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A Reliability Study of the Joseph Self-Concept  
Scale for Young Children

by  
Jeffrey R. Kelly

A Thesis

Submitted in partial fulfillment of the requirements of the  
Master of Arts Degree  
of  
The Graduate School  
at  
Rowan University  
May 1, 1999

Approved by

Professor

Date Approved 5/3/99

## ABSTRACT

Jeffrey R. Kelly

A Reliability Study of the Joseph Self-Concept

Scale for Young Children

Dr. John Klanderman

School Psychology

The purpose of this study was to establish test-retest reliability coefficients for the Joseph Self-Concept Scale for Young Children (JSSYC). This study employed a one-week duration between administrations of the test instrument. There were thirty-four sixth-grade subjects used, ranging in age from eleven to thirteen. The JSSYC is an individually administered, interview type self-concept measure. The adolescent version of the JSSYC was used in this study, which is designed for use with children seven years of age and older. The Pearson product-moment correlation statistical procedure was used to calculate the correlation coefficients for this sample. The correlations for both the Global and Lie Indexes were calculated. The correlations were found to be statistically significant. It was concluded that the JSSYC did demonstrate strong test-retest reliability.

## MINI ABSTRACT

Jeffrey R. Kelly

A Reliability Study of the Joseph Self-Concept

Scale for Young Children

Dr. John Klanderman

School Psychology

The Joseph Self-Concept Scale for Young Children (JSSYC) is a self-concept test instrument designed to objectively assess the self-concept perceptions of children. The purpose of this study was to establish test-retest correlation coefficients for the adolescent version of the test instrument. The JSSYC was found to display favorable test-retest reliability correlation coefficients and was deemed to have strong stability reliability.

## Acknowledgements

I would like to extend my appreciation to Mrs. Mary Kurtz, Mr. Paul Chila, Mrs. Deborah Martinelli, and Mr. Stanly DelCorio for their time and patience when conducting my testing for this study.

I would like to thank Dr. Jack Joseph for the use of his well-designed test instrument.

Finally, I would also like to thank Jeff and Rose Kelly, without their years of support none of this would have been achieved.

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## Chapter 1: The Problem

The need for a screening device to measure the self-concept perceptions of children and adolescents is in demand. The development of such a test to objectively screen and identify children at the preschool and primary school stage, who, due to their self-appraisal, may run the risk of developing learning problems or some maladjustment disorders, would be a significant advancement in the field of education and psychological evaluation. The Joseph Self-Concept Scale for Young Children (JSSYC) is a test that attempts to fill this need. This test is a revision of Dr. Jack Joseph's original self-concept measuring device entitled The Joseph Preschool and Primary Self-Concept Screening Test (JPPSST), which was published in 1979.

The self-concept that a child, or adolescent, has of themselves will influence the way they: perceive life's events; interact socially; learn; and develop physically and emotionally. A negative self-concept can have detrimental effects in many areas of one's life. The benefits of having a self-concept measuring instrument are numerous. The earlier a negative self-concept can be detected the better off that person will be in the future if proper interventions are employed.

### **Purpose**

The purpose of this research study is to establish test-retest reliability coefficient scores for the JSSYC. This test is currently undergoing standardization procedures. National norms are being developed. Validity and reliability studies are being performed to establish the usefulness of this test. This study is one part of the process.

### **Hypothesis**

As stated above, the purpose of this test is to establish test-retest reliability coefficient scores for the JSSYC. This test is a revision of the JPPSST, which during its initial development, yielded favorable reliability scores. Therefore, it is thought by this



researcher that, the Joseph Self-Concept Scale for Young Children will yield favorable test-retest reliability coefficient scores for this population sample.

### **Theory**

The JPPSST and the subsequent JSSYC are founded upon self-concept theory. The concept of 'self' has been around for centuries. It has been studied since the beginning of psychological theory.

Contemporary theorists have developed an entire theory based around this concept known as 'self theory'. Carl Rogers was instrumental in the development of the self theory. Rogers' (1959) believed the potential for positive, healthy growth will naturally express itself in every person's behavior, if there are no strong opposing influences. He called this growth actualization. When actualization promotes maintenance or enhancement of the structure of the self, it's called self-actualization. He also believed that the self developed from a pattern of conscious perceptions that were experienced by the individual.

Bracken & Mills (1994) found in a review of ten instruments designed to measure self-concepts that the various test authors believe terms such as self-concept, self-worth, and self-esteem all relate to the same general construct. Coopersmith (1984) defined self-esteem as "the evaluation a person makes and customarily maintains of him or herself; that is an expression of approval or disapproval, indicating the extent to which a person believes him or herself competent, successful, significant, and worthy." The various definitions of self-concept are mostly centered around the ideas that perceptions of the 'self' remain constant and there is an evaluative process that takes place in forming one's self-concept. There are several terms used in this area that essentially define the same thing. Regardless of what term is used, the construct being measured is the same.

Abraham Maslow was another theorists who used the concept of the self to formulate his theory on motivation and personality. Maslow (1970) viewed various human needs as forming an hierarchy. The most primitive needs, those of the

physiological nature, as being at the base of his hierarchy. Higher up the hierarchy were social needs, then esteem needs, and finally the need for self-actualization. The idea of the self forming through relationships and evaluations of those relationships was central to his theory.

These theorists in particular held a common belief. The development of a self-concept is largely determined by an individual's perceptions of how others are interacting with them. One's self-concept is formed by evaluative judgements regarding perceived self-experiences.

The previously stated contention that self-concepts remain consistent does not imply that it is resistant to change. Self-concepts will vary throughout one's life. This should not effect the hypothesis presented in this study because the interval between administrations is relatively short in duration. This is a reliability study. Reliability of a test instrument is consistently defined in psychological terms as "the consistency of scores obtained by the same persons when they are reexamined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions" (Anastasi & Urbina, 1997). Anastasi & Urbina (1997) state, "In testing young children, the period should be even shorter than for older persons, since at early ages progressive developmental changes are discernable over a period of a month or even less." They also contend that the concept of reliability is generally restricted to short-range, random changes that characterize the test performance itself rather than the entire behavior domain that is being tested.

Therefore, conducting this study will fulfill the stated purpose for conducting this type of reliability study, which once again is to establish test-retest reliability coefficient scores for the JSSYC and help fulfill the need for a well developed measuring device of the self-concept perceptions of children.

## **Definitions**

The JSSYC and its predecessor, the JPPSST, both employ the same definition of the self-concept construct. As stated in the test's manual, "the scale therefore defines self-concept as the way an individual perceives himself, his behaviors, how others view him, and the feelings of personal worth and satisfaction that are attached to those perceptions" (Joseph, 1979). Anastasi & Urbina (1997) defined test-retest reliability coefficient as the correlation between the scores by the same person that are derived from the separate administrations of the same test, and defined reliability as the consistency of scores obtained by the same person on the same test. These definitions will be used to determine the validity of the previously stated hypothesis.

### **Assumptions**

This study assumes that the JSSYC is a valid test for objectively assessing the self-concept levels of its targeted age group through its design. In addition, the interval between test administrations will not facilitate the creation of intervening variables such as test-wise behavior, practice effect, and significant change in self-concept perceptions.

### **Limitations**

The limitations of this study are as follows. First, this study will be used for statistical purposes only, in order to develop a reliability measure for the technical evaluation of the JSSYC. Second, the population sample being used is not large enough in and of itself to establish the entirety of the test-retest coefficient, and it will be used in addition to other similarly designed studies. Finally, in relation to the first limitation, the raw scores derived from the administration of this test, by these subjects, will not be used to make any judgements, evaluations, or future plans for any subject's educational career. In short, this studies tests results will have no applicability other than for statistical purposes.

### **Overview**

This study was designed to provide a measure of test-retest reliability for the JSSYC using this specific sample of children. The test was developed using self-concept

theory, which will be further researched in Chapter 2. Chapter 2 will contain separate headings named: Overview; Introduction to Self-Concept; Reviews of the Joseph Pre-School and Primary Self-Concept Screening Test; Reliability Studies of Self-Concept Scales; Reliability Studies of Physical-Self Concept Scales; Physical Self-Concept; Family Factors and Self-Concept; and Summary. Once the pertinent research has been sufficiently examined, the design of the study will be presented in Chapter 3. Chapter 3 contains the description of the sample, the measuring device used, the design, the testable hypotheses, the analysis type used, and the summary of the chapter. The next chapter, Chapter 4: Analysis of Results, is where the findings and results of the data from the study will be presented. Finally, Chapter 5 will include the summary and conclusions of the study. Within this chapter a discussion section will be presented to integrate the findings of this study with the theory of self-concept and the findings from other related studies. But first, the literature review of the self-concept construct, an introduction into the world of the self.

## Chapter 2: Literature Review

### **Overview**

This chapter starts with an introduction to the construct termed 'self-concept'. The definition is discussed and related ideas are mentioned. The purpose for this is to provide an understanding of the construct trying to be measured by the various instruments contained within this review.

The next section will present reviews conducted on the original version of the Joseph Pre-School and Primary Self-Concept Screening Test. This particular study is a reliability study of the Joseph Self-Concept Scale for Young Children. Therefore, the reliability measures of several instruments will be discussed along with their definition for self-concept. These scales share similarities with the Joseph scale and are pertinent to the current study being performed here. Instruments using either pictorial or questionnaire designs will be reviewed. The Joseph scale uses a pictorial design to elicit answers from children for the purpose of measuring their self-concept. Scales using this pictorial design are therefore of special interest to this literature review. This review will also discuss the reliability of physical self-concept scales. This is an area of self-concept that is becoming of special interest to researchers. The perceptions that adolescents have of their physical features has been found to affect their overall self-concept.

Physical self-concepts is the next section of this literature review. The concept is discussed in relation to global self-concept. This area is important to the Joseph scale because of its pictorial design. Children are asked to make comparisons from sets of pictures containing other children that they identify with most. Identification with one picture may be influenced by the physical self-perception the child has. Since this identification is such an important aspect of the Joseph scale, investigation into the concept of physical self-concept is warranted.

The next section of this literature review pertains to family factors that influence self-concepts. Many questions asked by the Joseph test requires an evaluation of the examinee's perception of their family. Research in this area will be discussed and the effects of such factors will be explored. This may be the most substantial factor that influences self-concept. The family is at the center of children's social life. Factors within this area may affect self-concepts in many ways and is of special concern when measuring self-concepts.

The final section of this literature review will summarize the findings of the studies contained within. Test-retest scores of the various instruments will be discussed along with the major trends that have formed in self-concept research.

### **Introduction to Self-Concept**

The term 'self-concept' is a construct used to describe the perceptions a person has of themselves. Numerous researchers have attempted to define this construct. Most definitions are centered around the idea that people, regardless of their age, have a perception of themselves that remains relatively constant, and requires an evaluation of their worth in relation to others. There are several other terms used that appear to be defining the same construct as self-concept. Self-image, self-esteem, self-worth, self-identity, and self-perception seem to be used interchangeably. Joseph (1979) defined self-concept as "the way an individual perceives himself, his behaviors, how others view him, and the feelings of personal worth and satisfaction that are attached to those perceptions." This definition is in concordance with other definitions of the construct. A person's self-concept can be thought of as being at the core of one's personality which determines the way they act, think, perceive, and develop.

### **Reviews of the Joseph Pre-School and Primary Self-Concept Screening Test**

The Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST) was reviewed by Kathryn Clark Gerken and was published in the Mental Measurements Yearbook (MMYB). She noted that the test had some weaknesses as well as strengths

that needed to be addressed. In her opinion, the test development description was generally clear. The major strength of the test was in its empirical determination of how young children might pictorially represent the selected items. This is in regard to the pictorial presentations used by the JPPSST to tap the various dimensions of self-concept. The author was also commended for the test's clear directions for administering and scoring the test. In general, Gerken concluded,

This test is indeed one of the best self-concept measures available for young children. The test is compact and relatively inexpensive, except for the cost of the pictures. The manual is well written, directions are very clear, the test was standardized in a reasonable size population, and the author has attempted to provide evidence of reliability and validity. (p. 765)

The test reviewer did point-out several weaknesses of the test. The first area was in item selection. She claimed the source of the items was not clear. "It appears that he selected the dimensions and then used his own experiences to determine what kinds of questions should be asked to tap the dimensions" (p. 764). The quality of the pictures was another area of concern. The raw data for age group responses to specific questions was not provided. This would have helped describe the empirical relationship of each item to the Global score. The final area of weakness discussed by Gerken was in performing a qualitative analysis of the Identity Reference Drawing (IRD). The IRD requires the examinees to draw a picture of themselves. The reviewer felt that there should be caution used when interpreting human figure drawings because there is a large amount of research that questions the validity of such analysis. In summary, the author contends that the JPPSST needs additional research and cautious interpretation, but the test is a useful research tool or interview guide.

The JPPSST was also reviewed by Cathy Fultz Telzrow and was published in the MMYB. This review was similar to the review conducted by Gerken. The test was once again questioned about its item selection. This reviewer felt that there may be items that are potentially threatening in nature. She recommends the nature and purpose of each item be explained thoroughly before the test is administered (Telzrow, p. 766). There were three other criticisms noted by the reviewer. They were in the area of scoring procedures. The reviewer would have liked for the procedures for completing the Diagnostic Dimensional Evaluation to have been summarized on the record form for easier calculation. She contends that there should be space provided for notation, and the Item Response Summary forms were no longer published (Telzrow, p. 766).

The JPPSST was commended for its technical data. The standardization sample represented various ethnic groups proportionately and included handicapped children. The test-retest score was reported to be .87. The predictive value for two categories, Poor and High Risk Negative, correctly identified poor academic achievement four years later for 83% of preschool children and 70% of kindergartners, which was significant at the .001 level.

Telzrow summarized,

The JPPSST may represent one of the best child-interview self-concept measures available. The test is founded in self-concept theory and reports favorable reliability and validity results. In addition, it is a brief, easily administered instrument which represents a useful screening tool for social-emotional disabilities in young children. (MMYB, p.766)

The reviews presented here came to the same conclusion, the JPPSST is one of the best instruments for measuring children's self-concepts. Regardless of several minor criticisms, the test has some excellent qualities. In general, the original version of the



JPPSST has a strong theoretical base, a well written manual, good standardization, good reliability and validity coefficients, and uses a pictorial design that is appropriate for testing a young population.

### **Reliability Studies of Self-Concept Scales**

Bracken and Mills (1994) conducted a comprehensive review of ten self-concept scales. The examiner's manuals from each of the ten instruments were reviewed to compare and contrast them on the following objective variables: standardization sample size and scope; self-concept domains assessed; ages and grades for which the instrument was designed for; administration time; scale readability; test-retest reliability; internal consistency reliability; evidence of validity reported; types of scores produced and guidelines for interpretation; and their definition for self-concept. For the purpose of this review of literature, the test-retest correlation coefficients and definitions for self-concept will be discussed. The instruments reviewed are as follows: Coopersmith Self-Esteem Inventory; Culture-Free Self-Esteem Inventories-Second Edition; Multidimensional Self-Concept Scale; Piers-Harris Children's Self-Concept Scale; Rosenberg Self-Esteem Scale; Self-Description Questionnaire-I; Self-Description Questionnaire-II; Self-Esteem Index; Self-Perception Profile for Children; and the Tennessee Self-Concept Scale.

The Coopersmith Self-Esteem Inventory manual defined self-esteem as "the evaluation a person makes and customarily maintains of him- or herself; that is an expression of approval or disapproval, indicating the extent to which a person believes him or herself competent, successful, and significant and worthy" (Bracken & Mills, 1994, p. 15). Bracken & Mills (1994) reviewed the Coopersmith and found that its manual reported a .88 stability coefficient for a 5-week test-retest interval, a .42 to .70 for a 3-year interval, and a .64 for a 12-month interval. Further examination of the tests reviewed will show that the Coopersmith's test-retest coefficients are approximately the same as the other instruments reviewed.

The Culture-Free Self-Esteem Inventories-Second Edition (CFSEI) developed by Battle in 1992 defined self-esteem as “a composite of an individual’s feelings, hopes, fears, thoughts, and views of who he is, what she is, what he has been, and what she might become. Perception of self-worth tends to be fairly stable and resistant to change” (Bracken & Mills, 1994, p. 15). Bracken & Mills (1994) found the CFSEI to have reported .81 to .85 test-retest coefficients for Form A (grades 3-6) and .88 to .96 for Form A (grades 7-9).

The Multidimensional Self-Concept Scale (MSCS) developed by Bracken in 1992 defined self-concept as “a multidimensional and context-dependent learned behavior pattern that reflects an individual’s evaluation of past behaviors and experiences, influences an individual’s current behaviors, and predicts an individual’s future behavior” (Bracken & Mills, 1994, p. 16). The MSCS reported a .90 test-retest coefficient for a 4-week interval, and the manual reported subscale scores ranging from .73 to .81 (Bracken & Mills, 1994). In a similar test review conducted by Rotatori (1994) the MSCS was found to have been a positive addition to the assessment inventories already available for the evaluation of self-concept, to have strong stability, and to have a standardization set that set it apart from most other tests.

The Piers-Harris Children’s Self-Concept Scale (PHSCS) developed by Piers in 1984 defined self-concept as a “relatively stable set of self-attitudes reflecting both a description and an evaluation of one’s own behavior and attitudes” (Bracken & Mills, 1994, p. 16). The test-retest coefficients reported by the manual and reviewed by Bracken & Mills (1994) were .42 for a 8-month interval and .96 for a 3-week interval.

The Rosenberg Self-Esteem Scale (RSES) defined self-concept as the “totality of the individual’s thoughts and feelings having reference to himself as an object’ (Bracken & Mills, 1994, p. 16). The RSES reported scores of test-retest coefficients for both 8-month and 3-week intervals. Bracken & Mills (1994) recorded those scores as .42 for the former and .96 for the latter.

The Self-Description Questionnaires I and II (SDQ-I and SDQ-II) designed by Marsh in 1988 and later in 1990 use the same operational definition for self-concept and was stated as a “person’s perceptions regarding himself or herself; these perceptions are formed through experience with and interpretations of one’s environment” (Bracken & Mills, 1994, p. 16). SDQ-I was reported as having subscale scores ranging from a low .27 to .55 for the parents subscale. In general, the subscales ranged from .51 to .74 for a non-reported interval length. The SDQ-II reported a 7-week interval as having test-retest coefficients ranging from .72 to .88 for its subscales (Bracken & Mills, 1994).

The Tennessee Self-Concept Scale (TSCS) designed by Roid & Fitts in 1988 does not provide a definition for self-concept in its manual, but it is assumed that the authors consider the idea of self-concept to be in accordance with the various definitions provided by the instruments in this study (Bracken & Mills, 1994). The TSCS manual did however provide the authors of this review with test-retest coefficients. Bracken & Mills (1994) reviewed this instrument and reported a .92 coefficient for a 2-week interval.

The Self-Esteem Index (SEI) and the Self-Perception Profile for Children (SPPC) did not include test-retest coefficients in their respective manuals. Though the SEI did include a definition for self-concept, these two instruments will not be discussed for purposes of this literature review.

Bracken & Mills (1994) summarized, in looking at the various definitions provided by these test instruments, that it is clear the authors believe the terms self-concept, self-worth, and self-esteem all relate to the same general construct. All of the definitions seem to be similar in nature with only some differences in theoretical orientation (i.e. unidimensional v. multidimensional).

When comparing the test-retest coefficients provided in the examiner’s manuals it is clear that the shorter the interval between test administrations, the stronger the resulting coefficients appeared to be. Short-term test-retest reliability should provide evidence to the effect that self-concept constructs remain stable overtime. Several instruments

reviewed contained reliability coefficients commensurate with this belief. Though, as the duration between test administrations increased, the resulting test-retest scores started to decline.

The development of self-concept assessment instruments have focused on self-report questionnaires and pictorial designs to tap the social and emotional aspects of self-concept. The next study considered here to assess the psychometric properties of a self-concept scale was performed by Alain Cadieux, Ph.D. in 1996. The aim of this study was to assess the psychometric properties of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPCSA) (Harter & Pike, 1983) among young learning disabled students. This study was reviewed because, like the Joseph Self-Concept Scale for Young Children, it uses a pictorial design to measure a person's self-concept.

In this study, Cadieux (1996) defined self-concept (or self-perception) as a constellation of self-labels which people use to evaluate their behavior and physical characteristics in various evaluative situations (p.221). According to Cadieux (1996), self-concept has three main characteristics: a descriptive quality; a evaluative quality; and a congruent quality. Self-concept is descriptive because it is a cognitive trait by which people use words to label their behavior, performance, and physical characteristics. It is evaluative in such a manner that it contains both negative and positive emotional responses which are given to people in certain situations. The third characteristic of self-concept is congruence, which is thought of as the discrepancies in the descriptions of a person made by both themselves and others. Cadieux (1996) further explains that the congruence of people's self-concept is subjective and affect others' emotional behavior toward the person. A study conducted by Maltais (1998) found that children with positive-congruent social self-concept were significantly more selected as playmates than the children with other types of self-concept. The results suggested the type of social self-concept influences the behavior of others toward a person.

The PSPCSA consists of six pairs of pictures per domain; each pair has a young person in a positive and a negative role. The domains measured were academic competence, physical competence, and social acceptance. The sample used was 105 learning disabled students from grades 1-3. The students were asked to draw an 'X' in one of two circles on either the negative or the positive picture. A big 'X' was to be used if the picture was 'really' like them, or a little 'X' was to be drawn if it was 'pretty much' like them. The items were then scored from 1 to 4 (from the least competent to the most competent) (Cadieux, 1994).

Overall, the results of Cadieux's (1996) study revealed a mean of 3.4 for academic competence, 3.6 for social acceptance, and 3.4 for physical competence. The test-retest correlation's of 58 pupils retested between 2 and 4-week intervals produced coefficient scores of .58 for academic competence, .48 for social acceptance, and .76 for physical competence, with all coefficients having had a *p* value less than .01.

Cadieux (1996) concluded that test-retest coefficients gave statistically significant results, for the physical and social subscales, the results showed that the subjects were aware of their self-concepts and thus viewed themselves congruently. The academic competence subscale however revealed that students did not seem aware of their difficulties.

The Offer Self-Image Questionnaire for Adolescents (OSIQ) is a self-descriptive personality test of adjustment for young people ages 13-19 and was developed as a test to measure the feelings and attitudes that teenagers have of themselves (Patton & Noller, 1994). Patton & Noller (1994) noted the scale was based on two assumptions. The first stated that it is possible to master one aspect of our world while simultaneously having difficulty in another. The second assumption was that the psychological sensitivity of the adolescent is sufficiently acute that self-description is a valid basis for measurement.

The OSIQ measures five aspects of self-concept: Psychological Self; Social Self; Sexual Self; Family Self; and Coping Self. Within these five broad aspects of the self,

eleven subscales are contained. Questions on the OSIQ are worded both positively and negatively, and the questions require subjects to rate their answers on a scale from 1 to 6, where 1 denotes the question as describing them very well and 6 describing them not at all. This results in scores with positive adjustment maintaining low raw scores and high raw scores are considered to denote poor adjustment (Patton & Noller, 1994).

An extension of the OSIQ was later developed for use with a younger population. The Self-Image Questionnaire for Young Adolescents (SIQYA) was created in 1984. It was designed in large part because the stages of early adolescence and later adolescence are thought of as two distinct periods in development. Petersen, Schulenberg, Abramowitz, Offer, and Jarcho (1984) described early adolescence as being “characterized by rapid biological, psychological, and social changes, is a phase of development distinct from later years of adolescence” (p. 94). Therefore, questions deemed appropriate for later adolescence may not be valid for this younger population.

Petersen et al. (1984) believe “self-image is manifested through functioning in various social domains (e.g., school, family, peer group), as well as through psychological functioning (e.g., impulse control, mental health adjustment, ease in new situations)” (p. 94). Therefore, they assume that self-image is multidimensional and should be measured as such. This multidimensional approach has been used numerous times by Shavelson, Hubner, and Stanton (1976), Bracken (1992), Roid & Fitts (1988), Battle (1992), and Marsh (1990).

After revision, the SIQYA contained 98 items and consisted of 9 scales. The same response format was used and the items were still worded negatively and positively. The reliability coefficients were consistent with the original OSIQ coefficients, which revealed good minimum estimates of reliability (Petersen et al., 1984).

Peterson et al. (1984) made several conclusions from this study. First, the SIQYA was highly correlated with well-validated measures of self-esteem. Second, groups tested with mental health problems also reported lower self-image overall. Third, divorced or

separated parents of young adolescents tested reported lower self-image scores when compared to children with married parents. This finding was consistent with a study conducted by Swaim & Bracken (1997), who found that adolescents with lower family self-concepts were significantly at-risk to become runaways. Bartle-Haring (1997) also found that identity achievement for males and females was affected by family differentiation roles. Finally, the boys tested were found to have more positive self-images in terms of body image than the girls. Ollech & McCarthy (1997) found that ego weaknesses and cultural pressures render female's identity formation more difficult and attained identity more tenuous. For adolescent females cultural pressures and internal dissonance cultivate a diffuse sense of identity.

### **Reliability Studies of Physical Self-Concept Scales**

Physical self-concept has several different aspects within the construct. It is multidimensional. Researchers have developed several subdomains within this construct. Physical strength, conditioning, attractiveness, competence, appearance, build, and coordination are a few subdomains found to exist by various researchers. Adolescence is marked by several developmental changes for males and females. Sinkkonen & Siimes (1998) found, in regard to body image, that aspects of self-image develop as a function of psychological and cognitive maturation, while other aspects are related to biological events. This period in a person's life can have many effects on one's overall self-concept. Therefore it would be useful to have assessment instruments to measure the various aspects of physical self-concept separate from other tests of global self-concept. This task has been undertaken by several researchers. The next study reviewed was conducted by Marsh, Richards, Johnson, Roche, and Tremayne (1994) and presents tests that were developed to assess the physical self-concepts of adolescents.

Marsh et al. (1994) focused on three multidimensional physical self-concept instruments: the Physical Self-Perception Profile (PSPP); the Physical Self-Concept scale (PSC); and the Physical Self-Description Questionnaire (PSDQ). The PSPP measures

four physical subdomains. The subdomains are Bodily Attractiveness, Sports Competence, Physical Strength, and Physical Conditioning/Exercise, as well as a Global Self-Worth scale. The PSC contains seven subdomains (Body Build, Appearance, Health, Physical Competence, Strength, Action Orientation, and Overall Physical Satisfaction). The PSDQ measures eleven scales: Strength; Body Fat; Activity; Endurance; Sports Competence; Coordination; Health; Appearance; Flexibility; General Physical Self-Concept; and Self-Esteem.

Marsh et al. (1994) reported the test-retest correlations for the PSC were just below the .80 level for a three week interval. The test designer summarized the age and gender trends for the respondent's physical self-concept as remaining stable between the ages of 10 to 20 for males. The scores for females were found to be systematically lower for all ages after the age of 12. Reliability information was not presented for the PSDQ nor the PSPP.

### **Physical Self-Concept**

As stated previously, adolescence is a period of physical and psychological change. Developmental changes (i.e. onset of puberty) are taking place. Societal expectations and peer development, along with developmental change, can cause havoc on one's global self-concept. Physical self-concepts are important domains to be explored during this turbulent period. Akhtar (1996) in a study of identity formation believes a cohesive identity comprises a realistic body image, subjective self-sameness, consistent attitudes, temporality, gender, authenticity, and ethnicity.

Asci, Gokmen, Tiryaki, and Asci (1997) conducted a study on self-concept and body image of Turkish high school male athletes and nonathletes. Though this study was conducted in a foreign country, their findings were consistent with research conducted in this country with similar subject characteristics. The purpose of their study was to answer the following questions: Are there significant differences between the self-concepts of high school male athletes and their nonathlete counterparts? What are the differences in



their satisfaction with body parts? What is the relationship between self-concept and satisfaction with body parts for athletes and nonathletes? The first and last questions will be reviewed for purposes of this literature review.

Asci et al. (1997) found that participation in physical activity is significantly related to enhancement of self-concept of high school males. Male athletes scored higher than nonathletes on social acceptance, athletic competence, and physical appearance subscales. Furthermore, Asci et al. (1997) found that body image and self-concept showed a significant correlation between four subscales of self-concept (scholastic competence, athletic competence, physical appearance, and global self-worth). They concluded from these findings that those who exhibited a positive body image tended to be more confident in school, athletic events, and general life than those with a negative body image. Asci et al. (1997) also concluded that as body image satisfaction increased, the sense of adequacy in athletic ability, in school, and in requirements of general life increased. Finally, for both athletes and nonathletes, those who exhibit a positive body image feel more confident in school, athletic events, social life, general life, and in relationships with the opposite sex. These findings were consistent with those of Balogun (1986) and Marsh (1996) whom also found relationships between body image and self-concept measures.

In another study conducted by Marsh (1998) the age and gender differences in athletes and nonathletes was explored in relation to physical self-concepts. The PSDQ, developed by Marsh, was used to measure nine specific components and one global component of physical self-concept. The findings of this study were also consistent with his earlier studies, athletes and males have systematically higher physical self-concepts than nonathletes and females. Marsh (1998) also found female athletes in the adolescent period had higher physical self-concepts than nonathletic females. Also found in this study, in relation to age, was support for stability of the physical self-concept during the period of adolescence. This evidence contradicts the findings of Burnett (1996) and Watkins, Dong, and Xia (1997). They found declines in self-esteem and self-concept as

children passed through adolescence on most nonacademic self-scales. Granted, Marsh's study was one of physical self-concept, but research has shown that global self-concept is closely related to physical self-concept, therefore making the comparison of studies plausible.

The relationship between perceived weight status and self-concept during adolescence was explored by Pritchard, King, and Czajka-Narins (1997). The purposes of the Pritchard et al. (1997) study were:

To determine the relationship between adolescents' perceptions of their weight status and weight status defined using Quetelet's body mass index (BMI); To determine the importance of BMI as a predictor of perceived-weight status, controlling for age, gender, and ethnicity; and To explore the role of BMI as a predictor of self-concept, controlling for gender, age, and ethnicity (p.864).

Pritchard et al. (1997) calculated BMI by dividing weight by squared height based on self-reported weight and height. Students were asked to state their perceptions about their own overweight status, and they were asked to respond to a series of statements about their self-concept on a 5-point scale. After appropriate statistical procedures were conducted, the results revealed several interesting findings.

Pritchard et al. (1997) found that 26% of females reported themselves as overweight. When actually only 4.7% qualified as overweight based on BMI-weight status, and for the females that did report themselves as overweight, 84.8% would not be classified as such by the BMI-weight status. The numbers for males were consistent with BMI-weight status and their perceived weight status. Further findings revealed that mean values for the self-concept index showed more positive self-concept for males than for females. Higher BMI was associated with a more positive self-concept for males and a more negative self-concept for females. The strongest predictor of a negative self-concept

for the total group was perception of overweight status. This finding is consistent with a study conducted by Stein, Bracken, Haddock, and Shadish (1998). Stein et al. found in a comparison of normal and overweight children that normal-weight children obtained higher global physical self-concept scores and higher subscale scores. Pritchard et al. (1997) concluded that perceived-weight status was strongly correlated with self-concept and may be one factor leading to various psychopathologies during the adolescent years.

Physical self-concepts and life adjustment is the topic of research conducted by Sonstroem & Potts (1996). Physical self-concepts significantly improved associations with life adjustment. Self-perceptions of physical competence are essentially related to life adjustment correlates. Perceptions of sport competence in males and with perceptions of physical condition, attractive body, and general physical self-worth in both males and females (Sonstroem & Potts, 1996). The purpose of their study was “to examine the association of physical self-concepts to life adjustment variables, another saliently recognized property of global self-esteem” (Sonstroem & Potts, 1996). Sonstroem & Potts (1996) explained this connection by stating, “the physical self-concept is regarded as a domain of global self-esteem, and global self-esteem is known to be highly related to life adjustment.”

Sonstroem & Potts (1996) found that self-concept constructs, when compared with global self-esteem, consistently manifested better associations with physical activity components such as measured physical fitness and self-reports of activity participation. While females displayed lower physical self-concept scores than males, these scores were associated with life adjustment, as were those of males. Furthermore, physical self-worth and perceptions of physical condition and an attractive body in females were significantly associated with adjustment variables. Sonstroem & Potts (1996) concluded, “presents results portray people with high physical self-concepts as enthusiastic, alert, and active individuals, relatively free from subjective distress, neuroticism, and depression.”

### **Family Factors and Self-concept**

The role that family plays in the development of children can have a profound effect on self-concept. Parental style and family functioning can influence the way children perceive themselves, interact socially, and strive for academic achievement. This is supported by the findings of Bowles & Fallon (1996) who indicated that there were differences in subject's self-concept as a function of their sex and perceptions of family functioning.

Burnett (1996) found that what parents say to their children and how they interact with them is more closely related to their children's self-perceptions than the role of modeling parental attitudes and behaviors. His findings highlighted the benefits of parents talking positively to their children. Interaction with children during the turbulent years of adolescence was the focus of a study conducted by Adamsom & Lyxell (1996) who found that a positive and stable self-concept for the majority of their subjects was significantly related to how the subjects experienced adults' interest in their existential questions. This is a period in life where cognitive activity about one's life and how they relate to their environment begins to formulate. Social involvement with peers is at its pinnacle. Findings by Dekovic & Meeus (1997) showed that the adolescent's self-concept serves a mediating role in the relationship between maternal child-rearing style and involvement with peers. They concluded that a positive self-concept and warm supportive parenting may contribute unique variance to satisfactory peer relations. Results of one study showed that higher academic stress and less emotional support from the family were related to lower academic self-concept, higher peer stress and less companionship support from peers were associated with lower social self-concept. Emotional support from the family moderated the influence of peer stress and liking of school (Wenz-Gross, Siperstein, Untch, and Widaman, 1997).

Attachment to parents and peers during adolescence and their relationship with self-image was explored by O'Koon (1997). The purpose of his study was to explore the

effects of attachment relationships on self-image in adolescence. He proposed three hypotheses:

1. Parent and peer attachment will have a positive relationship with self-image in adolescence. The relationship of parent attachment to self-image will be stronger than peer attachment.
2. Some independent relationships of Mother, Father, and Peer attachment with self-image will exist.
3. Females will show stronger peer attachment than will males. Males will show stronger self-image across areas of adjustment.

(O’Koon, 1997, p. 474)

O’Koon (1997) found that: attachment had a positive impact on adolescent self-image scales; attachment to Mother, Father, and Peers had a significant positive relationship with Emotional tone; Peer attachment was significantly correlated with scales that gain prominence during this developmental stage; attachment to Mother and Father significantly related to global aspects of well-being; females had a significantly higher level of attachment to peers than did males; and males had higher scores on each of the scales of adjustment. In general, the hypotheses proposed were all substantiated by the results of this study. The concept of attachment to parents and peers was related to the self-image of adolescents. This can also be said for academic achievement. Learner & Kruger (1997) found that attachment to parents and a teacher were related to academic motivation and achievement.

Identity formation is key aspect of development during adolescence. This is a recurrent theme in a book entitled The adolescent years: Social influences and educational challenges: Ninety-seventh yearbook of the National Society for the Study of Education, Part I, authored by Borman & Schneider (1998). The authors contend throughout, no matter how adolescence is defined, the establishment of identity and the search for

autonomy remain central developmental tasks of the adolescent years. But what effect does certain environmental factors have on identity formation?

De Haan & MacDermid (1998) examined the relationship of individual and family factors to the psychological well-being of students living in poverty. De Haan & MacDermid (1998) hypothesized “that economic hardship would be associated with decreased adolescent adjustment both directly and indirectly, with indirect effects being expressed through identity development and perceptions about parents” (p.78). Results of the De Haan & MacDermid (1998) study showed that identity development did serve as a mediating, or protective, factor between poverty and adjustment. Poverty, however, was negatively associated with identity, which in turn was clearly linked to well-being and adjustment. “While perceived parental treatment was not related to economic hardship, it was clearly associated with psychological well-being in this sample. Maintaining a supportive relationship with parents remains important for adolescents in this environment”(De Haan & MacDermid, 1998, p.85). Further findings on identity development revealed:

The eighth-grade students in this sample who possessed higher levels of identity development were more likely to report higher self-esteem and lower levels of depression and loneliness. Identity development was also found to be sensitive to differences in context, as economic hardship interfered with the development of a strong identity. This indicates that identity development is associated with adjustment, and even if individuals do not exhibit reactions to living in poverty, it is still possible that this environment is detrimental to their development. (De Haan & MacDermid, 1998, p. 85)

“Results showed that a positive parental relationship was directly associated with psychological adjustment and well-being” (De Haan & MacDermid, 1998). “This attests to the importance of examining contexts, as the relationship between parental involvement and adjustment may differ according to the environment” (De Haan & MacDermid, 1998).

The results of their study were different than the results of a similar study on identity resolution. Brookins (1996) found, with a sample of African-American adolescents, that scores on self-concept measures and identity resolution were not related to scores on either emotional well-being or family relations. Once again, the context with which the sample subjects were in created differences in identity development and self-concept.

Another environmental concern that may affect self-concepts is one in which there is a learning disabled (LD) child within a family. How is family functioning effected, and how are the self-concepts of siblings effected? These questions were attempted to be answered by Dyson (1996) in her study of nineteen families with a LD child. Dyson (1996) found, “In the presence of a child with a learning disability, families may experience increased parental stress and place greater emphasis on personal growth” (p.284). Other findings included:

...that families of children with disabilities experience greater stress than other families; ...that families of children with learning disabilities are similar to families of normally achieving children in that they have a positive and cohesive family relationship and use rules for operating the family routine; ...that families of children with learning disabilities strive for personal growth and are active in cultural and recreational activities more than families of normally achieving children. These results suggest that the presence of a child with learning disabilities may lead to increased family emphasis upon personal growth of the family

members. (Dyson, 1996, p. 285)

Dyson (1996) found that the self-concepts of the LD children examined were lower than their siblings, as recorded by the Piers-Harris Children's Self-Concept Scale, but within the range of the normative group. "With this level of self-concept, these children with learning disabilities represented a relatively well-functioning group and, therefore had a positive influence on the self-concept of their normally developing siblings" (Dyson, 1996).

### **Summary**

The definitions of 'self-concept' are mostly centered around the ideas that perceptions of the 'self' remain constant and there is an evaluative process that takes place in forming one's self-concept. There are several terms used in this area that essentially mean the same thing. Regardless of what term is used, the construct being measured is the same. As the research has shown, self-concept is at the center of one's personality. It has influence in practically every aspect of life.

The reviews of the JPPSST presented previously essentially came to the same conclusion. The authors claimed the test to be one of the best instruments available for measuring the self-concepts of children. There were only minor criticisms that did not affect the overall worth or applicability of the test. It was found to have strong test-retest reliability (.87) and good predictive validity.

The reliability studies reviewed yielded favorable results for most instruments that measure self-concepts. All of the tests presented defined the construct of self-concept in similar fashion. The test-retest reliability coefficients ranged from .70 to .90 for most instruments' global self-concept categories. The subscale scores yielded approximately the same reliability coefficients. Reliability for physical self-concept scales was encouraging. The PSC yielded a test-retest coefficient of approximately .80. The interval between administrations did show variability in the construct. The shorter the duration the stronger the test-retest scores remained. As the duration between administrations



increased, the lower the resulting coefficients became. This phenomenon calls into question the long-term stability of one's self-concept. This evidence would seem to suggest that self-concepts are not resistant to change, but would suggest that it doesn't happen overnight.

Self-concept was found to have three main characteristics. They are a descriptive quality, a evaluative quality, and congruence. The focus of most research today centers around the idea that self-concept theory is multidimensional. This is evident in the formulation of several subscales within each test. It is such a widely encompassing construct that subdivisions are a logical outcome of research in the field.

The designs of the various instruments do vary slightly. The pictorial design used by the PSPCSA is similar to the one employed by the JPPSST. It yielded test-retest coefficients for its subscales that ranged from a low .48 to a slightly higher .76. The questionnaire design used by several tests did not yield significantly better test-retest coefficients. A determination of what design is more advantageous can not be made. Evidence does support both designs and therefore it would be left to the examiner to decide what type of test to use.

The specific domain of physical self-concept has interesting influences on self-concept. Physical activity was found to be significantly related to enhancement of self-concept. Males were found to have higher physical self-concepts than females during adolescence. Though, sports and athletics did have a positive influence on both males and females.

The idea of body image also plays an important role in many aspects of self-concept. Those who exhibited positive body image tended to be more confident in school, athletic events, and general life than those who displayed negative body images. Males once again showed more positive self-concepts in this area. Females consistently reported themselves as overweight. The strongest predictor of a negative self-concept was the perception that one was overweight.

Physical self-concepts and life adjustment were also found to be significantly correlated. Perceptions of physical condition and attractive body were associated with adjustment variables in females. This is important because physical self concept is regarded as a domain of global self-esteem, and global self-esteem is known to be highly correlated with life adjustment.

The role family factors play in the development and self-concept of children is influential in many aspects. Perceptions of family functioning caused differences in subject's self-concept. Interaction with children by adults influenced the children's self-concepts. Emotional support from the family was also found to have a moderating influence on peer and school stressors.

Attachment to parents and peers was significantly related to global self-concept and academic achievement. Females were found to have higher levels of attachment, and males were found to have higher levels of adjustment.

Identity development, a major task in the development of adolescents, was found to related to self-esteem. The higher the levels of identity development the higher levels of self-esteem were found. Family functioning once again played a role in determining levels of self-concept through either fostering, or hindering, the development of identity.

Family functioning also plays an important role in special populations. Maintaining a supportive relationship between parent and child remains important in all environments. Poverty was associated with identity formulation, which was clearly linked to well-being and adjustment. Family functioning was found to have a moderating role with learning disabled students in the areas of stress and sibling self-concept.

## Chapter 3: Design of the Study

### **Sample**

The sample used for this study consisted of thirty-four sixth grade students. There were seventeen males and seventeen females. They ranged from eleven to thirteen years of age. The subjects used were 67% Caucasian and 33% non-Caucasian. All subjects were taken from two sixth-grade classes attending an elementary school in the North Wildwood public school district. This district is a rural beach community located in the southern tip of New Jersey. This community consists of lower-middle to upper-middle class families.

### **Measure**

This study was a reliability study of the Joseph Self-Concept Scale for Young Children (JSSYC). This scale was developed to objectively screen and identify children at the preschool and primary school stage, who, due to their self-concept, may develop learning problems or some other adjustment difficulties.

This instrument has two sections. The preschool-primary age section is the first section, and it is intended for use with preschool age subjects ranging from 3 years to 7 years of age. The second section is named the preadolescent section, and it is intended for use with subjects 7 years old or older. This second form of the scale is the one being administered in this study.

The JSSYC's second section consists of thirty self-concept situation items with corresponding pictorial designs. The preadolescent section features an interview format between examinee and examiner, with the examiner choosing to be either next to, or across from, the examinee. This section utilizes dichotomous picture sets that accompany the items and are primarily used as visual references for the questions. The thirty items of the preadolescent section also include four Distortion Index items that are scored

separately. The nine stimulus card pictures that are utilized for the preadolescent section are included in each stimulus booklet after the preschool-primary cards but are preceded by a yellow page divider. Each age edition of the test offers a set of boy and girl minority cards which are identical to their standard counterparts but feature darker skin and hair shading. The choice of whether to use the standard stimulus cards versus the minority cards is based on the examiner judgment regarding which set of cards each subject is more likely to identify with.

The administration of the preadolescent section began with the gathering of background information from the examinee. Their gender, age, grade level, ethnicity, and parental education level were all recorded on the top of the record form scoring key. The examiner then read the directions to the subject. After the reading of the directions, the examiner then read each of the thirty items to the subject from the preadolescent record form and circled the appropriate responses in the right-hand columns. For each of these items, the examiner simultaneously presented the verbal portion of the administration while pointing to the stimulus card on the subject's left for the first option. The second option for each item was read while pointing to the card on the subject's right. The scoring options were two-point scores for positive responses, zero-point scores for negative responses, and one-point scores for ambivalent responses which were indicated by question marks. The Distortion Index items (numbers 7, 14, 21, and 28) were summed and range from 0 to 8 points. A global score for the preadolescent section was derived by summing the points awarded for the twenty-six items (excluding Distortion Index items). Global scores may range from 0 to 52 points and can be calculated from the scoring key.

### **Design**

This study was a correlational design test-retest reliability study of the JSSYC. This researcher administered the preadolescent section of the JSSYC to the aforementioned sample. Their Global and Distortion Index scores were calculated by the previously mentioned procedure. Then, a one-week interval was employed between the

first administration of the test and the second administration of the same test. The resulting scores from the first administration and the scores from the second administration were then compared for each individual in this sample. The resulting correlational coefficient was then used to determine what hypotheses was accepted. The correlational coefficient was found by using the Pearson product-moment correlation procedure, which calculated the correlation coefficient. The resulting Pearson correlation coefficient was considered significant at the .05 level of confidence.

### **Analysis**

This study was a correlational study to establish the test-retest reliability of the JSSYC. The reliability coefficient is the correlation between scores obtained by the same subject on the two administrations of the test. It was assumed that the JSSYC is a valid test for objectively assessing the self-concept levels for age groups targeted by the test. In addition, the short interval between administrations would not affect the scores of the examinees by creating a pattern of responses through memory or social desirability, thereby negatively influencing the analysis employed by this study.

### **Hypotheses**

Null hypothesis: The Joseph Self-Concept Scale for Young Children does not yield statistically significant test-retest reliability coefficient scores for this population sample.

Alternate hypothesis: The Joseph Self-Concept Scale for Young Children does yield statistically significant test-retest reliability coefficient scores for this population sample.

### **Summary**

This study followed the standard procedures used when conducting a test-retest reliability study. Two administrations were conducted with a consistent one-week interval between them for all subjects in this sample. The resulting reliability coefficient was then used to establish one measure of reliability for the JSSYC.

## Chapter 4: Analysis of Results

A test-retest reliability coefficient for the JSSYC was established by testing thirty-four sixth grade students. The subjects ranged from eleven to thirteen years of age. They were tested twice through the administration of the JSSYC with a one-week interval between administrations. It was hypothesized that the JSSYC would yield a statistically significant reliability correlation coefficient at a .05 level of confidence. The null hypothesis stated: The Joseph Self-Concept Scale for Young Children does not yield a statistically significant test-retest reliability coefficient at the .05 level of confidence.

The scores obtained for each individual after two separate administrations of the JSSYC were then analyzed using the Pearson product-moment correlation coefficient statistical procedure. This procedure yielded a correlation coefficient for the thirty-four subjects tested.

After analyzing the resulting correlation coefficients, it was determined that the null hypothesis would be rejected and the alternate hypothesis would be accepted. Through analysis of this experiment it can be said that the Joseph Self-Concept Scale for Young Children (JSSYC) does yield favorable test-retest reliability coefficient scores for this population, and the JSSYC can be considered a reliable test instrument.

The Pearson product-moment correlation statistical procedure resulted in a .944 correlation coefficient for the Global Index for the thirty-four subjects tested. This was found to be significant at the .01 level of confidence. The mean for the first administration of JSSYC was 41.794, and standard deviation of 7.980 (see figure 4.1). The second administration of the JSSYC resulted in a mean of 43.559, and standard deviation of 7.266 (see figure 4.2).

The Lie Index Pearson correlation for the thirty-four subjects tested in this study was found to be .731. This is found to be significant at the .01 level of confidence. The

figure 4.1. Distribution of test scores for the first administration of the JSSYC.

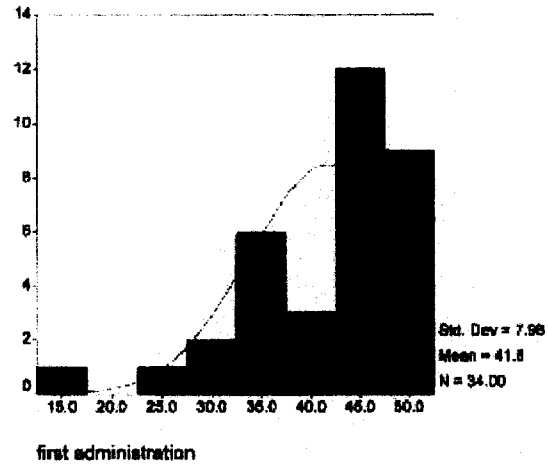
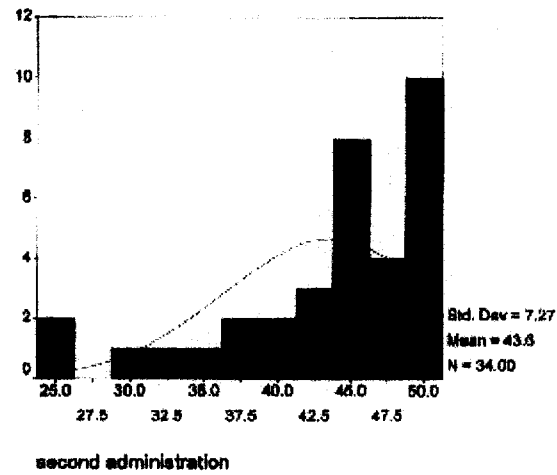


figure 4.2. Distribution of test scores for the second administration of the JSSYC.



mean score for the first administration of the JSSYC was found to be 6.618. This shows the overall Lie Index score to be considerably favorable when analyzing the truthfulness of test scores obtained from this sample. The mean score for the second administration of the JSSYC was found to be 6.588. This once again shows an overall truthfulness in answering by the subjects tested in this study.

There was only one instance, out of thirty-four occasions, where the Lie Index score by an individual varied by more than two points between administrations. Considering that each question had possible values of 0, 1, or 2 points, respectively, there was very little fluctuation within individuals between administrations.

There were only four instances, out of thirty-four occasions, where the Global score by an individual would have placed them in a different category (negative, poor, concern, and positive) from the first administration to the second administration. In all instances, the change in category placement was in a positive direction. The fluctuation in Global scores between administrations by individual case number is shown in figures 4.3 and 4.4.

figure 4.3. The fluctuation of test scores for each individual between administrations.

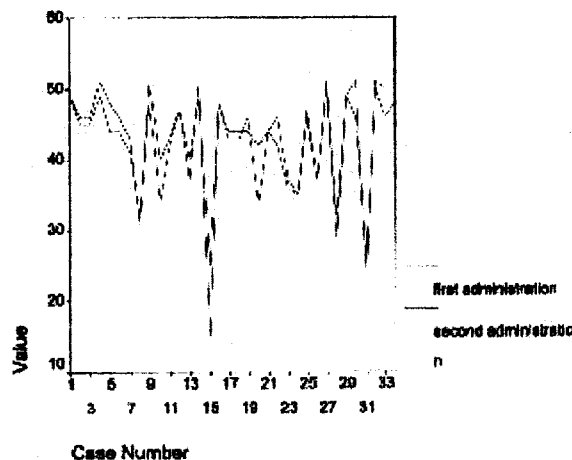
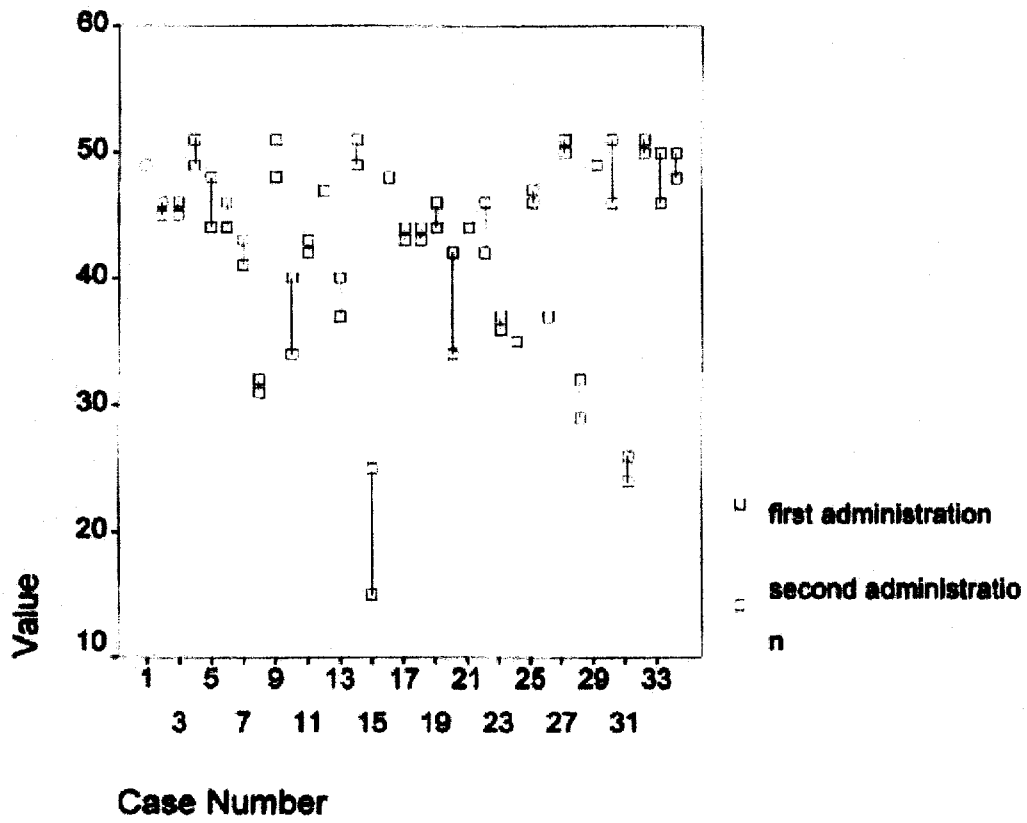




figure 4.4. The fluctuation of test scores for each individual between administrations.



## Chapter 5: Summary, Conclusions, and Discussion

### Summary

The need for a screening device to measure the self-concept perceptions of children and adolescents is in demand. The development of such a test to objectively screen and identify children at the preschool and primary school stage would be a significant advancement in the fields of education and psychological evaluation. This task has been undertaken by Dr. Jack Joseph. The revised version of his original instrument, The Joseph Preschool and Primary Self-Concept Screening Test (JPPSST), is currently underway. Determining the test-retest reliability for the Joseph Self-Concept Scale for Young Children (JSSYC) was the purpose of this study. This is but one step in the revising process.

The term 'self-concept' is defined as "the way an individual perceives himself, his behaviors, how others view him, and the feelings of personal worth and satisfaction that are attached to those perceptions" (Joseph, 1979). Most researchers have used similar definitions in their works.

It was hypothesized that the JSSYC would have favorable test-retest reliability. As work by previous researchers has shown, self-concept has been found to be a relatively stable personality attribute. This is not to say that one's self-concept is resistant to change, but rather that it develops overtime and changes slowly throughout one's life. It does however remain stable in the short-term. This should lend support to a self-concept instrument's stability reliability.

The design of this study was correlational in nature. The Pearson product-moment correlation was used to determine the correlation coefficient for this sample. The results of this analysis were extremely favorable. The Global and Lie Indexes reliability coefficients were found to be significant at the .01 level. This study had set the confidence

level at .05. The JSSYC was determined to be a reliable instrument for the assessment of self-concept.

### **Conclusions**

The findings of this study, as mentioned above, were extremely favorable. First, the correlation between test administrations for the Global score was found to be .944. This is extremely high, and was the basis for determining what hypothesis was accepted.

Second, the correlation between test administrations for the Lie Index was found to be .731. Though this is not as strong as the Global score, it was still significant and illustrates an acceptable level of relationship.

Third, the Global scores for each individual, obtained from the two administrations, only changed categories in four instances, or approximately 11% of the time. Of these four cases, three out of four were on the border of the next category, and in all instances, there was a positive shift in self-concept.

The findings of this study are in accordance with the available research. Self-concept was found to be relatively stable in subjects. The JSSYC, in comparison to other self-concept measures, was determined to have as good, if not better, test-retest reliability.

### **Discussion**

The JSSYC faired extremely well in comparison to other self-concept measures. Its' correlation coefficients were consistent with those reported by Bracken & Mills (1994) in their review of self-concept instruments. Coopersmith, Battle, Bracken, and Piers are just a few test developers with similar tests that performed much like the JSSYC. The interval chosen for this study was slightly shorter in duration, but it lends credence to the idea that self-concept is a stable construct.

The sample used in this study was comprised of children. Children, in this researchers opinion, are more likely to show variations in self-concept than an adult population. Adults are more commonly set in their ways and have a greater understanding

of themselves, which would result in greater resistance to change. There are also other cognitive differences between adults and children that would also factor into the difference. Children, especially during adolescence, undergo many physical and psychological changes. This can change, to a degree, one's self-concept on a regular basis.

I noticed during testing that there was a tendency for subjects to respond differently from the first administration to the second on questions that they had originally answered ambivalently. These ambivalent answers, along with refusals to answer, are scored as one point, respectively. The next week when questioned, the ambivalent answers had changed. The subjects had time to evaluate their original answer. This led to small fluctuations in their Global scores. There were certain questions that seemed to fall into this category on a more frequent basis. This could have been avoided by either removing the 'no answer' or 'ambivalent' options from the test, or by having the test administrator go to a further extent in forcing a positive or negative response.

Response patterns may be one area that could be looked at in more depth in the future. In particular, there seemed to be certain questions that were always answered the same by all subjects. Future research could examine the stability of individual questions. This would lend insight to what subdomains of self-concept are more resistant to change.

The performance of the JSSYC is encouraging for future research in the field. The refinement of this measure, along with that of other researchers, is a huge step forward in understanding this construct. There is evidence that this construct can be accurately assessed. The self-concept perceptions of our youth may be one of the earliest warning signs for future psychological problems. Hopefully, research will continue in this area and a greater understanding of the self-concept construct will be brought to light.

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