6-1988

STABILITY AND CHANGE IN THE SELF-ESTEEM OF KINDERGARTEN THROUGH NINTH GRADERS: A ONE YEAR DEVELOPMENTAL STUDY

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A Thesis Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree of Master of Science

by

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Pittsburg, Kansas

June, 1988

Acknowledgements

I wish to express my appreciation to my thesis committee, Dr. David Solly, Dr. Richard Lipka, and Dr. "Rick" Lindskog, advisors, mentors, and friends, whose advice and encouragement made this thesis possible. I also want to thank my friends for listening to my woes while "birthing" this paper.

I dedicate my thesis to my mother who has always given me 100% of her unconditional love and support every minute of my life and whom I shall never be able to repay, and to my children and grandchildren who give my life it's meaning.

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ABSTRACT

This study was designed to investigate the following questions: 1) Does self-esteem change over a one year period (as measured by the Piers-Harris Children's Self-concept Scale)? 2) What is the extent and direction of individual score changes? and 3) Are there grade and/or gender differences in change patterns? Subjects (N=328) were students, K-9, in the Baxter Springs, Kansas, school district. Descriptive statistics, t-tests and one-way ANOVA were preliminary analyses. To answer question #1, a two-way ANOVA was used with gender and grade as independent variables and a "difference score" between the two times of testing as the dependent variable with Least Significant Differences contrast post hoc analyses done when appropriate. To look at individual differences, (question #2) differences in scores between the two times of testing were computed for each individual. Increases or decreases of more than the standard error of measurement of the Piers-Harris instrument were considered "real" changes. Increases, decreases and no change were computed for males and females in each class, K-9. This was done for Total Score and the six cluster scores of the Piers-Harris - Behavior, Intellectual and School Status, Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction. Findings revealed that over a one year period, there is change in self-esteem, generally in an upward trend. There were more changes in Total Score and Physical Appearance and Attributes than the other cluster scores. Kindergarteners of both genders had the most change with fifth grade females and fourth grade males following. Possible reasons for change and the patterns of change are discussed.

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CHAPTER I

INTRODUCTION

A "self" is born and self-perceptions develop as the self comes to know and acknowledge it's own being. This subjective feeling and knowing self is complex (Gordon, 1968); multidimensional (Marsh, Parker & Barnes, 1985; Rosenberg, 1965; Samuels, 1977); hierarchical (Shavelson, Hubner, & Stanton, 1976); shifting (Gergen, 1971; Gorgon, 1968); difficult to describe (Hein, 1957); and even more difficult to measure (Gergen, 1971).

Much research has been done on self-issues: Self-concept, self-esteem, self-perception, self-confidence, self-efficiency, etc. Self-esteem issues have emerged in recent years as associated with learning, social adjustment, and satisfaction with life in general.

Problem/Need Statement

How stable is self-esteem over a one year period as related to grade level and gender? If developmental trends exist, there would be important implications for programs designed to study the self-concept and self-esteem at a particular age (Dickstein, 1977). Intrusive programs to improve and enhance self-esteem could be designed and targeted for a particular grade level and implemented at a particular developmental stage. Certainly, it must be agreed that positive self-esteem for all children would be beneficial not only for each individual but for society as a whole. As Combs (1962) stated, "It is not the people who see themselves as liked, wanted, acceptable, worthy, and able who constitute our major problems...it is the people who see themselves as unliked, unwanted, unworthy, unimportant, or unable who

fill our jails, our mental hospitals, and our institutions." (p. 51-52).

Research Questions

1) Does self-esteem change over time as reflected by Piers-Harris Children's Self-concept Scale scores?

Null hypotheses for research question #1. There will be no difference between self-esteem Piers-Harris scores (total score and six cluster scores) of subjects in grades K-9 over a one year period controlling for grade level and gender.

Ho_1: Total Score Mean (1985) = Total Score Mean (1986)

Ho_2: Behavior Mean (1985) = Behavior Mean (1986)

Ho_3: Intellectual and School Status Mean (1985) = Intellectual and School Status Mean (1986).

Ho_4: Physical Appearance and Attributes (1985) = Physical Appearance and Attributes (1986)

Ho_5: Anxiety Mean (1985) = Anxiety Mean (1986)

Ho_6: Popularity Mean (1985) = Popularity Mean (1986)

Ho_7: Happiness and Satisfaction Mean (1985) = Happiness and Satisfaction Mean (1986)

2) What is the extent and direction of score changes for individuals over a one year period?

3) Are there grade level and/or gender differences in change patterns?

Definition of Terms

One of the major difficulties in this field of research is the lack of consistency in the definition of terms. In this study, the following terms will be used as defined:

Self: Perceiving, thinking, feeling, willing, dreaming and deciding entity that has inner awareness of being alive.

Self-concept: Composite of all descriptions, perceptions, ideas and attitudes - both internal and external about the self. These can be clear or unclear.

Self-esteem: "Satisfaction" with self-concept - can be positive or negative.

See Figure 1 for a representation of the relationship of self, self-concept, self-esteem and components thereof as viewed in this study. Note author's view of "leaky" margins - that no rigid boundaries define one area from another.

The instrument used in measuring self-esteem is the Piers-Harris Children's Self-concept Scale. Although the term "self-concept" appears in the title and the authors of the instrument used the terms self-concept and self-esteem interchangeably, the instrument is actually measuring self-esteem, as it is defined in this paper. All statements in the instrument are evaluative in nature, and, therefore, measure the self-esteem of the subject.

Limitations of the Study

This study is limited by: 1) the reliability and the validity of the test instrument, especially as used in a group, classroom setting; 2) the accuracy of the scoring of the instrument; and 3) the truthfulness of the responses as well as the subjects ability to respond correctly.

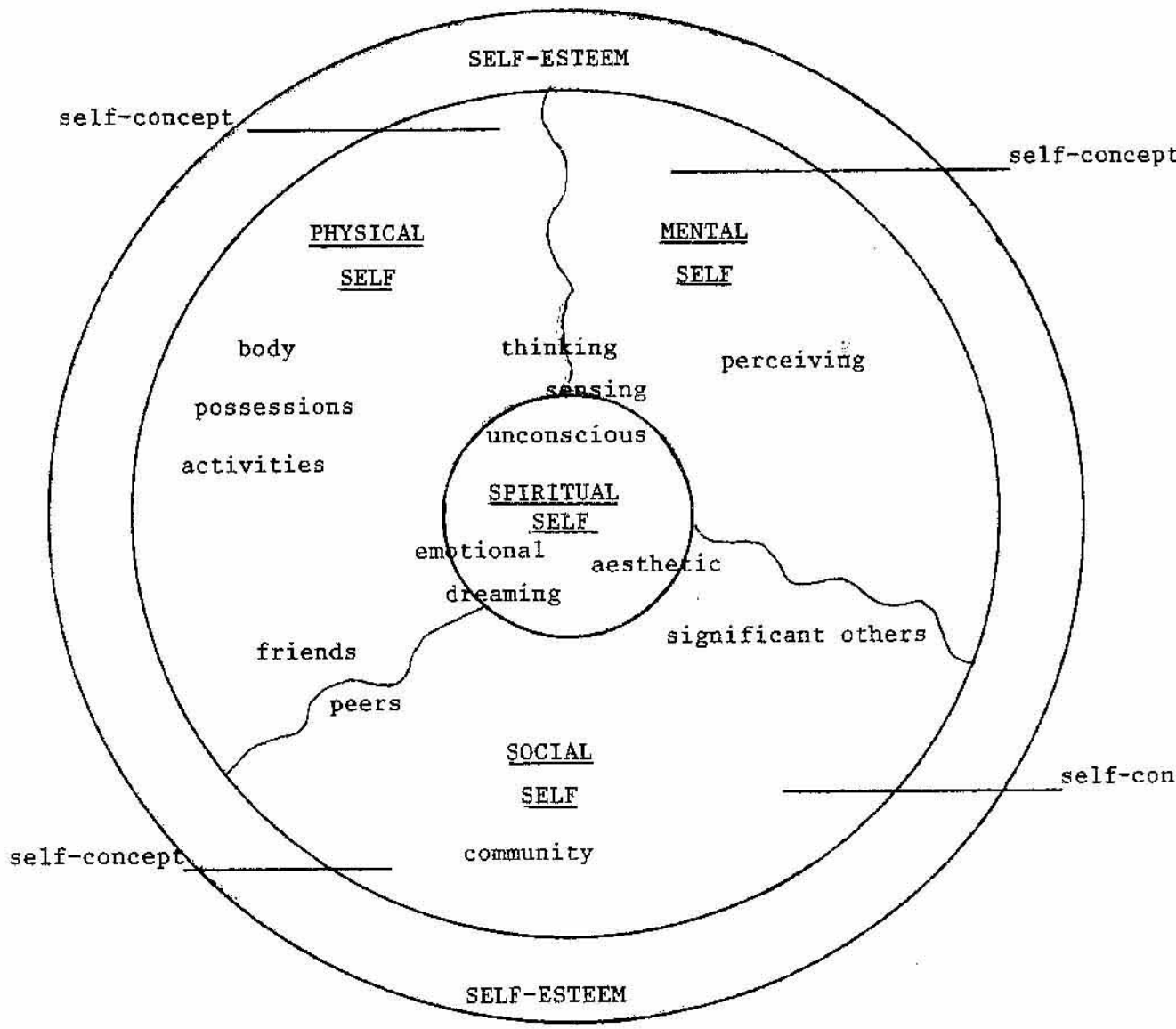


Figure 1. Relationship of self and components thereof as viewed in this study

CHAPTER II

REVIEW OF THE LITERATURE

Self

What is a self? This question has been asked since ancient times as seen in the writing in Katha Upanishad, a book of India dating back to the sixth century B.C., "Concealed in the heart of all beings lie the "atma," the Spirit, the Self, smaller than the smallest atom, greater than the greatest spaces." (cited by Whitton and Fisher, 1986, p. 23). One of the first psychologists to posit a definition was Cooley (1902) who wrote, "Self is that which is designated in common speech by the pronouns of the first person singular, I, me, mine, myself." (p. 168). Jung (1956) viewed the self as "'the centre'; the point of balance between every aspect of the conscious and unconscious psychic life." (p. 250). Self is understood to be self-directing; an agent of self-imposed action. The self has a will and the capacity for making choices. (Dickstein, 1977, p. 130).

The self is the perceiving, thinking, feeling, willing, dreaming, and deciding entity. It has a inner awareness of being alive. One can never actually enter into the world of another; one can not feel another's pain nor another's joy. No self can have direct experience of another self. This private nature of the self makes investigation difficult.

As Hein (1957) wrote, "The odd thing about the ego (self), which takes the world of nature as the object of its perception and volition, is that although it is nearest and most familiar to us, and although

each of us is immediately aware of it, yet it is downright impossible for us to describe objectively, as we can describe a crystal or a flower or a house." (p. 36).

All experience implies the existence of a self or subject independent of and not completely submerged in the processes and events surrounding it (Titus, Smith & Nolan, 1979). As Kant stated in 1900, ".....the subject intuits itself, not as it would represent itself immediately and spontaneously, but according to the manner in which the mind is internally affected, consequently, as it appears, and not as it is." (p. 41). The self is to be found neither on the inorganic nor the merely organic level. The self is found where there is personal awareness, reflective thinking, ethical and aesthetical judgment, appreciation and the like. "Just as poetry is more than grammar and music more than rhythm, so a person is more than a body in space, and this more is what philosophers have called the self." (Titus, Smith, & Nolan, 1979, p. 58-59).

William James (1890) spoke of a person's 'selves' rather than self and described them as material (body and possessions); social (human relations) and spiritual (desires, inclination, and emotions). Gecas (1982) saw self in the same way. Samuels (1977) added an academic self. Several speak of real-ideal self-images (Archenback & Zigler, 1963; Beane & Lipka, 1986; Coopersmith, 1959; Hebb, 1958; James, 1890; Katz & Zigler, 1967; Katz, Zigler, & Zalk, 1975; Whiteside, 1976).

Self-concept

The confusion of self-terminology is occasionally evident in reference to the work of early self-theorists. For instance, Bakan (1971)

erred when stating, "self-concept, first developed by Cooley (1902) and by Mead (1934)..." (p. 317). Actually, both Cooley and Mead did extensive work on "self" development, not self-concept. It was not until 1943 that the term "self-concept" was coined by Raimy while completing his doctoral thesis under Carl Rogers at the University of Ohio." (Calhoun & Morse, 1977, p. 319).

Self-concept is what an individual believes about him/herself - the totality of his/her views of self (Combs, Soper, & Courson, 1963) and is unique to each individual (Felker, 1974). Calhoun, Warren and Kurfiss (1976) agreed and added that self-concept of a person also includes his or her opinion of how others view him or her. Self-concept has a complex and changing nature. "The self-concept is a complex, continuously active system of subjective beliefs about the self, which guides behavior in ways that are consistent with the perceived self. It may be regarded as a mediating variable which helps us to understand and explain an individual's behavior." (Brody, 1984, p. 1). Beane and Lipka (1980) summed these components with their definition that self-concept in one's nonevaluative description of personal attributes and the roles one plays or fulfulls.

One researcher who has done extensive work on self-concept is Rosenberg (1965). He believes there are dimensions to self-concept such as content (intelligent, kind, talented); direction (positive or negative); intensity; importance; salience; consistency, stability, clarity, and selectivity.

McGuire and McGuire (1982) talked of self-space which seems essentially the same as self-concept. They described the self-space as

that content that is available to the person when he/she reflects upon the self. Some researchers make no distinction between self-concept and self-esteem while others feel these two aspects of self are quite different. Rogers (1947) defined self-concept with the element of esteem or evaluation included, "Self-concept is the sum total of all characteristics a person attributes to himself, and the positive and negative values he attaches to these characteristics," (p. 146). Shavelson, Hubner and Stanton (1976) and Cobb (1961) also included the element of esteem or evaluation in their definitions of self-concept.

Other researchers feel the evaluative part of self-concept is a thing apart from the description of self. The positive and negative valence is considered to be the defining aspect that separates self-esteem from self-concept. According to Damon and Hart (1982), esteem, unlike conceptual understanding, is an affective orientation and can be assessed according to it's positive and negative valence. "Self-esteem is the evaluation one makes of the self-concept description. It is the degree that one is satisfied or dissatisfied." (Beane & Lipka, 1986, p. 6).

Persons with high self-esteem respect themselves and consider themselves worthy (Coopersmith, 1967); have sense of belonging (Maslow, 1970); and feel competent (Samuels, 1977). According to Rosenberg's (1965) principle of selectivity, all persons can have high self-esteem by selecting what they excel in, but certain factors may not be overlooked. For example, a person cannot ignore certain objective facts such as size, wealth, or low grades; one cannot always choose others who give positive appraisals such as parents, teachers, or colleagues;

values formed in early years may be unsupported as goals due to lack of skills; and holding certain goals requires the development of certain traits and thus rules out others.

Negative self-esteem has been associated with depression, anxiety, pessisism, destructiveness, inability to accept others or enter into genuine relationships with others, and a hostile outlook towards the world. There appears to be a strong relationship between negative self-esteem and delinquency (Brody, 1984). "Individuals with low self-esteem lack respect of self and feel incapable, insignificant, unsuccessful and unworthy." (Coopersmith, 1967, p. 5).

Juhasz (1985) divided self-esteem into two basic psychological processes - the process of self-evaluation and the process of self-worth. She defined self-worth as that which incorporates a view of self as being master of one's actions - a sense of competence based on intrinsic rather than extrinsic determinants. Burns (1977) described self-worth as a nebulous concept incorporated in self as knower or experiencer. A related term, self-confidence, involves a temporary estimate of success in carrying off a particular task or fostering a role (Dickstein, 1977).

As Gergen (1971) stated, "Clearly, we cannot measure it (self-esteem) directly as there is no direct access to another's private experience. The most we can do is to infer the nature of a particular experience from various overt behavioral indicators." (p. 16).

Development of self-concept. "Since no one is born with a self-concept, the self-concept, then, is something that the child acquires. It develops out of the child's experiences with life, particularly relationships with important people, but is also influenced

by the child's own perceptions and abilities to develop conceptualization, values, and commitments." (Brody, 1984, p. 2).

Many researchers believe this formation of self-concept comes through social interchange. Cooley (1902) coined the term, "looking-glass self," because we perceive ourselves as we think others perceive us. Scheler (1961) expressed much the same idea when he wrote that we know ourselves by first knowing others, and then differentiating our own selves from the 'community of minds in which we originally immersed.' Sullivan (1947) called this phenonemon "reflected appraisals," meaning the child's earliest self-appraisal is in terms of what significant others think and feel about him or her. McDougall (1908) stated, "....the idea of the self and the self-regarding sentiment are essentially social products...the complex conception of self thus attained implies constant reference to others and to society in general, and is, in fact, not merely a conception of self, but always of one's self in relation to other selves." (p. 155). Mead (1934) felt it is impossible to acquire a self-concept without social experience and he expressed this thought, "The self is that which can be an object to itself, is essentially a social structure, and it arises in social experience...it is impossible to conceive of a self arising outside of social experience." (p. 140).

Purkey (1978) summarized this view when he stated his belief that the development and structure of self-awareness is a lifelong research project with which continuous modifications of one's self-concept occur through ever widening experiences of the developing person. By experiencing the world through the inviting and disinviting interactions

with significant others, the developing person organizes a theory of personal existence. "While the self may be an 'initiator,' self-perceptions arise mainly in a social context, influenced largely by feedback from 'significant others.'" (Lipka, 1986, p. 2). Gordon (1968) believed self to be a complex process of continuing interpretative activity. Dickstein (1977) summarized the development of self-concept as, "a lifelong struggle - a process which requires strength and courage." (p. 132).

A person can organize, scan (compare to old memories), screen, alter (make new information fit into existing schema), choose new experience, reflect and judge new experiences. There seems to be a motivational force to search for new experience that will support present structure or that will create conflict (which encourages growth). (Beane & Lipka, 1986; Gergen, 1971; Rosenberg, 1979). The self is seen as a dynamic, changing, process orientated entity.

According to Coopersmith (1967) four major factors contribute to the development of self-esteem: 1) respectful, accepting and concerned treatment an individual receives from significant others - "we value ourselves as we are valued;" 2) individual's history of successes and the status and position one holds; 3) individual's values and aspirations which act as a filter through which one's experiences are perceived - by living up to aspirations in areas that one regards as personally significant, the individual achieves high self-esteem; and 4) the way a person responds to devaluation - one can minimize, distort or entirely suppress derogatory actions of others and failures of self. Coopersmith posed that there are pervasive and significant differences in the

experimental worlds and social behaviors of persons who differ in self-esteem. Persons high in their own estimation approach tasks and persons with the expectation that they will be well received and successful.

Dickstein (1977) has a stage development theory. He recognized five stages in the development of the self-concept that can be identified and saw a different type of self-esteem being appropriate to each stage. The first stage is the "dynamic self" in which the individual understands that the self is self-directed, that one has a will and can make one's own choices. The second stage is the "self as object." The individual comes to know others and then differentiates self from others. Thirdly, "self as knower" as self discovers self although the result is influenced and distorted by the way in which the mind works so that the resulting self-image may not necessarily reflect the truth. Next, he sees "self as integrated whole" which is achieved through a lifelong struggle. Last, the "selfless self" changes shape according to the situation, some shallow, some profound, each of which can readily be abandoned in favor of still new, psychological quests.

Dickstein's stage four (self as integrated whole) and stage five (selfless self) are much like Maslow's (1970) stage four of esteem needs and stage five (self-actualized also called self-fulfillment) and much like Jung's (1956) theory of "coming to selfhood" or "self-realization." (p. 182).

Lipka (1986) stated, "While self-perceptions develop mainly in a social context, their structure and content also depend on the developmental characteristics of particular stages of growth." (p. 2).

Lipka's theory of self-perceiving has three levels: 1) a specific situation in which a person internalizes feedback from others; 2) category or attitudes - a person formulates ideas about self based upon roles he/she plays and attributes he/she possesses; 3) general, a meta analysis of many specific situations and weighted in favor of those roles and attributes most valued.

This developmental shift of self-perceptions was succinctly expressed by Brinthaupt and Lipka (1985) in their proposal that self-perceptions shift in orientation from "I am what I own, to I am what I do, to I am who I am. The adolescent and older individual's view of self is marked by an increasingly 'psychological' orientation, including traits, attitudes, values, behaviorial consistences and uniquely defining characteristics." (Lipka, 1986, p. 5).

Supporting this line of thought Rosenberg (1979) reported that crucial to the understanding of self-concept differences between younger and older children is the distinction between an external, overtly, revealed self and an internal, covertly concealed self. Data from subjects ages 8-19 showed that 8-9 year-olds responded to open-ended questions about particular aspects of self in terms of social exterior by listing characteristics that are behavioral, observable, overt and public. At age 10 children begin to turn inward towards the private and invisible.

Another aspect of self-concept is the ideal self. James (1890) suggested this concept when he wrote, "In each kind of self, material, social, and spiritual men distinguish between the immediate and actual and the remote and potential." (p. 315). Archenback and Zigler (1963)

proposed a developmental theory that generated the prediction that real-ideal self discrepancy was positively related to the individual's level of maturity as opposed to the discrepancy being an indicator of maladjustment. Katz and Zigler (1967) found this to be true in a study they did with 5th, 8th and 11th graders. They concluded that self-image disparity is a function of development and is positively related to chronological age and intelligence. Children with the largest self-ideal discrepancies received the highest ratings by others, had the highest need-achievement scores and the highest actual achievement scores (Coopersmith, 1959). Rather than being ominous in nature, increasing self-image disparity invariably appears to accompany the attainment of higher levels of development (Hebb, 1958).

Stability of self-concept. Some researchers feel that self-concept is pretty much developed by age five or six. "By the time the child enters elementary school at age six, his or her self-concept will reflect the important influences of parent behavior and child rearing patterns." (Brody, 1984, p. 2). It is evident that self-concept is the logical developmental antecedent of self-esteem; one must first form an opinion of oneself, assessing one's capabilities and inadequacies before being able to determine the degree of esteem or satisfaction to be accorded this "self." In other words, self-esteem arises out of the child's ability to estimate his own strengths and weaknesses (Calhoun & Morse, 1977). Some believe the self-concept to be developed before age five and to remain basically constant while self-esteem is developed later and vacillates according to the success or failure the individual encounters daily (Gergen, 1971; McGuire, 1979; Wiley, 1961).

One study done with very young children, ages 3½ - 7½ (through first grade) found consistent high levels of self-esteem (Bridgeman & Shipman, 1978). The authors speculated; however, that for the youngest children the self-concept instrument may be measuring the cognitive ability to respond to the survey rather than self-esteem, because it correlated more highly with later academic achievement than with later self-esteem measures. Benenson and Dweck (1986) tested 144 subjects in grades K, 1, 2, and 4 and found self-evaluations became less positive in both social and academic domains and less similar across domains as children advanced in grade level. In a cross sectional study with a large number of subjects about the same age (grades 1-4) a sharp drop in general academic self-concept was noted. Inspection of their results indicated that nearly all of the age effect occurred between grades 2 and 3; academic self-concepts were relatively similar in grades 1 and 2 and relatively similar in grades 3 and 4 (Eshel & Klein, 1981). Subjects from grades 1-9 (N=1471) measured in four categories - physical maturity, peer relations, academic success and school adaptiveness were found to have stable physical maturity and peer relations measures across grades while academic success and school adaptiveness measures declined (Larned & Muller, 1979).

Gold, Brush and Sprotzer (1980) looked for sex differences in self-perceptions of IQ and self-confidence in subjects in grades 3, 5 and 8. In third grade, differences were very small, but by 5th and 8th grades, males felt smarter and more confident than females. Montemayor and Eisen (1975) testing four variables - physical appearance, behavior, beliefs, and interpersonal style - in subjects in 4, 6, 8, 10, and 12th

grades found few sex differences. In a large study (N=1500) done by Kokenes in 1974, there did seem to be difference in self-esteem in different grades. His subjects were 4-8 graders and he found 6th graders more rejecting of selves but became more accepting again by 8th grade.

Adolescents have been studied, perhaps, more than any other age group. Eight dimensions of self-concept were analyzed on subjects in grades 7-12 (N=6000) by Ellis, Gehman and Katzenmeyer (1980). Of the eight dimensions: school affiliation, self-security, social confidence, peer affiliation, family affiliation, self-assertion, teacher affiliation and self-acceptance, seven were found to be stable across the adolescent years. Only one dimension, self-acceptance, changed across the age span. Their findings suggested that there is a reorganization of the boundaries of self-esteem which occurs near age 17 (grade 10). From 13-15 the individuals rated themselves on internal standards. The findings of Blyth and Traeger (1983) concur. They also found that what is important to youth changes during this stage of development and they added that changes are more likely to be sequential than simultaneous. In a 1982 study of 374 subjects, Osborne and LeGette compared sex, race, grade level and social class differences in self-concept in 7, 9, and 11th graders. They found no significant sex differences in global self-concept; however they did find subscale differences. Females were higher in behavior and social self while males were higher in anxiety and physical self ratings. They found that the older students were more likely to have positive self-esteem ratings. Achievement traits, intellectual skills, interpersonal skills, physical skills, and social

responsibility were examined in 7 and 12th graders and college freshmen. This study also found no sex differences but with age, self-evaluation changed from global to differentiated (Mullener & Laird, 1971).

Longitudinal studies can be helpful in understanding changes in individuals over time. In a three year study of 102 seventh graders, no sex differences in self-concept were found (Marotz, 1983). Damon and Hart (1986) interviewed students from grades 2-11 using an open ended format. Findings suggested that transition from one level to the next are gradual and that from year to year subjects tended to rank in the same position relative to other subjects. The structure of self-concept was consistent across both cross-sectional and longitudinal comparisons in grades 5-12 in a three year study done by Dusek and Flaherty (1981). Brody (1984) in a five year longitudinal study of 160 black subjects (grades 4-8) found self-concept to be stable and self-esteem to be generally positive. A nine year study done by Shirley Samuels (1977) also found self-concept stable in the middle class black and middle class white subjects she tested. Effect of self-concept on achievement became less significant as children became older.

Paradoxically, although self is continuously growing and changing, it is also strongly geared to prevent growth and change. "Self-perceptions tend to seek stability, consistency and enhancement." (Lipka, 1986, p.2). As expressed by Jersild (1952) a person seeks to preserve his selfhood even though it is based on false premises. A person's behavior expresses an effort to maintain the integrity, unity, and inner consistency of the personality system which has as its nucleus the individual's evaluation of self (Lecky, 1945). As self-perceptions move from specific to

general, they are increasingly resistant to change (Beane & Lipka, 1986).

Wylie (1979) in an extensive review of self-concept and self-esteem literature found no convincing evidence for any age effect on self-esteem, either positive or negative. She suggested that the lack of effect in overall self-concept and/or self-esteem might be the net result of some factors increasing while others decrease. Sex differences in overall self-concept at any age level may be lost in summing across specific components.

Piers-Harris Children's Self-concept Scale

The Piers-Harris Children's Self-concept Scale is a personality, non-projective test designed for children with third grade reading skills. It can be given to groups (grades 4-12) and can be read or administered individually to younger or handicapped individuals. The test was designed primarily for research on the development of children's self-attitudes and correlates of these attitudes. Piers, in the 1984 revised manual, defined self-concept as a relatively stable set of self-attitudes reflecting both a description and an evaluation of one's own behavior and attributes. Self-concept is used interchangeably with self-esteem and self-regard in the manual. The test is a paper and pencil self-reporting instrument consisting of eighty, first-person, declarative statements. (See Appendix A for statements). The response requirement is that the child circle either "yes" indicating that the statement describes the way she feels about herself most of the time or "no" indicating that the statement does not describe the way she feels about herself most of the time. Subtests (called cluster scores) are divided into six categories: Behavior, Intellectual and School Status,

Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction. Raw scores (total number of responses marked in the positive direction) are available in the form of an overall self-concept score or as a profile of six cluster scores (Piers, 1984).

Reliability of the Piers-Harris. To judge internal consistency of the test, the Kuder-Richardson Formula 21, which assumes equal difficulty of items, was employed with resulting coefficients ranging from .78 to .93. As a check, the Spearman-Brown odd-even formula was applied for half the grade 6 and grade 10 sample, with resulting coefficients of .90 and .87, respectively. A retest after four months on one half the standarization sample resulted in coefficients of .72, .71, and .72 which were judged satisfactory for a personality instrument in the experimental stage over so long a period of time. Test-retest reliabilities ranged from .62 to .96 in the literature with retest intervals of a few weeks to six months (Piers, 1984). These reliabilities have been established in normal populations (Shavelson & Bolus, 1982), and in children from different ethnic background, including black and Mexican-American children (Platten & Williams, 1979, 1981), Mexican-American migrant workers (Henggeler & Tavormina, 1979) and American Indian students (Lefly, 1974).

Validity of the Piers-Harris. Looking for concurrent validity Mayer (1965) compared scores on the Piers-Harris with scores on Lipsitt's Children's Self-concept Scale (1958) for a sample of special education students, 12-16 years of age. He obtained a correlation of .68. Other researchers have had similar findings (Karnes & Wherry, 1982; Parish & Rankin, 1982; Parish & Taylor, 1978).

Confirmation of predictions of significantly different self-concept

scores for certain groups would lie in the area of construct validation. A first attempt at this was made during the initial standardization when the scale was administered to 88 adolescent institutionalized retarded females whose mean age was 16.8 years and mean IQ was 70. As predicted, they scored significantly lower on the scale than either normals of the same chronological age, or normals of the same mental age (Piers & Harris, 1964).

Franklin, Duley, Rousseau and Sabers (1981) found stable construct validity and internal consistency in the Piers-Harris instrument. Johnson, Redfield, Miller and Simpson (1983) measured the Piers-Harris against the Coopersmith Self-Esteem Inventory and found high correlations. Others, Halote and Michael (1984) and Smith and Rogers (1977) had similar findings.

Amato (1984) and Benson and Zarnegar (1984) found that only the total scale score of the Piers-Harris is valid. Collins, Kafer and Shea (1985) suggested that the cluster score of Happiness and Satisfaction was less valid than the other five cluster scores. When replicating the Piers-Harris factors as cited by Piers (1969), Michael, Smith and Michael,)1975) reported less success when dealing with the "domain of emotionality," that is, with items tapping such dimensions as happiness, self-contentment, and guilt than other dimensions. They suggested that factors representing appearance, academic status, or social behavior invite less subjective and less diverse interpretation than do factors dealing with emotionality.

The factorial validity of the Piers-Harris, Barksdale Self-Esteem Scale and the Tennessee Concept Scale was examained, and the convergent validity appeared to be lacking although, of the three tests, the intercorrelations among scales within a given instrument were highest

for the Piers-Harris. (Moran, Michael & Dembo, 1978).

Cowan, Altmann, and Pysh (1978) examined concurrent validity of four self-reporting instruments - Bledsoe Self-Concept Scale, Purdue Self-Concept Scale, Self-Esteem Inventory and Piers-Harris Children's Self-Concept Scale with a behavioral rating form that measured overt behavior. No significant correlation between any of the self-report instruments and the behavioral measure were found suggesting that the self-report instruments measured something different from behavior.

In a study by Lynch and Chaves (1975) the Coopersmith Self-Concept and the Piers-Harris were administered to 4-6 graders. Findings from factor analyses and multiple regressions cast some doubt on the construct and predictive validity of these instruments. However, Lynch and Chaves noted that fatigue of the subjects could have been a confounding variable as both instruments were administered at the same session.

CHAPTER III

Method

Subjects. All students in the Baxter Springs, Kansas, school district were given the Piers-Harris Children's Self-concept Scale in December, 1985; December, 1986; and December, 1987. All students, grades K-9 (in 1985) who had complete tests scores for 1985 and 1986 were used as subjects (N=328). (See Table 1 for summary of demographic data). All subjects were assigned ID numbers to protect their privacy.

Instrument. The Piers-Harris Children's Self-concept Scale was used to measure self-esteem. This instrument was described in detail in Chapter II.

Procedure. Standardized instructions were given at the time of the administration by classroom teachers. All testing was done at the same time on the same day. Total Score and six cluster scores were recorded for each student. Tests with extreme scores were rescored. Ten percent of the remaining instruments (33 from 1985 and 33 from 1986) were randomly selected and rescored for accuracy.

Analyses. Descriptive statistics were done as initial analysis. Grade levels were grouped into four groups: 1) kindergarten and first; 2) second and third; 3) fourth, fifth, sixth; and 4) seventh, eighth, ninth. This was done to more nearly equalize "n's." (See Table 1).

Next, preliminary analyses were completed. T-tests for Total Score and cluster scores revealed differences in Total Score and one cluster score. A one-way ANOVA was done to examine Total Score differences related to grade and gender.

TABLE 1

SUMMARY OF DEMOGRAPHIC DATA

Grades	Males	Females	Total
Kindergarten	19	16	35
First	22	16	38
Second	24	24	48
Third	14	23	37
Fourth	11	05	16
Fifth	05	19	24
Sixth	16	19	35
Seventh	30	22	52
Eighth	14	10	24
Ninth	09	10	19
Total	164	164	328
Group 1 (K & 1)	41	32	73
Group 2 (2 & 3)	38	47	85
Group 3 (4-6)	32	43	75
Group 4 (7-9)	53	42	95
Total	164	164	328

The design of choice, a two-way ANOVA with repeated measures for unequal n's, was not available. An alternate design was chosen. Differences were calculated from time of first testing to time of second testing and this "difference score" was used as the dependent variable in a two-way analysis of variance with gender and grade groups used as independent variables. SPSSX was the statistical program available. Contrast post hoc analyses were computed when main effects were found in grade groups. The LSD (Lease Significant Differences) was chosen because it is a powerful test and sensitive to minute differences.

To look at individual variablility within each grade level and gender, "intra" investigations were done. Differences in scores between the two test administrations were calculated for each subject. Increases or decreases of more than the standard error measurement were noted. (See Appendix A-1 for SEM of Total Score and cluster scores). Shifts, up or down, of 4 for Total Score, 2 for the cluster score of Intellectual and School Status and 1 for the other cluster scores could occur by chance, or within the bounds of the reliability of the instrument. Thus, patterns of increase or decrease were examined treating changes of 5 or more for Total Score, 3 or more for Intellectual and School Status, and 2 or more on other cluster scores as "real." Changes of 4 or less for Total Score, 2 or less for Intellectual and School Status and 1 for other cluster scores were considered "unchanged."

Each grade level was examined looking at the percent of the class in each of six categories: females whose scores increased; females whose scores decreased; females whose scores remained unchanged; males whose scores increased; males whose scores decreased; and males whose

scores remained unchanged. This same procedure was done for Total Score and the six cluster scores. To check change patterns, summary tables were constructed to illustrate an overview of percentages in each category by grade level and dimension (Total Score and cluster scores).

CHAPTER IV

Results

A breakdown analysis (means and standard deviations) by grade and gender was the first procedure completed after which t-tests were computed. Significant differences were found for Total Score ($p<.052$) and for the cluster score of Physical Appearance and Attributes ($p<.037$). The second preliminary analysis, a one-way ANOVA for gender and Total Score (1985); gender and Total Score (1986); grade and Total Score (1985); and grade and Total Score (1986) reflected significant main effects for gender and Total Score (1986) [$F(1,326)=4.288$, $p<.041$] and grade and Total Score (1985) [$F(3,324)=5.339$, $p<.001$].

Since significant differences were found in these preliminary investigations, a two-way ANOVA was next computed. (See Appendix C). Significant main effects for grade [$F(7,320)=4.449$, $p<.004$] and gender [$F(7,320)=4.972$, $p<.026$] were found for Total Score comparisons. There was no interaction. Based on these findings, Ho_1 was rejected. Post hoc contrast analyses revealed significant differences between groups 1 (kindergarten, first) and 2 (second, third) ($p<.001$); groups 1 (kindergarten, first) and 4 (seventh-ninth); and groups 2 (second, third) and 3 (fourth-sixth) ($p<.008$). (See Appendix C). Means of the males increased nearly three points while females decreased slightly.

Looking at the cluster score of Behavior, there were no main effects for gender and no interaction; however, a significant main effect for grade [$F(7,320=8.092$, $p<.001$] was found. Ho_2 was rejected. Analysis of the contrast post hoc tests showed significant differences between groups

1 (kindergarten, first) and 2 (second, third) ($p<.001$); groups 1 (kindergarten, first) and 3 (fourth-sixth) ($p<.014$); groups 1 (kindergarten, first) and 3 (fourth-sixth) ($p<.014$); groups 1 (kindergarten, first) and 4 (seventh-ninth) ($p<.003$) and groups 2 (second, third) and 3 (fourth-sixth) ($p<.008$).

No gender or interaction effects were found in the cluster score of Intellectual and School Status. A significant grade main effect [$F(7,320)=6.307$, $P<.001$] was found. Ho_3 was rejected. Post hoc analyses found significant differences between groups 1 (kindergarten, first) and 2 (second, third ($p<.001$); groups 2 (second, third) and 3 (fourth-sixth) ($p<.001$) and groups 2 (second,third) and 4 (seventh-ninth) ($p<.021$).

The next cluster score to be examined was Physical Appearance and Attributes. This dimension had a significant gender main effect [$F(7,320)=4.311$, $p<.039$] but no main effect for grade and no interaction. Ho_4 was rejected.

Anxiety, the next cluster score to be studied, had a significant main effect for grade [$F(7,320)=6.194$, $p<.001$] and no gender main effect and no interaction. Ho_5 was rejected. Post hoc contrast comparisons (LSD method) showed significant differences in most of the the groups - groups 1 (kindergarten, first) and 2 (second, third) ($p<.001$); groups 1 (kindergarten, first) and 3 (fourth-sixth) ($p<.050$); groups 1 (kindergarten, first) and 4 (seventh-ninth) ($p< .041$); groups 2 (second, third) and 3 (fourth-sixth) ($p<.010$); and groups 2 (second, third) and 4 (seventh-ninth) ($p<.019$).

A main effect for grade [$F(7,320)=2.694$, $p<.046$] was found for the cluster score of Popularity; however no main effect for gender was found

and no interaction. Ho_6 was rejected. Post hoc analyses revealed differences in groups 1 (kindergarten, first) and 2 (second, third) ($p<.039$) and groups 2 (second, third) and 3 (fourth-sixth) ($p<.007$).

The last cluster score to be examined was Happiness and Satisfaction. No main effects for either grade or gender and no interactions were found. Ho_7 failed to be rejected.

To learn the extent and direction of score changes for individuals over a one year period of time, attention was redirected from "inter" to "intra" differences. Table 2 reflects percentages of subjects in the study by gender who increased or decreased over the standard error of measurement (See Chapter III for SEM description). The first number is the percentage of individuals in that category (i.e. females who had a score increase) compared to the number of individuals in the entire population of subjects (N=328). The second number (in parentheses) is the actual number of individuals in that category. Males increased more than females in Total Score and in four of the six cluster scores - Behavior, Intellectual and School Status, Physical Appearance and Attributes and Popularity. Females increased more than males in the cluster score of Anxiety and both genders were equal on the cluster score of Happiness and Satisfaction. Females had more decrease on every dimension except Behavior in which males and females were the same.

If one combines increases and decreases (to note change that occurred regardless of direction) one discovers that more change occurred in Total Score than any cluster score. Of the cluster scores, Physical Appearance and Attributes had a greater percentage of

TABLE 2

INCREASES, DECREASES AND "NO CHANGE" FOR FEMALES AND MALES ON THE PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE: TOTAL SCORE AND SIX CLUSTER SCORES

	FEMALES						MALES					
	(+)		(-)		(NC)		(+)		(-)		(NC)	
DIMENSION	%	#	%	#	%	#	%	#	%	#	%	#
Total Score	17	(57)	14	(47)	18	(60)	19	(62)	12	(38)	20	(64)
Behavior	12	(38)	11	(36)	27	(90)	16	(54)	11	(35)	23	(75)
Intellectual & School Status	11	(35)	10	(320	30	(97)	13	(43)	8	(26)	29	(95)
Physical Appearance & Attributes	15	(48)	14	(46)	21	(70)	17	(56)	11	(37)	22	(71)
Anxiety	16	(51)	12	(40)	22	(73)	14	(47)	10	(33)	26	(84)
Popularity	11	(37)	12	(39)	27	(88)	15	(48)	10	(33)	25	(83)
Happiness & Satisfaction	11	(35)	11	(35)	28	(92)	11	(36)	7	(23)	33	(107)

change (57%) followed by Anxiety (52%), Behavior (50%), Popularity (48%), Intellectual and School Status (42%) and Happiness and Satisfaction (48%).

Figure 2 displays percentages of Piers-Harris Total Score by grade of individuals in each category - females whose scores increased over the SEM, females whose scores decreased over the SEM, females whose scores remained unchanged, males whose scores increased over the SEM, males whose scores decreased over the SEM, and males whose scores remained unchanged. Fifth grade females had the most change - 46% in the positive direction and 17% in the negative direction. Males in kindergarten (34%), first grade (34%), and eighth grade (33%) had large percentages of increased scores. Females in ninth grade (26%) and third grade (24%) had large percentages of decrease.

Figure 3 shows percentage of increases, decreases and no change on the Piers-Harris dimension of Behavior. Again kindergarten males (34%), first grade males (37%), fourth grade males (25%) and eighth grade males (25%) had large percentages of increase. Third grade females with 22% of the third grade class had the largest percentage decrease. Fourth grade females had no increase and fifth grade females had no decrease. Seventy-one percent of fifth graders had no change at all in this dimension.

The dimension of Intellectual and School Status is depicted in Figure 4. Fifth grade females had the largest percentages of increase (38%) followed by kindergarten males with 29% increase. Third grade females (22%) and fourth grade males (19%) had the most negative change. There was more unchanged than changed in this dimension. Only kindergarteners and fifth graders had more change than "no change."

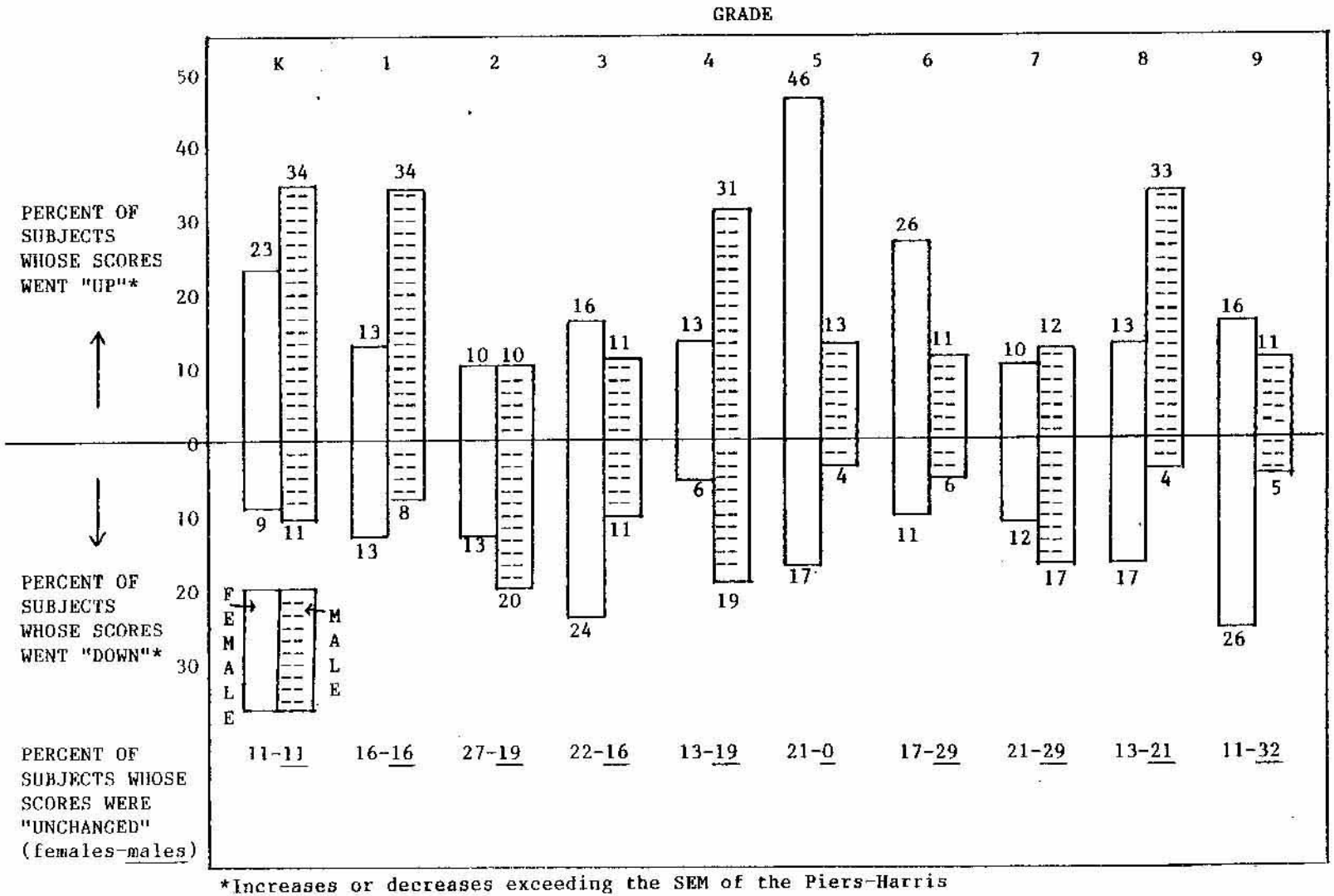


Figure 2. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Total Score" Self-esteem Scores by Grade and Gender

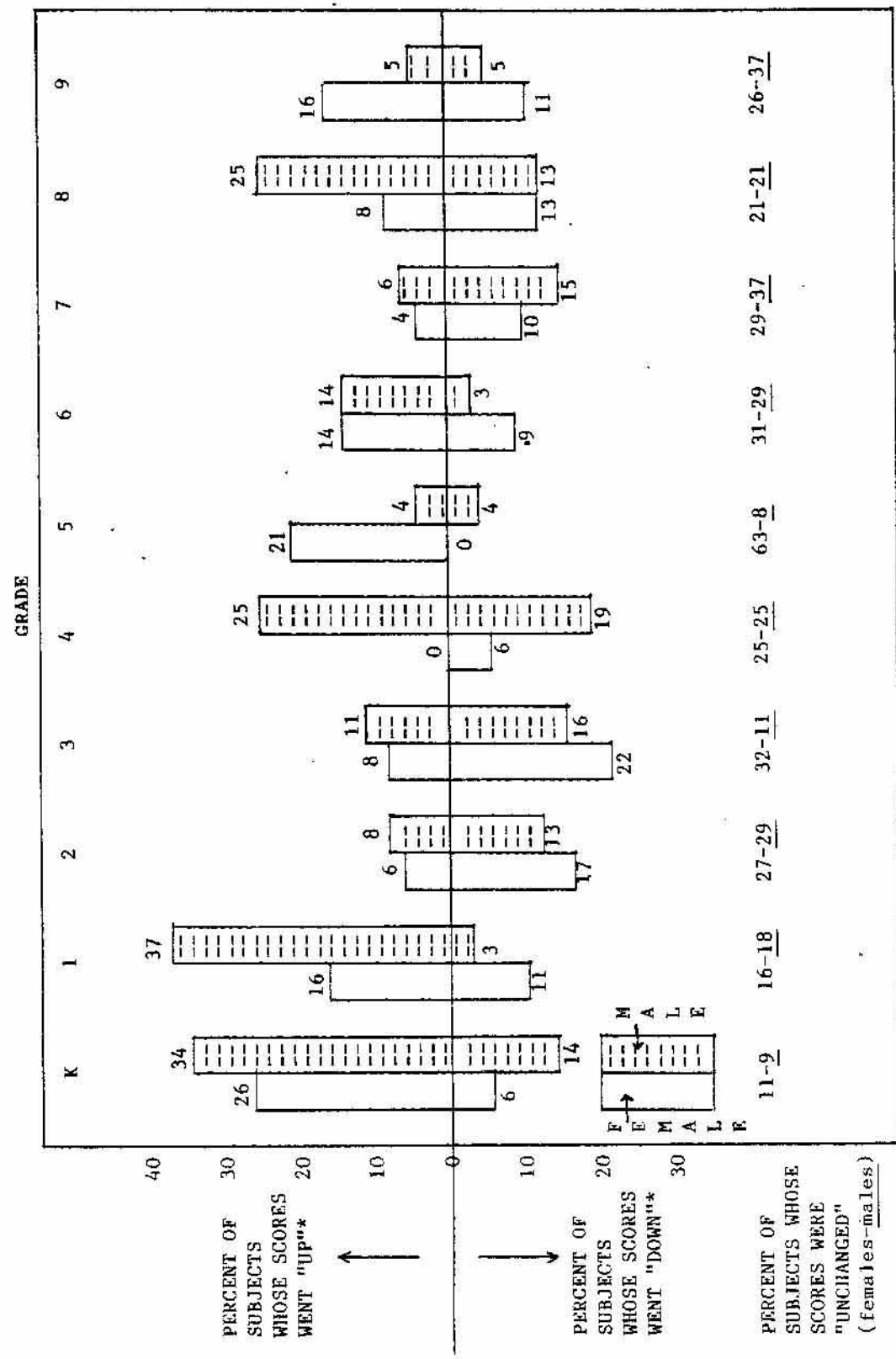


Figure 3. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Behavior" Self-esteem Scores by Grade and Gender

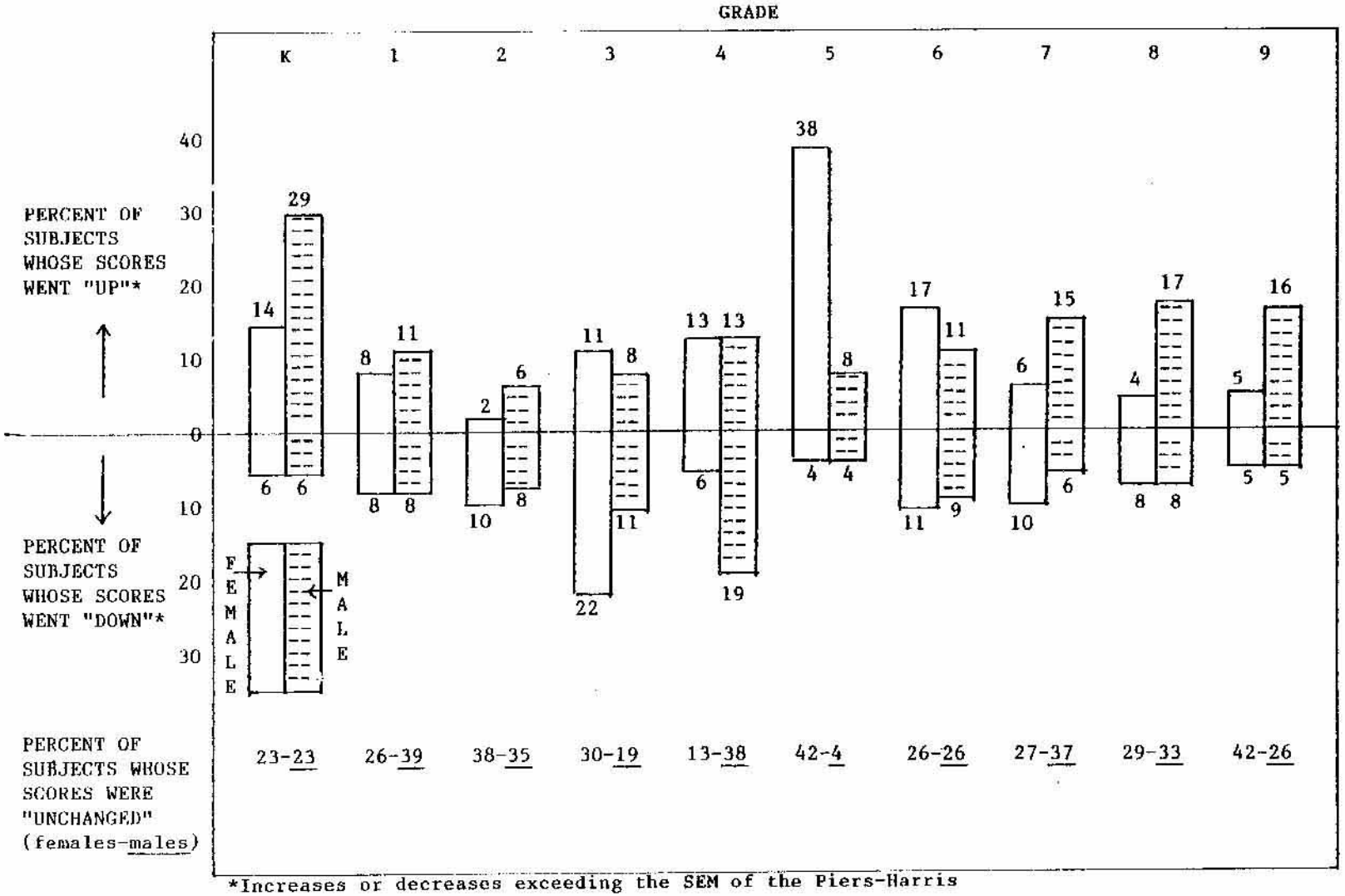


Figure 4. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Intellectual and School Status" Self-esteem Scores by Grade and Gender

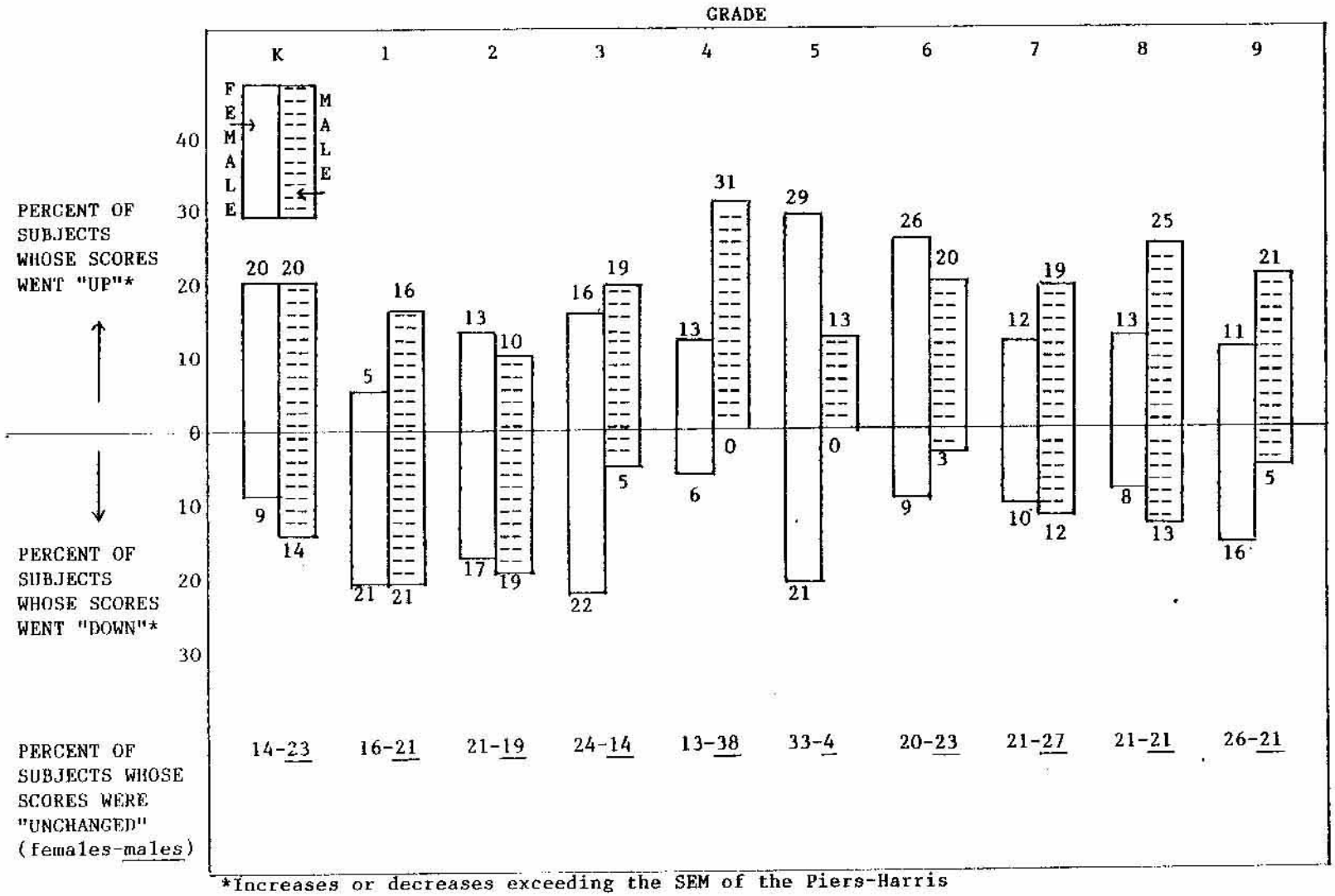
Figure 5, Physical Appearance and Attributes scores, had more change than the other cluster scores. Again, fourth grade males (31%) and fifth grade females (29%) had the largest percentage increases. Third grade females (22%) and fifth grade females (21%) and first graders of both genders (21% each) had largest percentages of score changes in the negative direction. Fourth and fifth grade males had no negative change on this dimension.

Data from the Anxiety subscore is given in Figure 6. Fourth grade males had the most change in this dimension - 31% increased scores and 19% decreased scores. Kindergarten males (29%) and fifth grade females (29%) also had large percentage of score increases. Males in fifth and eighth grades had no decrease. Second and third graders, as classes, had more decreased scores than increased scores.

Changes in the Popularity cluster score are shown in Figure 7. Fourth grade males again had the most score change, 31% in the positive direction and 13% in the negative direction. Kindergarten males (26%), first grade males (24%) and fifth grade females (29%) all had large percentages of increase of scores in this dimension. Second graders had the most negative change, 19% for both genders.

The last dimension of the Piers-Harris, Happiness and Satisfaction, had the least amount of score change when compared to all the other cluster scales. (See Figure 8). Only kindergarten males had a large percentage of increase (29%). Second grade females (19%) and fourth grade males (19%) had largest percentage of score decreases. Males in third, fifth, sixth, eighth, and ninth grade had no decrease at all.

Data from Figures 3-8 has been summarized in Tables 3 and 4. Table



*Increases or decreases exceeding the SEM of the Piers-Harris

Figure 5. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Physical Appearance and Attributes" Self-esteem Scores by Grade and Gender

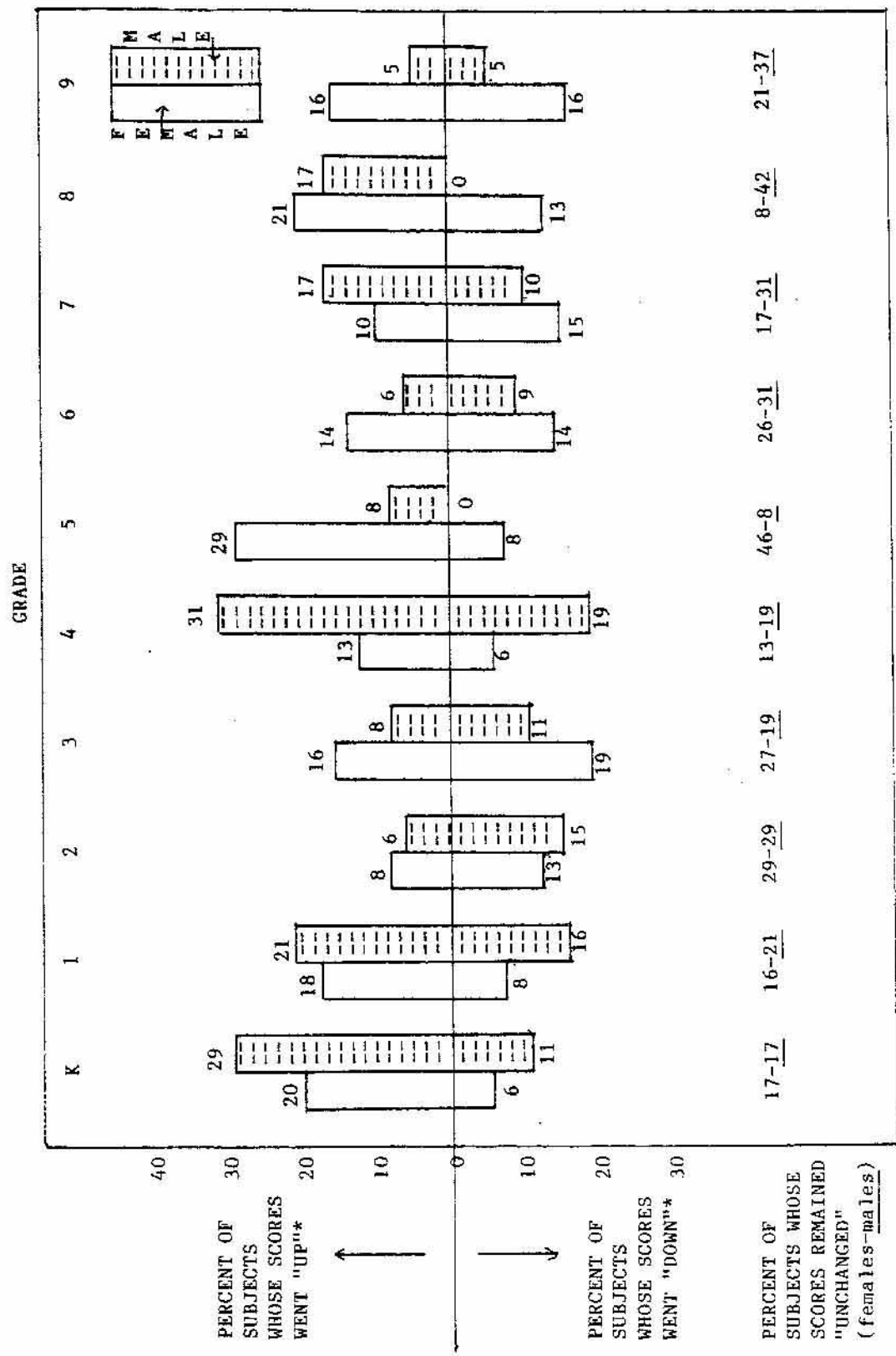


Figure 6. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Anxiety" Self-esteem Scores by Grade and Gender

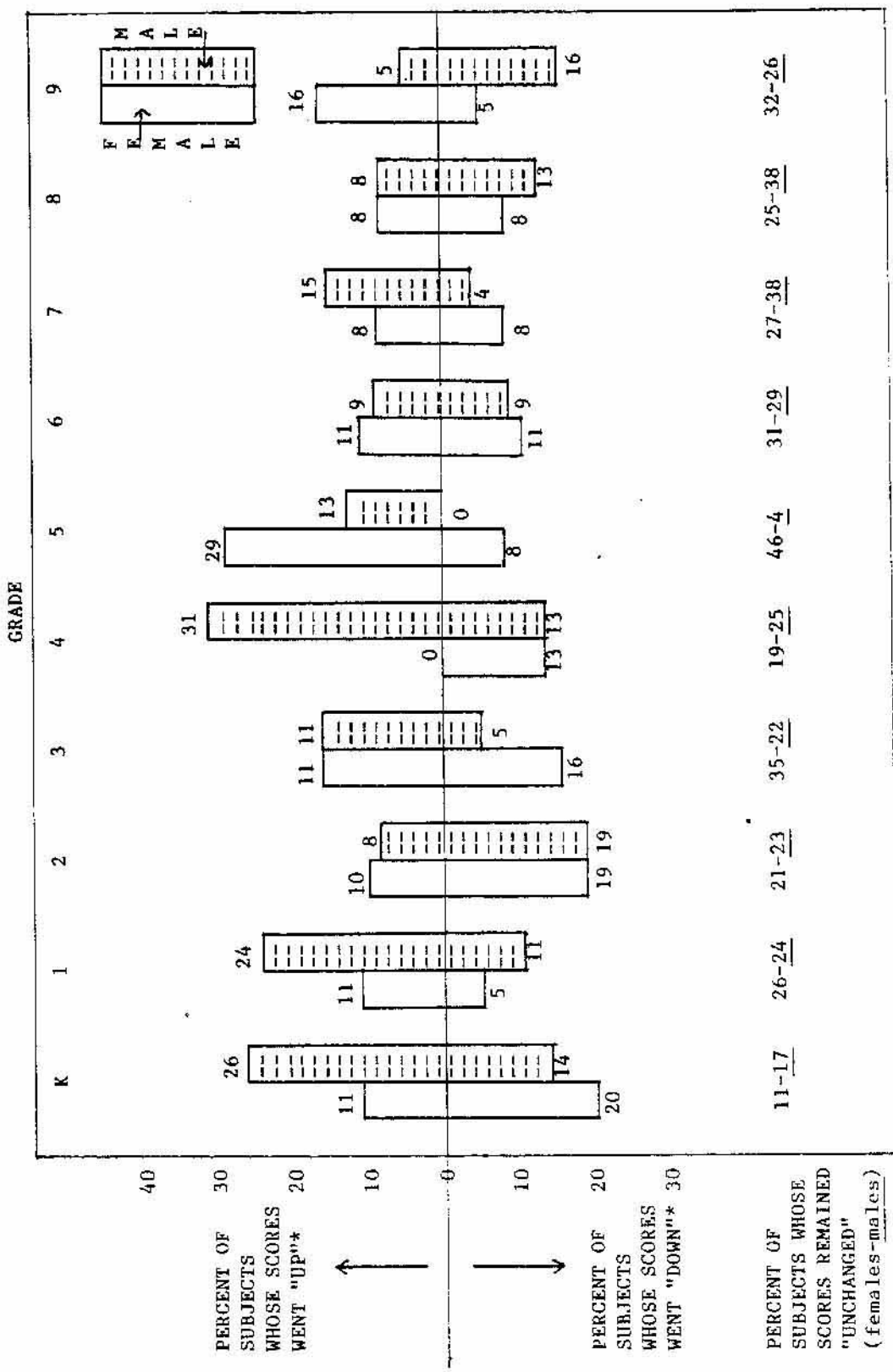


Figure 7. Percentage of Subjects with Increases, Decreases, and No Change in Piers-Harris "Popularity" Self-esteem Scores by Grade and Gender

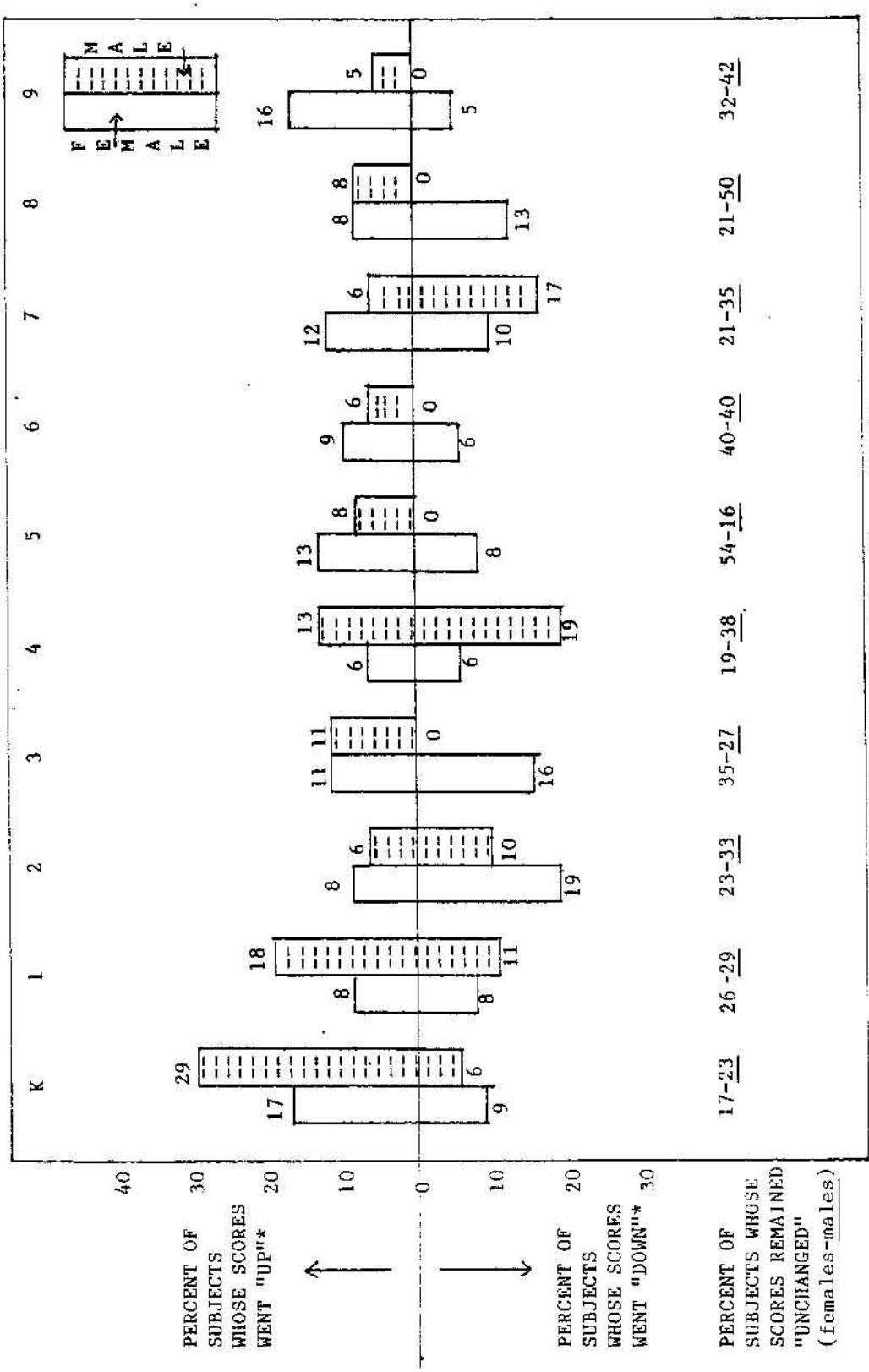


Figure 8. Percentage of Subjects with Increases, Decreases and No Change in Piers-Harris "Happiness and Satisfaction" Self-esteem Scores by Grade and Gender

TABLE 3

SUMMARY OF INCREASES (%) BY
GENDER, GRADE LEVEL AND PIERS-HARRIS DIMENSIONS

	T.S.		BEH.		I/SS		PA/A		ANX.		POP.		H/S	
GRADE	F	M	F	M	F	M	F	M	F	M	F	M	F	M
K	23*	34*	26*	34*	14	29*	20*	20*	20*	29*	11	26*	17	29*
1	13	34*	16	37*	8	11	5	16	18	21*	11	24*	8	18
2	10	10	6	8	2	6	13	10	8	6	10	8	8	6
3	16	11	8	11	11	8	16	19	16	8	11	11	11	11
4	13	31*	0	25*	13	13	13	31*	13	31*	0	31*	6	13
5	46*	13	21*	4	38*	8	29*	13	29*	8	29*	13	13	8
6	26*	11	14	14	17	11	26*	20*	14	6	11	9	9	6
7	10	12	4	6	6	15	12	19	10	17	8	15	12	6
8	13	33*	8	25*	4	17	13	25*	21*	17	8	8	8	8
9	16	11	16	5	5	16	11	21*	16	5	16	5	16	5

*Increases in 20% of subjects or more

TABLE 4

SUMMARY OF DECREASES (%) BY
GENDER, GRADE LEVEL AND PIERS-HARRIS DIMENSIONS

	T.S.		BEH.		I/SS		PA/A		ANX.		POP.		H/S	
GRADE	F	M	F	M	F	M	F	M	F	M	F	M	F	M
K	9	11	6	14	6	6	9	14	6	11	20*	14	9	6
1	13	8	11	3	8	8	21*	21*	8	16	5	11	8	11
2	13	20*	17	13	10	8	17	19*	13	15	19*	19*	19*	10
3	24*	11	22*	16	22*	11	22*	5	19*	11	16	5	16	0
4	6	19*	6	19*	6	19*	6	0	6	19*	13	13	6	19*
5	17	4	0	4	4	4	21*	0	8	0	8	0	8	0
6	11	6	9	3	11	9	9	3	14	9	11	9	6	0
7	12	17	10	15	10	6	10	12	15	10	8	4	10	17
8	17	4	13	13	8	8	8	13	13	0	8	13	13	0
9	26*	5	11	5	5	5	16	5	16	5	5	16	5	0

*Decreases in 19% of subjects or more

3 illustrates a global view of increases which occurred in each dimension by grade level and gender. Percentages of 20% or more have been noted (*) to show patterns of change. As noted previously, change occurred for kindergarteners on every dimension. First grade males continued to have an increase in Total Score (34%) and in the cluster scores of Behavior (37%), Anxiety (21%) and Popularity (24%). Second and third graders had only small percentages of score increases. Fourth grade males had large percentage of score increases in all areas except Intellectual and School Status and Happiness and Satisfaction. These were Total Score (31%), Behavior (25%), Physical Appearance and Attributes (31%), and Popularity (31%). Fourth grade females, on the other hand, had no increase in Behavior and Popularity scores and small percentage of score increases in the other cluster scales.

The trend of increased scores shifted from males in fourth grade to females in fifth grade. A large percentage of females in fifth grade increased scores in nearly all dimensions - Total Score (46%), Behavior (21%), Intellectual and School Status (38%), Physical Appearance and Attributes (29%), Anxiety (29%), and Popularity (29%). In sixth grade large percentage of score increases occurred only in Total Score for females (26%) and Physical Appearance and ATtributes for both genders (26% for females and 20% for males). Seventh graders had small percentage of score increases on every dimension. Eighth grade males had more large score increases - Total Score (33%), Behavior (33%), and Physical Appearance and Attributes (25%) with females increasing 21% in the Anxiety cluster score and small percentage of score increases in the other subscales. Ninth grade males increased 21% in Physical Appearance and Attributes.

All other increases were small for ninth graders, both male and female.

Table 4 offers the same summary information as Table 3 except percentage of subjects having score decreases are noted. Kindergarteners had only one large decrease in scores which was in the dimension of Popularity (females with 20%). First graders, male and female, had large percentage of negative change only in the dimension of Physical Appearance and Attributes, each with 21%. Second graders had large score decreases in Total Score (males only with 20%); Physical Appearance and Attributes (males, 19%); both genders in the cluster score of Popularity (19% for both) and females in Happiness and Satisfaction (19%). Only third grade females had a large percentage of subjects with score decreases. These were in Total Score (24%) and the cluster scores of Behavior (22%), Intellectual and School Status (22%), Physical Appearance and Attributes (22%) and Anxiety (19%). Males in fourth grade had large percentage of decreased scores - Total Score (19%), Behavior (19%) and Happiness and Satisfaction (19%). Fifth graders had very little decrease over all the dimensions. Although 21% of fifth grade females had Physical Appearance and Attributes cluster score decrease, there was no score decrease in the subscale of Behavior for females and no score decrease among males in the areas of Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction. Little decrease of scores occurred in sixth, seventh, and eighth graders. Only ninth grade females had one large percentage of score decrease in the area of Total Score (26%). Ninth grade males had very little decrease in scores.

CHAPTER V

Discussion

In this study, gender and grade were statistically independent in that there were no gender by grade interactions.

Wylie (1979) argued that there was no convincing support for gender effects in global self-concept. Osborne and LeGette (1982) using the Piers-Harris instrument found no gender differences in Total Score and Marotz (1983) and Montemayor and Eisen (1977) had the same findings using other instruments. The first part of this study supports the previous findings of no gender differences in global self-esteem (Total Score); however, one cluster score, Physical Appearance and Attributes, had gender differences. Marsh, Parker and Barnes (1985) found gender differences in Physical Appearance as did Osborne and LeGette (1982).

However, different conclusions can be drawn from the second part of this study - the "intra" investigations. By looking at Figures 2-8, we have seen that, indeed, there is much evidence of gender differences. These differences at times favor males and at times favor females which cancel each other out when scores are summed across specific scales and specific grades.

In this study, the most striking difference between genders was in fourth and fifth grade. These two classes did have a disportionate ratio of males and females (fourth grade - 11 males, 5 females; fifth grade - 5 males, 16 females) which might account for some of the difference. However, the gender with the large increases (males in fourth and females in fifth) was not the gender with proportionally

fewer members in the class and since percentages were used comparing one category to the whole class (i.e. females who increased scores compared to the number of class members) these percentages may, in fact, be giving us some real information about gender differences in this developmental phase of students.

Both genders of kindergarteners had large percentages of students with score increases, and this upward trend continued in the first grade males. This phenonemon may be accounted for by later maturing of males in these early years.

Wylie (1979) argued that there was no convincing support for age effects. This study does not support her statement as grade level main effects were found in four of the six cluster scores as well as Total Score. Study of the contrast analyses revealed the most change between groups 1 and 2 and between groups 2 and 3.

Review of the means (Appendix B) shows that self-esteem scores for group 1 increased on all dimensions, group 2 decreased on all dimensions and group 3 increased on all dimensions except Intellectual and School Status.

The period of development between groups 1 and 2 would be between first and second grade or age 6 for most students. This period closely corresponds with Piaget's cognitive development theory (Gerow, 1986) in which there is a switch from preoperational thinking to concrete operational thinking. Also Erik Erikson's theory of psychosocial development (Gerow, 1986) projects movement from the stage of "inititative vs guilt" to the next stage of "competence vs inferiority" at about age six (or first grade for most students). It would seem that the

stage of "initiative vs guilt" would set the stage for future positive self-esteem. If the child has gained initiative and feels she or he can be successful in most of her or his undertakings, positive self-esteem would logically follow. Gergen (1971) and McGuire (1979) have posited that self-concept is developed by age five and that it remains basically constant while self-esteem is developed later and vacillates according to the success or failure the individual encounters daily. The school experience is a big step into the world for youngsters and this could explain the movement at this stage - some have completed the "initiative vs guilt" stage of development successfully and are then able to move to experiences in an expanded world and do so successfully thus moving into "competence vs inferiority" and claiming competency and positive self-esteem. Others who have not completed the stage of "initiative vs guilt" successfully do not fare as well and may be headed for "inferiority" and thus negative self-esteem. The implications here are that educators should make every effort to make the school experience in these first two years a success experience for every child.

The period of development between groups 2 and 3 is between third and fourth grades. It appears from review of the means that this group (fourth - sixth) recovers in all areas except Intellectual and School Status. This could be accounted for in that children in these upper primary grades are beginning to have an expanded community life, scouting, little league sports, dance and music lessons, bicycle and skate board stunt riding, etc. Their worlds have grown beyond the school experience and have afforded them opportunity for success in other fields. The

fact that students seem to have a downward trend of self-esteem in the school setting has been mentioned in numerous other studies (e.g. Benenson & Dweck, 1986; Eshel & Klein, 1981; Larned & Muller, 1979; Velasco-Barraza & Muller, 1982). It seems youngsters are more able to gather postive self-esteem experiences in areas other than school. Implications for educators again would be to develop a system of instruction where success for all students is the goal (i.e. mastery learning).

The research from which the second part of this study was modeled was done by Susan Harter (1983). Her subjects were fifth and sixth graders and she tested in two domains - academic and social. In the academic domain, fifth graders increased more than sixth graders; sixth graders decreased more than fifth graders. In the social domain, fifth and sixth graders were nearly equal in increases and sixth graders decreased more than fifth graders. In this present study, fifth graders increased more in both domains - Intellectual and School Status (academic) and Popularity (social) and sixth graders decreased more than fifth graders in both dimensions. Three of the four categories had similar findings.

Limitations of the Study Addressed

Many studies have been done to find the reliability and validity of the Piers-Harris Children's Self-concept Scale. While the reliability of the instrument seems to be generally accepted, questions are raised about the validity, as often happens with personality assessments. Shavelson, Hubner and Stanton (1976) and Wiley (1974) have suggested that researchers have attempted substantive studies of self-concept/self-esteem before the

problem of measurement have been adequately solved. Erwin and Lipka (1987) suggested that self-esteem can better be measured with open-ended self-report methodology.

The authors of the Piers-Harris are careful to note in their manual the limitations of their instrument. It was designed primarily for research purposes and is useful on an individual basis as part of a test battery in clinical and counseling settings. The manual (Piers, 1984) states "the ultimate responsibility for its use and interpretation should be assumed by a professional with advanced training in psychological testing," (p. 3) and "Proper use of the test also assumes that the individual user will confer with outside consultants and referral sources as needed." (p. 4). Perhaps, the Piers-Harris loses validity when administered in a group, classroom setting.

The second limitation of the study was the accuracy of the scoring of the instruments. Since the tests were not machine scored, the accuracy of scoring was considered to be a possible confounding factor. Ten percent of the tests (33 from 1985 and 33 from 1986) were chosen randomly and rescored. Accuracy of scoring was found to be 95% correct.

The truthfulness of responses or response instability was another potential problem. Stewart, Crump and McLean (1979) addressed this issue in a study using the Piers-Harris Children's Self-concept Scale with students identified with learning disorders. They concluded that response instability was more likely with individuals with lower self-esteem. They found this to be true in both elementary and junior high students.

Another possible confounding variable is the reading ability of the

younger students. Mann (1984) interviewed third graders after they completed the test and asked the students to explain the meaning of each statement. Findings indicated that 43 of the 80 Piers-Harris Children's Self-concept Scale statements were misinterpreted as evidenced by the students' oral responses. Although students were encouraged to ask questions about statements or words they did not understand, they may not have realized that they did not understand what they were reading.

The test is read to younger children. Bridgeman and Shipman (1978) speculated that for these very young children the self-esteem instrument may be measuring the cognitive ability to respond to the survey rather than self-esteem, as scores correlated more highly with later academic achievement than with later self-esteem.

Testing or practice effect may be another confounding element although probably less likely in a group, paper and pencil test than a personal interview format. As Damon and Hart (1986) stated, "It seems likely that the very process of interviewing children and adolescents about the self could trigger a more psychological focus during future interview occasions." Similarily, Gergen (1965) demonstrated that self-reflection can indeed alter a subject's subsequent self-ratings.

Future Investigations

Data presented in this study provides direction for further research. There is a need for more investigation of the components of self-esteem. Gender differences in all grades, but especially in fourth and fifth graders, would be interesting to study again, as would age differences with a special focus on the developmental age of six. Findings from subsequent studies, when compared with findings from this

study, would give more conclusive evidence to these findings. If particular developmental stages can be defined, programs for enhanced self-esteem can be targeted toward these various age groups.

A correlational study of mastery learning and self-esteem, especially at the developmental stages mentioned in this paper would be interesting.

All analyses done in this study could be repeated with another year's data (December, 1987), thus beginning a longitudinal study. (A cross-sectional study could be done as well). More sophisticated analyses could be done with the "intra" data.

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APPENDIX A

Table A-1
STANDARD ERRORS OF MEASUREMENT FOR
PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE

Scale	No. of Items	SEM
Total Score	80	4.39
Behavior	16	1.40
Intellectual and School Status	17	1.67
Physical Appearance and Attributes	13	1.49
Anxiety	14	1.49
Popularity	12	1.38
Happiness and Satisfaction	10	1.06

STATEMENTS FROM PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE

Behavior

I am well behaved in school.
It is usually my fault when something goes wrong.
I cause trouble to my family.
I am good in my school work.
I do many bad things.
I behave badly at home.
I often get into trouble.
I am obedient at home.
My parents expect too much of me.
I hate school.
I am often mean to other people.
I get into a lot of fights.
My family is disappointed in me.
I am picked on at home.
I think bad thoughts.
I am a good person.

Intellectual and School Status

I am smart.
I get nervous when the teacher calls on me.
When I grow up, I will be an important person.
I am well behaved in school.
I have good ideas.
I am an important member of my family.
I am good in my school work.
I am slow in finishing my school work.
I am an important member of my class.
I can give a good report in front of the class.
In school I am a dreamer.
My friends like my ideas.
I often volunteer in school.
My classmates in school think I have good ideas.
I am dumb about most things.
I forget what I learn.
I am a good reader.

Physical Appearance and Attributes

I am smart.
My looks bother me.
I am strong.
I have pretty eyes.
My friends like my ideas.
I have nice hair.
My classmates in school think I have good ideas.
I am good-looking.
I am popular with boys.
I have a pleasant face.
I am a leader in games and sports.
I am popular with girls.
I have a good figure.

STATEMENTS FROM PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE

Anxiety

I am often sad.
I am shy.
I get nervous when the teacher calls on me.
My looks bother me.
I get worried when we have tests in school.
I give up easily.
I am nervous.
I worry a lot.
I like being the way I am.
I feel left out of things.
I wish I were different.
I am unhappy.
I am often afraid.
I cry easily.

Popularity

My classmates make fun of me.
It is hard for me to make friends.
I am shy.
I am unpopular.
I feel left out of things.
I am among the last to be chosen for games.
My classmates in school think I have good ideas.
I have many friends.
People pick on me.
In games and sports I watch instead of play.
I am popular with girls.
I am different from other people.

Happiness and Satisfaction

I am a happy person.
My looks bother me.
I am lucky.
I like being the way I am.
I wish I were different.
I am unhappy.
I am cheerful.
I have a pleasant face.
I am easy to get along with.
I am a good person.

APPENDIX B

TABLE B-1
BREAKDOWN ANALYSIS: TOTAL SCORE
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	51.94	58.77	10.80	12.81	35
First	58.42	61.18	9.41	13.10	38
Second	62.98	61.29	11.48	14.78	48
Third	62.62	60.32	9.62	12.48	37
Fourth	56.56	58.00	13.94	14.25	16
Fifth	57.75	63.17	13.09	13.76	24
Sixth	62.57	64.17	12.15	13.80	35
Seventh	61.12	60.10	12.28	12.20	52
Eighth	58.00	59.04	9.78	14.44	24
Ninth	58.21	61.63	16.66	10.42	19

* Grade of student in 1985

TABLE B-2
BREAKDOWN ANALYSIS: TOTAL SCORE
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	59.63	59.36	12.05	14.25	164
Males	59.48	62.34	12.03	11.91	164

TABLE B-3
BREAKDOWN ANALYSIS: BEHAVIOR
GRADE

	Mean		S.D.		N
Grade*	1985	1986	1985	1986	
Kindergarten	10.63	12.23	2.77	3.09	35
First	11.50	12.95	3.04	3.00	38
Second	13.38	12.56	2.43	3.09	48
Third	13.68	12.78	2.47	2.84	37
Fourth	12.88	12.38	2.76	3.74	16
Fifth	13.42	14.46	2.43	2.11	24
Sixth	13.88	13.94	2.76	3.48	35
Seventh	13.08	12.62	2.91	3.28	52
Eighth	12.96	12.88	2.57	3.17	24
Ninth	12.95	14.11	3.50	1.88	19

*Grade of student in 1985

TABLE B-4
BREAKDOWN ANALYSIS: BEHAVIOR
GENDER

	Mean		S.D.		N
Gender	1985	1986	1985	1986	N
Females	13.23	13.15	2.85	3.18	164
Males	12.43	12.84	2.95	2.99	164

TABLE B-5
BREAKDOWN ANALYSIS: INTELLECTUAL AND SCHOOL STATUS
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	11.66	13.34	2.83	3.21	35
First	13.47	14.24	2.04	2.80	38
Second	14.40	13.17	2.68	3.54	48
Third	13.76	12.87	2.53	3.59	37
Fourth	11.63	11.44	4.82	4.52	16
Fifth	11.63	13.38	4.22	4.22	24
Sixth	12.77	13.40	3.49	3.39	35
Seventh	12.60	12.56	3.99	3.65	52
Eighth	12.13	12.29	3.15	3.50	24
Ninth	12.32	12.95	3.40	3.01	19

*Grade of student in 1985

TABLE B-6
BREAKDOWN ANALYSIS: INTELLECTUAL AND SCHOOL STATUS
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	12.98	12.92	3.33	3.67	164
Males	12.71	13.20	3.40	3.38	164

TABLE B-7
BREAKDOWN ANALYSIS: PHYSICAL APPEARANCE AND ATTRIBUTES
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	8.94	10.14	2.75	2.68	35
First	10.00	9.45	2.56	2.29	38
Second	9.90	9.38	2.74	3.55	48
Third	8.65	9.08	3.13	3.29	37
Fourth	7.25	8.25	3.42	4.42	16
Fifth	7.67	8.83	4.14	3.47	24
Sixth	8.37	9.66	4.13	3.56	35
Seventh	8.50	8.77	3.62	3.69	52
Eighth	8.17	8.50	2.99	3.65	24
Ninth	8.79	9.05	4.40	3.98	19

*Grade of student in 1985

TABLE B-8
BREAKDOWN ANALYSIS: PHYSICAL APPEARANCE AND ATTRIBUTES
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	8.77	8.81	3.40	3.52	164
Males	8.82	9.57	3.41	3.25	164

TABLE B-9
BREAKDOWN ANALYSIS: ANXIETY
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	8.43	9.89	3.56	3.64	35
First	9.58	10.87	3.01	2.46	38
Second	11.42	10.79	3.25	3.44	48
Third	10.87	10.05	2.83	3.14	37
Fourth	10.31	10.88	2.75	2.66	16
Fifth	10.08	11.08	2.75	3.11	24
Sixth	10.46	10.34	3.37	3.44	35
Seventh	10.12	10.14	3.43	3.41	52
Eighth	9.63	10.54	3.50	3.64	24
Ninth	10.05	10.42	4.02	3.01	19

*Grade of student in 1985

TABLE B-10
BREAKDOWN ANALYSIS: ANXIETY
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	9.52	3.42	3.42	3.45	164
Males	10.79	3.11	3.11	2.76	164

TABLE B-11
BREAKDOWN ANALYSIS: POPULARITY
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	7.43	7.51	2.60	2.39	35
First	7.84	8.61	1.97	2.19	38
Second	8.79	8.23	2.56	2.90	48
Third	8.81	8.62	1.85	2.47	37
Fourth	8.13	9.25	2.63	2.35	16
Fifth	8.29	9.63	2.93	2.46	24
Sixth	9.03	9.06	2.24	2.77	35
Seventh	8.89	9.10	2.69	2.55	52
Eighth	8.96	8.71	2.37	2.65	24
Ninth	8.42	8.63	3.22	2.75	19

*Grade of student in 1985

TABLE B-12
BREAKDOWN ANALYSIS: POPULARITY
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	8.47	8.41	8.47	2.83	164
Males	8.53	8.95	2.46	2.30	164

TABLE B-13
BREAKDOWN ANALYSIS: HAPPINESS AND SATISFACTION
GRADE

	Mean		S.D.		
Grade*	1985	1986	1985	1986	N
Kindergarten	7.31	8.31	1.75	1.95	35
First	8.05	8.40	1.61	1.94	38
Second	8.46	8.15	1.83	2.18	48
Third	8.35	8.65	1.70	1.75	37
Fourth	7.69	8.00	1.78	2.50	16
Fifth	8.50	8.63	1.84	2.00	24
Sixth	8.34	8.34	1.45	1.98	35
Seventh	8.17	8.02	1.89	2.03	52
Eighth	8.04	8.13	1.88	2.29	24
Ninth	7.74	8.42	3.09	1.64	19

*Grade of student in 1985

TABLE B-14
BREAKDOWN ANALYSIS: HAPPINESS AND SATISFACTION
GENDER

	Mean		S.D.		
Gender	1985	1986	1985	1986	N
Females	8.10	8.09	1.84	2.10	164
Males	8.12	8.49	1.90	1.89	164

APPENDIX C

TABLE C-1

ANOVA SUMMARY: TOTAL SCORE

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	1894.00	3	631.33	4.45	.004
B (Gender)	705.52	1	705.52	4.97	.026
AB (Interaction)	226.50	3	75.50	0.53	.661
Error (Residual)	45407.93	320	141.90		
Total	48333.90	327	147.81		

TABLE C-2

POST HOC COMPARISONS (LSD METHOD): TOTAL SCORE

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-6.66	2.03	137.5	-3.28*
Group 1 (K,1) & Group 3 (4-6)	-1.93	2.07	137.2	-0.93
Group 1 (K,1) & Group 4 (7-9)	-4.32	2.02	139.5	-2.14**
Group 2 (2,3) & Group 3 (4-6)	4.74	1.76	155.9	2.69**
Group 2 (2,3) & Group 4 (7-9)	2.34	1.70	177.2	1.38
Group 3 (4-6) & Group 4 (7-9)	-2.40	1.75	162.4	-1.37

* $p<.001$
** $p<.05$

TABLE C-3

ANOVA SUMMARY: BEHAVIOR

SV	SS	DF	MS	F	Sig.Lev.
A (Grade Group)	217.08	3	72.36	8.09	.001
B (Gender)	11.72	1	11.72	1.31	.253
AB (Interaction)	16.07	3	5.36	0.60	.616
Error (Residual)	2861.47	320	8.94		
Total	3115.11	327	9.53		

TABLE C-4

POST HOC COMPARISONS (LSD METHOD): BEHAVIOR

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-2.37	0.52	133.6	-4.54*
Group 1 (K,1) & Group 3 (4-6)	-1.27	0.51	125.4	-2.48**
Group 1 (K,1) & Group 4 (7-9)	-1.56	0.53	138.2	-2.97**
Group 2 (2,3) & Group 3 (4-6)	1.10	0.41	158.0	2.67**
Group 2 (2,3) & Group 4 (7-9)	0.81	0.43	177.8	1.87
Group 3 (4-6) & Group 4 (7-9)	-0.30	0.42	167.9	-0.71

* $p<.001$
** $p<.05$

TABLE C-5

ANOVA SUMMARY: INTELLECTUAL AND SCHOOL STATUS

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	235.27	3	78.42	6.31	.001
B (Gender)	17.45	1	17.45	1.40	.237
AB (Interaction)	62.98	3	20.99	1.69	.169
Error (Residual)	3979.23	320	12.44		
Total	4301.63	327	13.16		

TABLE C-6

POST HOC COMPARISONS (LSD METHOD): INTELLECTUAL AND SCHOOL STATUS

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-2.29	0.56	153.1	-4.10*
Group 1 (K,1) & Group 3 (4-6)	-0.39	0.59	145.9	-0.67
Group 1 (K,1) & Group 4 (7-9)	-1.06	0.54	156.1	-1.95
Group 2 (2,3) & Group 3 (4-6)	1.09	0.57	154.0	3.33*
Group 2 (2,3) & Group 4 (7-9)	1.23	0.53	175.7	2.34**
Group 3 (4-6) & Group 4 (7-9)	-0.67	0.55	156.2	-1.20

* $p<.001$
** $p<.05$

TABLE C-7

ANOVA SUMMARY: PHYSICAL APPEARANCE AND ATTRIBUTES

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	77.35	3	25.78	2.25	.083
B (Gender)	49.47	1	49.47	4.31	.039
AB (Interaction)	22.33	3	7.44	0.65	.584
Error (Residual)	3671.92	320	11.48		
Total	3814.05	327	11.66		

TABLE C-8

POST HOC COMPARISONS (LSD METHOD): PHYSICAL APPEARANCE AND ATTRIBUTES

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-0.39	0.58	153.3	-0.68
Group 1 (K,1) & Group 3 (4-6)	0.90	0.54	139.2	1.65
Group 1 (K,1) & Group 4 (7-9)	-0.01	0.54	147.4	-0.01
Group 2 (2,3) & Group 3 (4-6)	1.29	0.53	156.7	2.46**
Group 2 (2,3) & Group 4 (7-9)	0.39	0.52	169.6	0.75
Group 3 (4-6) & Group 4 (7-9)	-0.90	0.48	165.1	-1.88

** $p<.05$

TABLE C-9

ANOVA SUMMARY: ANXIETY

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	162.67	3	54.22	6.19	.001
B (Gender)	8.77	1	8.77	1.00	.318
AB (Interaction)	15.04	3	5.01	0.57	.633
Error (Residual)	2801.17	320	8.75		
Total	2995.12	327	9.16		

TABLE C-10

POST HOC COMPARISON (LSD METHOD): ANXIETY

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-2.08	0.51	138.5	-4.05*
Group 1 (K,1) & Group 3 (4-6)	-0.98	0.50	128.0	-1.98**
Group 1 (K,1) & Group 4 (7-9)	-1.05	0.51	140.5	-2.07**
Group 2 (2,3) & Group 3 (4-6)	1.09	0.42	157.9	2.62**
Group 2 (2,3) & Group 4 (7-9)	1.02	0.43	177.2	2.36**
Group 3 (4-6) & Group 4 (7-9)	-0.07	0.41	167.7	-0.17

* $p<.001$
** $p<.05$

TABLE C-11

ANOVA SUMMARY: POPULARITY

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	52.96	3	17.65	2.69	.046
B (Gender)	18.60	1	18.60	2.84	.093
AB (Interaction)	3.40	3	1.13	0.17	.915
Error (Residual)	2096.84	320	6.55		
Total	2171.74	327	6.64		

TABLE C-12

POST HOC COMPARISONS (LSD METHOD): POPULARITY

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-0.84	0.40	148.3	-2.08**
Group 1 (K,1) & Group 3 (4-6)	0.24	0.42	145.5	0.57
Group 1 (K,1) & Group 4 (7-9)	-0.34	0.41	156.4	-0.84
Group 2 (2,3) & Group 3 (4-6)	1.08	0.39	153.6	2.75**
Group 2 (2,3) & Group 4 (7-9)	0.49	0.38	177.9	1.31
Group 3 (4-6) & Group 4 (7-9)	-0.59	0.40	162.3	-1.47

** $p<.05$

TABLE C-13

ANOVA SUMMARY: HAPPINESS AND SATISFACTION

SV	SS	DF	MS	F	SIG.LEV.
A (Grade Group)	20.12	3	6.71	1.44	.230
B (Gender)	9.72	1	9.72	2.09	.149
AB (Interaction)	6.16	3	2.05	0.44	.723
Error (Residual)	1488.01	320	4.65		
Total	1526.39	327	4.67		

TABLE C-14

POST HOC COMPARISON (LSD METHOD): HAPPINESS AND SATISFACTION

Contrast Groups	Value	S. Err.	df	T
Group 1 (K,1) & Group 2 (2,3)	-0.70	0.38	146.1	-1.87
Group 1 (K,1) & Group 3 (4-6)	-0.55	0.35	127.7	-1.57
Group 1 (K,1) & Group 4 (7-9)	-0.58	0.36	142.1	-1.61
Group 2 (2,3) & Group 3 (4-6)	0.15	0.31	155.2	0.49
Group 2 (2,3) & Group 4 (7-9)	0.12	0.32	173.9	0.37
Group 3 (4-6) & Group 4 (7-9)	-0.03	0.30	167.9	-0.11