THE USE OF SELF-REPORTS AND PEER REPORTS AS MEASURES OF

SELF-ESTEEM IN MIDDLE SCHOOL STUDENTS

by

Gretchen Creech Troutman

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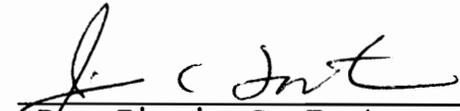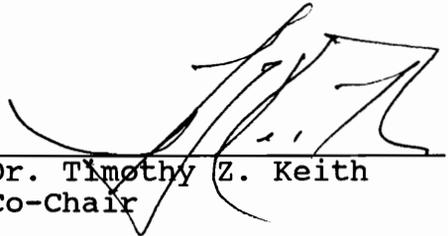
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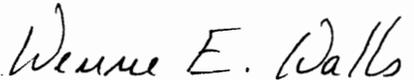
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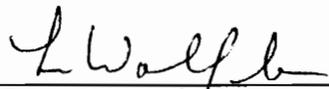
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Dr. Lee M. Wolfle

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Blacksburg, Virginia

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(ABSTRACT)

Many educators and psychologists believe self-esteem is
an important variable in the educational process. An
adequate level of self-esteem is recognized as being
essential for students because it may affect their level of
achievement and general state of well being. Self-report
measures are the most commonly used techniques to evaluate
children's perceptions of themselves. Children's self-
reports are valuable since certain aspects of internalized
problems are usually difficult for others to identify.
Sociometrics, or peer reports, provide an alternative to
self-report measures of self-esteem. Some studies have
shown academic achievement, athletic ability, and
socioeconomic status to correlate with sociometric status.
Sociometric measures allow teachers to gather a wealth of
information about their students quickly and easily.

One purpose of this study was to determine the degree
of similarity between self-reports and peer reports as
measures of self-esteem in middle school students.
Confirmatory factor analysis showed that self-reports and
peer reports were separate, but related constructs. A

second purpose of the study was to determine the effects of verbal ability, peer reports, and self-reports on current achievement while controlling for whether or not the student had a learning disability. A recursive path model found verbal ability and type of student (learning disabled versus not learning disabled) to have strong direct effects on achievement, whereas self-reports and peer reports had no significant effects. A third purpose of this study was to examine differences between students with and without learning disabilities on the peer reports and self-reports. Students with learning disabilities were found to have lower scores on all peer report and self-report measures. No relationship was found between type of student and choices made on peer nominations.

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Introduction

Many educators and psychologists believe that self-esteem and achievement are highly related and that both are important variables in the educational process (Battle, 1982). A student's performance on almost all school work is observed and judged in some way by teachers, or classmates, or both. These frequent evaluations are an important contribution to shaping self-esteem in students (Gurney, 1988). An adequate level of self-esteem is recognized by educators and psychologists as being essential for students because it affects their ability to adjust to environmental demands, their level of achievement, and their general state of well being (Battle, 1982).

A long-standing priority for psychologists has been the assessment of children's perspectives of themselves (Achenbach, 1985). Historically, projective measures such as the Rorschach or the Thematic Apperception Test were used to obtain a picture of a child's personality. Disillusion with these projective techniques contributed to the development of objective self-report measures, such as the children's form of the Manifest Anxiety Scale in 1956 and the Piers-Harris Children's Self Concept Scale in 1969. Most of these instruments were modeled closely on adult self-report measures. Newer instruments have demonstrated greater sensitivity to psychometric and developmental issues

in the assessment of children's personality (La Greca, 1990).

Self-report measures are the most commonly used techniques to evaluate children's perceptions of themselves and others (La Greca, 1990). The most widely used self-report instruments for children are usually referred to as measures of self-esteem, self-concept, self-perception, self-confidence, personality integration, and locus of control (Henerson, Morris, & Fitz-Gibbon, 1987). Within the last 10 to 12 years there has been an increase in the study of the reliability and acceptance of children's self-reports. Researchers now recognize the value of self-reports from children since certain aspects of internalized problems are usually difficult for others (i.e., parents and teachers) to identify accurately (La Greca, 1990; Stone & Lemanek, 1990).

Sociometrics, or peer reports, provide an alternative to self-report measures of self-esteem. There are a number of advantages to teachers using sociometrics in the classroom, especially since special training is not required to administer, score, and interpret these measures (Henerson, et al., 1987). A teacher concerned about a child's self-esteem usually has to go through a lengthy process before being able to obtain the desired information. In most instances the child is either referred for a special

education evaluation, or the guidance counselor will administer a self-esteem instrument after obtaining parental permission. Using a sociometric measure allows the teacher to gather information much more quickly and easily (Bennett, 1983). An added benefit is that information is obtained on the entire class, rather than just one student. Academic achievement, athletic ability, attractiveness, and socioeconomic status have all been shown to correlate with sociometric status (Bennett, 1983; Hallinan, 1981). Using sociometric measures could provide teachers with a wealth of information about their students.

Although sociometric data are different from other kinds of data, sociometrics are measures. They are especially suitable when studying such human actions as choosing, influencing, dominating, and communicating. And they can be of great benefit when used for classifying groups or individuals. Sociometry is a simple, economical, flexible, and naturalistic method of observation and data collection (Kerlinger, 1973).

McCombs (1989) reported that psychologists such as Cooley and Harter believe an individual's self-worth is based on their perceptions of what others think about them. It is possible that a positive self-esteem would lead to higher sociometric status, and vice-versa. Although there is no research to support the hypothesis that self-esteem

can be measured by sociometrics, it is a possibility that should be considered.

One purpose of this study was to determine the degree of similarity between self-reports and peer reports as measures of self-esteem in middle school students. A question considered during the course of this study was: Do self-reports and peer reports produce equivalent results? A second purpose of this study was to determine the effects of verbal ability, peer reports, and self-reports on the academic achievement of middle school students by using a path analytic model. A third purpose of this study was to determine whether there are differences between students with learning disabilities and students without learning disabilities on the peer report and self-report measures of self-esteem in middle school students.

This study provided an instructive look at how the self-esteem of children is measured. Not only were the ratings of others examined, but also the way a child rates himself or herself. With self-report measures there is always the possibility that a child may respond with the answer they think is more socially desirable rather than giving a true response, or they may be hesitant to reveal fully certain aspects about themselves (Battle, 1982; Dalley, Bolocofsky, Alcorn, & Baker, 1992). With

sociometric measures, there is always the possibility of bias overshadowing the choices.

Self-esteem is not only related to the way one feels about oneself, it is also related to the perceptions of others. Therefore, the measures used in this study should be appropriate measures of self-esteem as they evaluate how others feel about someone else (not themselves). At the same time, the self-report measures should evaluate how each child feels about himself or herself. Nunnally (1975) believed the most valid and economical way to learn about someone was to ask them.

The following chapter provides a description of the methodology used in this study. Specifically, the chapter describes the subjects, the measurement materials, and the statistical analyses included in the study. The results of the study are presented in Chapter 3 and a discussion of the research results are found in Chapter 4. A review of the literature related to sociometrics, self-esteem, self-concept, peer relations, academic achievement, and students with learning disabilities is located in Appendix A.

Method

<u>Subjects</u>

Subjects included students from a middle school located in a rural community of southwest Virginia. The educational level of the community fell well below the state average while the family poverty level was more than twice the state average. Table 1 presents the distribution of normally achieving students and those with learning disabilities by gender and grade level.

Table 1

<u>Distribution of Subjects Across Grade Level and Gender</u>

	GENDER				
	MALE		FEMALE		
Grade Level	LD	Non LD	LD	Non LD	Total
4	3	6	1	11	21
5	3	12	2	9	26
6	4	9	3	10	26
7	4	20	1	18	43
Total	14	47	7	48	116

This school was part of an evaluation project and the subjects were selected for the present study based on whether or not their classroom had been administered all four measures of self-esteem. The number of students from

fourth, fifth, sixth, and seventh grades were 21, 26, 26, and 43 respectively. There was a total of 116 students in the study, 55 females and 61 males, with an age range of nine to 14 years. Twenty-one (18%) of the students were identified as having a learning disability based on a 15 point discrepancy between their assessed ability and academic achievement.

Measures

Self-report measures. Copies of the two self-report measures which were administered can be found in Appendix B.

The Multidimensional Self Concept Scale (MSCS) (Bracken, 1992) provides information on a child's social-emotional adjustment in six important life domains. (1) The social self concept is affected by the reactions of other people (i.e, family, classmates, teachers) to the child and the child's ability to achieve goals through successful social interactions. (2) Competence behaviors are a measure of how children make generalizations about their competence and evaluate their actions. (3) Affect examines children's affective behavior, that is, the way they respond to all situations. (4) The academic scale looks at how children evaluate their achievement, functioning, and experiences in school-related situations. (5) Family refers to those individuals the child is dependent on for care, nurture, and security. (6) The physical self concept is how the child

compares himself or herself to the physical attributes of others. The term *self concept* is not hyphenated in the MSCS materials since Bracken (1992) views self concept as a behavioral construct, and not as part of a larger "self-system" (e.g., self-originated control, self-designated rewards).

The MSCS is a standardized, norm-referenced instrument containing 150 statements which include positive items (e.g., Most people like me) and negative items (e.g., I am not very smart). The subject circles the response which corresponds to their feelings about each statement: SA = Strongly Agree, A = Agree, D = Disagree, and SD = Strongly Disagree. The MSCS provides standard scores (mean of 100 and a standard deviation of 15), percentile ranks, confidence intervals, and a descriptive classification for the six scales and total test. Bracken (1992) reported the MSCS Total Scale score constitutes the best representation of the child's overall, or global self concept. Bracken's statement is consistent with Wylie's (1989) assertion that an individual's overall or global self-esteem is determined by a combination of self-evaluations which deal with different aspects of the self in conjunction with the importance the individual assigns to each of these aspects.

The Self-Esteem Index (SEI) is a measure of the way children perceive and value themselves in four areas. (1)

Perception of academic competence measures self-esteem in school, intelligence, education, academic skill, learning, and other scholarly activities. (2) Perception of familial acceptance measures self-esteem as it pertains to home, parents, siblings, and family interactions. (3) Perception of peer popularity measures self-esteem in the quality, importance, and nature of relationships and interactions with individuals outside the family. (4) Perception of personal security measures self-esteem through one's feelings about physical appearance, temperament, and emotions (Brown & Alexander, 1991).

The SEI is a standardized, norm-referenced 80-item scale made up of positive statements (e.g., My teachers like me) and negative statements (e.g., Kids pick on me a lot). The child puts an X under the response that best describes him or her for each statement: Always True, Usually True, Usually False, Always False. The SEI provides a percentile rank, standard score, and standard error of measurement for the four scales. In addition, a percentile rank, standard error of measurement, and self-esteem quotient (mean of 100 and standard deviation of 15) are provided for the total test. The authors state the Self-Esteem Quotient is the best predictor of global or general self-esteem as it takes into account all of the attributes measured by the SEI.

Alsaker (1989) cautioned researchers on the self to be careful when selecting the measurement instruments. Many instruments often include items related to academic competence, which is likely to increase the correlation with academic achievement. And many of the instruments contain items relating to social aspects of the self, thus increasing the correlation with social skills. Therefore, if the relationship between global self-esteem and more specific self-related dimensions is to be studied (i.e., academic achievement), a global self-esteem instrument which does not include reference to the specific dimensions in any way should be chosen. Although the MSCS and SEI include specific subtest scores, they also provide an overall self-esteem score. This study was not examining a specific dimension of the self since global, or overall self-esteem was the area of interest.

Sociometric Measures. Copies of the sociometric measures, or peer reports, which were administered can be found in Appendix C.

A peer nomination measure was administered first. The students were instructed to list their three best friends, the three people they would most like to play with, and the three people with whom they would most like to work. The three persons selected by each student were not in rank order, thus each nomination received the same score. The

information on the matrix allowed for further scoring; a child received one point for each time he or she was chosen, one point for each time the child was chosen by someone who was chosen at least four times, and one point for each time the child's mutual choices showed he or she was in a group of at least three students. Sample matrices can be found in Appendix D. Each child's score in the three categories (friend, work, and play) were averaged to provide a total score for the peer nominations (found in Appendix E).

A peer rating scale was administered to the students several weeks later. The students were asked to rate how much they would like to play with each of their classmates on a 1 to 5 point Likert scale. They were also asked to rate how much they would like to work with each of their classmates using the same scale. A student's score was the average rating received across all classmates. The average of each child's score on the work and play rating scales provided a total rating scale score (found in Appendix F).

Analysis

Confirmatory factor analysis was used to test for the degree of similarity between the self-report measures and the peer report measures of self-esteem. Figure 1 shows the basic model which was analyzed; the two self-report measures were tested against the two peer report measures to determine how similar or unique both of these measures were
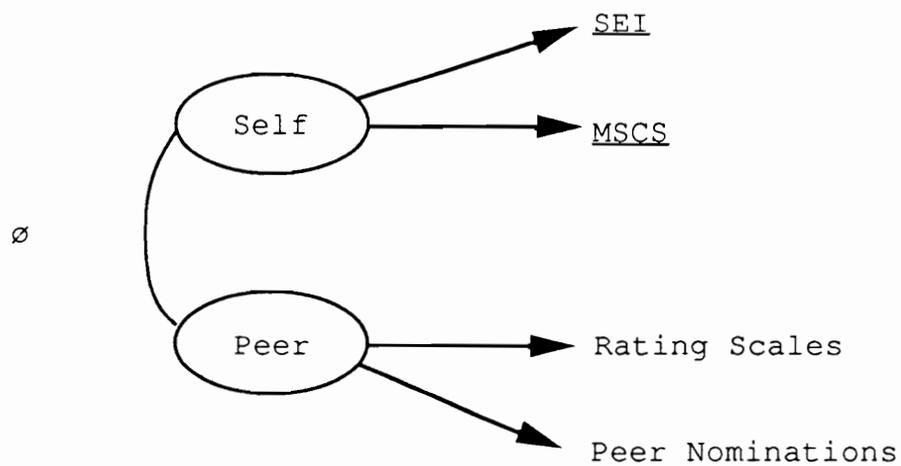
Figure 1. Confirmatory factor model of the relation between self-report and peer report measures of self-esteem.

in regard to measuring self-esteem. The correlation between self and peer is depicted by the curved line identified as phi. During the first analysis the correlation between the self and peer report factors was left free to vary in order to test the hypothesis that the two measures of self-esteem are separate but related constructs. The correlation (phi) was set to 1.0 during the second analysis so the model reflected the assumption that self-reports and peer reports are the same construct. The results of the two analyses were compared to one another to determine which was the better fit. The next step set the correlation to zero to test the theory that self-report and peer report measures of self-esteem are unrelated constructs (cf. Keith, Fehrmann, Harrison, & Pottebaum, 1987).

The second part of the study examined the effects of peer reports and self-reports on the academic achievement of middle school students. A recursive path model (Figure 2) was estimated to determine the effects of verbal ability, peer reports, and self-reports on the current achievement of middle school students while controlling for whether or not a student had a learning disability. The path model shows type of student (learning disabled versus not learning disabled) as an exogenous variable, meaning its variability is assumed to come from influences outside of the model. Verbal ability, self-reports, peer reports, and achievement
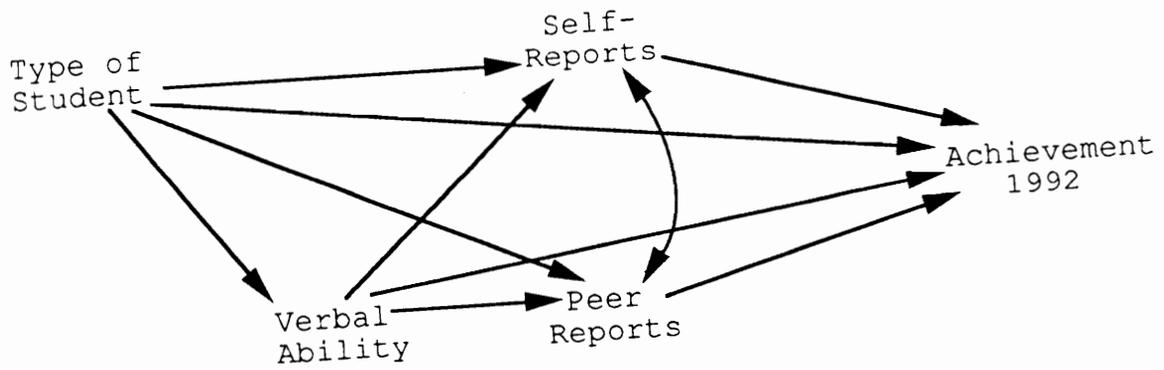
Figure 2. Recursive path model to test for the effects of type of student, verbal ability, peer reports, and self-reports on the current achievement of middle school students.

are all endogenous variables. Their variability is explained by other variables in the path model. The type of student variable was presumed to influence the four endogenous variables, and verbal ability was thought to influence self-reports, peer reports, and current achievement. Self-reports and peer reports were also assumed to influence current achievement. The curved line between self-reports and peer reports represents the correlation between these two variables, indicating that one was not thought to cause the other (cf. Pedhazur, 1982).

The third part of the study examined differences in self-esteem between students with learning disabilities and their nondisabled peers. T-tests were computed to test for the differences between students with learning disabilities and nondisabled students in regard to peer report and self-report measures of self-esteem. In addition, chi-square tests were performed to test the relationship between type of student and choices made on the peer nominations.

Variables

The variables used to test for the degree of similarity between self-reports and peer reports were the total scores from the SEI, the MSCS, the peer rating scale, and the peer nomination form.

The following variables were used to determine the effects of peer reports and self-reports on the academic achievement of middle school students.

1. Type of Student. Type of student was a dichotomous variable coded 0 for students with learning disabilities and 1 for nondisabled students.

2. Verbal Ability. Vocabulary scores from the 1991 Iowa Test of Basic Skills (ITBS) were used as a measure of verbal ability since vocabulary has been shown to provide a sufficient measure of ability (Keith & Cool, 1992).

3. Achievement. The achievement score was a composite of the 1992 ITBS math and reading scores. The ITBS percentiles were converted to standard scores (mean of 100 and a standard deviation of 15).

4. Self-Reports. Self-reports were a composite of the SEI and the MSCS.

5. Peer Reports. Peer reports were a composite of the peer nominations and the peer ratings.

Results

Similarity Between Self-Reports and Peer Reports

The first purpose of this study addressed the degree of similarity between self-reports and peer reports as measures of self-esteem in middle school students. Three separate models of the relation between self-reports and peer reports were analyzed using confirmatory factor analysis (LISREL, Jöreskog & Sörbom, 1988).

Table 2 shows the intercorrelation matrix of the variables used in the analyses. As can be seen in the matrix, the two self-report scales correlated highly with each other, and the two peer report measures correlated highly with each other.

Table 2

Intercorrelation Matrix

Variables	1	2	3	4
1. SEI	1.00			
2. MSCS	.795	1.00		
3. Rating Scale	.335	.281	1.00	
4. Peer Nomination	.221	.186	.654	1.00

In the first model, the correlation between self-reports and peer reports was freed to test the assumption that they are separate but related measures of self-esteem.

The "goodness of fit" statistics in Figure 3 suggested that the proposed model provided a good fit to the data. The adjusted goodness of fit index (AGFI) of 1.0 suggested an excellent fit. The root mean square residual (rmsr) of .000 also suggested an excellent fit. More specifically, it suggested the correlation matrix predicted by the model did not differ from the actual correlation matrix.

The SEI (.974) and MSCS (.817) both loaded strongly on the self-report measure. Rating scales (.996) loaded strongly on the peer report measure while peer nominations (.657) had a more modest loading. The correlation of .35 between the self-report and peer report factors was significant (t > 1.96), suggesting that self-reports and peer reports were separate but related constructs.

The second model set the correlation between self-report and peer report to 1.0 and specified that self-reports and peer reports are perfectly correlated, identical constructs. The factor loadings for Model 2 were much lower than those found in Model 1 and the adjusted goodness of fit index of .168 was much lower than the 1.00 obtained in Model 1. The change in X^2 from Model 1 to Model 2 (57.01 at $\underline{df}$ = 1) was significant and the root mean square residual increased to .0017. In other words, Model 1 provided a better fit to the data than Model 2; self-reports and peer reports were not identical constructs.
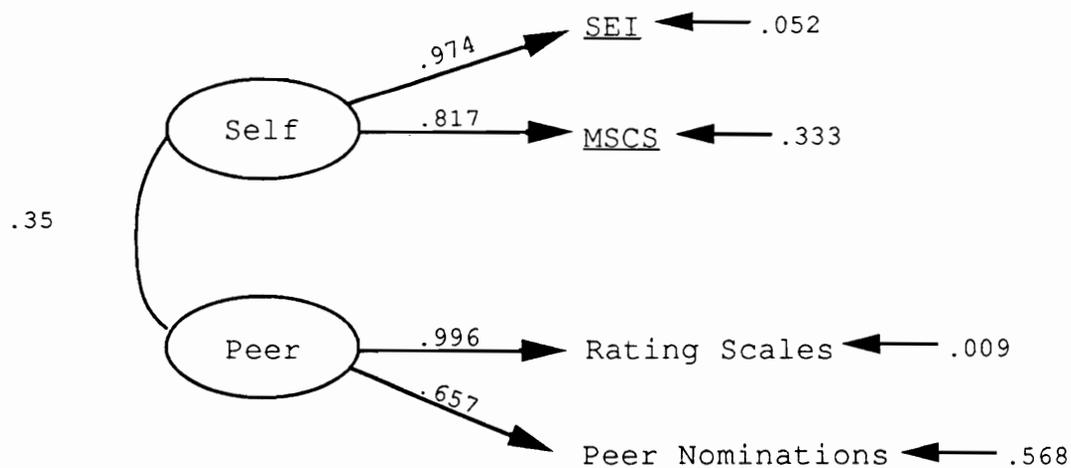
$$\chi^2 \quad 0.00$$
$$\underline{df} \quad 1$$
$$\text{Adjusted Fit Index} \quad 1.00$$
$$\text{rmsr} \quad .000$$

Figure 3. Model 1: Self-reports and peer reports are assumed to be separate but related constructs.

Model 3 specified that self-reports and peer reports are completely unrelated constructs. With phi set to zero, the factor loadings were similar to those found in Model 1. However, the adjusted goodness of fit index reduced to .733 and the root mean square residual increased to .0016. The change in x^2 from Model 1 to Model 3 was significant (13.77 at df = 1). The results of the three models indicated that self-report measures of self-esteem and peer report measures of self-esteem were separate but related constructs. The fit statistics for Model 1, Model 2, and Model 3 are shown in Table 3.

Table 3

Fit Statistics for Models 1, 2, and 3

	Model					Change		
	AGFI	rmsr	x^2	df	p	x^2	df	p
Model 1	1.00	.000	0.00	1	.988			
Model 2	.168	.0017	57.01	2	<.001	57.01	1	<.001
Model 3	.733	.0016	13.77	2	.001	13.77	1	<.001

Effects on Achievement

The second purpose of this study was to determine the effects of peer reports and self-reports on the academic achievement of middle school students. The intercorrelation matrix of these variables is shown in Table 4.

Table 4

Variable Intercorrelations

Variables	1	2	3	4	5
1. Type of Student	1.00				
2. Verbal Ability	.552	1.00			
3. Self-Reports	.208	.323	1.00		
4. Peer Reports	.160	.161	.242	1.00	
5. Achievement	.570	.706	.359	.264	1.00

A simple recursive path model was estimated to determine the direct, indirect, and total effects of verbal ability, peer reports, and self-reports on the current achievement of students while controlling for whether or not a student had a learning disability.

Not surprisingly, Figure 4 shows that the strongest direct effect on current achievement of middle school students was their verbal ability ($\beta = .563$). Type of student (learning disabled versus not learning disabled) had a moderate direct effect on current achievement ($\beta = .243$) while having a powerful direct effect on verbal ability ($\beta = .552$). The effect of the type of student on achievement and verbal ability indicated that nondisabled students had higher achievement scores and verbal ability than students with learning disabilities.

Type of Student → Self-Reports: .043

Type of Student → Verbal Ability: .552*

.299*

.102

Self-Reports → Achievement 1992: .114

.243*

.187*

.563*

Verbal Ability → Peer Reports: .105

Peer Reports → Achievement 1992: .114
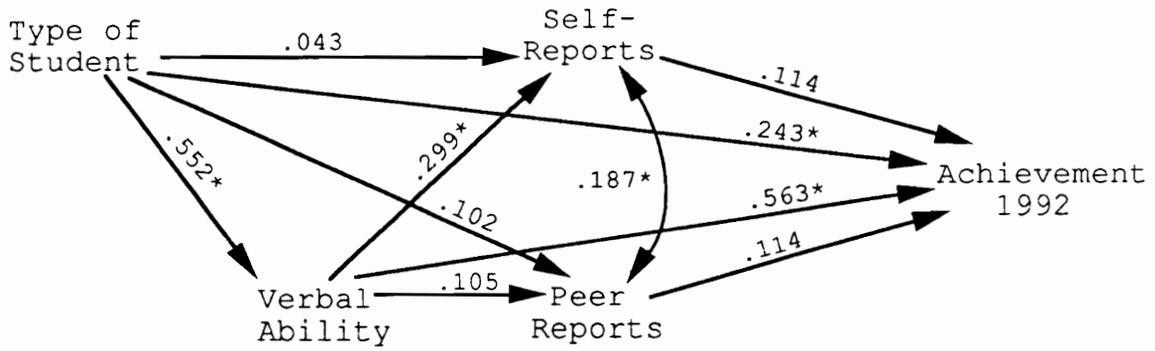
*p < .05

Figure 4. Effects of type of student, verbal ability, peer reports, and self-reports on the current achievement of middle school students.

Verbal ability had a powerful effect on self-reports (ß = .299), but an insignificant effect on peer reports (ß = .105). Students experiencing academic problems usually have self-esteem scores which are significantly lower than students who function well (Battle, 1982). These results are consistent with other studies where self-esteem rose commensurately with higher achievement levels (Robison-Awana, Kehle, & Jenson, 1986). It appears that ability affected students' personal self-esteem, but personal self-esteem did not affect achievement. Research has also shown that academic achievement is not a criterion for peer acceptance, especially for lower achieving students. Being successful in school or having good grades is ranked low as a requirement for admission into a peer clique society (Battle, 1982).

Differences Between Students With Learning Disabilities and Nondisabled Students

A series of analyses were conducted to test for differences between students with learning disabilities and their nondisabled peers on the self-report and peer report measures. Table 5 shows the means, standard deviations, and t-values of the four measures analyzed.

Table 5

Means, Standard Deviations, and T Values

	Students				
	Learning Disabled		Nondisabled		
	M	SD	M	SD	T
SEI	97.65	15.76	110.37	19.36	2.16*
MSCS	96.45	16.24	102.65	16.76	1.13
Rating Scales	2.74	.56	3.16	.64	2.11*
Peer Nominations	3.59	2.43	4.51	2.90	1.05

* p < .05, one-tailed

The results suggested that there was a significant difference (p < .05, one-tailed) between the students with learning disabilities and nondisabled students on the SEI and peer rating scales. Students without learning disabilities had significantly higher scores on both of these measures than did the students with learning disabilities. Although the students with learning disabilities had lower scores on the MSCS and the peer nominations, the differences were insignificant on these measures. Weighted means were used due to the difference in size of the two groups.

Table 6 shows the results of 2 X 2 chi-square analyses of the peer nominations. The findings suggested that the choices made as to best friend, playmates, and workmates did not depend on the type of student doing the choosing. In other words, there was no relationship between type of student (learning disabled versus not learning disabled) and choices on peer nominations. This was true across all three categories (friend, play, and work).

Table 6

2 X 2 Chi-square Tests of Peer Nominations by Students With
and Without Learning Disabilities.

	List 3 best friends	
	Type of Student	
	Learning Disabled	Not Learning Disabled
Learning Disabled	14 (6.46)	24 (31.53)
Not Learning Disabled	43 (50.53)	254 (246.46)

$$x^2 = 11.94, \underline{p} > .05$$

	List 3 people most like to play with	
	Type of Student	
	Learning Disabled	Not Learning Disabled
Learning Disabled	14 (7.33)	30 (36.66)
Not Learning Disabled	42 (48.66)	250 (243.33)

$$x^2 = 8.36, \underline{p} > .05$$

	List 3 people most like to work with	
	Type of Student	
	Learning Disabled	Not Learning Disabled
Learning Disabled	12 (7.03)	33 (37.81)
Not Learning Disabled	42 (46.81)	251 (246.18)

$$x^2 = 4.71, \underline{p} > .05$$

Note. LD students = 21, Non LD students = 95. Expected
frequencies are shown in parentheses.

Discussion

The purpose of this chapter is to summarize the results and limitations of the study. Implications of the results and recommendations for further research are also included.

Summary of Results

The primary purpose of this study was to determine the degree of similarity between self-reports and peer reports as measures of self-esteem in middle school students. The MSCS (Bracken, 1992) and the SEI (Brown & Alexander, 1991) served as the two self-report measures. Peer rating scales and peer nominations were used as the peer report measures. Confirmatory factor analysis (LISREL) was used to study the relation between self-reports and peer reports.

Three different models were compared to determine which one best explained the relation between the self-esteem measures. Models were tested that reflected the alternative proposals that self-reports and peer reports are separate but related constructs, that they are unrelated constructs, or they are the same construct. The study supported the first proposal: that self-reports and peer reports are separate, but related constructs.

These findings do not support the hypothesis that self-report measures of self-esteem and peer reports are the same construct; that both measure self-esteem. But the findings also show that peer reports are not totally unrelated to

self-reports as measures of self-esteem. Anyone working with children and adolescents should be aware of the relation between these two measures and use both to obtain a more accurate picture of a youngster's self-esteem.

The second purpose of this study was to determine the effect of self-reports and peer reports on the current achievement of middle school students. As expected, path analysis showed that verbal ability had the strongest effect on current achievement. Type of student (learning disabled versus not learning disabled) also had a moderate effect on achievement. It was not surprising that students without learning disabilities had higher verbal ability and achievement scores than did students with learning disabilities. Verbal ability was found to have a strong effect on self-reports while having an insignificant effect on peer reports.

Previous achievement was originally included in the path model rather than verbal ability. Previous achievement was a composite of the 1991 ITBS math and reading scores. The high correlation (.826) between previous and current achievement lead to an imprecise estimation of the model. Caution is needed when two highly correlated variables are included in an model because of multicollinearity.

The third purpose of the study was to determine whether there were differences between middle school students with

and without learning disabilities on the peer report and self-report measures. Weighted means T-tests and chi-square tests were used for the analyses.

A significant difference was found between the students with learning disabilities and nondisabled students on the SEI and peer rating scales. Students without learning disabilities had significantly higher scores on both of these measures than did the students with learning disabilities. No significant differences were found between the two groups on the MSCS and peer nominations.

The significant difference between the two groups of students on the peer ratings but not on the peer nominations brings up the possibility that peer ratings and peer nominations measure different aspects of peer relationships. Swanson and Malone (1992) maintained that peer ratings describe overall acceptance or a more general like or dislike of an individual, whereas peer nominations more accurately describe friendship patterns and rejections. Since the peer rating scale included all students in the classroom, it is reasonable to conclude that the overall acceptance of students with learning disabilities is significantly less than that of nondisabled students. Peer nominations, however, may be more indicative of friendship patterns since students were able to select their top three choices as best friend and as someone with whom they would

like to play and work. Even if a student with a learning
disability chose other students with learning disabilities
in one or more of the categories, their peer nomination
score would be higher than if they had not been chosen at
all. Since there was no significant difference between the
two groups of students it is assumed that students with
learning disabilities have about the same number of friends
as do nondisabled students.

It was rather puzzling that significant differences
were found between students with learning disabilities and
their nondisabled peers on the SEI but not on the MSCS.
Students with learning disabilities had very similar scores
on both measures whereas the nondisabled students' scores
were much higher on the SEI than on the MSCS. Although
self-esteem and self-concept are closely related, the SEI is
a self-esteem index whereas the MSCS is a self-concept
scale. These findings suggest that the SEI is actually a
better measure of self-esteem than the MSCS, thus accounting
for the difference in scores between the two groups.

Chi-square analyses of the peer nominations showed type
of student (learning disabled versus not learning disabled)
did not have an effect on who was chosen as best friend, as
someone to play with, and as someone with whom to work. The
students' choices were made regardless of whether or not a
student had a learning disability.

Limitations of the Study

This study included only a small number of students with learning disabilities ($\underline{n}$ = 21) which may well have had some effect on the results of the peer report measures. If more students with learning disabilities had been part of the study, then a clearer picture of acceptance by their peer group may have been obtained. It is difficult to draw definitive conclusions about the acceptance or rejection of students with learning disabilities based on a small number of students.

Since teachers are the most common informants on students' social functioning (La Greca & Vaughn, 1992), it would have been interesting to have included some indicator of teacher perception about each student. A questionnaire dealing with student ability, peer acceptance and affiliation, and self-esteem completed by each student's teacher would have added an important variable to the study.

Same sex peer reports were not used in this study. Each student was asked to rate every student in their class regardless of gender on the peer rating scales and each student had the option of selecting any student on the peer nominations. Gresham (1982) argued that same sex peer ratings and peer nominations should be used when collecting sociometric data because there is considerable sex bias in the lower grades. Since the students in this study were at the middle school level, it is unlikely that their results

were affected by not using same sex measures. If this study were replicated at the elementary level the researcher should consider using same sex measures to control for the possibility of sex bias.

Recommendations

Replication of the present study is warranted to determine whether similar results would be found in students at the elementary or high school level. Confirmatory factor analysis may show that self-reports and peer reports are identical constructs with elementary school students while being completely unrelated constructs with high school students. Research has shown that until about the age of 8 children often confuse self-perceptions with social competence (Paris & Byrnes, 1989). Young children are greatly influenced by social praise and believe they are competent as long as they receive positive evaluations from other people (Paris & Byrnes, 1989). As a person gets older their self-concept becomes more abstract and less concrete. Children are more apt to describe themselves in concrete, objective terms while adolescents describe themselves in terms of their beliefs and personality characteristics. These are qualities which are more intrinsic and essential to the self (Montemayor & Eisen, 1977). Therefore, older students may have more of a distinction between their personal sense of self-esteem and the way they are regarded

by their peers. The same scoring methods and either identical or very similar instruments should be used in a replication study.

The peer nominations were examined to investigate the acceptance of students with learning disabilities by their nondisabled classmates. Only positive peer nominations were included in this study (e.g., Name 3 people you would most like to play with). It is possible for negative nominations to also be used (e.g., Name 3 people you would not like to play with). A clearer picture of the acceptance or rejection of learning disabled students would be possible if negative nominations are used. In addition, each student should be given a class roster and instructed to circle 3 same sex peers they consider as best friends and preferred playmates and workmates. Being able to see a list of classmates may help younger children from forgetting someone.

Implications of Results

Based on the findings of this study, the self-report and peer report measures of self-esteem for middle school students appear to be two separate, but related constructs. The causal direction of this relation is unknown. Although self-report measures are actually designed to measure self-esteem, peer reports are not completely unrelated to the self-report measures. It may be that students' self-esteem

is a result of their peers' perception of them. Or it may be that a student's peers will respond to the student based on how the student feels about himself or herself.

The findings of this study should have implications for teachers interested in obtaining a measure of student self-esteem. Since peer reports and self-reports are separate but related constructs, a teacher may elect to administer a peer report measure to support the results of a self-report measure or vice-versa.

According to Swanson and Malone (1992), a peer ranking system reliably discriminates students with learning disabilities from their nondisabled peers up to grade 7. Combining peer ratings with teacher ratings and observations would be useful to school psychologists and others in the assessment process of identifying students with learning disabilities. Gresham and Elliott (1987) support assessment of peer acceptance as part of the evaluation process. They also advocate the need for federal and state education agencies to provide training to educators in the assessment, instruction, and evaluation of peer acceptance of students with learning disabilities.

Students without learning disabilities had higher verbal ability, achievement, self-report, and peer report scores than students with learning disabilities. It would be interesting to see whether similar results are found as

inclusion of students with disabilities into the regular classroom becomes more the norm than the exception.

Some studies have investigated the self-esteem and peer acceptance of students with learning disabilities in integrated classrooms. Students with learning disabilities scored higher on measures of self-esteem when they were completed in the special education classroom rather than the regular classroom. These students believed their academic skills were in line with other students in the special education classroom, but were well below those of the students in the regular classroom. Thus they tended to judge themselves more harshly in the regular classroom setting (Coleman, 1983). Although integration allows for increased social contact between students with and without disabilities, studies have found this does not ensure social acceptance of students with disabilities by their classmates (Fox, 1989). There is some evidence that students with disabilities who are in a nonintegrated setting are better accepted by their nondisabled peers than students in an integrated program (Madden & Slavin, 1983). A longitudinal study of the students in the present study could provide solid data for supporters and opponents of the inclusion model.

APPENDIX A

Review of Literature

Review of Literature

Sociometry

The study of sociometry was established in 1934 with
J. L. Moreno's publication of Who Shall Survive? (Northway,
1967). Sociometrics rose to popularity in the 1950s as a
way of studying children's social behavior (Krasnor, 1988).
The aim of early sociometric studies was to study only the
popularity or unpopularity of group members and to aid
teachers in integrating unpopular students into the social
structure of the class (Hallinan, 1981).

Sociometry is defined as "the measurement of social
relations; it is a technique for collecting data about
interpersonal choices, especially friendship choices of
group members" (Hallinan, 1981, p. 91). The term
"sociometry" is also used to describe the study and
measurement of social relations and social choices
(Kerlinger, 1973).

Peer nomination is the most frequently used sociometric
measure. This technique asks children to nominate a certain
number of their classmates according to a specific criteria
(e.g., who they would most like to play with or work with).
The number of nominations can be either limited or unlimited
and the nominations can be either positive or negative
(e.g., naming three people they would least like to play

with or naming three people they would most like to play with) (Gresham, 1982).

Another type of sociometric measure is the peer rating scale. With this measure, a child rates how much he or she would like to participate in a specified activity with every member of the class. Each child is rated on a 1 to 5 point Likert scale (e.g., Rate how much you would like to play with ...every member of the class) (Gresham, 1982).

A third type of sociometric measure is called a behavioral sociometric. The students are provided with a peer-by-behavior matrix where they rate each peer only on the specified behaviors. This type of assessment allows the educator or researcher to acquire frequencies and ratings only on the designated behaviors rather than obtaining global measures of popularity and acceptance (Gresham, 1982).

The reliability of sociometric measures has been shown in a number of studies which suggests the researcher should be able to collect consistent social status information (Landau & Milich, 1990). Odem and Absher found that reliability was .69 for a nomination measure, .82 for a play rating scale measure and .84 for a work rating scale measure over a six week period (Asher & Renshaw, 1981). Students in fourth through eighth grade had reliability coefficients of .76 to .84 after eight weeks (Bennett, 1983). Test-retest

reliability with elementary school students has been studied extensively and has proven quite satisfactory for both peer nomination and rating scale measures (Asher & Renshaw, 1981).

Sociometric measures offer a reliable and valid basis for identifying children who are having difficulties in any number of areas, but most especially with establishing friendships with other children (Asher & Renshaw, 1981). Valuable information about the social interactions of a group are provided by nominating techniques. And rating scales are a direct measure of determining the way in which others react to the individual in question (Helmstadter, 1964). Because of their practical advantages, sociometrics should continue to be one of the more widely used ways of obtaining measures of human behavior.

Since sociometric assessments obtain evaluations of children by their peers, these measures provide much information about the dynamics of the class. They allow teachers, counselors, and researchers an opportunity to find out which children are the leaders, the most popular, the better students, the isolates, the rejected, and the friendship patterns within the class. Achenbach (1985) stated research has shown that scores obtained on sociometric measures are significantly associated with other areas of social functioning. When used with other methods,

sociometric data can help evaluate the differences among the individual students in areas such as ability levels, social skills, and self-esteem (Henerson et al., 1987; Achenbach, 1985). They can also be especially helpful for evaluating classes when integration of students with disabilities occurs.

It is interesting to note the relationship between sociometric status and learning and behavior problems. In several studies using sociometrics, students with learning problems were rated lower than students with behavior problems. A study of 242 children in grades 4 and 5 examined the sociometric status of students identified by their teachers as either having no problems in the classroom, having learning problems, or having behavior problems. The results showed there was no significant difference between students identified as having classroom behavior problems and the sociometric status of the other groups. However, it was revealed that children with learning problems were the least preferred by their peers. Not surprisingly, peer ratings on the sociometric measure indicated that children with no problems were significantly more preferred than children with learning problems (Harris & King, 1982).

Gresham, Evans, and Elliott (1988) stated academic achievement and sociometric status are two important

outcomes for school-age children. In their development and initial validation study of the <u>Academic and Social Self-Efficacy Scale for Students (ASSESS)</u>, they found social self-efficacy was the best predictor of the academic aspects of sociometric status. They suggested that students' sociometric status may be greatly influenced by the academic-related behaviors of children in that class and how teachers respond to these behaviors.

There appears to be evidence that achievement relates to classroom behavior as well as social status. Studies indicate that low achievers are more likely to have personality and conduct problems while high achievers are more likely to interact positively with their peers (Bursuck & Asher, 1986). Academic achievement seems to be significantly related to various indexes of social competence, including direct observations of classroom behavior, teacher ratings of behavior, and sociometric measures (Bursuck & Asher, 1986).

A study of 24 white, third and fourth grade males compared the social behavior and social knowledge of high-status and low-status children with achievement taken into account. The status of each boy was determined by their score on a peer rating scale. Results showed the low-status, low-achieving group to be rated significantly less socially skilled than the high-status, high-achieving group.

However, the low-status, lower achieving children were also rated lower than the low-status, higher achieving children. The authors believed the differences between the low-status, lower achieving children and the low-status, higher achieving children supports the hypothesis that achievement has a significant influence on social behavior toward peers (Bursuck & Asher, 1986).

It has been suggested that high achieving students possess higher levels of classroom prestige among their classmates and with their teachers. This may make them more confident in initiating interactions with other children, which provides them with more practice in developing and refining their social skills (Greene, Forehand, Beck, & Vosk, 1980).

Self-Concept

The literature on self-esteem and self-concept shows that the two terms are often used interchangeably. Although the two constructs are closely related, they do refer to different aspects of the self. The self-concept represents a totality of one's perceptions, whereas self-esteem is one dimension of this totality (Battle, 1982).

Self-concept has been defined as "the total collection of attitudes, judgments, and values which an individual holds with respect to his behavior, his ability, his body, his worth as a person, in short, how he perceives and

evaluates himself" (Battle, 1982, p. 26). Although there are numerous definitions of self-concept, they all indicate that self-concept is made up of several dimensions which possess perceptual and evaluative components.

Using a multitrait-multimethod approach as shown in Figure 5, it was proposed that self-concept is hierarchical in nature and is defined by an academic and a nonacademic self-concept. The academic self-concept is then divided into four subareas of self-concept (English, history, math, and science). The nonacademic self-concept is comprised of the social self-concept, emotional self-concept, and the physical self-concept. These three areas are divided into five subareas of self-concept (peers, significant others, particular emotional states, physical ability, and physical appearance) (Shavelson, Hubner, & Stanton, 1976; Marsh & Gouvernet, 1989).

Most studies on self-concept have examined either the correlations between self-concept and another construct, differences among self-concept scores of different groups of students, and changes in self-concept as the result of some treatment. These studies have been severely hindered due to a lack of congruency regarding a definition of self-concept, the most appropriate measurement instruments, and interpretation of the results. This inconsistency makes it

General:

General
Self-Concept

Non-Academic Self-Concept

Academic and
Non-Academic
Self-Concept:

Academic
Self-Concept

Social
Self-Concept

Emotional
Self-Concept

Physical
Self-Concept

Subareas of
Self-Concept:

English | History | Math | Science

Peers | Significant Others | Particular Emotional States | Physical Ability | Physical Appearance

Evaluation of
Behavior in
Specific
Situations:

Figure 5. One possible representation of the hierarchic organization of the self-concept (Shavelson, Hubner, & Stanton, 1976, p. 413).

difficult to generalize across studies to different populations (Shavelson, et al., 1976).

Self-Esteem

Kalliopuska (1990) defines self-esteem as "one's personal feelings concerning their own value, importance, and competence. It is the result of a long process of appraisal which is influenced by self-evaluation as well as evaluation by others. These evaluations of values and capacities vary over time and continually affect one's self-esteem" (p. 121). Self-esteem is said to be the most important value judgment a person makes about himself or herself (Battle, 1982). The different definitions of self-esteem indicate it is a subjective and evaluative phenomenon which is present throughout a person's life and is part of their identity (Kalliopuska, 1990; Battle, 1982).

It is thought that the development of positive self-esteem and self-confidence begins with the acceptance of the child by the parents during early childhood. Success may further increase self-esteem (i.e., good grades in school), while failures and frustrations lead to a decrease in self-esteem in later ages. Thus other people's evaluations will affect one's self-esteem. If one exaggerates the value given to other people's opinions, then their behavior becomes guided by a desire to please others rather than

themselves. Accomplishments and self-identity are evaluated by the esteem of others (Kalliopuska, 1990).

A person who has a high self-esteem will appreciate, respect, and accept themselves in a realistic way despite negative and positive characteristics. Rather than constantly comparing themselves with others, this person competes with himself or herself. Although they recognize their faults, they also expect to overcome them to the best of their ability. They do not have to look at themselves through the eyes of others to achieve self-satisfaction or pride (Kalliopuska, 1990; Rosenberg, 1979). Individuals with high self-esteem tend to manifest greater confidence in their ability to succeed and deal with events. They are capable of defending themselves against threats of their adequacy and demeaning attempts by others (Battle, 1982).

Individuals who possess low self-esteem lack the confidence to interact with others and accept criticism. They are unwilling to express contrary opinions, usually vacillate when making decisions, become frustrated easily, blame others for their faults, and rarely take on a leadership role (Battle, 1982; Wiggins, 1987). Someone with low self-esteem considers himself or herself as unworthy, lacks self-respect, and feels inadequate (Rosenberg, 1979).

Self-Esteem and Academic Achievement

Studies that have examined the relation between self-esteem and academic performance have shown that differences in self-esteem are associated with differences in academic achievement (Burns, 1979). A correlation of .50 between grades and self-esteem scores for seventh graders on the Coopersmith Self-Esteem Inventory was reported by Kifer (Wiggins, 1987). Wylie (1979) reported correlations of about .30 between school achievement and self-esteem in the numerous instruments she studied. Many studies have found persistent correlations of 0.4 to 0.6 between academic achievement and self-concept of ability. More moderate correlations of 0.2 to 0.3 have also been found between academic achievement and global self-esteem. Quite strong correlations, around 0.6 have been found between self-concept of ability and global self-esteem (Skaalvik & Hagtvet, 1990). Bloom found that the academic differences between high and low achievers increased if low self-esteem was also present. It seems that self-esteem cannot be separated from academic performance for most students (Wiggins, 1987).

A study of 259 junior high school students identified as at-risk isolated two important variables thought to be related to academic success - academic self-concept and general self-concept. A statistically significant relationship was found between grades and academic self-

concept and grades and scores on the <u>Wide Range Achievement</u>
<u>Test-Revised (WRAT-R)</u>. These findings suggest that academic
self-concept could be used to predict academic achievement
and that general self-concept is also significantly related
to academic achievement. It could be argued that at-risk
students not only have academic deficits but also have
difficulties with their self-concepts. The author (Sapp,
1990) suggested that increasing students' academic self-
concept should lead to an increase in academic achievement.

Atherly (1990) conducted a study involving 213 students
in the middle years of school. The effects of academic
achievement and socioeconomic status on the self-concept of
the students was examined. The results indicated that it
was the student's level of academic ability, not their
socioeconomic status, which influenced their self-concept.

Another study investigated the relationship between
self-esteem, earned grades, and television viewing habits of
483 students in grades 4, 6, 8, 10, and 12. The only
significant correlation was between earned grades and self-
esteem scores. The author concluded that the key to
academic success is the development of a healthy self-
concept. Without it, many children are not achieving up to
their own expectations, as well as the expectations of
others (Wiggins, 1987).

However, some studies have not found academic achievement and self-concept to be positively related. Keith, Pottebaum, and Eberhart (1986) used the High School and Beyond longitudinal study to test the influence of self-concept and locus of control on achievement. Their results showed that locus of control had an important influence on academic achievement while self-concept had virtually no direct effect on achievement. The High School and Beyond data base was also used in a study to determine if self-concept and achievement are causally related, and if they are, the direction of the relationship. The results indicated there was no significant causal relationship between self-concept and achievement (Pottebaum, Keith, & Ehly, 1986).

Burns (1979) is of the opinion that since positive self-esteem is associated with academic success, teachers should be encouraged to try to improve their students' self-concept. This may lead to an eventual increase in academic performance rather than concentrating on academic goals alone. On the other hand, Keith et. al (1986) suggest educators should stop trying to improve self-concept as a way of improving academic achievement. More may be accomplished by addressing achievement separately, or through other variables (i.e., homework) which are known to affect achievement.

Peer Relations

The social development of a child will be influenced by the child's ability to get along with their peer group. One of the most important effects of group membership is its contribution to the child's identity. Groups are formed on the basis of a wide variety of personal characteristics such as gender, race, intellectual ability, ethnic background, athletic and musical ability, and religion (Allen, 1981).

Reinforcement and modeling are two ways in which peers contribute to a child's social development. There is well accepted evidence documenting the importance of peer influences on the development of prosocial behavior. Evidence also indicates that rejected children experience a very different form of social feedback from their peers than their accepted agemates (Landau & Milich, 1990). It has been documented that there is a correlation between lack of friendship and psychological maladjustment. Unpopularity in children is an undesirable condition which should be amended if at all possible. Having one very positive friendship may be more preferable to some children rather than being popular with a large number of their peers (Allen, 1981).

Children who have successful peer relations are provided with an important source of emotional support and security. Friendships can help negate the adverse effects of stress while also contributing to a child's sense of self-esteem by acknowledging that he or she is valued.

Close friendships may serve as the primary source of support during adolescent development when emotional ties to the family become gradually weakened (Landau & Milich, 1990). When questioned about what they "really feel and think deep down inside", thirty-four percent of children 15 to eighteen years of age believed their friends knew them better than their parents. Only seventeen percent of children age 8 to eleven and twenty-three percent of the 12 to fourteen year olds believed their peers knew them best (Rosenberg, 1979, p. 246).

One study which examined the relation between family support, school support, and peer support on the formation of self-concepts on scholastic achievement of students in grades five through 10 found peer support did not show any strong effects on self-concept development. Rather, family support had the most significant effect in the formation of students' ability levels. This was followed by support from the school. The author did caution that the lack of peer support may have been due to students' having friends who are important to them who are not in their classrooms (Pekrun, 1990).

Self-Esteem of Students With Learning Disabilities

A self-defeating behavior is defined as "any recurring thought, feeling, or action that is ineffective or only partially effective and blocks the use of better responses"

(Omizo & Omizo, 1987, p. 283). Some examples of self-defeating behavior are poor study habits, fear of failure, lack of attention, inferiority feelings, underachievement, and fighting. According to this definition, children with learning disabilities possess many self-defeating behaviors that contribute to low self-esteem and an external locus of control (Omizo & Omizo, 1987).

Impulsive, disobedient, inattentive, uncooperative, unmotivated, overactive, and possessing negative self-evaluations are terms frequently used to describe students with learning disabilities (Bryan & Bryan, 1978). As these students experience repeated failures, frustrating experiences, and feelings of being different and inferior, the likelihood of developing low self-esteem increases (Omizo & Omizo, 1987).

Peer Acceptance of Students With Learning Disabilities

It is well documented that children with behavior and learning problems have significant difficulties in their peer relations. Classroom sociometrics indicate that few classmates like these children, while many convey an active dislike of them (Milich, McAninch, & Harris, 1992). One study found that students with learning disabilities received lower peer acceptance ratings and higher peer rejection ratings than their nondisabled classmates (La Greca, 1987). Gresham and Elliott (1987) report students

with learning disabilities have been found to be between one-half to a full standard deviation below the sociometric mean of their nondisabled peers. Typically, they are between the 15th to the 30th percentile of the sociometric distribution of nondisabled students.

Swanson and Malone (1992) conducted a meta-analysis of 39 studies published between 1974-1990 that directly compared students with learning disabilities to normally achieving students on measures of social skills or peer acceptance. The results showed that students with learning disabilities are less liked and more likely to be rejected by others than their average achieving peers. On measures of social skills, students with learning disabilities fell at approximately the 16th percentile. They scored at the 23rd percentile on measures of peer acceptance, while scoring at the 88th percentile on measures of peer rejection (Gresham, 1992).

A study conducted by the University of Kansas Institute for Research in Learning Disabilities examined the social interactions of adolescents with learning disabilities in grades 7 through 12. Students with learning disabilities were found to have about the same frequency of informal interactions with their peers as other students. This study also found that students with learning disabilities reported significantly less involvement in the activities of "going

somewhere with a friend who asks you" and "asking other students to go somewhere" than low achieving students (Schumaker, 1992, p. 392). Low achieving students and students with learning disabilities participated in a limited number of extracurricular activities when compared to their normally achieving peers. Students with learning disabilities and low achieving students engaged in formally scheduled activities less than once a month while normally achieving students participated in such activities weekly. Normally achieving students spend almost three times as many hours per week in such activities as students with learning disabilities (Schumaker, 1992).

Although this study found students with learning disabilities interacted as frequently with their peers on an informal basis as did normally achieving students, they do not interact in more formal activities. Schumaker (1992) speculates that students with learning disabilities lack a quality in their peer interactions that would enable them to become involved in, to be encouraged to become involved in, or to be included in more formal and social activities.

Not all children with learning disabilities have social problems as some students with learning disabilities can be found within groups with positive peer ratings. One study reported that boys with learning disabilities who were popular and well liked were also rated highly on athletic

ability. It may be important for students not likely to be

regarded as academically talented to be skilled in

nonacademic areas (La Greca, 1987).

References

Achenbach, T. M. (1985). <u>Assessment and taxonomy of child
    and adolescent psychopathology</u>, (Vol. 3). Beverly Hills,
    CA: Sage.

Allen, V. L. (1981). Self, social group, and social
    structure: Surmises about the study of children's
    friendships. In S. R. Asher & J. M. Gottman (Eds.), <u>The
    development of children's friendships</u> (pp. 182-203).
    Cambridge: Cambridge University Press.

Alsaker, F. D. (1989). School achievement, perceived
    academic competence and global self-esteem. <u>School
    Psychology International</u>, <u>10</u>, 147-158.

Asher, S. R., & Renshaw, P. D. (1981). Children without
    friends: Social knowledge and social-skill training. In
    S. R. Asher & J. M. Gottman (Eds.), <u>The development of
    children's friendships</u> (pp. 273-296). Cambridge:
    Cambridge University Press.

Atherly, C. A. (1990). The effects of academic achievement
    and socioeconomic status upon the self-concept in the
    middle years of school: A case study. <u>Educational
    Research</u>, <u>32</u>, 224-229.

Battle, J. (1982). <u>Enhancing self-esteem & achievement: A
    handbook for professionals</u>. Seattle, WA: Special Child
    Publications.

Bennett, B. (1983). <u>Construct validity of sociometric
    status as a measure of social competence</u>. Unpublished
    doctoral dissertation, Virginia Polytechnic Institute and
    State University, Blacksburg.

Bracken, B. A. (1992). <u>Multidimensional self concept scale:
    Examiner's Manual</u>. Austin, TX: Pro-ed.

Brown, L., & Alexander, J. (1991). <u>Self-esteem index:
    Examiner's manual</u>. Austin, TX: Pro-ed.

Bryan, T. H., & Bryan, J. H. (1978). <u>Understanding learning
    disabilities</u> (2nd ed). Palo Alto, CA: Mayfield
    Publishing.

Burns, R. B. (1979). <u>The self concept: Theory,
    measurement, development and behaviour</u>. New York:
    Longman.

Bursuck, W. D., & Asher, S. R. (1986). The relationship between social competence and achievement in elementary school children. Journal of Clinical Child Psychology, 15, 41-49.

Coleman, J. M. (1983). Handicapped labels and instructional segregation: Influences on children's self-concepts vs. the perception of others. Learning Disability Quarterly, 6, 3-11.

Dalley, M. B., Bolocofsky, D. N., Alcorn, M. B., & Baker, C. (1992). Depressive symptomatology, attributional style, dysfunctional attitude, and social competency in adolescents with and without learning disabilities. School Psychology Review, 21, 444-458.

Fox, C. L. (1989). Peer acceptance of learning disabled children in the regular classroom. Exceptional Children, 56, 50-59.

Greene, K. D., Forehand, R., Beck, S. J., & Vosk, B. (1980). An assessment of the relationship among measures of children's social competence and children's academic achievement. Child Development, 51, 1149-1156.

Gresham, F. M. (1982). Social skills: Principles, procedures, and practices. Des Moines, IA: Iowa Department of Public Instruction.

Gresham, F. M. (1992). Social skills and learning disabilities: Causal, Concomitant, or Correlational? School Psychology Review, 21, 348-360.

Gresham, F. M., & Elliott, S. N. (1987). Social skill deficits of learning-disabled students: Issues of definition, classification, and assessment. Reading, Writing, and Learning Disabilities, 3, 131-148.

Gresham, F. M., Evans, S., & Elliott, S. N. (1988). Academic and social self-efficacy scale: Development and initial validation. Journal of Psychoeducational Assessment, 6, 125-138.

Gurney, P. W. (1988). Self-esteem in children with special educational needs. New York: Routledge.

Hallinan, M. T. (1981). Recent advances in sociometry. In S. R. Asher & J. M. Gottman (Eds.), The development of children's friendships (pp. 91-115). New York: Cambridge University Press.

Harris, W. J., & King, D. R. (1982). Achievement, sociometric status, and personality characteristics of children selected by their teachers and having learning and/or behavior problems. Psychology in the Schools, 19, 452-457.

Helmstadter, G. C. (1964). Principles of psychological measurement. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Henerson, M. E., Morris, L. L., & Fitz-Gibbon, C. T. (1987). How to measure attitudes. Newbury Park, CA: Sage.

Jöreskog, K. G., & Sörbom, D. (1988). LISREL 7: A guide to the program and applications (2nd ed.). Chicago: SPSS Inc.

Kalliopuska, M. (1990). Self-esteem and empathy as related to participation in the arts or sports activities. In L. Oppenheimer (Ed.), The self-concept: European perspectives on its development, aspects, and applications (pp. 121-132). Heidelberg, Germany: Springer-Verlag.

Keith, T. Z., Fehrmann, P. G., Harrison, P. L., & Pottebaum, S. M. (1987). The relation between adaptive behavior and intelligence: Testing alternative explanations. Journal of School Psychology, 25, 31-43.

Keith, T. Z., & Cool, V. A. (1992). Testing models of school learning: Effects of quality of instruction, motivation, academic coursework, and homework on academic achievement. School Psychology Quarterly, 7, 207-226.

Keith, T. Z., Pottebaum, S. M., & Eberhart, S. (1986). Effects of self-concept and locus of control on academic achievement: A large-sample path analysis. Journal of Psychoeducational Assessment, 4, 61-72.

Kerlinger, F. N. (1973). Foundations of behavioral research (2nd ed.). New York: Holt, Rinehart and Winston, Inc.

Krasnor, L. R. (1988). Social cognition. In T. D. Yawkey & J. E. Johnson (Eds.), Integrative processes and socialization: Early to middle childhood (pp. 79-95). Hillsdale, NJ: Lawrence Erlbaum Associates.

La Greca, A. M. (1987). Children with learning disabilities: Interpersonal skills and social competence. Reading, Writing, and Learning Disabilities, 3, 167-185.

La Greca, A. M. (1990). Issues and perspectives on the child assessment process. In A. M. La Greca (Ed.), Through the eyes of the child: Obtaining self-reports from children and adolescents (pp. 3-17). Needham Heights, MA: Allyn and Bacon.

La Greca, A. M., & Vaughn, S. (1992). Social functioning of individuals with learning disabilities. School Psychology Review, 21, 340-347.

Landau, S. & Milich, R. (1990). Assessment of children's social status and peer relations. In A. M. La Greca (Ed.), Through the eyes of the child: Obtaining self-reports from children and adolescents (pp. 259-291). Needham Heights, MA: Allyn and Bacon.

Madden, N. A., & Slavin, R. E. (1983). Mainstreaming students with mild handicaps: Academic and social outcomes. Review of Educational Research, 53, 519-569.

Marsh, H. W., & Gouvernet, P. J. (1989). Multidimensional self-concepts and perceptions of control: Construct validation of responses by children. Journal of Educational Psychology, 81, 57-69.

McCombs, B. L. (1989). Self-regulated learning and academic achievement: A phenomenological view. In B. J. Zimmerman & D. H. Schunk (Eds.), Self-regulated learning and academic achievement (pp. 51-82). New York: Springer-Verlag.

Milich, R., McAninch, C. B., & Harris, M. J. (1992). Effects of stigmatizing information on children's peer relations: Believing is Seeing. School Psychology Review, 21, 400-409.

Montemayor, R., & Eisen, M. (1977). The development of self-conceptions from childhood to adolescence. Developmental Psychology, 13, 314-319.

Northway, M. L. (1967). A primer of sociometry (2nd ed.). Toronto: University of Toronto Press.

Nunnally, J. C. (1975). The study of change in evaluation research: Principles concerning measurement, experimental design, and analysis. In E. L. Struening & M. Guttentag (Eds.), Handbook of evaluation research, (Vol. 1) (pp. 101-138). Beverly Hills, CA: Sage.

Omizo, M. M., & Omizo, S. A. (1987). The effects of eliminating self-defeating behavior of learning-disabled children through group counseling. The School Counselor, 27, 282-288.

Paris, S. G., & Byrnes, J. P. (1989). The constructivist approach to self-regulation and learning in the classroom. In B. J. Zimmerman & D. H. Schunk (Eds.), Self-regulated learning and academic achievement (pp. 169-200). New York: Springer-Verlag.

Pedhazur, E. J. (1982). Multiple regression in behavioral research: Explanation and prediction (2nd ed). Fort Worth, TX: Holt, Rinehart and Winston, Inc.

Pekrun, R. (1990) Social support, achievement evaluations, and self-concepts in adolescence. In L. Oppenheimer (Ed.), The self-concept: European perspectives on its development, aspects, and applications (pp. 107-119). Heidelberg, Germany: Springer-Verlag.

Pottebaum, S. M., Keith, T. Z., & Ehly, S. W. (1986). Is there a causal relation between self-concept and academic achievement? Journal of Educational Research, 79, 140-144.

Robison-Awana, P., Kehle, T. J., & Jenson, W. R. (1986). But what about smart girls? Adolescent self-esteem and sex role perceptions as a function of academic achievement. Journal of Educational Psychology, 78, 179-183.

Rosenberg, M. (1979). Conceiving the self. New York: Basic Books, Inc.

Sapp, M. (1990). Psychoeducational correlates of junior-high at-risk students. The High School Journal, 73, 232-234.

Schumaker, J. B. (1992). Social performance of individuals with learning disabilities: Through the looking glass of KU-IRLD research. School Psychology Review, 21, 387-399.

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. Review of Educational Research, 46, 407-441.

Skaalvik, E. M., & Hagtvet, K. A. (1990). Academic achievement and self-concept: An analysis of causal predominance in a developmental perspective. Journal of Personality and Social Psychology, 58, 292-307.

Stone, W. L., & Lemanek, K. L. (1990). Developmental issues in children's self-reports. In A. M. La Greca (Ed.), Through the eyes of the child: Obtaining self-reports from children and adolescents (pp. 18-56). Needham Heights, MA: Allyn and Bacon.

Swanson, H. L., & Malone, S. (1992). Social skills and learning disabilities: A meta-analysis of the literature. School Psychology Review, 21, 427-443.

Wiggins, J. D. (1987). Self-esteem, earned grades, and television viewing habits of students. The School Counselor, 35, 128-133.

Wylie, R. C. (1979). The self-concept: Vol. 2. Theory and research on selected topics (rev. ed.). Lincoln, NE: University of Nebraska Press.

Wylie, R. C. (1989). Measures of self-concept. Lincoln, NE: University of Nebraska Press.

APPENDIX B

Self-Report Measures

MSCS

Multidimensional Self Concept Scale

Bruce A. Bracken

RECORD BOOKLET

Section I. Identifying Information

Name/ID No.

Address

Parents' Name

School/Agency

Referred by

Place of testing _____ Tested by _____

Race   B   W   Other   Spanish Origin   Yes   No

	Year	Month	Day		
Date Tested	/	/		Age	
Date of Birth	/	/		Sex	
Chronological Age	/	/		Grade	

Section II. Directions and Scales

Please rate the following statements according to how well the statement applies to you. There are no right or wrong answers, but it is important that you rate each statement according to how you honestly feel. Be sure to be honest with yourself as you consider the statement you are rating. To mark your answer, simply circle the letters that correspond with your feelings toward the statement. Each statement should be rated as:

Strongly Agree	Agree	Disagree	Strongly Disagree
(SA)	(A)	(D)	(SD)

S SCALE

Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)				SCORE
1. I am usually a lot of fun to be with			SA	A	D	SD	
2. People do not seem interested in talking with me			SA	A	D	SD	
3. I am too shy			SA	A	D	SD	
4. Most people like me			SA	A	D	SD	
5. People avoid me			SA	A	D	SD	
6. A lot of people make fun of me			SA	A	D	SD	
7. I am not accepted by people who know me			SA	A	D	SD	
8. Most people think I am interesting			SA	A	D	SD	
9. People enjoy being with me			SA	A	D	SD	
10. Most of the time I feel ignored			SA	A	D	SD	
11. I feel desired by members of the opposite sex			SA	A	D	SD	
12. No one seems to laugh at my jokes			SA	A	D	SD	
13. Most people appreciate me just the way I am			SA	A	D	SD	
14. I often feel like I am left out of things			SA	A	D	SD	
15. People tell lies about me			SA	A	D	SD	
16. I have a lot of friends			SA	A	D	SD	
17. I spend a lot of time feeling lonely			SA	A	D	SD	
18. I am never sure how to act when I am with people I don't know well			SA	A	D	SD	
19. People tell me their secrets			SA	A	D	SD	
20. People pick on me			SA	A	D	SD	
21. People do not seem to notice me			SA	A	D	SD	
22. I get a lot of phone calls from friends			SA	A	D	SD	
23. Many people have a low opinion of me			SA	A	D	SD	
24. I let people bully me too much			SA	A	D	SD	
25. People have to get to know me before they like me			SA	A	D	SD	
S Scale Total Raw Score							

2

C SCALE						
Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)			
						SCORE
26. I am honest			SA	A	D	SD	
27. Too often I say the wrong thing			SA	A	D	SD	
28. I am too lazy			SA	A	D	SD	
29. I have a good sense of humor			SA	A	D	SD	
30. I am basically a weak person			SA	A	D	SD	
31. I feel that most people respect me			SA	A	D	SD	
32. I am not very good at speaking my mind			SA	A	D	SD	
33. I am assertive when I need to be			SA	A	D	SD	
34. I am unlucky			SA	A	D	SD	
35. I am very self confident			SA	A	D	SD	
36. I don't seem to have any control over my life			SA	A	D	SD	
37. I frequently put off doing important things until it is too late			SA	A	D	SD	
38. I give people good reason to trust me			SA	A	D	SD	
39. I am not as good as I should be			SA	A	D	SD	
40. I don't keep quiet when I should			SA	A	D	SD	
41. I am successful at most things			SA	A	D	SD	
42. I handle my personal business responsibly			SA	A	D	SD	
43. I lack common sense			SA	A	D	SD	
44. I always seem to be in trouble			SA	A	D	SD	
45. I can do most things pretty well			SA	A	D	SD	
46. I am not very smart			SA	A	D	SD	
47. I am a coward in many ways			SA	A	D	SD	
48. Others believe that I will make something of myself			SA	A	D	SD	
49. Too often I do dumb things without thinking			SA	A	D	SD	
50. I waste money foolishly			SA	A	D	SD	
C Scale Total Raw Score						

3

AFF SCALE							
Strongly Agree (SA)		Agree (A)	Disagree (D)	Strongly Disagree (SD)			
							SCORE
51. I enjoy life				SA	A	D	SD	
52. I am afraid of many things				SA	A	D	SD	
53. There are many things I would like to change about myself				SA	A	D	SD	
54. I am not able to laugh at myself very easily				SA	A	D	SD	
55. I am not a happy person				SA	A	D	SD	
56. I am proud of myself				SA	A	D	SD	
57. I feel like a failure				SA	A	D	SD	
58. My life is discouraging				SA	A	D	SD	
59. I am happy with myself just the way I am				SA	A	D	SD	
60. I am too emotional				SA	A	D	SD	
61. I have good self control				SA	A	D	SD	
62. I often disappoint myself				SA	A	D	SD	
63. My life is unstable				SA	A	D	SD	
64. I have a positive outlook on life				SA	A	D	SD	
65. I am frequently confused about my feelings				SA	A	D	SD	
66. Sometimes I feel worthless				SA	A	D	SD	
67. I often feel ashamed of things I have done				SA	A	D	SD	
68. I frequently feel helpless				SA	A	D	SD	
69. I feel loved				SA	A	D	SD	
70. I wish I could be someone else				SA	A	D	SD	
71. I feel insecure				SA	A	D	SD	
72. I am a good person				SA	A	D	SD	
73. I am not as happy as I appear				SA	A	D	SD	
74. I am usually very relaxed				SA	A	D	SD	
75. There are times when I don't like myself				SA	A	D	SD	
AFF Scale Total Raw Score								

4

AC SCALE					
Strongly Agree (SA)	**Agree (A)**	**Disagree (D)**	**Strongly Disagree (SD)**		
					SCORE
76. Classmates usually like my ideas	SA	A	D	SD	
77. I frequently feel unprepared for class	SA	A	D	SD	
78. I am good at mathematics	SA	A	D	SD	
79. Learning is difficult for me	SA	A	D	SD	
80. I usually do well on tests	SA	A	D	SD	
81. I am proud of my school work	SA	A	D	SD	
82. I can spell better than most people my age	SA	A	D	SD	
83. I read as well as most people my age	SA	A	D	SD	
84. I don't think very quickly	SA	A	D	SD	
85. I work harder than most of my classmates	SA	A	D	SD	
86. I don't understand much of what I read	SA	A	D	SD	
87. I learn fairly easily	SA	A	D	SD	
88. I never seem to have good ideas	SA	A	D	SD	
89. My teachers like my classroom behavior	SA	A	D	SD	
90. I often feel dumb	SA	A	D	SD	
91. Most of my teachers seem to like me	SA	A	D	SD	
92. I have poor study habits	SA	A	D	SD	
93. Science is easy for me	SA	A	D	SD	
94. I am uncomfortable in school	SA	A	D	SD	
95. I usually work very hard	SA	A	D	SD	
96. Most people would rather work with me than someone else	SA	A	D	SD	
97. My teachers have a low opinion of me	SA	A	D	SD	
98. Most subjects are pretty easy for me	SA	A	D	SD	
99. I am not very creative	SA	A	D	SD	
100. I usually feel good about my written work	SA	A	D	SD	
AC Scale Total Raw Score					

5

F SCALE							
Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)				
							SCORE
101. My parents care about my happiness			SA	A	D	SD	
102. My family makes me feel loved			SA	A	D	SD	
103. My family ruins everything for me			SA	A	D	SD	
104. In my family, we take care of each other			SA	A	D	SD	
105. I feel appreciated by my family			SA	A	D	SD	
106. I have fun with my family			SA	A	D	SD	
107. I wish I could trade families with someone else			SA	A	D	SD	
108. My parents are interested in me			SA	A	D	SD	
109. My parents don't trust me			SA	A	D	SD	
110. My home is warm and caring			SA	A	D	SD	
111. My parents do not like my being around them			SA	A	D	SD	
112. My parents help me when I need it			SA	A	D	SD	
113. I am an important member of my family			SA	A	D	SD	
114. My parents are proud of me			SA	A	D	SD	
115. My family is no good			SA	A	D	SD	
116. Nothing I do seems to please my parents			SA	A	D	SD	
117. My parents attend events that are important to me			SA	A	D	SD	
118. My parents believe in me			SA	A	D	SD	
119. I am proud of my family			SA	A	D	SD	
120. My parents care about my education			SA	A	D	SD	
121. My family is one of the most important parts of my life			SA	A	D	SD	
122. My parents love me just as I am			SA	A	D	SD	
123. I don't know why my family stays together			SA	A	D	SD	
124. My parents care about my future			SA	A	D	SD	
125. My home is not a happy place			SA	A	D	SD	
F Scale Total Raw Score							

P SCALE						
Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)			
						SCORE
126. I feel good			SA	A	D	SD	
127. I am attractive			SA	A	D	SD	
128. I am in poor shape			SA	A	D	SD	
129. When I look in the mirror, I like what I see			SA	A	D	SD	
130. I tire too quickly			SA	A	D	SD	
131. I have nice looking teeth			SA	A	D	SD	
132. I look nice in just about anything I wear			SA	A	D	SD	
133. I am ugly			SA	A	D	SD	
134. I am stronger than most people			SA	A	D	SD	
135. I have a nice figure			SA	A	D	SD	
136. I am healthy			SA	A	D	SD	
137. I feel good about how I look			SA	A	D	SD	
138. I am good at most sports			SA	A	D	SD	
139. I do not like how my clothes fit me			SA	A	D	SD	
140. I am typically chosen among the last for team sports			SA	A	D	SD	
141. I am physically fit			SA	A	D	SD	
142. My hair never seems to look very good			SA	A	D	SD	
143. My skin is attractive			SA	A	D	SD	
144. I do not like to be seen in a swimsuit			SA	A	D	SD	
145. There are parts of my body that I try to keep others from noticing			SA	A	D	SD	
146. My clothes look good on me			SA	A	D	SD	
147. I do not seem to have the energy to do very much			SA	A	D	SD	
148. My weight is just about where it should be			SA	A	D	SD	
149. I would change my looks if I could			SA	A	D	SD	
150. I am graceful			SA	A	D	SD	
P Scale Total Raw Score						

7

	Section III. Norm-Referenced Interpretation					Section IV. Ipsative Interpretation		
	Raw Score	Standard Score	Confidence Interval	Classification	%ile Rank	Standard Score	Difference Score	.05/.01 Classification
Social	___	___	___	___	___	___	___	___
Competence	___	___	___	___	___	___	___	___
Affect	___	___	___	___	___	___	___	___
Academic	___	___	___	___	___	___	___	___
Family	___	___	___	___	___	___	___	___
Physical	___	___	___	___	___	___	___	___
TOTAL SCALE	___	___	___	___	___	___	___	___

Section V. Profile of Scale Scores

Standard Score	Social	Competence	Affect	Academic	Family	Physical	Total Test	Standard Score
145								145
—								—
—								—
130								130
—								—
—								—
115								115
—								—
—								—
100								100
—								—
—								—
85								85
—								—
—								—
70								70
—								—
—								—
55								55

SEI

Self-Esteem Index

STUDENT RESPONSE BOOKLET

Subject's Name _____

	Year	Month
Date of Testing	_____	_____
Subject's Date of Birth	_____	_____
Subject's Age at Testing	_____	_____

Instructions

Read this list of sentences. Some of these sentences will describe you very well and some will not describe you at all. If you think a sentence is always true of you, put a mark in the circle or square under *Always True*. If you think a sentence is usually true of you, put a mark in the circle or square under *Usually True*. If you think a sentence is usually not true of you, put a mark in the circle or square under *Usually False*. If you think a sentence is never true of you, put a mark in the circle or square under *Always False*. Remember to answer all of the questions. If you do not know the meaning of any words in the sentences, ask the examiner. You may begin when the examiner tells you to.

		ALWAYS TRUE	USUALLY TRUE	USUALLY FALSE	ALWAYS FALSE
1.	My parents and I have fun together.	○	○	○	○
2.	I am a hard and steady worker at school.	○	○	○	○
3.	I'm pretty popular with other kids my age.	○	○	○	○
4.	Kids pick on me a lot.	□	□	□	□
5.	My home life is pretty pleasant	○	○	○	○
6.	I am good at school work.	○	○	○	○
7.	I'm a lot of fun to be around.	○	○	○	○
8.	I have nightmares almost every night.	□	□	□	□
9.	We have a very close family	○	○	○	○
10.	I am pretty good about doing my homework on time.	○	○	○	○
11.	It's easy for me to make friends.	○	○	○	○
12.	I often feel ashamed of myself.	□	□	□	□
13.	My parents don't listen to me.	□	□	□	□
14.	I'm proud of my school work.	○	○	○	○
15.	I am a leader in most of the games that my friends play.	○	○	○	○
16.	My friends don't have much confidence in me.	□	□	□	□
17.	I can go to my parents with my problems.	○	○	○	○
18.	I give the teachers a lot of trouble at school.	□	□	□	□
19.	I don't have trouble talking to other people.	○	○	○	○
20.	I exaggerate my troubles in order to get attention from other people.	□	□	□	□
21.	My parents understand me as well as most kids' parents do.	○	○	○	○
22.	I like going to school.	○	○	○	○
23.	I'm as nice looking as most other kids.	○	○	C	○
24.	I never feel like I'm part of the group.	□	□	□	□
25.	My parents are proud of me.	○	○	○	○
26.	My parents are disappointed in my school grades.	□	□	□	□
27.	My friends think I have pretty good ideas.	○	○	○	○
28.	It takes me a long time to get used to new things.	□	□	□	□

	ALWAYS TRUE	USUALLY TRUE	USUALLY FALSE	ALWAYS FALSE
29. My family is interested in me and the things that I do	○	○	○	○
30. I do as little work at school as I can get by with.	□	□	□	□
31. I think I'm pretty easy to like	○	○	○	○
32. I'm usually the last one to be chosen for a game.	□	□	□	□
33. Nobody pays much attention to me at home.	□	□	□	□
34. School work isn't very interesting.	□	□	□	□
35. I'm not shy.	○	○	○	○
36. I am often afraid.	□	□	□	□
37. I feel left out of things at home.	□	□	□	□
38. My teachers like me.	○	○	○	○
39. The other kids usually want me to take charge when we work on a school project together.	○	○	○	○
40. My friends let me take the blame for things they have done.	□	□	□	□
41. My parents don't scold me unless I deserve it.	○	○	○	○
42. I am slow when it comes to doing my school work.	□	□	□	□
43. I usually say what I think.	○	○	○	○
44. Other kids think I'm a cry baby.	□	□	□	□
45. I don't trust my family.	□	□	□	□
46. I find it hard to work in classrooms that have a lot of rules.	□	□	□	□
47. I think most people are pretty interesting to talk to.	○	○	○	○
48. I would rather play with children who are younger than I am.	□	□	□	□
49. My family doesn't trust me.	□	□	□	□
50. I'm not doing as well in school as I'd like to do.	□	□	□	□
51. When I grow up, I will be an important person.	○	○	○	○
52. I am a klutz.	□	□	□	□
53. My family will help me if I get into trouble.	○	○	○	○
54. My teachers make me feel like I'm not good enough.	□	□	□	□
55. I like being with other kids.	○	○	○	○
56. I spend too much time alone.	□	□	□	□

	ALWAYS TRUE	USUALLY TRUE	USUALLY FALSE	ALWAYS FALSE
57. I argue a lot with my family.	☐	☐	☐	☐
58. My behavior at school is okay.	○	○	○	○
59. I'm not afraid of as many things as my friends are.	○	○	○	○
60. I am uncomfortable in groups of people.	☐	☐	☐	☐
61. I don't have enough freedom at home.	☐	☐	☐	☐
62. Most of my teachers are pretty fair.	○	○	○	○
63. I'm not a very lonely person.	○	○	○	○
64. I wish I were younger.	☐	☐	☐	☐
65. I am an important member of my family.	○	○	○	○
66. Sometimes I play sick to get out of school.	☐	☐	☐	☐
67. I include other people in my plans.	○	○	○	○
68. Sometimes I pretend to know more than I really do.	☐	☐	☐	☐
69. My parents expect too much from me.	☐	☐	☐	☐
70. My teachers give me school work that I cannot do.	☐	☐	☐	☐
71. I learn a lot from other people.	○	○	○	○
72. I get a lot of headaches and stomachaches.	☐	☐	☐	☐
73. The people in my family have quick tempers.	☐	☐	☐	☐
74. I like it when the teacher calls on me.	○	○	○	○
75. I don't have trouble making up my mind about things.	○	○	○	○
76. When things go wrong, I sometimes try to blame the other guy.	☐	☐	☐	☐
77. Things at home upset me.	☐	☐	☐	☐
78. It's fun to learn new things.	○	○	○	○
79. I have friends I can confide in.	○	○	○	○
80. It is hard for me to talk in front of the class.	☐	☐	☐	☐

APPENDIX C

Peer Report Measures

PEER NOMINATION   Boy   Girl

School _____   Grade _____

Teacher _____   Your Name _____

1. List your 3 best friends.

    1.

    2.

    3.

2. List 3 people in the class that you would most like to play with.

    1.

    2.

    3.

3. List 3 people in the class that you would most like to work with.

    1.

    2.

    3.

PLAY WITH RATING SCALE   Boy   Girl

School _____   Grade _____

Teacher _____   Your Name _____

<u>Directions:</u> Put the number of the face that tells how much you like to
play with each person in your class on the line beside their
name. Do not rate yourself.

1	2	3	4	5
Not at All	Not Much	Doesn't Matter	A Little	A Lot
1	2	3	4	5

_____ Girl 1   _____ Girl 2   _____ Girl 3   _____ Girl 4

_____ Girl 5   _____ Girl 6   _____ Girl 7   _____ Girl 8

_____ Girl 9   _____ Girl 10   _____ Girl 11   _____ Girl 12

_____ Girl 13   _____ Girl 14   _____ Girl 15   _____ Girl 16

_____ Boy 1   _____ Boy 2   _____ Boy 3   _____ Boy 4

_____ Boy 5   _____ Boy 6   _____ Boy 7   _____ Boy 8

_____ Boy 9   _____ Boy 10   _____ Boy 11   _____ Boy 12

_____ Boy 13   _____ Boy 14   _____ Boy 15   _____ Boy 16

WORK WITH RATING SCALE   Boy   Girl

School _____   Grade _____

Teacher _____   Your Name _____

Directions: Put the number of the face that tells how much you like to
work with each person in your class on the line beside their
name. Work with means things like being in reading group,
doing assignments together, going to the library, and helping
one another out on things like reading, arithmetic, science,
and other school subjects. Do not rate yourself.
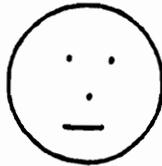
1	2	3	4	5
Not at All	Not Much	Doesn't Matter	A Little	A Lot
1	2	3	4	5

_____ Girl 1	_____ Girl 2	_____ Girl 3	_____ Girl 4
_____ Girl 5	_____ Girl 6	_____ Girl 7	_____ Girl 8
_____ Girl 9	_____ Girl 10	_____ Girl 11	_____ Girl 12
_____ Girl 13	_____ Girl 14	_____ Girl 15	_____ Girl 16
_____ Boy 1	_____ Boy 2	_____ Boy 3	_____ Boy 4
_____ Boy 5	_____ Boy 6	_____ Boy 7	_____ Boy 8
_____ Boy 9	_____ Boy 10	_____ Boy 11	_____ Boy 12
_____ Boy 13	_____ Boy 14	_____ Boy 15	_____ Boy 16

APPENDIX D

Peer Nomination Matrices

BEST FRIENDS

STUDENTS CHOSEN

Choices Made: OS, SS

STUDNTS CHOOSING	Stud. #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	OS	SS
Girl 1	1	■																													
Girl 2	2		■																												
Girl 3	3			■																											
Girl 4	4				■																										
Girl 5	5					■																									
Girl 6	6						■																								
Girl 7	7							■																							
Girl 8	8								■																						
Girl 9	9									■																					
Girl 10	10										■																				
Girl 11	11											■																			
Girl 12	12												■																		
Girl 13	13													■																	
Girl 14	14														■																
Boy 1	15															■															
Boy 2	16																■														
Boy 3	17																	■													
Boy 4	18																		■												
Boy 5	19																			■											
Boy 6	20																				■										
Boy 7	21																					■									
Boy 8	22																						■								
Boy 9	23																							■							
Boy 10	24																								■						
Boy 11	25																									■					
Boy 12	26																										■				
Boy 13	27																											■			
Boy 14	28																												■		
Choices Received	OS / SS																														
TOTAL																															
Mutual Choices	OS / SS																														
TOTAL																															

GIRLS / BOYS

WORK

STUDNTS CHOOSING	Stud. #	STUDENTS CHOSEN																												Choices Made	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	OS	SS
Girl 1	1	■																													
Girl 2	2		■																												
Girl 3	3			■																											
Girl 4	4				■																										
Girl 5	5					■																									
Girl 6	6						■																								
Girl 7	7							■																							
Girl 8	8								■																						
Girl 9	9									■																					
Girl 10	10										■																				
Girl 11	11											■																			
Girl 12	12												■																		
Girl 13	13													■																	
Girl 14	14														■																
Boy 1	15															■															
Boy 2	16																■														
Boy 3	17																	■													
Boy 4	18																		■												
Boy 5	19																			■											
Boy 6	20																				■										
Boy 7	21																					■									
Boy 8	22																						■								
Boy 9	23																							■							
Boy 10	24																								■						
Boy 11	25																									■					
Boy 12	26																										■				
Boy 13	27																											■			
Boy 14	28																												■		
Choices Received OS																															
Choices Received SS																															
TOTAL OS																															
TOTAL SS																															
Mutual Choices																															
TOTAL																															

PLAYMATES

STUDENTS CHOSEN

Choices Made

STUDENTS CHOOSING	Stud. #																													OS	SS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Girl 1	1	■																													
Girl 2	2		■																													
Girl 3	3			■																												
Girl 4	4				■																											
Girl 5	5					■																										
Girl 6	6						■																									
Girl 7	7							■																								
Girl 8	8								■																							
Girl 9	9									■																						
Girl 10	10										■																					
Girl 11	11											■																				
Girl 12	12												■																			
Girl 13	13													■																		
Girl 14	14														■																	
Boy 1	15															■																
Boy 2	16																■															
Boy 3	17																	■														
Boy 4	18																		■													
Boy 5	19																			■												
Boy 6	20																				■											
Boy 7	21																					■										
Boy 8	22																						■									
Boy 9	23																							■								
Boy 10	24																								■							
Boy 11	25																									■						
Boy 12	26																										■					
Boy 13	27																											■				
Boy 14	28																												■			
	OS																															
	SS																															
Choices Received TOTAL																																
Mutual Choices	OS																															
	SS																															
TOTAL																																

GIRLS

BOYS

APPENDIX E

Ratings of Peer Nominations

RATINGS OF PEER NOMINATIONS

NAME	FRIENDS	PLAY	WORK	AVERAGE
Girl 1				
Girl 2				
Girl 3				
Girl 4				
Girl 5				
Girl 6				
Girl 7				
Girl 8				
Girl 9				
Girl 10				
Boy 1				
Boy 2				
Boy 3				
Boy 4				
Boy 5				
Boy 6				
Boy 7				
Boy 8				
Boy 9				
Boy 10				

APPENDIX F

Ratings of Rating Scales

MEAN

| | | PLAY | | | WORK | | | Combined |
NAME	OPP SEX	SAME SEX	OVER- ALL	OPP SEX	SAME SEX	OVER- ALL	OVERALL AVERAGE
Girl 1							
Girl 2							
Girl 3							
Girl 4							
Girl 5							
Girl 6							
Girl 7							
Girl 8							
Girl 9							
Girl 10							
Girl 11							
Girl 12							
Boy 1							
Boy 2							
Boy 3							
Boy 4							
Boy 5							
Boy 6							
Boy 7							
Boy 8							
Boy 9							
Boy 10							
Boy 11							
Boy 12							

G I R L S

B O Y S

APPENDIX G

Permission to Copy Self-Report Measures

811 Rocky Acres Lane
Blacksburg, VA 24060
March 17, 1993

Mr. Steve Matthews
Pro-Ed Publications
Austin, TX
FAX   512-451-8542

Dear Mr. Matthews:

I administered two instruments which you publish as part of my dissertation study: the
Self-Esteem Index (SEI) and the Multidimensional Self Concept Scale (MSCS). I would
like to include copies of these instruments in my dissertation.

Please consider this a formal request to reprint copies of these two instruments in my
dissertation. I would greatly appreciate confirmation of permission by return FAX to
703-231-5672.

Thank you for your time and assistance in his matter.

Sincerely,

Gretchen C. Troutman

Gretchen C. Troutman

GRETCHEN CREECH TROUTMAN

811 Rocky Acres Lane
Blacksburg, Virginia 24060

EDUCATION
DOCTOR OF PHILOSOPHY in Educational Research and Evaluation/
School Psychology, Virginia Polytechnic Institute and State
University, Blacksburg, Virginia, April 1993.

EDUCATIONAL SPECIALIST in School Psychology, Radford
University, Radford, Virginia, February 1984.

MASTER OF SCIENCE in Psychology (Counseling), Radford
University, Radford, Virginia, May 1981.

BACHELOR OF ARTS in Psychology and Sociology, Lenoir-Rhyne
College, Hickory, North Carolina, May 1979.

PROFESSIONAL EXPERIENCE
RESEARCH ASSOCIATE, Mild/Moderate Technical Assistance
Center, Virginia Polytechnic Institute and State University,
Blacksburg, Virginia, August 1992 to present.

ADJUNCT INSTRUCTOR, Department of Special Education, Radford
University, Radford, Virginia, Spring 1993.

SCHOOL PSYCHOLOGIST, Davie County Schools, Mocksville, North
Carolina, August 1987 to June 1989.

SCHOOL PSYCHOLOGIST, Spotsylvania County Schools,
Spotsylvania, Virginia, August 1985 to July 1987.

SCHOOL PSYCHOLOGIST, Wise County and Norton City Schools,
Wise, Virginia, October 1981 to June 1985.

KINDERGARTEN SCREENING COORDINATOR, Davie County Schools,
Mocksville, North Carolina, Summer 1988 and Spring 1989.

ADJUNCT INSTRUCTOR OF PSYCHOLOGY, Davidson County Community
College, Lexington, North Carolina, Fall 1988.

INSTRUCTOR, North Carolina Department for Public Instruction
in Mocksville, North Carolina, Fall 1987.

GRADUATE WORK EXPERIENCE
GRADUATE RESEARCH ASSISTANT, Institute for the Study of
Exceptionalities, Virginia Polytechnic Institute and State
University, November 1991 to July 1992.

GRADUATE RESEARCH ASSISTANT, Research and Evaluation
Computer Laboratory, Administrative and Educational Services
Division, Virginia Polytechnic Institute and State
University, May 1991 to November 1991.

GRADUATE PROJECT ASSISTANT, Southwest Virginia Transition
Technical Assistance Center, Virginia Polytechnic Institute
and State University, October 1989 to May 1991.

INTERNSHIPS
SCHOOL PSYCHOLOGY INTERN, Virginia Department of Education,
Richmond, Virginia, Summer 1990.

INSTRUCTIONAL ASSISTANT, Virginia Polytechnic Institute and
State University, Fall 1989.

PUBLICATIONS
Keith, T. Z., Keith, P. B., Troutman, G. C., Bickley, P. G.,
Trivette, P. S., & Singh, K. (1992). Does parental
involvement affect eighth grade student achievement?
Structural analysis of national data. Manuscript submitted
for publication.

Houck, C. K., Asselin, S. B., Troutman, G. C., & Arrington,
J. M. (1992). Students with learning disabilities in the
university environment: A study of faculty and student
perceptions. Journal of Learning Disabilities, 25(10), 678-
684.

PRESENTATIONS
Troutman, G. C., & Walls, W. E. (1993, April). The
collaborative teaching project for students with learning
disabilities: A program evaluation. Presented at the
meeting of the National Association of School Psychologists,
Washington, DC.

Troutman, G. C., & Lawson, S. W. (1992, November).
Collaborative teaching program evaluation. Presented at the
Resource/Collaborating Teaching Symposium, Williamsburg, VA.

Panel Participant, (1992, November). Research and
evaluation issues in collaborative service delivery.
Resource/Collaborating Teaching Symposium, Williamsburg, VA.

Troutman, G. C., & Rogers, C. J. (1992, March). <u>Developing</u>
<u>educational research computer skills in laboratory mini-</u>
<u>courses</u>. Paper presented at the meeting of the Eastern
Educational Research Association, Hilton Head, SC.

PAPERS
<u>Integrated approach to learning for special education</u>
<u>students</u>, (1992, June). Virginia Department of Education,
Richmond, Virginia.

<u>Southwest Virginia Transition Technical Assistance Center</u>
<u>Newsletter</u>, 1989 to 1991.

<u>The 1988-89 annual reports for school psychology and</u>
<u>visiting teacher/school social work</u> (1990). Virginia
Department of Education, Division of Pupil Personnel
Services, Richmond, Virginia.

CERTIFICATION
CERTIFIED SCHOOL PSYCHOLOGIST, Virginia Department of
Education, Pupil Personnel Certificate.

CERTIFIED SCHOOL PSYCHOLOGIST, North Carolina Department of
Public Instruction, Advanced Graduate Certificate

AWARDS
Virginia Council for Learning Disabilities Outstanding
Research Award, 1993.

PROFESSIONAL MEMBERSHIPS
Alpha Delta Kappa
American Educational Research Association
Council for Learning Disabilities
Eastern Educational Research Association
National Association of School Psychologists
Phi Delta Kappa
The Association for Persons with Severe Handicaps
Virginia Academy of School Psychologists
Virginia Council for Learning Disabilities
Virginia Psychological Association

Gretchen C. Troutman
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