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ABSTRACT

This study attempts to provide evidence for the criterion validity of the Psychosocial Maturity (PSM) scales. Students' scores on the nine PSM scales were related to teachers' ratings of students' PSM-related behavior. All scales except Trust significantly differentiated students rated high on PSM-related traits from students not rated high. Only two of the scales, Change and Social Commitment, showed significant differences between those students rated low and those not rated low. Two possible explanations are advanced for the greater sensitivity of the scales to teacher-rated presence of PSM traits than to teacher-rated absence of these traits in children. (Author)

ON THE VALIDITY OF THE PSYCHOSOCIAL MATURITY SCALES: RELATIONSHIP TO TEACHER RATINGS

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INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Schools and Maturity program is studying the effects of school, family, and peer group experiences on the development of attitudes consistent with psychosocial maturity. The objectives are to formulate, assess, and research important educational goals other than traditional academic achievement. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. The Careers program (formerly Careers and Curricula) bases its work upon a theory of career development. It has developed a self-administered vocational guidance device and a self-directed career program to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the Schools and Maturity program, is part of the program's examination of the validity of the psychosocial maturity (PSM) inventory.

INTRODUCTION

This study is part of a larger and ongoing attempt to provide evidence of criterion validity for the psychosocial maturity scales. These scales, conceptually derived from a construct of psychosocial maturity (Greenberger and Sørensen, 1973), attempt to measure the nine aspects of maturity identified by the construct. These are: Self-reliance, Identity, and Work Orientation -- aspects of individual adequacy; Communication Skills, Knowledge of Major Roles, and Enlightened Trust -- aspects of interpersonal adequacy; and Social Commitment, Tolerance, and Openness to Change -- aspects of social adequacy.

Among the most available criteria against which to test the validity of children's scores on the psychosocial maturity scales are the judgments of teachers who work with children daily. These teachers, who have the opportunity to observe students' behavior repeatedly and across a variety of situations, are potentially good sources of information about children's psychosocial characteristics.

Nonetheless, certain pitfalls involved in teacher ratings are well known. The problem of the halo effect has dominated discussion of these pitfalls. A problem which is likely to be at least as important, however, concerns the selection of traits which teachers can reasonably be expected to rate. Even when teacher-raters are well-trained, rating error is likely to flourish when teachers are asked to report on traits which they have had little occasion to observe directly. A previous attempt to use teacher ratings as a criterion for an early version of the psychosocial maturity scales (Starr, 1973), in which teachers were asked to judge a complex of traits as they might be expressed in a hypothetical

situation, may well have invited rating error from this source. The author concluded that future investigations should focus on directly observable behavior and on single traits rather than complexes of traits.

Accordingly, in the present study, each of the nine psychosocial maturity (PSM) subscales was translated into behavioral terms. It was apparent that some traits were more "translatable" than others, and that some traits were more likely to be expressed in the classroom situation than others. Those aspects of maturity which were more readily described in behavioral terms and those more likely to occur in the classroom were expected to be rated more accurately by teachers.

The research question of this study centers on whether children's scores on the PSM scales correspond to their teachers' perceptions of their behavior in trait-relevant areas.

METHOD

Subjects

Eight hundred twenty-eight fifth-grade students in 12 schools took the PSM inventory. Elimination of cases because of missing data reduced the final subject-pool to 729.[1] In the final sample, 52% of the children were girls; 48% were boys. Racially, 56% described themselves as white, 35% as black, and the remaining 9% placed themselves in other categories. The schools from which they were drawn constituted a stratified random sample of public elementary schools in South Carolina. Stratification dimensions were urbanness of the school's location (three levels) and racial composition of the student body (four levels).

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[1] The criteria for eliminating cases, and the consequences of the procedure used, are discussed elsewhere (Greenberger, et al., 1974, Appendix A).

Each student was rated by one teacher. A total of 26 teachers provided the trait-ratings.

Measures and Procedures

The PSM rating schedule required the teacher to rate each of his or her students on nine trait-descriptions. Each PSM subscale was represented by a behavioral correlate of that trait: for example, social commitment was represented by "relinquishes self-interest to work for group goals." The rating procedure consisted of the teacher's endorsing one of the following four categories: very much like child; a little like child; a little unlike child; or very much unlike child. A fifth category, "cannot say," was also provided. Six of the trait descriptions were phrased in the reverse (negative) direction in order to forestall halo effects: for example, self-reliance was represented by "cannot seem to make decisions for himself." No training of the teacher-raters was carried out. Written instructions asked the teachers to rate each child in his or her class on each trait and to avoid making halo judgments. Table 1 presents the nine behavioral descriptors matched with the corresponding PSM scale.

Before analysis, the data from the teacher ratings were pooled into three groups for each trait. The "high" group consisted of those students who were rated as "very like" the mature direction of the rating item. The "low" group was comprised of students rated as "very unlike" the mature direction. The two middle rating categories, which required difficult distinctions on the part of the teachers, were combined and treated as a "middle" or equivocal category. The pooling of the data thus isolated the extreme groups from those students about whom teachers

had made no definitive judgments.

The dependent variable, which these ratings were expected to predict, were students' scores on the nine PSM subscales (Form B).[1] The PSM inventory was administered to intact classes by the classroom teacher. Students were told that they were participating in a statewide study concerned with learning what children think about themselves, others, and the world. Confidentiality of responses was guaranteed to all subjects.

RESULTS

The distribution of teacher ratings across pooled rating categories (see Table 2) indicates that for each trait, relatively few students are rated into the "low" category. Between two to three times as many students are rated high as are rated low.

The data were analyzed to test two hypotheses: (1) students rated highest on the PSM traits by their teachers will have significantly higher scores on the corresponding PSM scale than the rest of the sample; and (2) students rated lowest on the PSM traits will have scores that are significantly lower than the rest of the sample. To test the first hypothesis, the PSM scores of children rated high by their teachers were compared with those of the other children; to test the second hypothesis, the PSM scores of children rated low by their teachers were compared with those of the rest of the sample.

The first hypothesis was confirmed for eight of the nine PSM scales. Students rated high on the corresponding trait by their teachers scored

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[1] Psychometric properties of these scales are described in Greenberger et al., 1974.

significantly higher than other students on all PSM scales except the Trust scale. (See Table 3.)

The second hypothesis was confirmed for two of the nine PSM scales. The Change and Social Commitment scales showed significant ($p < .01$ and $p < .05$, respectively) differences between those rated in the low direction and other students (see Table 4). The remaining seven subscales, however, were unrelated to teacher ratings in the lowest categories; i.e. the students who were least mature in the teachers' opinions were not discriminated by their scale scores.

DISCUSSION

These data provide partial evidence for the criterion validity of eight of the PSM subscales, in that the subscales are shown to reflect traits which are manifested in behavior observable by teachers. The results suggest, however, that the scales are less sensitive to the absence or relative lack of these traits than to their presence. That is, students judged to be very self-reliant do, in fact, score significantly higher on the self-reliance scale, whereas students thought to be particularly low in self-reliance do not significantly differ from others in their self-reliance scores.

The most plausible explanation for this pattern of results is that teachers are more willing to identify children who are particularly high (i.e. mature) on a trait than to label children in a negative direction. For all traits, at least twice as many children were rated in the high (most positive) group than in the low (most negative) group. It may be, then, that many who were low on a trait were "given

a break" by the teachers and put instead into one of the equivocal categories. If this occurred, then the equivocal categories would contain a large percentage of "low" scorers, which would tend to decrease the difference in PSM scores between the low rated group and the remainder of the sample.

It is also possible that the group of children rated low by the teachers contains, among others, children with unrealistically positive self-images. Although the scales have been shown to have low correlations with social desirability (Greenberger et al. 1973), it is still possible that those deemed low on a trait by the teacher may hold a different picture of themselves. It is not unlikely, for example, that the poorest worker in the classroom (i.e. a child who is "objectively" a poorer worker than his classmates) still thinks of himself as someone who tries to work hard. If enough of these children are represented in the "low" group, the mean PSM scores for the "low" group could be inflated enough to obscure differences from the rest of the sample. The question of whether the PSM scales are as sensitive to psychosocial immaturity -- as reflected in teacher ratings -- as they are to psychosocial maturity must, however, await the results of future research.

On one of the PSM scales, Trust, no significant differences were found, at either end of the continuum. It is possible that for this scale, the trait-description was less easily rated by teachers. The fact that the trust scale had the highest rate of endorsements in the "cannot say" category (the non-rated group) indicates that teachers found this scale the most difficult on which to make judgments (see Table 2). Intuitively, it is less difficult for a teacher to report on

whether a student "Takes his work seriously" than whether he "Has difficulty judging when and when not, to trust others." Teacher ratings may not be the preferred criterion for testing the behavioral correlates of enlightened trust.

Because the pattern of results obtained in this study may have in part resulted from the skewed character of the distribution of teacher ratings, it is suggested that future research of this sort impose a distribution on the raters. Use of nominations, where teachers would be asked to name only the highest and lowest students on each trait, would both simplify the task (and reduce the time required) for the teachers and also define two equal extreme groups for comparison. This method would also insure that students are being rated relative to each other (since the teacher would be asked to name the most and least mature students in her class) rather than being rated relative to the teacher's absolute sense of "high" and "low" on the psychosocial maturity traits.

SUMMARY

This study attempted to provide evidence of the criterion validity of the PSM scales using teacher ratings of student PSM-related behavior. All scales except Trust significantly differentiated students rated high on these traits from those students not rated high. Only two of the scales, Change and Social Commitment, showed significant differences between those rated "low" and those not rated "low." The apparently greater sensitivity of the scales to the rated observable behavior of children rated high than to the behavior of those rated low may be largely a function of the teachers' reluctance to rate students low.

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Table 1

PSM Scales Matched with Trait-description on Teacher's Rating Schedule

Scale Name	Rating Stem
Self-Reliance	Cannot seem to make decisions for himself
Identity	Has a clear idea of what kind of person he is and what his values are
Work-Orientation	Takes his work seriously
Communication	Has trouble expressing ideas and feelings clearly
Roles	Does not understand what he can and cannot expect of individuals in different roles: e.g. teacher, friend
Trust	Has difficulty judging when and when not to trust others
Social Commitment	Relinquishes self interest to work for group goals
Tolerance	Has trouble getting along with people who are different from himself
Change	Cannot accept new ideas and ways of doing things

Table 2

Distribution of Teacher Ratings by PSM Trait (n = 729)

	High	Middle	Low	Not Rated
Self Reliance	28%	55%	16%	1%
Work Orientation	33%	51%	14%	2%
Identity	23%	58%	12%	6%
Communication	22%	56%	20%	2%
Roles	32%	50%	13%	5%
Trust	25%	50%	13%	11%
Social Commitment	30%	56%	13%	2%
Tolerance	40%	44%	14%	1%
Change	40%	48%	11%	1%

Table 3

Comparison of PSM Subscale Means for Highest Teacher-rated Students versus All Other Students.[a, b]

PSM Scale	Means: High	Means: Middle and Low	t
Self Reliance	2.50	2.33	5.07**
(n)	(197)	(508)	
Work Orientation	2.64	2.48	4.88**
(n)	(236)	(468)	
Identity	2.66	2.44	5.65**
(n)	(167)	(503)	
Communication	2.59	2.54	1.71*
(n)	(163)	(541)	
Roles	2.52	2.46	1.77*
(n)	(229)	(452)	
Trust	2.29	2.25	1.15
(n)	(182)	(454)	
Social Commitment	2.70	2.61	2.91**
(n)	(216)	(488)	
Tolerance	2.67	2.62	1.85*
(n)	(288)	(418)	
Change	2.71	2.61	4.02**
(n)	(289)	(418)	

[a] All trait-ratings were recoded in the "positive" direction before data analysis; hence, high always indicates the mature direction.

[b] Sample sizes vary somewhat from trait to trait, due to variation in teachers' omissions and use of the "cannot say" category.

** $p < .01$, one-tailed.

* $p < .05$, one-tailed.

Table 4

Comparison of PSM Subscale Means for Students in Lowest Teacher-rated Category versus All Other Students.[a, b]

PSM Subscale	Means: Low	Means: High and Middle	t
Self Reliance	2.35	2.38	.69
(n)	(113)	(592)	
Work	2.49	2.53	.95
(n)	(97)	(607)	
Identity	2.45	2.51	1.09
(n)	(85)	(585)	
Communication	2.52	2.56	1.47
(n)	(148)	(563)	
Roles	2.48	2.48	.06
(n)	(91)	(590)	
Trust	2.30	2.25	1.16
(n)	(91)	(545)	
Social Commitment	2.57	2.64	1.78*
(n)	(91)	(613)	
Tolerance	2.66	2.64	.59
(n)	(102)	(604)	
Change	2.57	2.66	2.35**
(n)	(78)	(629)	

[a] All trait-ratings were recoded in the "positive" direction before data analysis; hence, low always indicates the non-mature direction.

[b] Sample sizes vary somewhat from trait to trait, due to variation in teachers' omissions and use of the "cannot say" category.

** $p < .01$, one-tailed.

* $p < .05$, one-tailed.