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AUTHOR Kerr, M. Kaye
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ABSTRACT

This study compared the relative frequency of the identification of students as maladjusted to school by standardized achievement tests and by teacher ratings. Subjects were 290 primary school children between 8 and 12 years of age from London, England. Children's achievement was assessed using the mathematics, maps, and reading subscales of the Richmond Tests of Basic Skills (RTBS). Teacher ratings of children's adjustment to school were obtained through a revision of the Classroom Adjustment Rating Scale (CARS). The revised CARS included subscales for aggression, withdrawal, academic performance, sensitivity, dependency, and physical problems, and an overall adjustment scale. Analysis revealed that a greater number of children were classified as deviant by the achievement tests than by the revised CARS. The subscale ratings of the teachers were so highly intercorrelated that important issues concerning the practical usefulness of teacher ratings are raised. (MM)

Assessment of School Maladjustment

M. Kaye Kerr

University of Winnipeg

Running head: ASSESSMENT OF SCHOOL MALADJUSTMENT

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Abstract

Teacher ratings and standardized achievement tests are used frequently by researchers and educators to identify school maladjustment. This study compared the relative frequency of identification by using a revision of the CARS and the Richmond Tests of Basic Skills. Two hundred-ninety 8 to 12 year old children from Inner London, England, Primary Schools were assessed using the mathematics, maps and reading subscales and seven teacher rating scales. Overall teacher ratings of school adjustment (CARS) and performance on standardized achievements tests were significantly related (r=.5). A greater number of children were classified as deviant by the achievement test than by teachers' ratings. Performance on the achievement tests and the teacher rating scales is compared with final school banding levels.

Assessment of School Maladjustment

The purpose of this study was to assess the relative frequency of individuals identified as maladjusted by standardized achievement tests and teacher ratings. The validity of using one or the other or both forms of evaluation is important for appropriate intervention and resource utilization. Knowledge concerning the predictive power of classroom ratings for standardized achievement performance would assist in making such decisions. This issue is considered meaningful since teacher assessments are used with increasing frequency to develop activities and to place children into special programs.

The second purpose was to initiate the development of a short rating scale which could be used to indicate a teacher's evaluation of a child's overall adjustment. This short scale could be used for future research and clinical applications. This short scale was compared with an existing teacher rating scale of school adjustment. Such comparative evaluations of ratings scales for use in school settings are of recognized importance (Edelbrock, 1983).

Method

Tests

The three subtests (mathematics, maps, and reading) of the Richmond Tests of Basic Skills (NFER, 1982) which are comparable to the Iowa Basics Skills and the Canadian Test of Basic Skills, were selected as the standardized achievement measures.

Teacher ratings

The teachers rated each child on a revision of the Classroom Adjustment Rating Scale (Lorion, Cowen, & Caldwell, 1975) which consists of behaviorally-oriented items describing school adjustment problems. The more frequently used subscales of aggression (acting-out), withdrawal (shy-anxious withdrawn), and academic difficulties were used in conjunction with the dependency and sensitivity subscales. Four items were added to form a new subscale which assessed the occurrence of physical problems. These subscales formed the long scale. An additional short scale of overall adjustment was derived from Achenbach (1981) which included school absence, unhappiness, confusion and disobedience. Therefore, the total teacher rating included seven teacher rated scales: aggression,

withdrawal, academic performance, sensitivity, dependency, physical, and a short overall adjustment scale. The teachers rated children's behavior problems on a 5 point-scale (1=not a problem, 5= a serious problem). The Cronbach alpha on reliability for this total scale was .73.

Subjects

Five schools were selected to include a range of socio-economic and cultural groupings from Inner London, England Primary Schools. The children were from 16 different classrooms with the median number of children in a class equalling 19 (7- 25 range). Two hundred and ninety children ranging from 8 to 12 years participated in the study. In younger and older age comparison, the mean (M=10.07 yrs., SD=1.03) was used to divide the group with 49.3% of the children falling into the younger and 50.7 % falling into the older age group. Seven children moved from their school before the study was completed. There were 140 males (48.3%) and 150 females (51.7%). None of the children refused to participate, although absences reduced the number of children on individual tests.

Procedure

The Richmond Tests were administered in the regular classroom setting to each class during the months of January and February. The teachers completed the revised Children's Adjustment Rating Scale during the same time period.

At the end of the primary school period, children were routinely administered group tests by the local school authorities to place the pupils in one of three achievement-based bands. This screening device resulted in children within the total school authority being placed in one of three school levels (band 1=25% of the children, band 2= 50%, and band 3 = 25%). This information was provided from the school records.

Results

Derivation of scores and data analysis

The extreme achievement scorers were determined by calculating the lower quartile for each of the Richmond subscales using the calculated standard scores. Extreme scorers on the school adjustment scales were identified by using descriptive statistics (mean, standard deviation and frequency distribution) of the tabulated teacher ratings for each of the seven school adjustment areas and

selecting the highest quartile of scores. The scores from the long and the short rating scale were compared by using Z scores.

Descriptive information

The number of children classified as maladjusted and normal based on scores from the achievement tests and ratings are shown in Table 1.

Teachers' ratings and standardized assessments

Intercorrelations between the achievement tests and the teacher ratings are presented in Table 2. The teacher ratings of school adjustment (revised CARS) and the performance on standardized achievement tests were significantly related ($r=.5$, $p<.0001$). The short teacher rating scale also was significantly related ($r=.39$, $p<.0001$) to the total achievement test score.

Insert Tables 1 and 2 about here

The univariate F tests (df =1, 249) showed significant differences between the achieving and underachieving students in mathematics on six of the teacher rating scales. These scales were aggression ($F=11.01$, $p<.001$), withdrawal ($F=18.1$, $p<.0001$), academics ($F=18.4$, $p<.0001$), sensitivity ($F=4.5$, $p<.04$), dependency ($F=10.5$, $p<.001$) and overall adjustment ($F=6.3$, $p<.01$). The maps test performance displayed significant differences on teacher rated academic performance ($F=15.6$, $p<.0001$), sensitivity ($F=4.4$, $p<.04$), dependency ($F=4.4$, $p<.04$), and overall adjustment ($F=9.1$, $p<.003$). All the teacher rating scales except physical symptoms significantly differentiated achieving and underachieving reading test scorers.

School banding level

Without an extended period of follow-up, the only external criterion of school-based competence was the school banding level. The correlation between school banding level and total achievement was .60, and the correlation between banding and the CARS was .49. This finding indicated a difference in relationship between the achievement tests with the school banding level, and the teacher rating with the school banding level. The correlation between the revised CARS and the short

overall adjustment scale was .77. Figure 1 shows the relationship between the school banding level and the long and short teacher rating scales.

Insert Figure 1 about here

Discussion

A greater number of children were classified as deviant by the achievement tests than by the revised CARS. The subscale ratings of the teachers were so highly intercorrelated ($p<.0001$ for all relationships excluding the physical scale) that important issues concerning the practical usefulness of teacher ratings are raised.

The major question concerns the capability of teachers to differentiate the component behaviors displayed by a child. The most relevant factor being tapped in teachers' ratings may be the global view that a teacher forms of a child. The teacher assessment frequently is preferred since it is less costly, time-consuming, and intuitively more meaningful to teachers. If this is the case, then long complex rating forms may not provide any better information than shorter forms such as the overall adjustment scale derived from Achenbach (1981). This interpretation is congruent with the contention of Simmons and Blyth (1987) that school problem behavior and academic performance are aspects of a conformity-deviance dimension. The need for adult approval may lead to conscientious and conforming behaviors which influences the evaluation by teachers. Long or short teachers' ratings, therefore, are influenced by a teacher's global view of a child. The overall adjustment scale may be a useful general screening device which requires further validation.

Underachievement in reading was associated with a broad array of problems as identified by teachers. Mathematics underachievement was more strongly associated with specific externalizing and internalizing behaviors. Whereas internalizing behaviors differentiate performance on the maps (spatial) area. Educators have indicated that reading is pivotal for school achievement and for the development of self-esteem. Therefore, it is not surprising that the reading achievement test identified the greatest number of children.

In-school behaviors may have a situational specificity that transfer across multi-trait and multi-informant methods. Overall behavior exhibited by a child while in school has implications for the learning level of the child. Although both the behavior and learning of the child may be associated with the individual's intellectual capability, the relationship between adjustment and school performance requires continued investigation.

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Table 1

Number and Percent of Children Classified as Maladjusted and Normal

Measures	n[a]	Maladjusted		Normal	
		Total	Percent	Total	Percent
Achievement					
Reading	260	85	32.7	175	67.3
Maps	263	69	28	177	72
Mathematics	252	62	24.6	190	75.4
Teacher rating					
Aggression	277	54	19.5	223	80.5
Withdrawal	277	35	12.6	242	87.4
Academic	277	43	15.5	234	84.5
Sensitivity	277	32	11.6	245	88.4
Dependency	277	41	14.8	236	85.2
Physical	277	50	18.8	227	81.1
Short scale	277	56	20.2	221	79.8

Note. Maximum number of children = 290

Table continued

[a]Number of children assessed by the individual measure. Seven children moved from the school, and 20 were recent entrants who could not be rated accurately by the teachers. Other children were absent from school during the administration of the achievement tests (17 for reading, 14 for maps, and 25 for mathematics).

Table 2

Correlations Between Achievement Scores and Teacher Ratings

	Achievement Tests		
Teacher Ratings	Mathematics	Maps	Reading
Aggression	-.26**	-.20*	-.21**
Withdrawal	-.28**	-.28**	-.32**
Achievement	-.47**.	-.35**	-.51**
Sensitivity	-.27**	-.24**	-.22**
Dependency	-.27**	-.23**	-.29**
Physical symptoms	-.09	.01	.02
Total revised CARS	-.47**	-.34**	-.43**
Short scale	-.32**	-.31**	-.36**

*p <.001 **p <.0001

LONG AND SHORT TEACHER RATINGS FOR SCHOOL LEVELS