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# The Reliability of the Piers-Harris Children's Self-Concept Scale, Second Edition

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The Reliability of the Piers-Harris Children's Self-Concept Scale, Second Edition

By

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Thesis submitted to  
The Graduate College  
Of

Marshall University

In partial fulfillment of the requirements  
For the degree of

Ed.S.

In

School Psychology

Approved by

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### Abstract

This research was designed to assess the reliability of a new measure of children's self-esteem. The Piers-Harris Children's Self-Concept Scale Second Edition, Piers-Harris 2, is a self-report assessment. The study analyzed the split-half reliability of the Piers-Harris 2 using 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students from a rural middle school in Ohio. The results of the split-half reliability analysis using the Piers-Harris 2 were inconsistent with the split-half reliability of the Piers-Harris first edition and alpha reliability coefficient of the Piers-Harris 2. The split-half reliability of the Piers-Harris 2 was at the 0.52 level whereas other reports were at the 0.91 level for reliability. The six domain scores were then analyzed to assess individual differences within the domains. The domains reported a higher level of reliability between 0.41 to 0.80 with the exception of the Popularity domain with a reliability of -0.2388. It was expected that the reliability of the domain scores would be smaller than the overall reliability and the negative reliability within one domain decreased the overall reliability score.

## Dedication

This study is dedicated to all of the people who have supported me throughout my graduate school career. I would like to dedicate this paper to a very important person, my mother. My mother has aided, supported, and inspired me throughout school and life to be the best that I can be at whatever I do. She is not only my mother but my best friend. Thank you and I love you dearly.

### Acknowledgements

I would first like to thank Susie Michaels and Heather Paxton for taking on this project with me. I could not have done it alone and their help and support pulled me through. I would also like to acknowledge the school system, teachers, and students who participated in this study for their time and energy to aid in research and help graduate students. I would like to thank Dr. Krieg for inspiring me to “think outside the box” and Dr. Wilson for his constant encouragement to have faith in myself.

My deepest appreciation is also given to Dr. Libby Rhoades. She has given her time, energy, and support to me since the first day that I walked in her door. She has challenged me throughout my college career and always had faith in me, even when I did not.

## The Reliability of the Piers-Harris Children's Self-Concept Scale, Second Edition

### **Review of Literature**

#### *Definition of Self-Esteem*

Self-esteem is a widely researched area in the quest for further understanding of human behavior and attributes. There is a global definition of self-esteem that is widely accepted. Self-esteem is to regard oneself with respect or affection, to set a value upon, to rate highly, or have a favorable opinion of oneself (Allee, 1978). By definition, self-esteem is a positive quality or trait to possess, therefore, the majority of the research on self-esteem is directed at exploring low self-esteem.

Self-esteem is a more complex term to define than it initially appears. The research on self-esteem prompts many more questions and opposing views on what defines self-esteem, how it develops, how it functions, and what actually causes low self-esteem. There are several different theories of self-esteem that must be explored to obtain a better understanding of the subject.

Different psychological theories have diverse views of self-esteem. Abraham Maslow's theory of human motivation was based upon a hierarchy of human needs. One level in this hierarchy is esteem needs. Maslow believed that all people have a desire or need for a stable, firmly based, and usually high evaluation of themselves, for self-respect, or self-esteem, and for the esteem for others (Blake, 1995). Maslow elaborated that these needs are separated into two subcategories; the first is having a need for strength, achievement, adequacy, mastery, competence, independence and freedom. The second subcategory for esteem needs is the need or desire for reputation, prestige, status, fame, glory, dominance, recognition, attention, importance, dignity, or appreciation

(Blake, 1995). Maslow believed that satisfying these needs for self-esteem would lead to self-confidence, worth, strength, capability, and overall usefulness to the world. Failure to satisfy these needs would lead to feelings of inferiority, weakness, and helplessness (Blake, 1995).

Another important figure in the development of self-esteem theories was Carl Rogers. Rogers was a humanist psychologist and he believed that the psychoanalytic process was primarily about relationships. Rogers theorized that a client can be in a state of incongruence. Incongruence refers to a discrepancy between the actual experience of the organism and the self picture of the individual insofar as it represents that experience (Blake, 1995). According to Rogers theory, having low self-esteem would be from a person having incongruence between actual experiences and his perception of himself through these experiences. This indicates that when a person has low self-esteem, they would perceive experiences in a negative manner towards themselves, whether the experience was negative or positive.

While Carl Rogers' theory is the basis of a lot research, another psychologist has had influence upon self-esteem research. Alfred Adler was an individual psychologist who believed that the personality develops out of a social content. He hypothesized that this social context provides a feeling of group unity or membership that causes individuals to assess themselves relative to others (Blake, 1995). Accordingly, self-esteem would be primarily based upon social influences.

Koole, Dijksterhuis, and van Knippenber (2001) explored self-esteem in the context of whether self-evaluation is accomplished through conscious (explicit) or unconscious (implicit) effort. These researchers found that while people have a conscious

evaluation of themselves that influences their esteem, there is also an implicit self-esteem that is automatic, highly practiced, generally positive, and stable over time (Koole, Dijksterhuis, & van Knippenber, 2001).

Additional research has explored the idea of whether self-esteem is a trait or a state. This questions whether self-esteem is stable over time or if it changes according to life events and/or moods. The stability of self-esteem has been found to be curvilinear over time; developing throughout childhood, stabilizing in adulthood, and decreasing in old age (Trzesniewski, Donnellan, & Robins, 2003). With the stability of self-esteem changing across a life span, there is some indication that self-esteem can change accordingly with life events. As far as a state or trait is concerned there is evidence that while most consider self-esteem to be a trait that is relatively stable, state self-esteem is also a relevant factor in consideration of how self-esteem functions in affecting behaviors and that it is highly dependent upon social interactions and events within a person's life (Crocker & Wolfe, 2001).

As a final point, there is also an area of self-esteem that has been explored concerning what self-esteem is based upon. Crocker and Wolfe (2001) studied the contingencies upon which self-esteem is evaluated. Their study provided information concerning the fact that people have different contingencies upon which they base their self-esteem. While some people base their self-esteem upon accomplishments and achievements, others may base theirs upon relationships, weight, attractiveness, monetary attainment, religion, or moral behaviors. The results of the study indicated that since there are different contingencies in evaluating one's own self-esteem, there are consequently,

different outcomes in response to similar situations and experiences (Crocker & Wolfe, 2001).

Even though there are many aspects of self-esteem that have been explored, for the basis of this research project, self-esteem must be defined in a specific manner. Since the Piers-Harris Children's Self-Concept Scale 2<sup>nd</sup> Edition is being used as the measurement of self-esteem, self-esteem is considered to be explicit, a trait, and contingent upon the six cluster scales of the Piers-Harris 2. The six cluster scales are behavioral adjustment, intellectual and school status, freedom from anxiety, happiness and satisfaction, physical appearance and attributes, and popularity (Piers and Harris 1986).

### *Self-Esteem Development*

Another aspect to consider in research on self-esteem is exactly how self-esteem develops in individuals across their lifespan. According to the psychologists previously mentioned, self-esteem would be developed out of: need (Abraham Maslow), social interactions and group membership (Alfred Adler), or relationships with others (Carl Rogers) (Blake, 1995). One developmental theory that may also explain how self-esteem develops is Alfred Bandura, who believed that development occurred through imitation (Blake, 1995). Therefore, self-esteem would develop from the examples of self-concept that their parents or significant others displayed during children's development.

Other psychologists that explored development theorized that there are stages a person goes through where different areas of physical, emotional, or psychological development occur. Eric Erikson's theory of development included the school age stage in which a child determines whether they feel industrious or inferior (Blake, 1995).

Erikson's theory states that this stage is critical to the child's development and that if the child is unsuccessful in this stage he/she can develop feelings of inadequacy, hopelessness, and worthlessness (Blake, 1995).

One study into the factors affecting self-esteem explored the relationship of a mother's affect and communication to a child affecting the child's self-esteem. The research concluded that although there is direct communication to the child, the child's self-esteem is not only influenced by the mother's words but also the mother's moods, attributes, and behavior (Killeen, 1998). This article supports the theories of influences of imitation and social interactions upon a person's self-esteem.

By far the most in-depth explanation of how self-esteem develops is by Dr. Thomas W. Phelan, Ph.D. in Self-Esteem Revolutions in Children. Dr. Phelan explains that the development of self-esteem in children occurs within three revolutions. The first revolution is from birth to school age in which the child's self-esteem is most influenced by parents and significant figures in their lives. The child's self-esteem is significantly influenced by their parent's interactions with and to them. The second stage is the school age stage where a child's self-esteem is additionally influenced by their success or failure within the school system (Phelan, 1996). Therefore a child could have high self-esteem in the home environment but then begin to have self-esteem problems due to continual failure within the school system. Dr. Phelan's final revolution in self-esteem development is in adolescence where the importance of social interactions, particularly with the opposite sex, is significant (Phelan, 1996). Dr. Phelan takes into account many aspects of different theories of self-esteem development in children. He considers imitation from parents, social interactions, success vs. failure, and in relationships.

### *Self-Esteem Assessment*

Since self-esteem is an abstract concept, it is difficult to measure. It can be measured by a person's behavior which is observable. However, most self-esteem measures are assessed through self-report. In addition to the Piers-Harris 2, there are other measures of self-esteem such as the Coopersmith Self-Esteem Inventory and the Tennessee Self-Concept Scale which are also self-report scales. Self-report appears to be the most efficient, reliable, and valid assessment of a person's self-esteem or concept.

### *Reliability*

The reliability of an instrument is the stability of scores. In a reliable instrument, a person should have similar scores if the test is taken on different occasions or varying conditions, and the scores are relatively free of measurement error (Piers & Herzberg, 2002). Reliability is a crucial element to any test and a test must be reliable in order to be valid. There are multiple ways to assess an instrument's reliability; internal consistency, test-retest reliability, and split-half reliability.

The Piers-Harris Children's Self-Concept Scale, first edition, was assessed by researchers using all three measures of reliability. The reports indicated that the reliability of the Piers-Harris was around .90 for internal consistency, about .91 for split-half reliability, and ranged from .69 to .96 for test-retest reliability (Piers & Herzberg, 2002). These reports of reliability are reported from a range of different research assessments with a variety of populations as reported by the authors from the Piers-Harris 2 manual. As for the Piers-Harris 2, the test-retest reliability data are not yet available. The authors

did complete an internal consistency estimate which reported the reliability for the Piers-Harris 2 to have an alpha of .91.

Split-half reliability is measured when a test is split into equivalent halves for each individual, and a Pearson correlation between the two halves is conducted to assess the tests reliability (Piers & Herzberg, 2002). The split-half reliability of the Piers-Harris 2 norm sample is not yet available. Previous split-half assessments reported a reliability coefficient of .89 to .91 for the original Piers-Harris (Piers & Herzberg, 2002).

### *Hypothesis*

The purpose of this study was to assess the split-half reliability of the Piers-Harris Children's Self-Concept Scale, Second Edition. The subscales of the Piers-Harris 2 include behavioral adjustment, intellectual and school status, freedom from anxiety, happiness and satisfaction, physical appearance and attributes, and popularity. It is hypothesized that the split-half reliability will be within acceptable range of .89 to .91 as previously assessed.

## **Methods**

### *Participants*

Participants were selected from a middle school of approximately 630 students of sixth through eighth graders in a rural area of Ohio, vital statistics of Jackson County Ohio are provided in appendix C. All students within the school were sent the parent consent form found in appendix A. All students with parental consent were used for the assessment. To maintain confidentiality, all consent forms were sealed in an envelope and remain in the possession of the researcher.

### *Instrument*

The instrument used was the Piers-Harris Children's Self-Concept Scale, Second Edition; *The Way I feel About Myself*. The Piers-Harris Children's Self-Concept Scale, 2<sup>nd</sup> Edition (Piers-Harris 2) was written by Ellen V. Piers, Ph.D., Dale B. Harris, Ph.D., and David S. Herzberg, Ph.D. (revised edition only). The Piers-Harris was first published in 1969 and revised in 1984. The Piers-Harris 2 is appropriate for use in research, educational, or clinical settings to assess children's reported self-concept (Piers & Herzberg, 2002). It has an age range from 7-18 years old and an administration time of 10 to 15 minutes. The Piers-Harris 2 is a 60 item self-report questionnaire with dichotomous "yes" or "no" answers (Piers & Herzberg, 2002). It is often administered for routine classroom screening to identify children who might benefit from further evaluation.

The Piers-Harris 2 was re-normed in 1984 using 1,387 students with ages ranging from 7-18 years old and the group was nationally representative (Piers & Herzberg, 2002). The Piers-Harris 2 was comprised of six sub-domains to measure different components of self-esteem. The sub-domains were behavioral adjustment, intellectual and school status, freedom from anxiety, happiness and satisfaction, physical appearance and attributes, and popularity. The scores produced by the Piers-Harris 2 were percentiles, stanine, and T-scores.

The Piers-Harris 2 test-retest reliability for the norm groups 3<sup>rd</sup>, 6<sup>th</sup>, and 10<sup>th</sup> graders were 0.72, 0.71, and .072 respectively and was deemed acceptable by the authors (Piers & Herzberg, 2002). The internal consistency of the Piers-Harris 2 was 0.91 for the

total score and 0.74 to 0.81 for the six sub-domain scores. Estimates of content, criterion-related, and construct validity from empirical studies have generally been quite acceptable (Epstein & Jeske, 1985).

The authors completed a factor analysis upon the Piers-Harris 2 with the six domain scores and total score. They found that the six domain scores do share variance with each other, as expected, but are more highly correlated with the total score which indicates that they are distinct domains within the total self-concept score (Piers & Herzberg, 2002). The correlations ranged from 0.73 to 0.84 with the total score and inter-scale correlations range from 0.34 to 0.63 between sub-domains. The factor analysis using the Piers-Harris 2 questions have come up with the same six factors that the original study determined to be domains within the instrument (Piers & Herzberg, 2002).

Other measures of self-esteem have been compared to the Piers-Harris 2 to assess its validity. The Coopersmith Self-Esteem Inventory had a correlation of 0.63 in one study and 0.85 in another study to the Piers-Harris 2 (Piers & Herzberg, 2002). Other measures and correlations with the Piers-Harris 2 are Lipsett Children's Self-Concept scale, 0.68 and Harter Self-Perception Profile for children 0.68 to 0.73 (Piers & Herzberg, 2002). Some strengths of the Piers-Harris 2 are that it can be interpreted in a group, individual, or school report, it is psychometrically sound, and there are clear administration and scoring guidelines.

### *Procedure*

All students in Jackson County Middle School were given a parent consent form to have completed and returned to the school. Each teacher was given instruction on

administering the Piers-Harris Children's Self-Concept Scale 2<sup>nd</sup> Edition through the school found in appendix B. The students who returned their parent consent forms to the school were administered the Piers-Harris Children's Self-Concept Scale 2<sup>nd</sup> Edition by their homeroom teacher. The assessment was performed at the beginning of the school day between the fourth nine weeks and the end of the school year. Each student was given a 3 X 5 index card with a number from one to thirty on the card. The students were instructed to write their homeroom teacher's name on the card. The number and teacher's name was placed upon the answer sheet in place of their name on the Piers-Harris Children's Self- Concept Scale 2<sup>nd</sup> Edition answer sheet. The students were then administered the Piers-Harris Children's Self-Concept Scale 2<sup>nd</sup> Edition according to the instruments instructions. It is assumed that the student's have attained a second grade reading level required to read the assessment. However, teachers were instructed to answer questions about words that students may not understand in the questionnaire. Then the students were asked to turn over their index cards and write their name. Upon obtaining the data needed for research, the students were given new identification numbers and all evidence that would lead to their identification was shredded to maintain confidentiality, excluding the parental consent form.

The data was then analyzed using to answer the following questions.

1. What is the split-half reliability of the total score reported from the Piers-Harris 2?
2. What is the split-half reliability of the six sub-domain scores of the Piers-Harris 2?

3. Is the split-half reliability of the Piers-Harris 2 consistent with the internal consistency alpha of .91 reported by the authors?
4. Is the split-half reliability of the Piers-Harris 2 consistent with the split-half reliability of .91 of the Piers-Harris first edition?

### **Results**

The assessment was conducted with the Jackson County Middle School Students. Of the 692 students who received parental consent forms, 135 students returned the forms. Of the 135 students, 101 student had parental consent to participate in the research and were administered the Piers-Harris 2. The Piers-Harris 2 forms were then recoded to secure all identifying information of the student's who participated. The Piers-Harris 2 questionnaire uses dichotomous yes and no answers where either can be positive or negative depending on the wording of the statements. For the split-half reliability analysis, each question was input into the data using a 1 for a positive statement that contributed to a higher self-concept score and a 2 for a negative statement that contributed to a lower self-concept score. The protocols were then scored by hand and input to a statistical analysis program.

The data was then assessed for invalid cases. As a general rule, a total score of 66 T or above, more than 1.5 standard deviation units above the standardization sample mean should be interpreted cautiously (Piers & Herzberg, 2002). This data contained 15 cases with a total score above 66 T or above. There was one case with a 66 T, 6 cases of a 69 T, 6 cases with a 72 T and 2 cases with a 78 T. If a child gets a response bias score of 40 or above ( $T > 70$ ), or 18 or below ( $T < 30$ ), you should not interpret the child's Piers-Harris 2 results further (Piers & Herzberg, 2002). None of the cases scored a 40 or above and one

case scored below a 30 with a 29. A raw score of 4 or more in the inconsistency scale ( $T > 70$ ) suggests that the child may have responded randomly to at least some of the items on the questionnaire (Piers & Herzberg, 2002). One case had a  $T = 70$  for the inconsistency scale and was the same case with the response bias below 30. None of the cases were discarded from the reliability analysis due to the few cases with problems and to maintain the sample size.

A split-half reliability analysis was then completed to answer the following questions.

**Question 1:** What is the split-half reliability of the total score reported from the Piers-Harris 2?

**Answer 1:** A Guttman Split-Half reliability analysis was then completed on the 60 item scale. Results are presented in the table below which indicates a split-half reliability of 0.5163.

**Table 1: Total Items of Piers-Harris Split-Half Reliability**

Mean = 62.2887	Standard Deviation = 11.5470
Reliability Coefficients	60 items
Correlation between forms = .3500	Equal-length Spearman-Brown = .5186
Guttman Split-half = .5163	Unequal-length Spearman-Brown = .5186
Alpha for part 1 = .2326	Alpha for part 2 = .1001
30 items in part 1	30 items in part 2

**Question 2:** What is the split-half reliability of the six sub-domain scores of the Piers-Harris 2?

**Answer 2:** A Guttman Split-Half reliability analysis was completed on each domain with the questions as indicated for that domain by the authors. Results indicate the Behavior Adjustment Domain Split-Half Reliability = 0.6815, Intellectual and School Status Domain Split-Half Reliability = 0.4319, Physical Appearance and Attributes Domain Split-Half Reliability = 0.7097, Freedom from Anxiety Domain Split-Half Reliability = 0.8055, Popularity Domain Split-Half Reliability = -0.2388, and Happiness and Satisfaction Domain Split-Half Reliability = 0.4101 See Tables Below.

**Table 2: Behavior Adjustment Domain Split-Half Reliability**

Mean = 53.2474	Standard Deviation = 9.9100
Reliability Coefficients	14 items
Correlation between forms = .5355	Equal-length Spearman-Brown = .6975
Guttman Split-half = .6815	Unequal-length Spearman-Brown = .6975
Alpha for part 1 = .0927	Alpha for part 2 = .4234
7 items in part 1	7 items in part 2

**Table 3: Intellectual and School Status Domain Split-Half Reliability**

Mean = 51.0000	Standard Deviation = 9.2014
Reliability Coefficients	16 items
Correlation between forms = .2780	Equal-length Spearman-Brown = .4350
Guttman Split-half = .4319	Unequal-length Spearman-Brown = .4350
Alpha for part 1 = .2859	Alpha for part 2 = -.0258
8 items in part 1	8 items in part 2

**Table 4: Physical Appearance and Attributes Domain Split-Half Reliability**

Mean = 48.9794	Standard Deviation = 10.0519
Reliability Coefficients	11 items
Correlation between forms = .5881	Equal-length Spearman-Brown = .7406
Guttman Split-half = .7097	Unequal-length Spearman-Brown = .7419

Alpha for part 1 = .1885	Alpha for part 2 = .6878
6 items in part 1	5 items in part 2

**Table 5: Freedom from Anxiety Domain Split-Half Reliability**

Mean = 51.0722	Standard Deviation = 10.5626
Reliability Coefficients	14 items
Correlation between forms = .6819	Equal-length Spearman-Brown = .8109
Guttman Split-half = .8055	Unequal-length Spearman-Brown = .8109
Alpha for part 1 = .6694	Alpha for part 2 = .5964
7 items in part 1	7 items in part 2

**Table 6: Popularity Domain Split-Half Reliability**

Mean = 51.2680	Standard Deviation = 9.3881
Reliability Coefficients	12 items
Correlation between forms = -.1179	Equal-length Spearman-Brown = -.2673
Guttman Split-half = -.2388	Unequal-length Spearman-Brown = -.2109
Alpha for part 1 = .6656	Alpha for part 2 = -.1402
6 items in part 1	6 items in part 2

(The correlation between forms (halves) of the test is negative. This violates reliability model assumptions. Statistics which are functions of this value may have estimates outside theoretically possible ranges.)

**Table 7: Happiness and Satisfaction Domain Split-Half Reliability**

Mean = 49.9485	Standard Deviation = 9.0983
Reliability Coefficients	10 items
Correlation between forms = .2584	Equal-length Spearman-Brown = .4106
Guttman Split-half = .4101	Unequal-length Spearman-Brown = .4106
Alpha for part 1 = -.3535	Alpha for part 2 = .0028
5 items in part 1	5 items in part 2

**Question 3:** Is the split-half reliability of the Piers-Harris 2 consistent with the internal consistency alpha of .91 reported by the authors?

**Answer 3:** No, the split-half reliability of the Piers-Harris 2 of 0.5163 is not consistent with the internal consistency of 0.91 that the authors reported.

**Question 4:** Is the split-half reliability of the Piers-Harris 2 consistent with the split-half reliability of .91 of the Piers-Harris first edition?

**Answer 4:** No, the split-half reliability of the Piers-Harris 2 of 0.5163 is not consistent with the split-half reliability of 0.91 of the Piers-Harris first edition.

### *Discussion*

The analysis of the split-half reliability of the total self-concept score of 0.51 indicates that it does not have an acceptable reliability and that it was inconsistent with previous reliability assessments. Looking further into this data, the domain scores were taken into account individually to assess their reliability within the total score. The results were a sign of internal inconsistency between the domains. For example, the Freedom from Anxiety domain had 0.80 reliability while Happiness and Satisfaction domain had a 0.41 reliability. The analysis also indicated a major discrepancy within the Popularity domain due to having a negative reliability coefficient of -0.2388. In addition, the means and standard deviations reported varied between the domains.

A negative reliability coefficient violates the reliability model assumptions. Statistics that are functions of this value may have estimates outside theoretically possible ranges. The data was reassessed for data entry discrepancies and no problems were found. Due to the negative reliability coefficient, the split-half reliability coefficient for the overall self-concept score was considered an underestimate of the true reliability of the scale. However, it is evident that not all of the domains measure the same concept.

While the six domains combine to produce a total self-concept score, the measurement can vary between domains as evidenced by the variance of the mean and standard deviations between domains. Since the domains do not measure the same concept it is expected that the split-half reliability may not be the best measurement of this instrument.

Limitations of the research were the small sample size, the sample size was not representative of the national norm, and there was a negative coefficient within one of the domains. It is recommended that another analysis with a larger, nationally representative sample could produce different results. It is also recommended that another measurement of reliability be used since the domains measure different concepts.

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## Appendix A

### Parent Consent for Child Participation

Dear Parent or Guardian:

We would like to ask your permission for your son or daughter to help us by participating in our thesis research about children's self-esteem. This research project will help us to assess different aspects of self-esteem. This group project will assess self-esteem as compared to students G.P.A., their weight, between gender, and between students with and without disabilities.

***What is involved?*** Students who participate will be asked to spend approximately 15- 20 minutes of one school day taking part in a research project about of self esteem. The students will take the Piers-Harris Children's Self Concept Scale 2<sup>nd</sup> Edition and we will obtain information from the student's school records such as if they are participating in special education and their current G.P.A.

***Potential Benefits and Concerns.*** Although we will schedule the student's time out of class so that your son or daughter does not miss important lessons, please be aware that he or she may have to make up missed work. One possible benefit of being in the project may be that the student may become more self-aware of their feelings about themselves.

***Participation is voluntary.*** Your son or daughter's participation in this study is completely voluntary. There will be no penalty if you do not wish your son or daughter to take part in this study, and he or she may withdraw at any time during the study and refuse to answer any of the questions. This research has been approved by Jackson Middle School and the Board of Education.

***Information is confidential.*** All information will be held as confidential as is legally possible. Only the researchers will see the results of the scale and any other information obtained from the school. Once all of the data has been collected, your child's name will be removed and replaced with an identification number so that he or she can no longer be connected to any specific answers. We will however keep your parental consent forms on record in a sealed envelope.

***Questions?*** We appreciate it if you would return this form whether or not you would like your child to participate, so that we know that this information has reached you. You may keep a copy of this letter for your records. If you have any questions, please feel free to call Nicole Lemley at (304) 216-9335, Susie Michael at (740-682-0772), or Heather Paxton (304) 937-2661. Either of us can arrange for you to see the rating scale in advance if you wish. The Institutional Review Board at Marshall University 1-800-642-9842 can also answer questions about the rights of participants in research.

Thank you for your consideration.

Sincerely,

Nicole Lemley (304) 216-9335

Susie Michael (740) 682-0772

Heather Paxton (304) 927-2661

Please check the appropriate spaces below and then sign and date the form and return it to the school with your child.

\_\_\_\_\_ I have read and completely understand this permission letter. I give my consent for my child to participate in this research.

Please provide student's Sex \_\_\_\_ Weight \_\_\_\_ Height \_\_\_\_

Special Education: Yes \_\_\_\_ No \_\_\_\_ Specify: \_\_\_\_\_

\_\_\_\_\_ I do not wish for my child to participate in this research study.

Parent's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Student's Name: \_\_\_\_\_

Student's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix B

### Teacher Directions for Administering the Piers-Harris Children's Self-Concept Scale 2<sup>nd</sup> Edition

Dear Teachers,

First of all, we would like to thank you for your participation and cooperation within our graduate school research project. We greatly appreciate your time and effort in completing the following tasks. Please follow the instruction below for administering the Piers-Harris 2 to your students.

1. Please distribute the answer sheets enclosed **only** to the student's who return their parental consent form signed by the student and parent.
2. Distribute the index cards numbered 1-30 to the students who are participating.
3. Instruct the students to place the homeroom teacher's last name on the index card.
4. Students are now to fill out the top of the answer sheet and place the number and teachers name in the space provided for their name.
5. Instruct the students to begin answering the yes/no questions.
6. Please feel free to answer any questions the student's may have about definitions of words and meanings of the questions.
7. When the student's have completed the questionnaire have them to place their name on the back of the index card provided.
8. Place the answer sheets, index cards, and parent consent forms in the envelope provided.

Thank you for your time and consideration in this matter. Please administer this test on \_\_\_\_\_ . When completed please have the envelope sent to the office. If you need

any further information or have any questions please feel free to contact any one of us in the project.

Sincerely,

Nicole Lemley (304) 216-9335

Susie Michael (740) 682-0772

Heather Paxton (304) 927-2661

## Appendix C

<b>DATAELEMENT DEMOGRAPHIC DATA:</b>	<b>FY1994</b>	<b>FY1995</b>	<b>FY1996</b>	<b>FY1997</b>	<b>FY1998</b>
Fall Enrollment	2,739	2,726	2,765	2,738	2,717
Spring Enrollment	2,735	2,705	2,809	2,754	2,738
Minority Percent	1.80	1.66	1.31	1.15	1.45
ADC Percent	19.37	19.43	18.37	16.11	14.79
Average Income	24,381	24,158	25,991	26,240	28,042
Property Val/Pupil	44,766	50,673	50,956	51,849	57,466
<b>FISCAL DATA</b>					
Total Rev/Pupil (G)	3,530.18	3,634.54	3,914.05	4,087.92	4,291.69
Total Rev/Pupil (A)	4,283.55	4,511.66	4,475.80	4,868.44	5,009.63
State Rev/Pupil (G)	2,394.05	2,497.63	2,729.32	2,887.97	3,118.80
Local Rev/Pupil (G)	1,127.31	1,120.23	1,151.57	1,185.97	1,149.36
Expenditure/Pupil (G)	3,447.50	3,819.66	3,692.49	3,929.74	4,180.95
Expenditure/Pupil (A)	4,055.57	4,529.81	4,304.28	4,718.49	4,991.15
Effective Mills	28.80	24.87	25.09	24.98	22.00
Average Teacher Salary	31,360	31,969	33,012	34,067	33,895
<b>STAFF DATA</b>					
Basic ADM/Reg Teacher	21.08	20.73	22.22	21.98	21.40
Total ADM/CLs Teacher	18.93	18.77	20.33	20.13	19.61
Total ADM/Staff	10.19	10.05	10.11	10.06	9.88
Minority Percent	0.37	0.00	0.00	1.47	1.46
% Tchr with No Degree	0.00	0.00	0.00	0.00	0.36
% Tchr with Bach Degree	28.67	26.16	25.00	22.79	21.66
% Tchr with Bach +150	42.31	44.92	41.91	38.24	36.10
% Tchr with Masters Deg	29.02	28.92	33.09	38.97	41.88
Avg Teacher Experience	15.00	15.50	14.80	15.30	15.30
<b>OUTPUT</b>					

Pupil Attendance Rate	92.64	93.29	93.42	93.00	93.70
Staff Attendance Rate	94.77	95.33	95.46	95.50	95.65
Dropout Rate	3.52	4.24	2.96	3.35	3.42
Graduation Rate	83.19	85.45	86.16	85.73	85.58
% Coll Prep Graduates	0.00	0.00	0.00	0.00	0.00

Chart 1, Vital Statistics for Jackson City SD (Jackson) IRN:044156

## Appendix D

**Table 1: Total Items of Piers-Harris Split-Half Reliability**

**Table 2: Behavior Adjustment Domain Split-Half Reliability**

**Table 3: Intellectual and School Status Domain Split-Half Reliability**

**Table 4: Physical Appearance and Attributes Domain Split-Half Reliability**

**Table 5: Freedom from Anxiety Domain Split-Half Reliability**

**Table 6: Popularity Domain Split-Half Reliability**

**Table 7: Happiness and Satisfaction Domain Split-Half Reliability**