# Instruments for Measuring Leadership



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n 1972, the federal definition of gifted and talented expanded to include leadership ability (Marland, 1972). This addition, however, has minimally affected the instruction of gifted and talented students, as few schools address this dimension (Karnes & Riley, 1996; Smith & Smith, 1991). Parker (1983) recognized that "if the gifted students in today's schools are destined to be the leaders of tomorrow, then we must begin to consider leadership training as a major aim of programs for the gifted" (p. 9). If educational directives for the gifted ignore the need for leadership development, the leadership potential of gifted children

may not become actualized, or, at worst, may become misdirected (Karnes & Riley).

Following the incorporation of leadership as a dimension of giftedness in the federal definition, instruments for screening and identification of leadership have been developed, as well as curricular approaches and programs for developing and enhancing leadership skills. Screening and identification practices can assist educators in nurturing leadership skills in students identified as gifted leaders, but can also serve to help teachers develop leadership skills of students with other areas of giftedness (Addison, 1985).

### **Screening** and Identification **Measures of Leadership: Teacher Ratings**

Measurements for screening and identifying leadership skills can be categorized as observation scales for teachers, parents, and others who know the student well (Table 1); self-assessments by students (Table 2); or both. The Scales for Rating Behavioral Characteristics of Superior Students-Revised (SRBCSS-R; Renzulli, Smith, White, Callahan, Hartman, & Westburg, 2002) was originally published in 1976. There are 10 scales to identify student strengths in the areas of learning, motivation, and creativity—artistic, musical, dramatics, communication-precision, communication-expressive, and planning. The scales were developed for teachers and other school personnel to rate students for specialized programs using a six-point ratvery rarely, never, occasionally, frequently, and always. The leadership scale contains seven items. The authors have not developed national norms. However, detailed information is provided on how to develop local norms. The manual contains information on construct validity, alpha reliability, and interrater reliability. The SRBCSS-R was field-tested twice: In the first field test, 921 students were administered the SRBCSS-R, and 572 students were used in the second.

The Gifted Education Scale, Second Edition (GES-2; McCarney Anderson, 1998) was constructed to assist in the screening, identification, and educational program planning for children and youth in kindergarten through grade 12. There are 48 items across the five areas of gifted in the federal definition: intellectual ability, creativity, specific academic aptitude, leadership, and performing and visual arts. Ten items are included in the leadership portion. An optional scale on motivation has also been developed for those states requesting that information. The total time to complete the instrument is approximately 20 minutes. It may be completed by anyone familiar with the student to be rated, such as the teacher or school and clinical personnel. The items are rated on a five-point scale from (1) does not demonstrate the behavior or skill, to (5) demonstrates the behavior or skill at all times. There were 1,439 students in the standardization sample ages 5-18. Information is available in the technical manual, which gives internal consistency data along with test-retest reliability. Statistical comparisons with the Gifted and Talented Evaluation Scales indicated significant correlations on the five subscales of the GES-2. Scores rendered for each scale are frequency rating for each item, subscale raw score, subscale standard score, and quotient score. Henage (1990) developed instructional intervention strategies for all five areas plus moti-

The Eby Gifted Behavior Index (Eby, 1989) is a teacher-rating scale that includes seven checklists of skills, including verbal, math/science/problem solving, musical, visual/spatial, social/leadership, and mechanical/technical/inventiveness (Karnes & Bean, 1996, p. 7). Within the 20-item social/leadership checklist, teachers rate their observations of elementary or secondary students on a five-point Likerttype scale (consistently in most social situations, often, occasionally, infrequently, rarely, or never), including perceptiveness, active interaction with environment, reflectiveness, persistence, independence, goal orientation, originality, productivity, self-evaluation, and effective communication of ideas. The Eby Gifted Behavior Index Social/Leadership Checklist allows teachers to rate students according to the frequency of behavioral descriptors. The Eby has been studied for reliability and

validity, which are reported in the manual.

The Pfeiffer-Jarosewich Gfted Rating Scale (GRS) has two forms. The GRS for Preschool and Kindergarten and the GRS-School form both have subscales focusing on intellectual, academic, creative, and artistic talent and motivation. The leadership scale is only on the school form. Preliminary and statistical analysis of both the standardization data and validity studies are in progress.

The Gifted and Talented Evaluation Scale (GATES; Gilliam, Carpenter, & Christensen, 1996) was designed to identify gifted students ages 5-18. It was based on the most current federal and state definitions, including intellectual ability, academic skills, creativity, leadership, and artistic talent. Ten items are included in the leadership portion of the GATES. The rating scale has nine points divided into three areas: below (1-3), a verage (4-6), and above (7-9). Teachers, parents, and others who are knowledgeable about the child may use the GATES when he or she is being considered for a gifted and talented program. In 1995, the instrument was normed on a national sample of 1,000 people who had been identified as gifted and talented. Studies of test-retest reliability and internal consistency produced .90+ coefficients. In the examiner's manual, there are additional studies confirming the content, construct, criterion-related, and concurrent validity.

### **Screening** and Identification for Leadership: **Self-Assessments** for Children and Youth

Self-assessed leadership identification instruments are more common than the teacher-rated scales mentioned above. The Myers-Briggs Type Indicator

Table 1						
<b>Teacher-Scored</b>	Leadership	<b>Measures</b>				

Instrument	Author/Year	Ages Measured	Grade Levels	Leadership Items	Admin. Time	Response mode	Who may complete	Publisher
The Scales for Rating Behavioral Characteristics of Superior Students— Revised (SRBCSS-R)	Renzulli, Smith, White, Callahan, Hartman, & Westburg, 2002	Children and adolescents	K-12	7	N/A	95 items; 10 sub- scales	Teachers and other school personnel	Creative Learning Press
The Gifted Evaluation Scale (GES-2)	McCarney & Anderson, 1998	K-12	K-12	10-Item Leadership Subscale	20 min.	5-point Likert- type scale; 48 items	Teacher, school personnel, clinical personnel	Hawthorne Educational Services, Inc.
The Eby Gifted Behavior Index	Eby, 1983	All Ages	K-12	20 items in the Social Leadership Checklist	N/A	Checklist	Teacher	D. O. K. Publishers
The Pfeiffer- Jarosewich Gifted Rating Scale (GRS) (School form)	Pfeiffer & Jarosewich, in press	6–13.11 (School form)	in press	in press	in press	Checklist of 5 Likert- type sub- scales	Teacher	The Psychological Corporation

(MBTI; Myers & McCaulley, 1985) provides psychological type information to explain the nature of differences among leaders (Karnes & Bean, 1996) based on Jung's theory of observable differences in mental functioning. This self-assessment instrument for adolescents and adults classifies personality types by combining attitude (including extrovert/introvert and judging/perceiving) with function (including sensing/intuition and thinking/feeling). A personality type is generated based on the responses given. Internal consistency and reliability have been established over time.

The Rating Scale for Leadership (Roets, 1986) is a 26-item Likert-type

self-rating measure for students in grades 5-12. Respondents rate themselves on a five-point scale of the frequency of each of the leadership behaviors listed (always, almost always, sometimes, rarely, never). The instrument was administered to over 1,000 students in public and private U.S. schools (Karnes & Bean, 1996). High correlations have been established between this scale and two other measures, and a moderate correlation with the SRBCSS has been reported (Karnes & Bean). Chan (2000) used this scale with 163 gifted Chinese secondary students, and findings indicated higher self-ratings relating to leadership, achievement, and level of energy

than for other characteristics on the scale.

Similar to the MBTI, the Murphy-Meisgeier Type Indicator for Children (Meisgeier & Murphy, 1987) also classifies personality types based on the same formula as the MBTI. This measure was developed to assess children in grades 2–8, and it has been standardized using over 4,000 students. Concurrent and content validity have been established, as has internal consistency reliability (Meisgeier & Murphy).

The Student Talent and Risk (STAR) Profile (Institute for Behavioral Research in Creativity, 1990) measures seven areas of performance, including

	Table 2	
Student	<b>Self-Rating</b>	<b>Scales</b>

Instrument	Author/Year	Ages Measured	Grade Levels	Leadership Items	Admin. Time	Response Mode	Publisher
Myers-Briggs Type Indicator (MBTI)	Myers & McCaulley, 1985	Adolescents to adults	9–12	All 166 relate to one's lead- ership style	45–60 min.	166 multiple-choice items measure how an individual best perceives and processes information and how the individual interacts socially and behaviorally with others.	Consulting Psychologists Press
The Rating Scale for Leadership	Roets, 1986	Ages 8–18	3–12	26	N/A	26 Likert-type questions on a five-point scale: almost always, quite often, sometimes, not very often, and never.	Lois Roets
Murphy- Meisgeier Type Indicator for Children	Meisgeier & Murphy, 1987	Ages 7–12	2–8	All 70 relate to one's lead- ership style	30 min.	70-item instrument similar to the MBTI, but for children.	Consulting Psychologists Press
Student Talent and Risk Profile	Institute for Behavioral Research in Creativity, 1990	Ages 10–18	5–12	25	1 class period	150 multiple-choice items are answered based on the statements that the student perceives are most representative of him- or herself.  Computer-based.	Institute for Behavior Research in Creativity
Khatena-Morse Multitalent Perception Inventory	Khatena & Morse, 1994	Elementary through adulthood	4–12	Form A: 4 items Form B: 6 items	30–45 min.	Student identifies multi- ple-choice items per- ceived to be most like him- or herself.	Scholastic Testing Service, Inc.

academics, creativity, artistic potential, leadership, emotional maturity, educational orientation, and at risk (Karnes & Bean, 1996). The student responds to the 150-item questionnaire by identifying the answer that he or she perceives is most like him- or herself. Following the completion of the questionnaire, analysis of the respondent is generated by

computer that provides information about the student and group in each of the seven performance areas by percentile scores (Karnes & Bean). Twenty-five of the items pertain to leadership. This instrument has been standardized and studied for validity and reliability.

The Khatena-Morse Multitalent Perception Inventory (KMMPT) is a self-assessment for students in grades 5–12 that measures artistry, musical ability, creative imagination, initiative, and leadership (Khatena & Morse, 1994). However, only four items in Form A and six items in Form B pertain to leadership. Individuals respond by marking items that best represent their interest and self-perceptions. Raw

scores, percentile ranks, standard scores, and stanine forms are included in the technical manual for interpretation. The instrument has been studied for standardization, validity, and reliability (Karnes & Bean, 1996).

Leadership: A Skill and Behavior Scale (Sisk & Roselli, 1987) is a 33-item self-rating scale that measures positive self-concept, communication skills, decision-making skills, problem-solving skills, group dynamics, organizing, planning, implementing skills, and discerning opportunities. The students evaluate themselves based on the frequency of these skills, including never, seldom, sometimes, often, and always. No information about reliability and validity are provided in the technical manual (Karnes & Bean, 1996).

## Beyond Screening and Identification: Other Leadership Assessment Practices

Alternate measures of leadership have also been developed, but are intended for purposes other than screening and identification. The Leadership Strengths Indicator (Ellis, 1990) is a selfassessment for adolescents ages 11-18 that is designed to serve as a discussion reference point for counselors and teachers in developing leadership in youth. The instrument is a 40-item questionnaire "designed to obtain students' evaluations of their leadership traits and abilities" through a total score that reflects the components of leadership (Riley & Karnes, 1994, p. 15). The eight cluster scales are representative of facets of leadership: (1) enjoys group activities, (2) key individual in group activities, (3) high-level participator in group activities, (4) journalistic, (5) sympathetic, (6) courageous, (7) conscientious, and (8) self-confident. In a study of 89 disadvantaged youth, Riley and Karnes found that, for cluster score three (high-level participator in group activities), the mean scores for each gender were significantly different, with boys having a higher mean; no other significant mean differences between clusters or in the total scores were found. The results are intended to be the basis of discussion during leadership training activities. Reliability and validity of the Leadership Strengths Indicator is provided in the technical manual.

The Leadership Skills Inventory (LSI; Karnes & Chauvin, 2000a) is a self-rating, self-scoring diagnostic/prescriptive instrument across the nine areas necessary for leadership in the adult world. They include fundamentals of leadership, written communication, speech communication, character building, decision making, group dynamics, problem solving, personal development, and planning. The rating is on four dimensions: almost always, on many occasions, once in a while, and almost never. After the student completes all items, he or she can then plot the scores on the Leadership Skills Profile Sheet to determine areas of leadership to be strengthened. The accompanying instructional manual contains one or more instructional strategies for every item on the LSI (Karnes & Chauvin, 2000b). After completion of the instructional program, each student develops a plan for leadership based on something he or she wants to initiate or change in his or her school, community, or religious affiliation (Karnes & Meriweather, 1989).

The LSI has been used extensively as a self-rating/self-scoring instrument for students in programs affiliated with the Leadership Studies Program offered during the summer at The University of Southern Mississippi, as well as in other studies (Karnes & Meriweather, 1989; Karnes, Meriweather, & D'Llio, 1987; Schack, 1988). Of the few instruments developed, the LSI has been recognized

as the sole assessment specifically designed to measure leadership in youth and children (Oakland, Falkenberg, & Oakland, 1996). Furthermore, content validity (Karnes & Chauvin, 1985), concurrent validity (Edmunds & Yewchuk, 1996), and construct validity (Edmunds, 1998) have all been established in the literature. Criterion and content validity studies have been conducted (Karnes & D'llio, 1989).

Analysis of several measures used to identify leadership in both children and adults has indicated more development is needed in the design of screening and identification instruments for youth (Oakland, Falkenberg, & Oakland, 1996). Currently, no instruments measure leadership as "power and influence" or as "skillful management of behavior" (Oakland, Falkenberg, & Oakland, p. 145). Current instruments rely mostly on measuring leadership traits. One instrument, the Campbell Leadership Index (Campbell & Kraut, 1991), designed for use with adults, is recognized as unique in its design as "a measure that enables one to conceptualize leadership as an interaction between personal and environmental qualities" (Oakland, Falkenberg, & Oakland, p. 145); development of this instrument into a measure for children and youth is strongly encouraged by Oakland, Falkenberg, and Oakland. Hence, the evolution of instruments for screening and identifying gifted children is in a developmental stage, and more work on creating and testing these instruments is still a priority in gifted education. GCT

#### References

Addison, L. (1985). Leadership skills among the gifted and talented. (ERIC Document Reproduction Service No. 262511)

Barth, J. L. (1984). Secondary social studies curriculum activities, and

- *materials*. New York: University Press of America.
- Campbell, D., & Kraut, A. (1991). *The Leadership Ability Evaluation— Revised: Manual.* Los Angeles:
  Western Psychological Services.
- Chan, D. W. (2000). Assessing leadership among Chinese secondary students in Hong Kong: The use of the Roets Rating Scale for Leadership. *Gifted Child Quarterly, 44*, 115– 122.
- Eby, J. W. (1989). Eby Gifted Behavior Index: Administration manual. East Aurora, NY: D.O.K.
- Edmunds, A. L. (1998). Content, concurrent, and construct validity of the Leadership Skills Inventory. *Roeper Review, 20*, 281–284.
- Edmunds, A. L., & Yewchuk, C. R. (1996). Indicators of leadership in gifted grade twelve students. *Journal of Secondary Gifted Education*, 7, 345–355.
- Ellis, J. L. (1990). Leadership strength indicator: A self-report leadership analysis instrument for adolescents. Monroe, NY: Trillium Press.
- Feldhusen, J. F., & Kennedy, D. M. (1988). Preparing gifted youth for leadership roles in a rapidly changing society. *Roeper Review*, 10, 226–230.
- Friedman, P. G., Friedman, R. J., & Van Dyke, M. (1984). Identifying the leadership gifted: Self, peer, or teacher nominations? *Roeper Review*, 7, 91–94.
- Gilliam, J. E., Carpenter, B. O., & Christensen, J. R. (1996). Gifted and talented evaluation scales. Austin, TX: PRO-ED.
- Henage, D. (1990). Gifted intervention manual. Columbia, MO: Hawthorne.
- Institute for Behavioral Research in Creativity. (1990). Student talent and risk profile. Salt Lake City, UT: Author.

- Johnson, D. L. (1979). Gifted and Talented Screening Form: Instruction manual. Chicago: Stoelting.
- Johnson, K. (2001). Integrating an affective component in the curriculum for gifted and talented learners. *Gifted Child Today*, 24(4), 14–18.
- Karnes, F. A., & Bean, S. M. (1996). Leadership and the gifted. *Focus on Exceptional Children*, 29(1), 1–12.
- Karnes, F. A., & Chauvin, J. C. (2000a). *Leadership skills inventory*. Scottsdale, AZ: Great Potential Press.
- Karnes, F. A., & Chauvin, J. C. (2000b). Leadership Skills Inventory activities manual. Scottsdale, AZ: Great Potential Press.
- Karnes, F. A., & Chauvin, J. C. (1985). Leadership Skills Inventory technical manual. Scottsdale, AZ: Great Potential Press.
- Karnes, F. A., & D'llio, V. (1989). Leadership positions and sex role stereotyping among gifted students. Gifted Child Quarterly, 33, 76–78.
- Karnes, F. A., & Meriweather, S. (1989). Developing and implementing a plan for leadership: An integral component for success as a leader. *Roeper Review, 11*, 214–217.
- Karnes, F. A., Meriweather, S., & D'llio, V. (1987). The effectiveness of the Leadership Studies Program. *Roper Review*, *9*, 238–240.
- Karnes, F. A., & Riley, T. (1996). Perceptions of great leaders held by gifted youth. *Gifted Child Today*, 19(4), 14.
- Khatena, J., & Morse, D. T. (1994). Khatena-Morse multi-talent perception inventory. Binsonville, IL: Scholastic Testing Service.
- Marland, S. P., Jr. (1972). Education of the gifted and talented: Report to the Congress of the United States by the U.S. Commissioner of Education and background papers submitted to the U.S. Office of Education, 2 vols.

- Washington, DC: U.S. Government Printing Office. (Government Documents Y4.L 11/2:G36)
- Murphy, E., & Meisgeier, C. (1987). Murphy-Meisgeier type indicator for children. Palo Alto, CA: Consulting Psychologists Press.
- Myers, I. B., & McCaulley, M. (1985).

  Manual: A guide to the development
  and use of the Myers-Briggs Type
  Indicator. Palo Alto, CA: Consulting
  Psychologists Press.
- Oakland, T., Falkenberg, B. A., & Oakland, C. (1996). Assessment of leadership in children, youth, and adults. *Gifted Child Quarterly, 40*, 138–146.
- Parker, J. P. (1983). The leadership training model. *G/C/T*, *29*(5), 8–13.
- Pfeiffer, S. I., & Jarosewich, T. (in press). The Pfeiffer-Jarosewich gifted rating scale. San Antonio, TX: The Psychological Corporation.
- Renzulli, J. S., Smith, F. H., White, A. J., Callahan, C. M., & Hartman, R. K., & Westburg, K. L. (2002). Scales for rating the behavioral characteristics of superior students—revised (SRBCSS-R). Wethersfield, CT: Creative Learning Press.
- Roets, L. (1986). Roets rating scale for leadership. Des Moines, IA: Leadership Publishers.
- Riley, T. L., & Karnes, F. A. (1994). A leadership profile of disadvantaged youth based on Leadership St rengths Indicator. *Psychological Reports*, 74, 815–818.
- Schack, G. D. (1988). An activities approach to leadership training. *Gifted Child Today*, 11(6), 20–22.
- Sisk, D. A., & Rosselli, H. C. (1987). Leadership: A special kind of giftedness. New York: Trillium Press.
- Smith, D. L., & Smith, L. (1991). Exploring the development of leadership giftedness. *Roeper Review*, 14, 7.