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Teacher Identification of Superior Students

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Abstract: The need for a more structured approach to teacher judgment in the screening and identification of superior students is discussed, and systematic procedure for constructing and using an instrument to guide subjective observation is described. The instrument focuses on behavioral characteristics in the areas of learning, motivation, creativity, and leadership, and is offered as a supplementary method that can be used in conjunction with other identification procedures. Studies dealing with the reliability and validity of the instrument are described.

In recent years a number of writers have called attention to a broadened conception of giftedness and the need for a wider range of criteria in the process of identifying gifted, talented, and creative youth (Getzels & Jackson, 1958; Jarecky, 1959; Witty, 1965). Although traditional tests of intelligence and achievement have been the major criteria for screening and selecting superior students, the role of teacher judgment is beginning to play an increasingly important part in efforts to place students in special educational programs that are designed to meet the needs of highly able youngsters (Cutts & Moseley, 1957; Pagnato & Birch, 1959).

In a comprehensive review of the literature dealing with the role of teacher judgment in the identification process, Gallagher (1966) pointed out some of the major weaknesses of teacher ratings. Because of the “frighteningly low level of effectiveness” of unstructured teacher judgment, Gallagher suggested a cautious approach to accepting teacher judgment as a basis for identification and concluded by saying that “most authorities would agree that teachers’ opinions definitely need supplementing with more objective rating methods [p. 12].”

The development of the *Scale for Rating Behavioral Characteristics of Superior Students* (SRBCSS) represents an attempt to provide a more objective and systematic instrument that can be used as an aid in guiding teacher judgment in the identification process. It is not intended to replace existing identification procedures such as measures of intelligence, achievement, and creativity; rather it is offered as a supplementary means that can be used in conjunction with other criteria for identification.

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Procedures In the Development of Ille Scale

Initial “input” for the construction of the SRBCSS was derived from a comprehensive review of the literature dealing with characteristics or traits of superior students. Research studies relating to each of the four dimensions of the instrument were searched and categorized in an effort to isolate observable behavioral characteristics which were supported by common agreement among well-known contributors to the literature. For a scale item to be included in the instrument, it was necessary that at least three separate studies had called attention to the importance of a given characteristic. These supportive studies are cited after each item in the scale.

The first experimental edition of the instrument was field tested in a number of school districts offering programs for gifted and talented students. Teachers and counselors completing the scale were asked to provide reactions about the effectiveness and usability of the instrument. Specifically, they were asked to make suggestions relating to clarity or expression, observability of traits, independence of items, and the ability of the instrument to make meaningful discriminations among students on each of the respective scales. This information led to the construction of the present edition, which includes several revisions based on the valuable feedback provided by classroom teachers, counselors, and special program personnel.

A series of studies was conducted to obtain information about the reliability and validity of the SRBCSS. The stability of the instrument (test-retest reliability) and interjudge reliability were established by asking two sets of teachers to rate the same population of students after an interval of 3 months had elapsed. The students were enrolled in fifth and sixth grades and spent a portion of their time each day with the teachers who completed the rating scales.

As can be seen from Table 1, the stability of ratings over time and the consistency of ratings among judges appears to be quite high, and thus these data lend support to the reliability of the instrument.

Table 1. Stability and Interjudge Reliability Correlations for SRBCSS

| Scale | Coefficient of stability (<i>N</i> = 78) | Interjudge reliability (<i>N</i> = 80) |
|------------|--|--|
| Learning | .88** | .89** |
| Motivation | .91** | .85** |
| Creativity | .79** | .91** |
| Leadership | .77** | .67** |

***p* < .01

An attempt was made to determine if the SRBCSS could sufficiently discriminate between groups of children who had been previously classified as “gifted” or “average.” The teachers of two special classes for gifted fifth grade students and the teachers of two average fifth grades in the same school were asked to rate each of their students with the SRBCSS. These

ratings and test information relating to the intelligence and achievement of the two groups are summarized in Table 2. Comparisons between the two groups were made by means of a one-way analysis of variance for each variable, and in every case a significant difference was found between the gifted and average groups.

Table 2. Means, Standard Deviations, and Analysis of Variance Comparisons Between Gifted and Average Groups

| <i>Variable</i> | <i>Gifted group</i> (<i>N</i> = 40) | | <i>Average group</i> (<i>N</i> = 40) | | <i>F</i> |
|----------------------|---|-----------|--|-----------|----------|
| | <i>Mean</i> | <i>SD</i> | <i>Mean</i> | <i>SD</i> | |
| SRBCSS scales: | | | | | |
| Learning | 24.43 | 6.27 | 16.00 | 7.22 | 41.04** |
| Motivation | 24.43 | 5.46 | 17.95 | 5.50 | 27.95** |
| Creativity | 25.01 | 7.64 | 17.13 | 4.70 | 31.43** |
| Leadership | 29.48 | 5.17 | 22.33 | 6.45 | 29.88** |
| IQ | 136.90 | 4.73 | 109.93 | 9.66 | 270.55** |
| Language achievement | 53.73 | 3.37 | 33.25 | 6.74 | 267.30** |
| Math achievement | 43.80 | 3.93 | 31.98 | 7.88 | 103.41** |
| Total achievement | 47.50 | 3.37 | 32.63 | 6.18 | 178.53** |

***p* < .01

A further attempt was made to determine the validity of the SRBCSS by comparing scores on the Learning and Motivation Scales with scores from standardized tests of intelligence and achievement and by comparing scores on the creativity scale with scores from the *Torrance Tests of Creative Thinking* (TTCT). These data are summarized in Table 3. The Learning and Motivation Scales correlate fairly well with measures that traditionally have been used to select students for academically oriented gifted programs. The Creativity Scale compares favorably with the verbal sub-scores of the TTCT; however, a low nonsignificant relationship was found between this scale and the nonverbal sub-scores of the TTCT. This finding reflects a verbal bias in the Creativity Scale items and suggests that caution should be exercised in using this scale to identify students for programs that emphasize nonverbal creativity.

The Leadership Characteristics Scale was validated by comparing teachers' ratings on the SRBCSS with peer ratings that were obtained through standard sociometric techniques (Hartman, 1969). These groups of students in grades 4, 5, and 6 were asked to rate their classmates on three hypothetical leadership situations involving social, athletic, and intellectual skills. The results of this inquiry are presented in Table 4. The relatively high correlations for fourth and fifth graders indicate that teacher estimates of leadership ability based on the SRBCSS are in close agreement with students' perceptions of the leadership characteristics of their classmates. The somewhat lower correlations for sixth graders may be due to the fact that youngsters at this grade level tended to restrict their choices to classmates of the same sex.

Table 3. Correlations Between SRBCSS Scales and Standardized Test of Intelligence, Achievement, and Creativity

| <i>Variable</i> | <i>Learning</i> (<i>N</i> = 40) | <i>Motivation</i> (<i>N</i> = 40) | <i>Creativity</i> (<i>N</i> = 28) |
|-------------------------|-------------------------------------|---------------------------------------|---------------------------------------|
| Intelligence | .61** | .36* | — |
| Language achievement | .41** | .42** | — |
| Mathematics achievement | .57** | .60** | — |
| Total achievement | .46** | .50** | — |
| Verbal fluency | — | — | .37* |
| Verbal flexibility | — | — | .44* |
| Verbal originality | — | — | .48** |
| Figural fluency | — | — | .28 |
| Figural flexibility | — | — | .29 |
| Figural originality | — | — | .24 |
| Figural elaboration | — | — | .29 |

* $p < .05$

** $p < .01$

Table 4. Correlations Between Sociometric Peer Ratings and SRBCSS Leadership Ratings

| <i>Sociometric peer ratings</i> | <i>Grades</i> | | |
|---------------------------------|------------------------------|------------------------------|------------------------------|
| | <i>4</i> (<i>N</i> = 26) | <i>5</i> (<i>N</i> = 23) | <i>6</i> (<i>N</i> = 23) |
| Social | .80** | .80** | .35* |
| Athletic | .75** | .82** | .27 |
| Intellectual | .83** | .77** | .29 |
| Total | .83** | .84** | .23 |

* $p < .05$

** $p < .01$

Each item on the Leadership Characteristics Scale was further evaluated by comparing individual items with total leadership ratings. As shown in Table 5, the positive and generally high correlations for fourth and fifth graders tend to support the internal consistency of the Leadership Scale at these grade levels. Although the correlations for sixth graders are somewhat lower, there is a dear positive relationship between individual items and the total leadership score.

Suggestions for Using the Scale

Teachers can use the SRBCSS most effectively by analyzing students' ratings on each of the four respective scales separately. The four dimensions of the instrument represent relatively

different sets of behavioral characteristics, and therefore, no attempt should be made to add the subscores together to form a total score. Students can be rated any time during the school year; however, the earlier the observations are made, the more use can be made of the results in helping to identify and develop student abilities to the fullest. It is also valuable to obtain ratings from several teachers and counselors who are familiar with a youngster's performance.

Table 5. Correlations Between Total SRBCSS Leadership Ratings and Individual Scale Items

| <i>Individual items on SRBCSS leadership scale</i> | <i>Total SRBCSS leadership rating</i> | | |
|--|---------------------------------------|-----------------------|-----------------------|
| | <i>Grades</i> | | |
| | <i>4 (N = 26)</i> | <i>5 (N = 23)</i> | <i>6 (N = 23)</i> |
| 1. Responsibility | .73** | .88** | .48* |
| 2. Self confidence | .87** | .93** | .34 |
| 3. Popularity | .83** | .84** | .46* |
| 4. Cooperativeness | .71** | .76** | .30 |
| 5. Verbal facility | .73** | .82** | .36* |
| 6. Adaptability | .71** | .83** | .57** |
| 7. Sociability | .64** | .73** | .53** |
| 8. Dominance | .56** | .75** | .33 |
| 9. Social participation | .63** | .79** | .57** |
| 10. Athletic ability | .63** | .70** | .61** |

* $p < .05$

** $p < .01$

Because of variations in student populations, methods of programing for superior students, and the availability of other data that can be used in the screening and identification process, it is impossible to provide the user with a predetermined set of cutoff scores for the scales. The instrument can be used most profitably by computing a mean score on each dimension for the total number of students who are being considered for enrollment in a special program. Those students who deviate markedly upward from the mean should be considered likely candidates for placement in a program or activity that is designed to enhance particular abilities; however, the reader is reminded that the instrument is offered as one means for guiding teacher judgment in the screening and identification process. Whenever possible, it should be used in conjunction with other instruments and techniques as part of a comprehensive system for the identification of superior students.

A guiding principle in using the SRBCSS emphasizes the relationship between a student's subscores and the types of curricular experiences that will be offered in a special program. Every effort should be made to capitalize on an individual's strengths by developing learning experiences that take account of the area or areas in which the student has received high ratings. For example, a student who earns high ratings on the Motivational Characteristics Scale will probably profit most from a program that emphasizes self-initiated pursuits and an independent study approach to learning. A student with high scores on the Leadership Characteristics Scale

should be given opportunities to organize activities and to assist the teacher and his classmates in developing plans of action for carrying out projects.

In addition to looking at a student's profile of subscores for identification purposes, teachers can derive several useful hints for programming by analyzing student ratings on individual scale items. These items call attention to differences in behavioral characteristics and in most cases suggest the kinds of educational experiences that are most likely to represent the youngster's preferred method or style of learning. Thus, a careful analysis of scale items can assist the teacher in her efforts to develop an individualized program of study for each student.

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