Construct Validity of the Coopersmith Self-Esteem Inventory

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CONSTRUCT VALIDITY OF THE
COOPERSMITH SELF-ESTEEM
INVENTORY

A Thesis
Presented to
the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Brian W. Johnson
June 1982
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The purpose of this study was to add supportive evidence to the construct validity of the Coopersmith Self-Esteem Inventory (SEI). The study was conducted using the Sabers-Whitney (1976) model which investigates (a) convergent validity, (b) discriminant validity, (c) sensitivity to change, (d) internal consistency, and (e) any other factors which may contribute evidence to a measure's construct validity.

The SEI, Children's Self-Concept Scale (CSCS), and Children's Social Desirability Scale (CSDS) were administered to all fifth grade students enrolled in an elementary school within a public school district in the northeastern United States. The self-concept assessments were conducted within the students' regular classrooms by their regular classroom teachers. The Behavior Academic Self-Esteem (BASE) scale was completed for each student by his/her classroom teacher.
Multiple regression analysis was used to investigate the relationship among the SEI, CSCS, CSDS, and BASE. A stepwise procedure indicated that the CSCS and the BASE accounted for a significant amount of the SEI score variance. The relationship between the SEI and the CSDS was nonsignificant.

Multiple regression analysis was also used to investigate the sensitivity of the SEI to differences in achievement, age, and gender. Results indicated a positive relationship between achievement and self-concept. Main effects for age in months and gender were nonsignificant.

Internal consistency coefficients were established for the SEI's total score and five subscales, viz., general self, home-parents, school-academic, social self-peers, and the lie scale. The coefficients revealed that the SEI measures essentially one trait, which consists of five factors.

Intra- and inter-rater reliability coefficients were computed for the BASE using a percent agreement and average reliability coefficient respectively. The results revealed that the BASE, used by individual raters, provides a consistent observational measure over a specified period of time. The measure is also consistent across raters.
Chapter I
Introduction and Review of the Literature

Educational Goals

Historically, educational goals in America have fluctuated between a primary emphasis on academic achievement and a primary emphasis on social and affective outcomes. The emphasis on academic achievement early in the twentieth century was followed by a shift in the 1930s to comprehensive schools which emphasized social and affective growth among students (Aiken, 1942; Callahan, 1962). In 1957, the launching of Sputnik initiated a rapid and dramatic re-emphasis on academic achievements (Bruner, 1960). The current trend, with its emphasis on "humanistic" aspects of education, again, seems to be focusing on the affective aspects of education (Landry, Schilson, and Pardew, 1974).

The number of studies on self-concept is one reflection of the concern with noncognitive outcomes in American education (Coller, 1971; Cowan, Altmann, and Pysh, 1978; Franklin, Duley, Rousseau and Sabers, 1981; Purkey, 1970; Yamamoto, 1972; Zirkel, 1971). The emphasis on affective education has resulted in many efforts to increase childrens' self-concept. The emphasis on building self-concept is particularly apparent with respect to Head
Start Programs (Hoepfner, Stern, and Nummedal, 1971).

According to Zirkel (1971, p. 211)

It has become increasingly clear in the light of the school's attempt to serve the disadvantaged that the schools have a fundamental responsibility to enhance the self-concepts of their students (Clark, 1963; Marston, 1968; Tannenbaum, 1967).

The objective of enhancing the self-concepts of students has been described and prescribed for virtually all programs for the disadvantaged (Fantini and Weinstein, 1968; Gordon and Wilkerson, 1966; Smiley, 1967). Thus, improvement of a student's self-concept seems to be valued as an educational outcome in and of itself.

Relationship Between Self-Concept and Achievement

Even if self-concept per se were not valued by educators, there is empirical evidence that self-concept and academic achievement are positively correlated (Brookover, LePere, Hamachek, Thomas, and Erickson, 1965; Chang, 1976; Cole, 1974). Self-concept, then, has been valued by some educators as an outcome variable and by others as a moderator variable that helps explain achievement.

Studies of Self-Concept

Studies of self-concept typically examine (a) correlations between measures of self-concept and measures of other constructs which add evidence to the convergent qualities of the measures (Bledsoe and Garrison, 1962; Brookover et al., 1965; Coopersmith, 1967; Sears, Adunbi, Block, Crist, Gambel and Hubner, 1972), (b) differences in mean self-concept scores for purposes of enhancing
prediction of self-concept (Hishiki, 1969; Soares and Soares, 1969; Zirkel, 1971) and/or (c) changes in self-concept attributable to some treatment in order to provide evidence of the measures' sensitivity to change (Herbert, Gelfand, and Hartman, 1969; Long, Ziller, and Henderson, 1968; Ludwig and Maehr, 1967; Zirkel, 1971, 1972). Taken individually, the studies often provide insights into the factors that motivate students into alternative courses of action which may enhance self-concept, both in and out of school (Purkey, 1970; Sears, et al., 1972; Yamamoto, 1972).

Considered as a body of research, however, self-concept studies may be criticized in the same way today as they were almost 20 years ago (Crowne and Stephens, 1961; Wylie, 1961). That is, the interpretations of self-concept outcomes by those who developed the measures of self-concept may not be valid.

First, definitions of self-concept are imprecise and vary from one study to the next. The imprecision makes it extremely difficult to specify (a) the population of self-concept items from which a representative sample would be drawn for an instrument designed to measure self-concept, or (b) the population of subjects for which a measurement technique and interpretation would be appropriate. A review of definitions of self-concept reveals 15 different underlying conceptual dimensions (Brownfain, 1952; Bruner, 1958; Combs and Soper, 1957; Coopersmith, 1967; Hamachek, 1965; James, 1963; Jersild, 1952; McDonald, 1965; Mischel, 1968; Mote, 1967; Piers and
The 15 dimensions underlying the various definitions of self-concept, fall into five categories: (a) emphasis on a stable or changing self-concept; (b) methods for changing self-concept -- learning/reinforcement, creation of dissonance, or arousal of needs and defenses; (c) determinants of self-concept -- situational, phenomenal, or internal; (d) types of evaluation -- normative standard, absolute personal standard, or nonevaluative; and (e) dimensionability of self-structure -- unidimensional or multidimensional.

A second difficulty in interpreting measures of self-concept arises because data are not readily available on the equivalence of various instruments designed to measure self-concept. In many cases, researchers develop an instrument for investigation of a particular research question. Hence, the number of instruments designed to measure self-concept nearly equals the number of self-concept studies. Given the imprecision and variability among definitions of self-concept, there is little reason to assume that the instruments designed to assess self-concept are equivalent. The lack of empirically demonstrated equivalence among self-concept instruments makes it impossible to generalize findings of any kind across studies. The literature suggests that generalization of findings from studies of self-concept across populations is inappropriate (Dyer, 1964; Gordon, 1968; Zirkel, 1971).
Finally, data are not available to evaluate the validity of self-concept as defined by test developers. For example, as with any self-report measure of a personality variable, interpretations of self-reported self-concept may be challenged on the grounds that students may: (a) select responses they know to be socially desirable rather than responses that are self-descriptive (Edwards, 1957), or (b) be unable (Snygg and Combs, 1949), or unwilling (Cronbach, 1970) to report their "private" self-concepts. Regarding the issues of social desirability and reliability of self-report, Crowne and Stephens (1961) have concluded that

While studies of the effect of the social desirability variable on many of the commonly employed tests of self-acceptance have not been done, the results of some...investigations...would suggest that self evaluation tests are particularly susceptible to criticism on social desirability grounds. A common denominator in research findings on self-acceptance may well be the variable of social desirability (p. 117).

In summary, then, it appears that self-concept research has addressed itself to substantive problems before problems of definition, measurement, and interpretation have been resolved. Until the validity of measures of self-concept has been investigated, interpretations and conclusions based upon studies of self-concept will continue to be ambiguous.

Necessity for Studies of Construct Validity

The concern of educators with self-concept and the paucity of studies examining the construct of
self-concept necessitate construct validity studies of self-concept measures. The purpose of this study is to examine the construct validity of the Coopersmith Self-Esteem Inventory (Coopersmith, 1967). Coopersmith's Self-Esteem Inventory (SEI) was selected because it has traditionally been used as a measure of general self-concept (Dyer, 1964; Smith, 1973; Epstein and Komorita, 1971) and appears to have been utilized in the largest percentage of studies requiring self-concept measures (Franklin, 1978). However, Wylie (1974) stated that convergent or construct validity studies for the SEI are virtually non-existent. As a result, generalizations and conclusions generated by numerous studies based on the outcome of the SEI, have not stood the test of empirical validation. Thus, these conclusions may be erroneous given the lack of support for the SEI's construct validity. The objective of this study, then, is to provide evidence supporting the SEI's construct validity.

In examining the construct of self-concept, it is important to note that many researchers treat the terms "self-concept" and "self-esteem" synonymously. According to Trowbridge (1972), the SEI provides a measure of self-concept suggesting that self-concept and self-esteem are the same construct. Michael, Plass, and Lee (1972), however, differentiate between the constructs of self-esteem and self-concept suggesting that the SEI measures self-esteem rather than self-concept. Calhoun, Warren, and Kurfiss (1976) define self-concept as the way an
individual perceives himself and his behavior and his opinion of how others view him, whereas self-esteem is defined as the individual's satisfaction with the self-concept. The self-concept, then, can be altered only gradually, whereas self-esteem can and does change from day to day (Calhoun and Morse, 1977). When self-esteem and self-concept are defined in terms of stability, it becomes apparent that the SEI was actually designed to measure self-concept rather than self-esteem (Calhoun, Warren and Kurfiss, 1976). For purposes of this study, self-esteem and self-concept are defined in terms of their relative stability.

**Features And Facets Of The Self-Concept Construct**

The construct of self-concept is defined in terms of numerous dimensions. However, there appear to be commonalities across definitions. The commonalities include seven features or facets. Namely the self-concept is: (a) organized, (b) multifaceted, (c) hierarchical, (d) stable, (e) developmental, (f) evaluative, and (g) differentiable.

**Organized and Structured**

An individual's diverse experiences influence self-perception. To reduce the complexity of these experiences, a person recodes them into simpler forms, or categories (Bruner, 1958). The particular category systems adopted by an individual are, to some extent, a reflection of one's particular culture. For example, a child's experience may revolve around family, friends, and
school. Children's experiences, then, may account for their categories of descriptive statements about themselves (Jersild, 1952; Sears, 1963). The categories, which relate to the events of one's life, represent a way of organizing experiences and giving them meaning (Sears, 1963). One feature of self-concept, then, is that it is organized or structured.

**Multifaceted**

A second feature of self-concept is that it is multifaceted. The particular facets reflect the category system adopted by a particular individual and/or shared by groups. For example, in the white, middle-class population of students studied by Jersild (1952) and Sears (1963), the category system appears to include such areas as the school, social acceptance, physical attractiveness, and ability.

**Hierarchical**

A third feature of the self-concept construct is that the multifaceted structure of self-concept may be hierarchical in terms of generality (Brookover et al., 1967; Super, 1963). That is, facets of self-concept may form a hierarchy from individual experiences in particular situations at the base of the hierarchy to general self-concept at the apex. One possible representation of this hierarchy is shown in Figure 1. This formulation is, in some ways, similar to Vernon's (1950) hierarchical model of intellectual abilities. At the apex of Vernon's hierarchy is general self-concept, analogous to Spearman's "g"
Figure 1

Hierarchical Organization of Self-Concept.
factor in intelligence. General self-concept may be divided into two components: academic self-concept and non-academic self-concept (verbal-educational and practical abilities in the Vernon model). Academic self-concept may be divided into subject-matter areas (specific group factors in the Vernon model) and then into specific areas within a content area (specific factors). Nonacademic self-concept may be divided into social, emotional, and physical self-concepts and then into more specific facets as depicted in Figure 1. If Vernon's line of reasoning is pursued to the base of the hierarchy, a conceptualization of self-concept as situation-specific is generated.

In extremely limited situations (such as those represented by laboratory experiments), alternative interpretations of a person's experience are reduced considerably. Under experimental conditions, then, an observer's perception of a person's self-concept may correspond with the person's report of his self-concept. Nevertheless, the distinction between self-concept and inferred self-concept is important. The correspondence between observer perception and self-perception decreases as one moves up the self-concept hierarchy because the perceptions move from very specific situations to more sophisticated and complex parts of an individual's personality.

Stable

A fourth feature of self-concept is that general self-concept is stable. However, as one descends the
self-concept hierarchy, self-concept depends increasingly on specific situations and thus becomes less stable because the construct is multifaceted. At the base of the hierarchy, self-concept varies greatly with given situations. Furthermore, changes at the lower levels of the hierarchy are probably attenuated by conceptualizations at higher levels, making self-concept resistant to change (Ludwig and Maehr, 1967). To change general self-concept, many situation-specific instances inconsistent with general self-concept would be required. For example, it has been shown that success and failure in an athletic task changed subjects' self-concepts of specific physical ability but did not change their general self-concepts (Ludwig and Maehr, 1967).

Developmental

A fifth feature of self-concept is its developmental aspect (Engle, 1959; Long, Henderson, and Ziller, 1967; Long et al., 1968; Sears, 1964). Infants tend not to differentiate themselves from their environment. As they mature and learn from their increasing store of experiences, differentiation of self from environment begins. The self-concepts of young children are global, undifferentiated, and situation specific. As children begin to build concepts, as represented by the words 'I' and 'me,' they also begin to build concepts for categorizing events and situations. Young children have not started to coordinate the separate subparts of experience to integrate them within one conceptual self-framework. With
increasing age and experience (especially acquisition of verbal labels) self-concept becomes increasingly differentiated. As the child coordinates and integrates the parts of his self-concept, one can refer to a multifaceted, structured self-concept.

**Evaluative**

A sixth feature of self-concept is its evaluative character. Not only do individuals develop descriptions of themselves in particular situations or classes of situations, they also form evaluations of themselves in these situations. Evaluations can be made against relative standards such as "peers" or perceived evaluations of "significant others." The evaluative dimensions can vary in importance for different individuals and also for different situations. This differential weighting of the importance of the various evaluative dimensions is dependent upon the individual's past experience in a particular culture, in a particular society, and so on. The distinction between self-description and self-evaluation, however, has not been clarified either conceptually or empirically in the current literature. For example, the terms, self-concept and self-esteem, have been used interchangeably in the literature as evidenced by the SEI, which is conceptualized as a measure of self-concept.

**Differentiable**

A seventh feature of self-concept is that it is differentiable from other constructs with which it is
theoretically related. Very simply, the self-concept construct must be unique in its capacity to evaluate a portion of an individual's make-up.

Evaluating Measures of Self-Concept

Traditional Evaluations

Examination of the literature indicates that construct validation has typically proceeded with informal, intuitive definitions (Diggory, 1966). However, a complete construct definition should be formal and explicit (Loevinger, 1957).

An Ideal Evaluation

The ideal situation, according to Loevinger, would be first to define the self-concept construct with a network of associations or prepositions that relate the construct to (a) observable properties or quantities of the construct (the within-construct portion or structural component of the construct definition) and (b) other observable constructs (the between-construct portion or external component of the construct definition) (Loevinger, 1957). This network of interrelationships, called a nomological network (Cronbach and Meehl, 1955), locates a construct in relation to other constructs.

The within-construct portion of Loevinger's definition specifies the characteristics of the construct and links them to each other and to observable attributes of
the person. The between-construct portion of Loevinger's
definition locates the construct in a "conceptual space"
that includes many other constructs related to or independ-
dent of the construct under study. For example, many def-
definitions of self-concept include a multifaceted feature
which includes many factors, e.g., behavior, anxiety, or
popularity (Brookover, Erickson, and Joiner, 1967;
Coopersmith, 1967; Piers and Harris, 1964; Purkey, 1970;
Sears and Sherman, 1964). The within-construct portion of
a definition of a self-concept construct may identify aca-
demic, social, and physical self-concept facets and their
interrelations. The between-construct portion may relate
each facet to other constructs. Thus, academic self-
concept may be more closely related to achievement than is
physical self-concept.

Although many definitions of self-concept overlap,
self-concept may be considered a person's perception of
himself. One's self-perceptions are formed through expen-
ience with environmental factors such as reinforcers and
significant others (Kelly, 1973). Self-perceptions are
thought to influence behavior and, in turn, behavior is
thought to influence self-perceptions and self-concept
(Bandura and Walters, 1963). The influence of perceptions
and behavior are important parts of the definition of a
self-concept construct but, as yet, the exact nature and
direction of these influences are unclear. Consequently,
they have been an important focus of current self-concept
studies.
Self-concept is typically inferred from a person's responses to situations. The inferential nature of the evaluation of self-concept raises the question: what is an admissible observation? Explicit guidelines for admissible observations have been developed by the self-concept instrument authors. In most educational examinations of self-concept, a distinction is made between self-concept and inferred self-concept. Self-concept is restricted to a person's report of self (Combs, Soper and Courson, 1963; Parker, 1966). Inferred self-concept is another's attribution of a person's self-concept based primarily on one's behavior. Self-concept and inferred self-concept will be treated distinctly in this study; however, the focus will be upon self-reported self-concept because the SEI is a self-report instrument.

Validation Of Self-Concept:
Methodological Considerations

Validating the use of an instrument for measuring a construct involves an interplay of construct definition, instrument development, and data collection. The most important of the three is the construct definition which sets the boundaries for instrument development. The construct definition operates like a test plan for the development of an instrument. It also specifies content areas (e.g., academic, social, and/or physical self-concept), the type of question asked (e.g., items referring to self), the observer (e.g., self observation versus
observation by others), and the response (e.g., comparison with others or comparison with an absolute criterion). From the plan outlined by the construct definition, an instrument may be developed and data collected. These data bear on the construct interpretation of the scores.

Models of Construct Validation

**Cronbach's Model.** Interpretations of data generated by a self-concept instrument may be considered hypotheses to be challenged over and over with counter-hypotheses (Cronbach, 1971; Cronbach and Meehl, 1955). According to Cronbach (1955), initial construct validation studies should examine the empirical and logical evidence in support of the within-construct portion of the nomological network (e.g., whether or not measurement of facets such as academic, social, and physical self-concept warrant separate interpretations). Studies should, according to Cronbach, also examine evidence in support of the between-construct portion of the nomological network (e.g., whether the self-concept facet measurements warrant the interpretations that a given construct differs from other constructs, such as intelligence, locus of control, anxiety, and social desirability).

If the empirical evidence is congruent with the construct definitions, test scores are given construct interpretations. If the data are incongruent with the definition, the definition or the instrument, or both, require revision. Note that empirical evidence cannot directly void the construct definition. Rather, the congruency of
the data gathered can depend upon the measurement technique, which, in turn, can reflect upon the definition. If subsequent instrument revisions continue to produce empirical evidence incongruent with the definition, then certain aspects of the construct may not be measurable using existing techniques. Thus, if the evidence is congruent with the definition, the nature of the warranted interpretations should be specified, and the construct definition should be subjected to critical, logical analysis.

Logical Analysis. The logical analysis of an instrument examines the consistency between the construct definition and instructions to subjects, instrument format, item content, and scoring procedures. It draws upon the investigator's past experience and upon psychometric considerations. It should be noted, however, that "...the logical analysis of content cannot disprove a validity claim. The analysis puts forth a counterhypothesis whose pertinence can be verified only empirically" (Cronbach, 1971).

The function of logical analysis is to generate counterhypotheses as to the construct interpretations of a test score. For example, according to Sears and Sherman (1964) self-concept consists of ten traits. The Sears Self-Concept Inventory (Sears, 1963) contains items purported to measure each of the ten traits. A logical analysis of the Sears inventory might lead to a counterhypothesis that items linked to work habits, school,
mental ability, and/or social relations with teachers do not warrant separate interpretations but, rather, relate to a single trait, e.g., academic self-concept.

**Correlational Techniques.** Intercorrelations among facets of a construct, e.g., measures of academic, social, and physical self-concept, provide evidence indicating whether the facets deserve to be interpreted separately. Intercorrelations between measures of one construct and other different constructs, (e.g., the correlations between academic and social self-concept and intelligence), provide evidence on whether scores on a construct warrant the interpretation that the construct is indeed separate from other constructs. In a similar manner, correlations may be used to examine other features of the construct definition such as its stability, developmental character, and hierarchical organization.

Another use of the correlational approach is to identify two populations expected to differ on the construct in question and determine whether the two populations' scores on the construct measure differ, commonly referred to as sensitivity to change (Piers and Harris, 1964; Towbridge, 1972; Zirkel, 1972). For example, Piers and Harris (1964) compared self-concept scores of public school children to those of adolescent, institutionalized, retarded (X_{I.Q.}=69.6) females. They found that public school children earned significantly higher self-concept scores.
Three correlational techniques can be useful in deciding how to interpret test scores: (a) The first, factor analysis, arranges a matrix of correlations into convergence or clusters among tests or among items on a test. If a test operates as its design suggests, items measuring, e.g., "academic self-concept" should cluster together, and this cluster should be distinct from a cluster of items on, e.g., "physical self-concept." When the desired clusters occur, one gains some confidence when interpreting facets of test scores. If unanticipated clusters are found or if items designed to cluster together do not, then revision of the instrument (and/or definition of the construct) may be called for. In some cases, factor analysis has been used to lend validation support to self-concept interpretations of subtest scores (Gordon, 1966; Piers and Harris, 1964; Sears, 1963); in other cases it has not (Coopersmith, 1967).

(b) A second correlational method, the multitrait-multimethod matrix (Campbell and Fiske, 1959), examines patterns of intercorrelations among different traits (e.g., academic, social, and physical self-concept) measured by maximally different methods, i.e., self-report versus peer-report of a student (Bixler, 1965; Trickett, 1969). If, for example, factor analysis demonstrates that for one instrument items group into certain self-concept facets that are distinct from others, this distinction should be maintained when different methods are used to measure the same traits. A multitrait-multimethod
matrix is constructed from correlations between scores on different traits obtained by the same measurement method; scores on the same trait obtained by different measurement methods; and scores on different traits obtained by different measurement methods (Campbell and Fiske, 1959). The distinction between factor analysis and the multitrait–multimethod matrix is made for the sake of clarity. For the relation of the multitrait–multimethod matrix to factor analysis and the analysis of variance, see Boruch, Larkin, Wolins, and MacKinney, 1970; Boruch and Wolins, 1970.

When using the multitrait–multimethod matrix, reliability is defined as the agreement between two efforts to measure the same trait through maximally similar methods; validity is defined as the agreement between two attempts to measure the same trait through maximally different methods (Campbell and Fiske, 1959). Traits of a construct are isolated, or distinguished, when the following convergent and discriminant validity criteria are satisfied. For a critique of these criteria, see Althauser and Heberlein, 1971.

1.) **Convergent Criterion**
   a.) A validity coefficient should be significantly greater than zero and of practical significance.

2.) **Discriminant Criterion**
   a.) A validity coefficient should be higher than the correlations obtained between that variable and any other variable having neither trait nor method in common.
   b.) A validity coefficient should be higher than the correlations among scores on different traits obtained by the same measurement method.
c.) The same pattern of interrelations among traits should be observed in correlations obtained with the same or different methods. (Althausen and Heberlein, 1971).

Thus far, the discussion of two correlational techniques has focused primarily on the examination of the within-construct portion of the nomological network. However, these techniques may also be applied to the between-construct portion of the network. For example, the multi-trait - multimethod matrix has been used to examine the interpretation of a test score as measuring "humor" (Koppel and Sechrect, 1965). Rival hypotheses to the "humor" test interpretation were that the score measured intelligence or extroversion. Three different measurement methods (self-ratings, peer ratings, and objective responses) were used to measure humor appreciation, humor creation, intelligence, and extroversion. The results were used to determine the degree to which humor, intelligence, and extroversion could be distinguished as constructs.

Consider the case in which one construct is measured by methods a and b, and a second construct is measured by methods a and c. For example, some theorists argue that self-concept can be measured only by self-report methods (Combs, Soper, and Courson, 1963; Parker, 1966; Sears and Sherman, 1964; Wylie, 1961). Other theorists say anxiety, for example, might include measures such as self-report, observation ratings, heart rate, etc. To examine validity claims in the anxiety example, the multitrait - multimethod matrix may not be applicable, but factor analysis...
is. The reason for this is that measures of the same trait should cluster and perhaps two or more "measurement method" clusters might be found.

(c) Finally, if the network specifies a causal relationship, other correlational techniques such as path analysis might be used to examine causality (Blalock, 1964; Crano, Kenny, and Campbell, 1972; Yee and Gage, 1968). Path analysis examines, ex post facto, theoretically proposed cause and effect relationships via correlational techniques. For example, Bixler attempted to use a path analysis technique, the cross-lagged panel analysis, to examine causal effects of teachers' and peers' influence on changes in students' self-concepts. The data suggest that students' self-concepts are influenced by neither teachers nor peers (Wattenburg and Clifford, 1963).

**Experimental Techniques.** Experiments may be used to test the within-portion of the nomological network by identifying influences to which tests scores are sensitive. That is, experimental studies may be designed to examine whether specific treatments are able to affect change in only one aspect of self-concept, e.g., physical self-concept. Ludwig and Maehr (1967), for example, examined the effects of success and failure in athletic tasks on physical and general self-concept. Subjects were randomly assigned to positive or negative feedback groups or a control group, regardless of athletic ability. In the feedback groups, feedback was either consistent or
inconsistent with the subject's ability. If Ludwig and Maeher's instruments measured self-concept, as specified in their nomological network, scores on measures of physical self-concept could be expected to (a) increase with positive feedback, (b) decrease with negative feedback consistent with ability, (c) to increase with positive but inconsistent feedback, (d) decrease initially with negative inconsistent feedback, and (e) remain unchanged in the control group. A similar but less distinct pattern of scores could be expected on the general self-concept measure because one's self-concept seems to be a reflection of the feedback or information received from the environment, i.e., friends, peers, significant others. In general, the results of the Ludwig and Maeher (1967) study were consistent with the expectations regarding both physical and general self-concept.

Experimental studies in which treatments have been designed to change subjects' self-report test scores examine the construct interpretations against counter hypotheses (Cronbach, 1971). For example, do self-concept scores depend upon the subject's motivation, upon knowledge of socially desirable responses, or upon strategy for attacking the tasks? Parker, (1966) examined the influence of students' expectations as to who would see their self-concept test scores on self-concept measurements. Data were collected with a self-report and an inferred self-concept test, first with the expectation of anonymity and then
with the expectation that the teacher would see the scores. The expectancy variable in the Parker (1966) study did not influence mean scores on the self-report or inferred self-concept measures; however, it did influence correlations between self-report and inferred self-concept measurements.

Sabers-Whitney Model. As outlined by Sabers and Whitney (1976), there are four basic categories of evidence that together provide a basis for evaluating the construct validity of an instrument. Each category represents a particular question which should be raised in most validation projects. These questions (and labels by which they will be referred) are: (1) Does the instrument measure what it should? (Convergent Validity); (2) Does the instrument measure what it should not? (Discriminant Validity); (3) What conditions produce changes in the scores? (Sensitivity to Change); and (4) Does the instrument measure more than one thing? (Internal Consistency).

Essentially the Sabers-Whitney model is an approach which incorporates and synthesizes various aspects of the Cronbach, logical analysis, correlational, and experimental models previously described. Because of its comprehensive nature, the Sabers-Whitney model was employed in this construct validity project.

Purpose of This Study

There are, then, a number of techniques, logical, correlational, and experimental for examining the validity
of interpretations of self-concept test scores. Each technique contributes its own kind of evidence to the interpretation of self-concept tests. Most measures of self-concept, however, have not been subjected to an empirical study of construct validity. This study, therefore, will attempt to add validity evidence to the use of the SEI to estimate a child's self-concept.

The SEI is intended for use with children aged eight to 15 years and is based primarily on items developed by Rogers and Dymond (1954). The SEI consists of an eight-item lie scale, which is a measure of a student's defensiveness or test-wiseness, and 50 items (18 positive and 32 negatives) reported to measure an individual's perceptions of peers, parents, school, and self. Each item is a declarative statement to which the subject must respond by checking either "like me" or "unlike me" most of the time. Items checked that are indicative of positive self-attitude are awarded two points; items checked representing negative self-attitudes receive zero points. Total scores can range from zero to 100. The higher one's score on the SEI, the higher is one's self-esteem (Coopersmith, 1967). There are five subscales incorporated into the inventory, they include general self, social self-peers, home-parents, school-academic, and a lie scale which is excluded in determining the total self-concept score.

In 1967, the SEI was administered to 982 fifth-grade children and the reported mean was 72.2 with a S.D. of 12.8
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In 1967, the SEI was administered to 982 fifth-grade children and the reported mean was 72.2 with a S.D. of 12.8
Internal consistency (KR21) was reported at .87 for fifth graders (Kimball, 1972). The total score test-retest reliability coefficient was .88 over a five week interval with a sample of 30 fifth-grade students, and a coefficient of .70 was obtained over a three-year period with a sample of 56 public school students (Coopersmith, 1967).
Chapter II
Methods

Subjects

All fifth grade students from an elementary school located within a school district of approximately 2,200 students in upstate New York were available for participation within the study. Complete data were obtained for 105 students from the six participating classes. There were 55 males and 50 females included in the sample. The six classroom teachers were cooperative and an integral part of the research project. Prior to the administration of the various testing instruments, i.e. SEI, CSCS, and CSDS, all parents of the fifth grade students were notified of their child's participation in the project. The notification indicated the nature of the project and its anonymous characteristics (see Appendix A).

Instruments and Related Procedures

Convergent Validity. The Piers-Harris CSCS (The Way I Feel About Myself) was used as the measure to fulfill the convergent requirements (Sabers and Whitney, 1976) to support the construct validity of the SEI. The CSCS was developed as a measure of general self-concept (Piers and Harris, 1964). The authors claim the CSCS can be used diagnostically in clinical, counseling, and classroom settings, but its primary use has been in research on
the development and correlates of self-concept (Piers, 1969).

Piers' construct definition of self-concept included the following: self-concept is multifaceted and relatively stable, with distinct developmental characteristics. Piers also distinguishes between self-concept which is reported by the individual and inferred self-concept which is inferred by others from the individual's behavior. The factors included in the Piers' definition were also considered in the development of the SEI, which makes the two instruments compatible. The 80 items that make up the CSCS were originally developed using Jersild's (1952) collection of children's statements depicting what they liked and disliked about themselves. Forty-four of the 80 items are indicative of negative self attitudes; 36 items are indicative of positive self attitudes. Participants respond to the CSCS by circling the "yes" or "no" following each statement. "Yes" responses to positive items and "no" responses to negative items are given a value of one; all other responses have a value of zero. Total scores can range from zero to 80; there is a positive relationship between one's score on the CSCS and self-concept (Piers, 1969).

The structure of the 80 items on the CSCS has been examined by factor analysis (Piers and Harris, 1964). Ten factors accounted for 42 per cent of the total test score variance. Six factors were judged large enough to be interpretable: (a) behavior; (b) intellectual and school
status; (c) physical appearance and attributes; (d) anxiety; (e) popularity; and (f) happiness and satisfaction.

The CSCS was standardized on 1,183 students in grades four through 12. Total scores reflected no consistent differences for grade or sex. The overall mean was 51.8 and a standard deviation of 13.9. Internal consistency (KR21) ranged across grades from .78 to .93. Test-retest reliability using half of the standardization sample ranged across grades from .71 to .77 over a four-month period.

In accordance with Loevinger's suggestion that observable properties or characteristics of a person should be specified and taken into account, this investigation used the Coopersmith Behavioral Academic Self-Esteem scale (BASE) as the instrument to record observable attributes of an individual. The SEI and BASE were both developed by Coopersmith to measure the construct of self-concept. The SEI is used as a self-report measure; the BASE is used by an observer to provide a behavioral indicator of self-concept.

The BASE consists of 16 questions. There are five factors which make up the scale, they include: student initiative, social attention, success/failure, social attraction, and self-confidence. Items of the BASE are rated by the teacher on a five-point scale from "always" to "never" and assigned weights of one to five. Ratings indicative of the most positive behaviors receive a score
of five; ratings indicative of the least positive behaviors receive a score of one. The scores of the 16 items assessing self-esteem are simply added to determine an individual's score. Scores can range from zero to 80 and the higher the score, the higher the self-concept (Coopersmith and Gilberts, 1982).

The BASE was normed on a sample of 4,000 children. The mean total score was 65.44 and the standard deviation was 8.65. Estimates of internal consistency were based on correlations of individual items, across subscales, with the total score and ranged from a low of .37 to a high of .76 (Coopersmith and Gilberts, 1982). Inter-rater reliability for the BASE has not been previously reported. Inter-rater reliability in the present study was established for the BASE by having all participating teachers read and rate an experimenter designed case history (see Appendix B). An average correlation (McNemar, 1974) was computed.

Intra-rater reliability of the BASE was established for each teacher in the present study by having him/her rate a given child twice. The first rating was completed two weeks prior to the second rating. A percentage agreement between the two ratings was then established for each teacher.

**Discriminant Validity.** To investigate discriminant validity of the SEI, (Sabers and Whitney, 1976) the CSDS was administered. The CSDS serves as an indicator of discriminate validity for the SEI because the CSDS is
designed to assess whether or not subjects are answering self-report questions above a specified criterion set by the CSDS. If common variance between the SEI and CSDS is not significant, the SEI and CSDS may be said to measure different constructs.

The CSDS, designed by Crandall, Crandall, and Katkovsky (1965), consists of 47 items measuring the tendency of children in grades three, four, and five to respond in a socially desirable manner (Crandall, Crandall, and Katkovsky, 1965). Social desirability is defined as a subject's need to obtain approval by responding in a culturally appropriate and acceptable manner as opposed to expressing his/her true feelings (Crandall, Crandall, and Katkovsky, 1965). Twenty of the items were adopted from a similar adult scale, the Personal Reaction Inventory (Marlowe and Crowne, 1959), and were reworded for use with children. The items ask direct questions to which participants must respond either "yes" or "no." Thirteen of the items are keyed "yes" and 34 are keyed "no" to indicate the socially desirability of each response. Each response corresponding to the key receives a weight of one, so the higher one's score, the greater their tendency to respond in a socially desirable manner. Scores can range from zero to 47.

The split-half reliability of the CSDS for samples at each grade level ranged from .69 to .90. The test-retest reliability for 63 children over a one month interval was .90 (Cowan, Altman, and Pysh, 1978).
Sensitivity to Change. Another factor investigated with regard to construct validity of the SEI was sensitivity to change. The rationale for investigating sensitivity to change is that if it can be determined that groups expected to score differently, on the SEI, actually do, it may then be possible to better understand the conditions that produce score changes (Sabers and Whitney, 1976). Three factors were examined: age, sex, and current level of achievement as measured by the IOWA Test of Basic Skills (ITBS). Age, sex, and ITBS scores were then regressed on the SEI scores to determine the sensitivity of the items on the SEI to change. These three factors were chosen because of their inherent importance to the construct of self-concept. The factors of age and sex address the developmental nature of the self-concept construct and achievement level addresses the multifaceted and hierarchical nature of the construct.

Literature supports the notion that young adolescents are emotionally and socially affected by how quickly they are maturing, both physically and cognitively (Jones, 1957; Mussen and Jones, 1957; Simmons, Rosenberg, and Rosenberg, 1973; Weatherly, 1964). Subjects used in this study were heterogeneous in terms of physical and cognitive maturation, age, and sex. It was hypothesized that the SEI would be sensitive to differences in levels of maturation, age, and sex. Therefore, age, sex, and cognitive maturation as measured by achievement level were used as predictor variables in this study. Physical
maturation was not studied because it could not be adequately measured.

Since a heterogeneous group of subjects was tested, achievement test scores were also heterogeneous. The SEI's sensitivity to difference in achievement was demonstrated. Franklin (1978) reported that the SEI did not correlate with either sex or age, but did correlate significantly with achievement.

**Investigative Procedures**

The six homeroom teachers acted as test administrators for each of their respective fifth grade classes. Before administration of the SEI, CSDS, and CSCS, the experimenter met with participating teachers to standardize testing procedures (see Appendixes C, D, and E).

Participating teachers completed the BASE for each subject in their respective fifth grade classes.

Before teachers completed the BASE for their respective students they completed the BASE on a case history presented to them. Rating of the case study was used to establish inter-rater reliability. To establish intra-rater reliability the teachers rated a given child twice; the first rating was two weeks prior to the second.

On Wednesday, February 10, 1982, half the students from each of the fifth grade classes completed the SEI; the other half completed the CSCS, to counter-balance for order. One week later the same procedure was used but using the opposite instrument, so that all six fifth grade classes had completed both the SEI and the CSCS by
Wednesday, February 17, 1982. The CSDS was the last instrument administered. The CSDS was administered to all subjects on Wednesday, February 24, 1982.

Students who were absent during any of the test administration periods were excluded from the sample of subjects used in this study.

Analyses

A table indicating the means and standard deviations for the total sample on all of the measures, i.e., SEI, CSDS, BASE, and IOWA, appears in Appendix F. The purpose of this table is to demonstrate that the sample was representative of the norming groups used for the above instruments.

Convergent Validity. Convergent validity of the SEI was substantiated through correlations between the SEI, the BASE and the CSCS using a stepwise multiple regression procedure.

Discriminant Validity. To add evidence to the SEI's discriminatory qualities, the SEI was compared to the CSDS using a stepwise multiple regression procedure.

Sensitivity to Change. Sensitivity to change was investigated for three factors: age, sex and achievement. Age, sex and achievement scores were regressed on SEI scores to determine between group differences. Age was defined in months, sex was defined as male or female, and achievement was defined by the raw score obtained on the ITBS.
**Internal Consistency.** Spatz and Johnston (1973) administered the SEI to over 600 students. One hundred inventories were selected from the fifth grade and Kuder-Richardson reliability estimates (KR20's) were calculated. A coefficient of .86 was obtained for grade five. Kimball (1972) administered the SEI to approximately 7,600 public school children in grades four through eight. A coefficient of .87 was generated for grade five. For the 105 fifth graders included in this study, internal consistency was determined using Cronbach's alpha statistic.

**Intra- and Inter-Rater Reliability.** Intra-rater reliability was established on the BASE for each rater through percentage agreement between the first rating and a second rating, which took place two weeks later, on a randomly selected student. Inter-rater reliability was established through an average correlation (McNemar, 1974) among teacher ratings of an experimenter developed case history.
CHAPTER III

Results

Raw scores on all variables for all subjects appear in Appendix F. Means and standard deviations for all variables except gender are also shown in Appendix F.

Convergent and Discriminant Validity

Multiple regression analysis was used to investigate the relationship among the SEI, CSCS, CSDS, and BASE. A stepwise procedure indicated that the greatest amount of variance in the SEI was accounted for by the CSCS. The first order correlation between the SEI and CSCS was +.63. As shown in Table 1, the BASE also accounted for a significant amount of variance in the SEI. The relationship between the SEI and the CSDS was nonsignificant. Hence, the SEI, CSCS, and BASE appear to be measuring the same construct; the CSDS appears to be measuring a construct other than that measured by the SEI, CSCS, and BASE.

Sensitivity to Change

A general linear multiple regression analysis (GLM) was used to investigate the effects of achievement, age, and gender on self-concept as measured by the SEI. Results indicated a positive relationship between achievement, as measured by the total raw score on the Iowa Test of Basic Skills, and self-concept ($F=24.94; df=1; p .01$).
Table 1

Regression Analysis (Convergence and Divergence)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>104</td>
<td>28248.229</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>3</td>
<td>13695.404</td>
<td>4565.135</td>
<td>31.68</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>CSCS</td>
<td>1</td>
<td>6189.657</td>
<td>6189.657</td>
<td>42.96</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>CSDS</td>
<td>1</td>
<td>0.135</td>
<td>0.135</td>
<td>0.00</td>
<td>n.s.</td>
</tr>
<tr>
<td>BASE</td>
<td>1</td>
<td>2518.860</td>
<td>2518.860</td>
<td>17.48</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Error</td>
<td>101</td>
<td>14552.825</td>
<td>144.087</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Main effects for age in months and gender were non-significant. There were no significant interactions (see Table 2).

**Internal Consistency**

Internal consistency, on the SEI, was computed for home-parents, school academic, social self-peers, and the lie scale. Total test internal consistency was .86, general self was .71, home-parents was .61, school-academic was .61, social self-peers was .61, and the lie scale was .63.

**Intra- and Inter-Rater Reliability of the BASE**

Intra-rater reliability for the BASE was established when all six teachers included in the study re-evaluated a student who was randomly chosen in their individual fifth grade classes. The teacher rated this student two weeks after the initial evaluation was completed. A percent agreement between the first and second rating was then computed. The range of the percent agreement among the six teachers included in the study was from .85 to .97, with a mean of .91.

Inter-rater reliability for the BASE was established by computing an average reliability coefficient (McNemar, 1974) based on the six participating teachers' ratings of an experimenter designed case history. The average reliability coefficient for the six teachers was .86.
Table 2

Regression Analysis (Sensitivity to Change)

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>104</td>
<td>28248.229</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>7</td>
<td>7035.411</td>
<td>1005.059</td>
<td>4.60</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Achievement</td>
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<td>5453.623</td>
<td>5453.623</td>
<td>24.94</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>284.667</td>
<td>284.667</td>
<td>1.30</td>
<td>n.s.</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>430.020</td>
<td>430.020</td>
<td>1.97</td>
<td>n.s.</td>
</tr>
<tr>
<td>Achievement by Age</td>
<td>1</td>
<td>175.688</td>
<td>175.688</td>
<td>0.80</td>
<td>n.s.</td>
</tr>
<tr>
<td>Achievement by Gender</td>
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<td>88.541</td>
<td>88.541</td>
<td>0.40</td>
<td>n.s.</td>
</tr>
<tr>
<td>Age by Gender</td>
<td>1</td>
<td>0.430</td>
<td>0.430</td>
<td>0.00</td>
<td>n.s.</td>
</tr>
<tr>
<td>Achievement by Age by Gender</td>
<td>1</td>
<td>602.423</td>
<td>602.423</td>
<td>2.75</td>
<td>n.s.</td>
</tr>
<tr>
<td>Error</td>
<td>97</td>
<td>21212.818</td>
<td>218.689</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER IV
Discussion

Five issues were addressed regarding the construct validity of the SEI: (a) convergent validity, (b) discriminant validity, (c) sensitivity to change, (d) internal consistency, and (e) intra-/inter-rater reliability of the BASE.

Convergent Validity

A stepwise regression analysis was used to reveal the relationship among the SEI, CSCS, and BASE. First order and partial correlations between the SEI and both predictor variables (CSCS and BASE) were significant (see Table 1). These results suggest that the SEI, CSCS, and BASE measure the same construct. The relationship between the SEI and CSCS in the present study is consistent with the findings of Cowan, Altmann, and Pysh (1978) and Franklin (1981).

Other observations were also consistent with the Franklin (1981) study, particularly regarding students' responses to test format. For example, it seemed that the "like me - unlike me" answer options and some of the vocabulary (e.g., "consider," "opinion," and "discouraged," ) incorporated into the SEI design presented the students with undue difficulty. The "yes-no" answer options of the
CSCS seemed to be much more clearly understood by the students. Although the CSCS has a greater number of questions than the SEI, the students seemed to prefer the CSCS because the questions contained therein are shorter than the SEI questions.

A caution must be noted at this point with regard to interpretation of the relationships among the variables under study. Since independent samples were not incorporated into this study or other studies of construct validity (Cowan, Altmann and Pysh, 1978; Franklin, 1981), it is difficult to generalize findings across populations and studies. Therefore, whenever possible, validity studies should incorporate investigations of independent samples to increase the probability of accurate generalization and prediction.

**Discriminant Validity**

The CSDS was used as the discriminant predictor in the stepwise regression analysis. As shown in Table 1, the SEI and CSDS share a nonsignificant amount of variance and appear to measure different constructs. As a result, it may be concluded that the SEI does not incorporate socially desirable qualities which would cast doubt upon SEI test scores. Cowan, Altmann, and Pysh (1978) found a significant relationship between the SEI and CSDS. A nonsignificant relationship between the SEI and CSDS was revealed by the present study. Therefore, interpretation of the relationship between the SEI and CSDS must be made with caution.
In order to obtain "true" scores on the CSDS, Crandall, Crandall, and Katkovsky (1965) suggest that the CSDS administrator reassure the children that their responses will not be shown to, or discussed with, anyone at their schools. Consequently, the student may answer the questions freely, under circumstances allowing for uninhibited responses. If, by chance, the administrative procedures described by Crandall, Crandall, and Katkovsky (1965) are not followed, the student may feel some pressure to answer the questions on the CSDS in a socially desirable manner. That is, students may answer in a manner not truly reflective of their actual feelings in order to satisfy a significant other, (e.g., teacher, principal, counselor, psychologist, etc.). Failure to follow suggested directions (Crandall, Crandall and Katkovsky, 1965) may be one reason that a significant relationship was found between the SEI and the CSDS in the Cowan, Altmann, and Pysh (1978) study but not in the present study.

Sensitivity to Change

Using a general linear model regression analysis procedure, three predictor variables (total raw scores on the Iowa Test of Basic Skills, age in months, and gender) were regressed on the SEI criterion variable to determine the SEI's sensitivity to group differences. The results of the analysis indicated a significant, positive relationship between self-concept and achievement. Neither age nor gender nor any of the possible interactions were significant (see Table 2).
Results of this sensitivity to change analysis are consistent with those of the Franklin (1978) study. It may be concluded, based on the current study and the Franklin (1978) study, that achievement and self-concept are significantly correlated in a positive direction. On the other hand, age and/or gender did not effect SEI scores in either the present or the Franklin (1978) studies. It would seem, then, that the SEI is not sensitive to differences in age, gender, or age by gender interactions. This nonsensitivity may be due, in part, to the restricted age range of the sample used in the present study. However, restricted age range may not account for the nonsignificance because Franklin (1978) who studied fourth and seventh graders also failed to find significant differences.

Other studies (Bledsoe, 1964, Rubin, 1974) have found significant interactions between age and gender. That is, early maturing females and late maturing males tend to have lower self-concepts than later maturing females and earlier maturing males. However, these findings (Bledsoe, 1964; Rubin, 1974) may be confounded depending on if maturation is defined based on physical characteristics or by emotional indicators. Since girls tend to develop emotionally at an earlier age, they may answer self-concept measures in a more reflective fashion, as opposed to less mature males who might answer self-concept measures in a socially desirable fashion.
Studies of the social effects of early physical maturation are negative for females and positive for males (e.g., Jones and Bayley, 1950). At present the literature is not consistent with regard to interactions between age and gender; thus, further study seems needed.

It is important to note that two different multiple regression analyses were performed in this study because: (a) the two analyses addressed different issues (The step-wise procedure was addressing the issues of convergence/divergence and the GLM was used to address the issues of sensitivity to change) and (b) the n size was an important consideration in light of the number of predictor variables. Doing one analysis, consisting of one criterion and six predictor variables for 105 subjects, could have risked the chance finding of significance (Kerlinger and Pedhauzer, 1973). Hence, two analyses were conducted, using the SEI as the criterion variable, with realization of the risk for alpha slippage (Box, 1954).

**Internal Consistency**

The internal consistency coefficient of .86 for the SEI total scores, in the present study, were consistent with previous studies. Spatz and Johnston (1973) administered the SEI to over 600 students. One hundred inventories were selected from the fifth grade and Kuder-Richardson reliability estimates (KR20's) were calculated. A coefficient of .86 was obtained for grade five. Kimball (1972) administered the SEI to approximately 7,600 public school children in grades four through eight. A
coefficient of .87 was generated for grade five in this sample. While Franklin (1978) did not include fifth graders in his sample, he obtained an internal consistency coefficient (KR-20) of .87.

In the present study, the SEI subscales (general self, home-parents, school-academic, social self-peers, and the lie scale) also displayed relatively high internal consistency coefficients, ranging from .61 to .75. These coefficients suggest that the SEI measures five different aspects of self-concept. The subscale internal consistency coefficients appear relatively low compared to the SEI's total score internal consistency, possibly because the subscales have fewer items than the total scale and are designed to extract particular facets of self-concept. Therefore, when the subscales are pooled together in the form of a total test score, the internal consistency coefficient might be expected to be higher than for the for the component parts. These findings, then, suggest that the SEI measures essentially one trait, self-concept, which consists of several facets (general self, home-parents, school-academic, social self-peers, and the lie scale).

Intra-/Inter-Rater Reliability for the BASE

In this study, intra-rater reliability for the BASE was investigated because (a) Coopersmith designed the BASE to supplement the SEI and (b) the relationship between the SEI and BASE has not yet been studied. The percent agreement (.91) between the first and second rating
among the six fifth grade teachers indicated that the BASE is a consistent and reliable measure over a two-week period of time.

Inter-rater reliability for the BASE (r=.86) was established by computing an average reliability coefficient (McNemar, 1974). This statistic revealed that the BASE is designed such that several individuals can rate a student and obtain a reliable estimate of his/her behavioral academic self-esteem.

Conclusions

In conclusion, this study did provide evidence to support the SEI's construct validity in all five areas identified. Since validity is situation and purpose specific (Sabers and Whitney, 1976) further study of the SEI's construct validity could be valuable. Studies which concentrate on differing and stratified samples would be particularly useful.

It must be noted that the results of this study were obtained on a particular population of fifth graders in a specific geographic region. In order to increase confidence in the SEI's ability to measure the construct of self-concept and the generalizability of findings across populations, it is important that use of the SEI with populations varying in age, gender, socioeconomic status, and cultural background be empirically investigated.
PARENT NOTIFICATION

February, 1982

Dear Parent(s):

In the next several weeks your child will be included in a research project. This project will entail some short questionnaires of self-esteem and self-concept. The data collected will not identify any particular child, it will be used strictly as an evaluation of the 5th grade as a whole. The purpose of this research is to increase effective service to your child now and in the future. The project will be supervised directly by Brian W. Johnson, school psychologist intern. Thank you for your cooperation and support in this regard.

Very sincerely,

Brian W. Johnson
School Psychologist, Intern

Raymond J. Barone
School Psychologist
Case Study

Student: Joe
Age: 11
I.Q.: Above Average

Joe has a few friends he "hangs around" with but he does not appear to be among the most popular students in the class. Joe has tried to become more popular, but has been relatively unsuccessful, perhaps because he is somewhat argumentative and tries to get his own way in most social situations.

In the classroom, Joe is a curious student who asks lots of questions, especially when he doesn't understand something. Joe seems very proud and confident of the material he knows and understands and eagerly contributes to class discussions, shares his knowledge with other students, etc. However, Joe does not brag about his accomplishments in school.

Despite Joe's curiosity and willingness to participate in class activities and discussions, he seems easily discouraged and frustrated when it comes to independently completing his seatwork assignments. When frustrated by his assignments, Joe tends to become quite dependent upon the teacher for help, encouragement, and approval. Joe often needs to be coaxed into doing his assignments, but once he understands what's expected and how to do the
assignment, he seems to enjoy his work and even initiates related projects.

Changes in school or classroom routine seem to really "throw" Joe off. Until he adjusts to new routines, Joe's behavior gets worse, i.e., he becomes argumentative and disruptive. However, when the teacher points Joe's "grouchiness" out to him, he quickly settles into the new routine and returns to his more "easy going" behavior.
Directions

Administration #1 Coopersmith Self-Esteem Inventory

A) SAY: The fifth grade has been chosen to be a part of an important study about young people's feelings toward a variety of topics. As a result you will be taking a series of short questionnaires over the next few weeks. It is very important that you answer these questions the way you really feel. No one will know how you answered these questionnaires. This study is about the 5th grade as a whole not on any one individual.

B) Pass out inventory and SAY: Here is the 1st questionnaire, don't start until I tell you to.

C) After everyone has one SAY: At the top of the questionnaire write your birthdate in the space provided. Be sure to write the month, day, and year clearly. When you are finished, look up at me..... Now circle male or female at the top and look up when you are finished.
ASK: Has everyone written their birthdate and circled male or female?

D) SAY: On this page you will find a list of statements about feelings. If a statement describes how you usually feel, put an X in the column "Like Me." If the statement does not describe how you usually feel, put an X in the column "Unlike Me." There are no right or wrong answers. Answer every question.

E) SAY: I can't answer any questions about the questionnaire while you are answering it. When you are finished turn your paper over and I will pick one of you to collect the questionnaires and put them in an envelope. You may begin now.

F) After they have finished pick a student to collect the questionnaires and put them in the envelope provided.

G) Get the questionnaires to me at your convenience.
Directions

Administration #2 Piers-Harris Children's Self-Concept Scale

A) SAY: Today you are going to take the last questionnaire about young people's feelings. Remember it is very important that you answer all the questions the way you really feel. No one will know how you answered these questions.

B) Pass out questionnaire and SAY: Don't start until I tell you to.

C) After everyone has a copy SAY: At the top of the questionnaire write your birthdate in the space provided. Be sure to write the month, day, and year clearly. When you are finished, look up at me... Now circle male or female at the top and look up when you are finished.

ASK: Has everyone written their birthdate and circled male or female?

D) SAY: Read the directions at the top while I read them aloud. 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.

E) SAY: I can't answer any questions about the questionnaire while you are answering it. When you are finished turn your paper over and I will pick one of you to collect the questionnaires and put them in an envelope. You may begin now.

F) After they have finished pick a student to collect the questionnaires and put them in the envelope provided.

G) Get the questionnaires to me at your convenience.
Directions

Administration #3 Children's Desirability Questionnaire

A) SAY: Today you are going to take the second questionnaire about young people's feelings. Again, it is important that you answer all the questions the way you really feel. No one will know how you answered these questions.

B) Pass out questionnaire and SAY: Don't start until I tell you to.

C) After everyone has one SAY: At the top of the questionnaire write your birthdate in the space provided. Be sure to write the month, day, and year clearly. When you are finished, look up at me. Now circle male or female at the top and look up when you are finished.
ASK: Has everyone written their birthdate and circled male or female?

D) SAY: On this page you will find a list of statements about how you would feel and act in different situations. If a statement describes how you act or feel, put a Y for Yes. If the statement does not describe how you act or feel, put a N for no. There are no right or wrong answers. Answer every question, even if some are hard to decide.

E) SAY: I can't answer any questions about the questionnaire while you are answering it. When you are finished turn your paper over and I will pick one of you to collect the questionnaires and put them in an envelope. You may begin now.

F) After they have finished pick a student to collect the questionnaires and put them in the envelope provided.

G) Get the questionnaires to me at your convenience.
## Descriptive Statistics for All Variables

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