on the pretest to 15.00 on the posttest. It is assumed that the descriptive data indicates relative

homogeneity, although the competitive group may appear to be somewhat different from the other two groups by virtue of its low mean score.

A summary of a Two-Way Analysis of Variance for the significance of the difference in the means of the three groups between pretest and posttest is reported in Table II.

A study of Table II revealed that the F ratio of 2.25 between groups was not statistically significant at the .05 level of confidence. This tends to confirm the homogeneity between the groups. The F ratio of 10.24 for the treatment period was statistically significant at the .05 level of confidence. The treatment effect of the groups from pretest to posttest had significantly increased from a mean of 47.84 for the pretest to a mean of 51.41 for the posttest. This indicates that an increase in self concept occurred during the treatment period. The F ratio of 4.85 for the interaction of groups times treatment was also statistically significant at the .05 level of confidence. This indicates that the effect of competition of varying intensities did not remain constant among the three third grade groups.

The descriptive data relative to the means and standard deviations of the three groups in sixth grade

TABLE II

SUMMARY OF ANALYSIS OF VARIANCE OF THE MEANS ON THE PRETEST
AND POSTTEST OF THIRD GRADERS AS MEASURED BY THE
CHILDREN'S SELF CONCEPT SCALE

Source	df	Sum of Squares	MS	F	P
Between groups	68				
B (Groups)	2	1928.83397	964.41699	2.25240	ns
Error B	66	28259.45833	428.17361		
Within groups	69				
A (Treatments)	1	440.68472	440.68472	10.23920	$p \leq .05$
AB (Interaction)	2	417.14622	208.57311	4.84614	$p \leq .05$
Error W	66	2840.57262	43.03898		

df = 2,66 (.05) 3.14
df = 1,66 (.05) 3.99

were presented in Table III.

TABLE III
MEANS AND STANDARD DEVIATIONS OF THE THREE
SIXTH GRADE GROUPS ON THE SELF CONCEPT
PRETEST AND POSTTEST

Group	Pretest		Posttest	
	Mean	S.D.	Mean	S.D.
A	55.3824	13.0501	57.5294	15.6790
B	53.6471	14.9319	55.6471	15.4034
C	55.5313	15.0697	57.3438	14.1116

A study of Table III indicates that the mean scores for all three groups were relatively similar on the pretest and posttest. The mean scores of all three groups on the pretest and posttest indicated that the self concepts of the subjects' in the sixth grade were relatively homogeneous. The increase in mean scores from pretest to posttest could possibly have been a result of the "practice effect." The "practice effect" refers to the influence of the pretest on a later administration of the same or similiar test.

A study of the second part of Table III revealed the standard deviations of the three groups. Following the treatment period, the standard deviation for Group A had

increased to 15.68. The standard deviation for Group B had also increased to 15.40, while there was a decrease in the standard deviation for Group C to 14.11. The greater variability of scores in Groups A and B on the posttest may possibly reflect the uncertainty of some of the subjects about their self concepts. The fact there was less variability in the scores of Group C on the posttest could possibly mean that the lack of pressure in competitive activities may have resulted in more assurance of the non-competitors about their self concepts.

A summary of a Two-Way Analysis of Variance for the significance of the difference of the means appears in Table IV. The data was obtained from the three sixth grade groups on the pretest and posttest.

A study of Table IV revealed that the F ratio of 0.18 between the groups was not found to be statistically significant at the .05 level of confidence. This tends to confirm the homogeneity between the groups. The F ratio of 6.65 for the treatment period was found to be statistically significant at the .05 level of confidence. The treatment effect of the groups had significantly increased from a mean of 54.84 for the pretest to a mean of 56.83 for the posttest. This indicates that an increase in self concept occurred during the treatment period. The F ratio of

TABLE IV

SUMMARY OF ANALYSIS OF VARIANCE OF THE MEANS ON THE PRETEST
AND POSTTEST OF SIXTH GRADERS AS MEASURED BY THE
CHILDREN'S SELF CONCEPT SCALE

Source	df	Sum of Squares	MS	F	P
Between groups	99				
B (Groups)	2	143.83493	71.91747	0.17769	ns
Error B	97	39258.64706	404.72832		
Within groups	100				
A (Treatments)	1	197.15194	197.15194	6.65273	$p \leq .05$
AB (Interaction)	2	0.93652	0.46826		
Error W	97	2874.56985	29.63474	0.01580	ns

df = 1,97 (.05) 3.96

0.01 for interaction of groups times treatment was not found to be statistically significant at the .05 level of confidence.

In order to determine the difference between the groups in both the third and the sixth grade, each group in third grade was compared to its counterpart in the sixth grade. Descriptive data are shown in Table V for the performance of the highly competitive groups in both third and sixth grade on the pretest and posttest.

TABLE V

THE MEANS AND STANDARD DEVIATIONS OF PRETEST AND POSTTEST SCORES OF THE HIGHLY COMPETITIVE GROUPS IN THIRD AND SIXTH GRADE AS MEASURED BY THE CHILDREN'S SELF CONCEPT SCALE

Group	Pretest		Posttest	
	Mean	S.D.	Mean	S.D.
A ₃	52.2143	11.8082	54.8214	12.6111
A ₆	55.3824	13.0501	57.5294	15.6790

A study of Table V revealed that the mean scores and standard deviations for the third graders in the highly competitive group were slightly lower than the mean scores and standard deviations for the highly competitive sixth grade group. The higher mean scores of the sixth graders may be

the result of a greater opportunity for social interaction and thus a greater opportunity for development of the self concept. Though the standard deviations for both groups increased from pretest to posttest, a greater variability in scores was revealed in the standard deviations for the sixth grade group. This could have resulted possibly because the sixth graders felt that there was more at stake in the competitive situation than did the third graders.

A Two-Way Analysis of Variance for the significance of the difference in the means between the two highly competitive groups is presented in Table VI.

A study of Table VI revealed that the F ratio of 0.80 between groups was not found to be statistically significant at the .05 level of confidence. This tends to confirm the homogeneity between the groups. The F ratio of 5.72 for the effect of the treatment from pretest to posttest was found to be statistically significant at the .05 level of confidence. The treatment effect of the groups had significantly increased from a mean of 53.95 on the pretest to a mean of 56.31 on the posttest. This indicates that an increase in self concept occurred during the treatment period. The F ratio of 0.05 for interaction of groups times treatment was not found to be statistically significant at the .05 level of confidence.

TABLE VI

SUMMARY OF ANALYSIS OF VARIANCE OF THE MEANS ON THE PRETEST AND
 POSTTEST OF THE HIGHLY COMPETITIVE GROUPS IN THE
 THIRD AND THE SIXTH GRADE AS MEASURED BY
 THE CHILDREN'S SELF CONCEPT SCALE

Source	df	Sum of Squares	MS	F	P
Between groups	61				
B (Groups)	1	265.08569	265.08569	0.79646	ns
Error B	60	19969.84979	332.83083		
Within groups	62				
A (Treatments)	1	173.52836	173.52836	5.71609	p \leq .05
AB (Interaction)	1	1.62514	1.62514	0.05353	ns
Error W	60	1821.47164	30.35786		

df = 1,60 (.05) 4.00

Table VII is a presentation of the descriptive data pertaining to the performance of the competitive groups in third and sixth grade on the pretest and posttest.

TABLE VII

THE MEANS AND STANDARD DEVIATIONS FOR THE COMPETITIVE
GROUPS ON THE SELF CONCEPT
PRETEST AND POSTTEST

Group	Pretest		Posttest	
	Mean	S.D.	Mean	S.D.
B ₃	40.1429	20.5968	48.4762	19.1380
B ₆	53.6471	14.9319	55.6471	15.4034

A study of Table VII revealed that the mean scores of the third grade and sixth grade competitive groups increased from pretest to posttest. The mean scores for the third grade group on both the pretest and posttest were considerably below the mean scores of the sixth grade group. This could possibly be due to the difference in ages or perhaps some external influence that could not be accounted for. The mean score of the third graders increased considerably from pretest to posttest and their posttest mean score more closely approximated the posttest score of the sixth graders.

A summary of a Two-Way Analysis of Variance for the significance of the difference between the means for the third grade and the sixth grade competitive group is presented in Table VIII.

Table VIII revealed that the F ratio of 5.21 between the groups was statistically significant at the .05 level of confidence. There was a considerable difference in the mean scores of the third and sixth grade group on both the pretest and posttest. The significant difference would seem to imply that the two groups were not homogeneous. An F ratio of 13.16 for the treatment period between pretest and posttest was found to be statistically significant at the .05 level of confidence. The treatment effect of the groups from pretest to posttest had significantly increased from a mean of 48.49 on the pretest to a mean of 52.65 on the posttest. This indicated that the self concept improved from the pretest to the posttest period. An F ratio of 4.94 for the interaction of treatment times groups was found to be statistically significant at the .05 level of confidence. The effect of competition was not constant for both of the grade levels.

The mean scores for the performance of the non-competitive groups in the third and the sixth grade were subjected to statistical treatment. Descriptive data are

TABLE VIII

SUMMARY OF ANALYSIS OF VARIANCE OF THE MEANS ON THE PRETEST AND
 POSTTEST OF THE COMPETITIVE GROUPS IN THE THIRD AND
 THE SIXTH GRADE AS MEASURED BY THE
 CHILDREN'S SELF CONCEPT SCALE

Source	df	Sum of Squares	MS	F	P
Between groups	54				
B (Groups)	1	2774.59440	2774.59440	5.21355	$p \leq .05$
Error B	53	28206.00560	532.18878		
Within groups	55				
A (Treatments)	1	693.08485	693.08485	13.15984	$p \leq .05$
AB (Interaction)	1	260.35758	260.35758	4.94350	$p \leq .05$
Error W	53	2791.33333	52.66667		

df = 1,53 (.05) 4.04

shown in Table IX for the performance of the two groups on the pretest and posttest.

TABLE IX
DESCRIPTIVE DATA FOR THE NON-COMPETITIVE
GROUPS ON THE PRETEST
AND POSTTEST

Group	Pretest		Posttest	
	Mean	S.D.	Mean	S.D.
C ₃	49.8000	12.4717	49.7000	15.0021
C ₆	55.5313	15.0697	57.3438	14.1116

A study of Table IX revealed that the mean scores for the non-competitive group of third graders were lower than the mean scores for the non-competitive group of sixth graders on both the pretest and posttest. This difference could possibly be the result of the difference in ages of the two groups.

A study of the second part of Table IX revealed that there was a greater variability in the scores of the third grade group from pretest to posttest. This may have been a result of their reaction to the fact that they could not compete. The third grade non-competitive group was very unhappy about not being able to compete and they verbally expressed their feelings about being "left out." The standard

deviation for the non-competitive group of sixth graders decreased slightly from pretest to posttest. The scores of the sixth grade group were more closely grouped around the mean.

Table X presents a summary of a Two-Way Analysis of Variance for the significance of the difference between the pretest and posttest mean scores for the two non-competitive groups.

Table X revealed that the F ratio between the non-competitive groups was not found to be statistically significant at the .05 level of confidence. The F ratio for the treatment period was not found to be statistically significant, nor was the F ratio for the interaction of treatment times groups.

Summary

Chapter IV was a presentation of the results of the investigation to determine the relationship between the self concepts' of selected elementary children and competition of varying intensities. A six group experimental design was employed. The Piers-Harris Children's Self Concept Scale was administered to the subjects participating in the study before and after a ten week treatment period.

The subjects in the study were the third grade and sixth grade students enrolled in Wilshire Elementary School,

TABLE X

SUMMARY OF ANALYSIS OF VARIANCE OF THE MEANS OF THE PRETEST AND
 POSTTEST OF THE NON-COMPETITIVE GROUPS IN THE THIRD
 AND THE SIXTH GRADE AS MEASURED BY THE
 CHILDREN'S SELF CONCEPT SCALE

Source	df	Sum of Squares	MS	F	P
Between groups	51				
B (Groups)	1	1100.86538	11.86538	2.84575	ns
Error B	50	19342.25000	386.84500		
Within groups	52				
A (Treatments)	1	18.04712	18.04712	0.81858	ns
AB (Interaction)	1	22.50865	22.50865	1.02095	ns
Error W	50	1102.33750	22.04675		

df = 1,50 (.05) 4.04

Eules, Texas during the academic year 1973-1974. One hundred sixth graders and sixty-nine third graders completed the Piers-Harris Children's Self Concept Scale to provide a measurement of self concept. Following the treatment period, all of the subjects completed the Piers-Harris Children's Self Concept Scale for the second time. The pre-and post-test scores from the scale were subjected to statistical treatment to determine whether a relationship existed between self concept and competition of varying intensities. The raw scores obtained from the Children's Self Concept Scale were subjected to a Two-Way Analysis of Variance with Repeated Measures.

A Two-Way Analysis of Variance was computed for the three third grade groups and another was computed for the three sixth grade groups. A significant F ratio for the treatment period was obtained for both grades. An increase in self concept occurred from pretest to posttest in the third and the sixth grade. A significant F ratio was also obtained for the interaction effect of the third grade group. The effect of competition was greater for the competitive group than for either of the other two.

A Two-Way Analysis of Variance was computed on the mean scores of the sixth grade highly competitive group and the third grade highly competitive group. A significant

F ratio was obtained for the treatment effect from pretest to posttest. An increase in self concept occurred during the treatment period.

A comparison was also made between the sixth grade competitive and the third grade competitive groups to determine significant differences. A significant F ratio was obtained for the differences between the groups; the groups were seemingly not homogeneous. A significant F ratio obtained for the treatment period indicated that an increase in self concept occurred during the treatment period. The interaction effect also yielded a significant F ratio. The effect of competition was greater for the third grade competitive group.

The findings of the study, a conclusion of the study and recommendations for further study will be presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

The present study focused on the effect of competitive situations of varying intensities on the self concepts' of selected elementary children. The Piers-Harris Children's Self Concept Scale was used for the measurement of self concept. The study involved one hundred sixth graders and sixty-nine third graders enrolled in Wilshire Elementary School, Euless, Texas during the academic year 1973-1974. The subjects completed the Self Concept Scale prior to being divided into groups. There were three groups in both the third and sixth grade. One group was designated as the highly competitive group; one group was designated as the competitive group; and one group was designated as the non-competitive group. The subjects were involved in a ten week treatment period during which some of the subjects competed under what was believed to be "intense" pressure; some of the subjects competed under what was believed to be "minimum" pressure; and some of the subjects were involved in activities designed to be non-competitive. Following the treatment period, all of the subjects completed the second administration of the Piers-Harris Children's Self

Concept Scale. To determine if there were any differences between the groups following exposure to competitive activities of varying intensities, a Two-Way Analysis of Variance with Repeated Measures was employed.

Findings

The findings of the study were based on several comparisons of the three groups from both the third and sixth grade. A Two-Way Analysis of Variance was employed to analyze the raw data. A comparison of the three third grade groups revealed that:

1. There was no significant difference between the groups on the pretest and posttest.
2. There was a significant difference in the mean scores of the pretest and posttest of the three groups following exposure to the treatment period. The mean scores for the treatment effect had significantly increased from a mean of 47.84 on the pretest to a mean of 51.40 on the posttest. This indicated that an increase in self concept occurred during the treatment period.
3. There was a significant difference between the groups in the interaction of groups and treatment. This indicated that the effect of competition was not constant for each of the three groups.

A comparison of the three sixth grade groups revealed that:

1. There was no significant difference between the groups on the pretest and posttest.

2. There was a significant difference in the mean scores of the pretest and posttest following the treatment period. The mean scores for the treatment effect had significantly increased from a mean of 54.84 on the pretest to a mean of 56.83 on the posttest. This indicated that an increase in self concept occurred during the treatment period.

3. There was no significant difference between the groups in the interaction of groups and treatment.

A comparison of the highly competitive groups in the third and sixth grade revealed that:

1. There was no significant difference in the groups between pretest and posttest.

2. There was a significant difference in the treatment effect of the two groups between pretest and posttest. The mean scores for the treatment effect had significantly increased from a mean of 53.95 on the pretest to a mean of 56.31 on the posttest. This indicated that an increase in self concept occurred during the treatment period.

3. There was no significant difference between the groups in the interaction of groups and treatment.

A comparison of the competitive groups in the third and sixth grade revealed that:

1. There was a significant difference between the groups on the pretest and posttest. The mean scores of the third grade group were considerably below the mean scores of the sixth grade group on both the pretest and the posttest. This is possibly due to the difference in age between the groups.

2. There was a significant difference in the mean scores of pretest and posttest for the treatment period. The mean scores for the treatment effect had significantly increased from a mean of 48.49 on the pretest to a mean of 52.91 on the posttest. This indicated that an increase in self concept occurred during the treatment period.

3. There was a significant difference in the interaction between groups and treatment. This indicated that the effect of competition was greater for one of the two groups.

A comparison of the non-competitive groups in third and sixth grade revealed that:

1. There was no significant difference between the groups on the pretest and posttest.

2. There was no significant difference between the mean scores of the groups following the treatment period.

3. There was no significant difference in the interaction of groups and treatment for the two groups.

Test of Hypothesis

The null hypothesis formulated and tested in this study was that there was no significant difference in the self concepts' of subjects participating in competitive activities of varying intensities. Based on the findings of the study, the investigator failed to reject the null hypothesis. The findings of the study indicated, however, that competition can affect the self concept, perhaps more in the younger group of children studied. In each of the comparisons of the groups except one, the findings indicated that the treatment period had a significant effect on the subjects from pretest to posttest. Only in a comparison of the non-competitive groups from the third and sixth grade was there no indication that the treatment period affected the self concept scores.

Limitations

There were several aspects not included in the study which the investigator felt might have affected the outcome

of the study. First of all, no effort was made to encourage the parents of the subjects to exert parental pressure during the treatment period. Since the child is obviously sensitive to parental attitudes, involving the parents may have had a greater effect on the changes in the self concepts of the subjects. Also, the subjects were not competing in a situation where ability level was considered; nor was the competitive drive of the subjects taken into consideration. This may or may not have affected the outcome of the study. Thirdly, after the initial introduction to the varying amounts of pressure, no further mention of pressure was applied by the investigator. Furthermore, there was no attempt made to consider or control the fact that some of the subjects were competing in extracurricular activities during the treatment period. It could not be determined whether or not this affected the outcome of the study.

Conclusion

It may be concluded that competition does affect self concept, but the extent to which it does could not be determined in this study. There was no conclusive evidence that "intense pressure" during a competitive situation would significantly affect the self concept moreso than "minimum pressure" in a competitive situation would. Only the control

group, who experienced "limited competition," experienced no significant differences from pretest to posttest.

Recommendations for Further Study

After conducting the experiment with third and sixth graders in competitive activities of varying intensities, the investigator suggests the following recommendations for further study:

1. The conduct of a similar study with a longer experimental period and a larger sample.
2. The conduct of a study using teacher and peer ratings for the measurement of self concept as well as self ratings.
3. The conduct of a study using only subjects who are participating in extracurricular activities with more attention given to won-loss record and behavior during the competition situation.
4. The conduct of a similar study utilizing parental influence and pressure constantly applied during the treatment period.
5. The conduct of a study using subjects not previously exposed to structured competitive situations.
6. The conduct of a study using the same subjects and competition of varying intensities over a period of two or more years.

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APPENDIX

THE PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE

(The Way I Feel About Myself)

by

ELLEN V. PIERS, Ph.D.

and

DALE B. HARRIS, Ph.D.

Published by

Counselor Recordings and Tests

BOX 6184 ACKLEN STATION

NASHVILLE, TENNESSEE 37212

THE WAY I FEEL ABOUT MYSELF

NAME

AGE GIRL OR BOY

GRADE SCHOOL

DATE

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. Answer every question even if some are hard to decide, but 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.

1. My classmates make fun of me yes no
2. I am a happy person yes no
3. It is hard for me to make friends yes no
4. I am often sad yes no
5. I am smart yes no
6. I am shy yes no
7. I get nervous when the teacher calls on me yes no
8. My looks bother me yes no
9. When I grow up, I will be an important person yes no
10. I get worried when we have tests in school. yes no
11. I am unpopular yes no
12. I am well behaved in school yes no
13. It is usually my fault when something goes wrong yes no
14. I cause trouble to my family yes no
15. I am strong yes no
16. I have good ideas yes no
17. I am an important member of my family yes no
18. I usually want my own way yes no
19. I am good at making things with my hands yes no
20. I give up easily yes no

21. I am good in my school work yes no
22. I do many bad things yes no
23. I can draw well yes no
24. I am good in music yes no
25. I behave badly at home yes no
26. I am slow in finishing my school work yes no
27. I am an important member of my class yes no
28. I am nervous yes no
29. I have pretty eyes yes no
30. I can give a good report in front of the class. yes no
31. In school I am a dreamer yes no
32. I pick on my brother(s) and sister(s) yes no
33. My friends like my ideas yes no
34. I often get into trouble yes no
35. I am obedient at home yes no
36. I am lucky yes no
37. I worry a lot yes no
38. My parents expect too much of me yes no
39. I like being the way I am yes no
40. I feel left out of things yes no

41. I have nice hair yes no
42. I often volunteer in school yes no
43. I wish I were different yes no
44. I sleep well at night yes no
45. I hate school yes no
46. I am among the last to be chosen for games yes no
47. I am sick a lot yes no
48. I am often mean to other people yes no
49. My classmates in school think I have good ideas yes no
50. I am unhappy. yes no
51. I have many friends yes no
52. I am cheerful yes no
53. I am dumb about most things yes no
54. I am good looking yes no
55. I have lots of pep yes no
56. I get into a lot of fights yes no
57. I am popular with boys yes no
58. People pick on me yes no
59. My family is disappointed in me yes no
60. I have a pleasant face yes no

61. When I try to make something, everything seems to go wrong yes no
62. I am picked on at home yes no
63. I am a leader in games and sports yes no
64. I am clumsy yes no
65. In games and sports, I watch instead of play yes no
66. I forget what I learn yes no
67. I am easy to get along with yes no
68. I lose my temper easily yes no
69. I am popular with girls yes no
70. I am a good reader yes no
71. I would rather work alone than with a group yes no
72. I like my brother (sister) yes no
73. I have a good figure yes no
74. I am often afraid yes no
75. I am always dropping or breaking things yes no
76. I can be trusted yes no
77. I am different from other people yes no
78. I think bad thoughts yes no
79. I cry easily yes no
80. I am a good person yes no

Score: _____

KEY

1. No	21. Yes	41. Yes	61. No
2. Yes	22. No	42. Yes	62. No
3. No	23. Yes	43. No	63. Yes
4. No	24. Yes	44. Yes	64. No
5. Yes	25. No	45. No	65. No
6. No	26. No	46. No	66. No
7. No	27. Yes	47. No	67. Yes
8. No	28. No	48. No	68. No
9. Yes	29. Yes	49. Yes	69. Yes
10. No	30. Yes	50. No	70. Yes
11. No	31. No	51. Yes	71. No
12. Yes	32. No	52. Yes	72. Yes
13. No	33. Yes	53. No	73. Yes
14. No	34. No	54. Yes	74. No
15. Yes	35. Yes	55. Yes	75. No
16. Yes	36. Yes	56. No	76. Yes
17. Yes	37. No	57. Yes	77. No
18. No	38. No	58. No	78. No
19. Yes	39. Yes	59. No	79. No
20. No	40. No	60. Yes	80. Yes

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE SIXTH GRADE
HIGHLY COMPETITIVE GROUP

N = 34

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	45	40	18	75	76
2	51	43	19	59	66
3	76	78	20	64	56
4	66	75	21	55	58
5	73	78	22	47	52
6	58	71	23	54	59
7	54	63	24	63	75
8	59	67	25	70	66
9	45	41	26	58	74
10	60	65	27	22	29
11	62	69	28	45	42
12	28	25	29	55	49
13	61	65	30	50	52
14	50	50	31	65	66
15	54	43	32	54	54
16	45	56	33	25	16
17	76	68	34	59	69

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE SIXTH GRADE
COMPETITIVE GROUP

N = 34

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	77	76	18	65	64
2	62	64	19	61	64
3	46	35	20	56	56
4	19	14	21	63	72
5	68	65	22	63	68
6	26	33	23	68	76
7	27	54	24	70	72
8	46	21	25	54	47
9	64	71	26	44	40
10	42	41	27	58	63
11	53	55	28	37	52
12	37	56	29	51	54
13	52	58	30	32	40
14	75	71	31	70	69
15	36	39	32	54	50
16	55	54	33	59	66
17	74	67	34	60	65

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE SIXTH GRADE
NON-COMPETITIVE GROUP

N = 32

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	58	54	17	50	48
2	59	60	18	66	67
3	66	66	19	69	78
4	61	70	20	45	50
5	36	42	21	52	54
6	6	31	22	65	64
7	68	71	23	58	68
8	64	59	24	67	73
9	74	75	25	68	67
10	45	36	26	55	58
11	72	67	27	65	61
12	46	46	28	66	61
13	61	71	29	17	15
14	43	39	30	60	52
15	51	54	31	55	51
16	66	72	32	43	55

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE THIRD GRADE
HIGHLY COMPETITIVE GROUP

N = 28

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	64	75	15	60	57
2	48	55	16	58	72
3	54	66	17	53	56
4	51	51	18	54	58
5	70	48	19	65	59
6	52	69	20	35	36
7	51	52	21	53	51
8	53	62	22	42	28
9	63	64	23	42	45
10	38	45	24	59	58
11	45	60	25	21	30
12	53	48	26	39	50
13	72	73	27	37	35
14	64	61	28	66	71

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE THIRD GRADE
COMPETITIVE GROUP

N = 21

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	72	65	12	45	50
2	17	40	13	60	62
3	55	64	14	32	39
4	64	56	15	31	36
5	48	48	16	42	62
6	51	43	17	29	50
7	54	56	18	47	54
8	39	50	19	71	73
9	45	51	20	58	67
10	30	42	21	34	42
11	17	65			

RAW SCORES OBTAINED ON THE PIERS-HARRIS CHILDREN'S
SELF CONCEPT SCALE BY THE THIRD GRADE
NON-COMPETITIVE GROUP

N = 20

Subject Number	Pre- test	Post- test	Subject Number	Pre- test	Post- test
1	57	62	11	55	47
2	31	21	12	53	62
3	46	45	13	36	28
4	56	57	14	58	55
5	61	58	15	58	56
6	41	51	16	55	64
7	46	43	17	56	60
8	16	13	18	66	71
9	56	48	19	62	64
10	53	49	20	34	40

MODIFIED SOFTBALL RULES

In softball each team takes turns batting and fielding. An inning is completed when both teams have completed a turn at batting and fielding. Batters have a batting order which may not be changed. Pitching must be underhand. The pitcher pitches a ball to the batter which should be over the plate and between the knees and shoulders of the batter. If batter hits a fair ball he runs to first base and if possible continues on to the next base or bases. He may overrun first base and may not be tagged when he does. If, however, he overruns other bases he is subject to being tagged out until he returns to the base. When on a base no lead-off is permitted until the ball leaves the pitcher's hands. If a runner does take a lead-off prior to the pitch he is out. On an overthrow at first base or third base where the ball goes into foul territory a runner may take just one base, the base he is approaching and one more at which he must stop. If the overthrow is at second base where the ball goes into fair territory the runner may advance as many bases as he can. A runner on base may try to advance when fair balls are hit by other batters. A run is made when the runner successfully touches all three bases and reaches home. The fielding team tries to put the runner

out by: catching a fly ball, throwing a fielded ball to reach the first baseman who while in possession of the ball touches the base before the runner reaches it, touching the runner with the ball anytime he is not on a base, the exception to this being the overrun permitted at first base. When three outs are made teams change places.

Rules

1. Pitcher must have both feet on the pitching rubber.

2. The ball must be delivered when the pitcher takes the one step he is allowed toward the batter.

3. Ball must be rolled underhand and may not be bounced or rolled.

4. A base runner may advance with a chance of being made out: on a fair hit by another batter except a caught fly ball; after a fly ball is caught if he remained on his base when it was caught or returned to the base after the fly ball was caught.

5. A runner is forced to run when he legally loses a base he is on because a player behind him must advance to that base. If any opponent in possession of the ball touches the base to which the runner must go the runner is out. This is called a force-out.

The following modifications have been added for speed and safety.

1. Hitting team provides their own pitcher. He stays on the mound during play. Interference with fielders results in an automatic out for the batter.

2. Batter receives a maximum of four pitches. If the ball is not hit after four pitches, he is automatically out.

3. If the batter hits four foul balls, he is out.

4. Balls and strikes will not be kept.

5. Bunting, stealing bases and sliding are not allowed.

6. Batter must drop bat in a designated area between home and first base or automatically be out.

7. Members of the hitting team must remain behind the backstop until it is their turn to bat.

MODIFIED KICKBALL RULES

In Kickball each team takes turns kicking and fielding. An inning is completed when both teams have completed a turn at kicking and fielding. Kickers have a kicking order which may not be changed. The pitcher rolls the ball underhand. The pitcher rolls a ball to the kicker which should be over the plate. If kicker kicks a fair ball he runs to first base and if possible continues on to the next base or bases. He may overrun first base and may not be tagged when he does. If, however, he overruns other bases he is subject to being tagged out until he returns to the base. When on a base no lead-off is permitted until the ball leaves the pitcher's hands. If a runner does take a lead-off prior to the pitch he is out. On an overthrow at first base or third base where the ball goes into foul territory a runner may take just one base, the base he is approaching and one more at which he must stop. If the overthrow is at second base where the ball goes into fair territory the runner may advance as many bases as he can. A runner on base may try to advance when fair balls are kicked by other kickers. A run is made when the runner successfully touches all three bases and reaches home. The fielding team tries to put the runner out by: catching a fly ball, throwing a fielded ball to reach the first baseman

who while in possession of the ball touches the base before the runner reaches it, touching the runner with the ball anytime he is not on a base, the exception to this being the overrun permitted at first base. When three outs are made teams change places.

Rules

1. Pitcher must have both feet on the pitching rubber.
2. The ball must be rolled when the pitcher takes the one step he is allowed toward the kicker.
3. Ball must be rolled underhand and may not be bounced or thrown.
4. A base runner may advance with a chance of being made out: on a fair kick by another kicker except a caught fly ball; after a fly ball is caught if he remained on his base when it was caught or returned to the base after the fly ball was caught.
5. A runner is forced to run when he legally loses a base he is on because a player behind him must advance to that base. If any opponent in possession of the ball touches the base to which the runner must go the runner is out. This is called a force-out.

The following modifications have been added for speed and safety.

1. Kicking team provides their own pitcher. He stays on the mound during play. Interference with fielders results in an automatic out for the kicker.

2. Kicker receives a maximum of four rolled balls. If the ball is not kicked after four rolled balls, he is automatically out.

3. If the kicker kicks four foul balls, he is out.

4. Balls and strikes will not be kept.

5. Stealing bases and sliding are not allowed.

6. Members of the kicking team must remain behind the backstop until it is their turn to kick.

NATION BALL RULES

The object of the game, as in dodgeball, is to eliminate the players on the opposite team by hitting them with the ball on any part of the body or any part of their clothing or anything that moves around the court with them.

When a player is hit by a ball, he joins his captain at the end of the court, still eligible to throw a ball. The captain may enter his half of the court when the members on his team are down to TWO.

A Player is out of the game if:

1. Hit anywhere on the body or clothing.
2. He steps over any line during play.
3. He and another person catch the ball at the same time.
4. Several persons are hit by the ball all of them are OUT.

If a person catches a thrown ball, he is not out. If he catches a ball after it hits another person, he is still not out, but surrenders the ball to the person who is hit because he is out and there are no saves.

When more than one person is hit by the ball, the first person hit is given possession of the ball, but all people hit are out.

If someone steps over the line in throwing or catch-

ing the ball, he must give the ball to the opposing player.

If interference by teacher or spectator occurs, the captains come to the center and jump ball just as when the game began.

The ball can be thrown by anyone who has been put outside of the court, but must be thrown only behind the endline.

A player who catches the ball on the endline must throw the ball the next play. There will be NO passing the ball from one player to another.

There WILL BE NO FIGHTING FOR POSSESSION OF THE BALL AT THE END LINE--PENALTY FOR FIGHTING WILL BE LOSS OF POSSESSION OF THE BALL.

A ball which crosses the tennis net, or which is loose in the area outside the courts (but inside the fence) belongs to the team whose end of the court the ball is on.

NO ONE - BOUNCERS.

A person is out when the ball hits him and then hits any other object or person even if the one who was hit first finally catches the ball.

If the teams are uneven the winning team will be determined by the number of people on the end line.

SCORE KEEP-AWAY

Score Keep-Away provides opportunities for the students to use passing and catching skills in a competitive situation. Teams are arranged so that half of each team is at bat and half of each team is in the field. The distance between the two bases is short -- approximately 10' - 20'.

The first player on Team A's "batting team" stands on home plate and with one hand strikes the ball so that it travels to the team in the field -- where it must be received by a member of his team. The fielders on Team A pass the ball among its players in an effort to keep it away from Team B for as long a time as possible.

At the same time, the batter from Team A makes as many trips as he can from home plate to first base and back-- he continues this until the fielders on Team B intercept the ball. His score is the number of round trips completed.

The game continues with the next batter (Team B) striking the ball and running in like manner until the fielders on Team A intercept the ball. When all of the players at bat have had a turn, scores for each team are tallied, and the game continues with the fielding teams at bat.

Basic Rules for Score Keep-Away:

1. Batters must touch each base.
2. Fielders may not hold the ball longer than five seconds.
3. Fielders may not touch the ball while it is in possession of another player.
4. Fielders may not touch their opponents while guarding them.

MODIFIED SOCCER RULES

The Kickoff: On the toss of the coin, the winner gets the choice of kicking off or selecting his goal. The loser exercises the option not selected by the winner.

The ball must travel forward about one yard by the kicker, and he cannot touch it again until another player has kicked it. The defensive team must be ten yards away from the kicker. After each score, the team not winning the point gets to kickoff. Both teams must be onside at the kickoff. The defensive team must stay onside and out of the center circle until the ball is kicked.

Scoring: Regular soccer rules call for scoring by counting the number of goals made.

Out of Bounds: When the ball goes out-of-bounds on the sides, it is put in play with a throw-in from the spot where it crossed the line. No goal may be scored nor may the thrower play the ball a second time until it has been touched by another player. All opponents are to be ten yards back at the time of the throw.

If the ball is caused to go out-of-bounds on the end line by the attacking team, a goal kick is awarded. The ball is placed in the goal area and kicked beyond the penalty area by a defending player. He may not touch it twice in succession, and all defensive players are to be ten yards

back.

Dropped Ball: If the ball is touched by two opponents at the same time and caused to go out-of-bounds, a drop ball shall be called. The referee drops the ball between two opponents, who cannot kick the ball before it touches the ground. A drop ball is also called when the ball is trapped among downed players.

Fouls: Personal fouls involving unnecessary roughness are penalized. Tripping, striking, charging, holding, pushing, or jumping into an opponent intentionally are forbidden.

It is a foul for any player except the goal-keeper to handle the ball with the hands, or arms. The goal-keeper is allowed only four steps and must then get rid of the ball.

Other Fouls are: Playing the ball again when it should be contacted first by another player as in the throw-in, penalty kick, or free kick.

Failure to kick the ball the proper distance on the kickoff or penalty kick.

Goalkeeper carrying the ball more than four steps.

Kicking the ball before it hits the ground on an official drop ball.

Penalties: A direct free kick is awarded at the spot for a personal foul and illegal touching. This kick may score a

goal.

A free kick is awarded for the other infractions listed. Another player must play the ball after the free kick in order that a goal can be scored.

SOCCER SNATCH BALL

Formation: Two parallel lines about 30' apart.

Players: 6 to 10 on each team.

Supplies: Soccer ball.

Each team is numbered consecutively and is back behind its line. For each number on one team there is a corresponding number on the other team.

The teacher places the ball at a spot midway between the two lines. The teacher calls a number, and the two players, one from each team, run forward. Each tries to capture the ball and kick it back to his own line. A point is scored when the ball is over the line below shoulder level. If over shoulder height, the other team scores a point.