THE DIAGNOSTIC ACCURACY OF TEACHERS' RATINGS OF GIFTEDNESS

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By
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ABSTRACT

The purpose of this investigation was to determine if there is a significant relationship between teacher's ratings of characteristics of gifted children, ages seven to twelve years, and gifted intellectual ability as determined by the Wechsler Intelligence Scale for Children-Revised (WISC-R). The protocols of sixty children, who completed the identification process for the Gifted and Talented Program (GATE program) in the Richmond Unified School District (R.U.S.D.) were used for the purposes of this study. The protocols included the Verbal, Performance, and Full Scale scores from the WISC-R, and the teacher rating scales which were completed by R.U.S.D. teachers. The children's protocols were divided into two groups, those of thirty children who did qualify for the GATE program, and thirty who did not qualify. For each group, the individual teacher rating scales were summed and compared to each of the Verbal, Performance, and Full Scale scores on the WISC-R. A Pearson r coefficient was computed to determine the relationship between the teachers' ratings of gifted characteristics of children and their overall intellectual potential as measured by the WISC-R. In addition, a Pearson r coefficient was computed to determine if the Verbal scale on the WISC-R was
more associated with the total rating scale than the Performance scale. The results indicate that the R.U.S.D. teacher rating scale, as a whole, was not statistically associated with the R.U.S.D.'s criterion for identified giftedness, the Full Scale score on the WISC-R. The summed total ratings of children who were certified for the GATE program were associated with the Performance scores on the WISC-R. Based on these results, however, it was concluded that the R.U.S.D.'s rating scale probably needs to be revised. But the results of this study did not provide a clear direction for such revision. The possibility of adopting a published rating scale and training teacher-raters in the use of the instrument should be considered. Furthermore, expanding the criteria to include multiple measures instead of a narrowly defined criterion, namely the IQ score, was recommended for determining giftedness for placement into subsequent programs.
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CHAPTER I

INTRODUCTION

General Statement of the Problem

How accurate are teachers' judgement of giftedness when using a teacher rating scale in nominating students to be identified and placed into a gifted program?

Background of the Problem

Definitions of giftedness have exhibited significant changes over the past several years, for the most part in the direction of a more comprehensively based definition. Traditionally, definitions of giftedness focused on academic superiority. Sattler (1974) reported that IQ is a good predictor of school success. As early as the 1900's and up to the early 1960's, the major factor of giftedness was a high score on an intelligence test. Leading researchers and practitioners alike defined giftedness in terms of high IQ scores (Maker, 1986). When a score on an IQ test was perceived as the major factor in defining giftedness, these scores were used as the sole criterion determining admission into programs. Grenter (1979), estimated that approximately
95% of all children identified as gifted were classified by performance on an intelligence test. Many local communities and states have defined gifted through cut-off levels of overall intelligence scores for students prior to admission to a gifted program. Additional methods, other than intelligence tests, were also used in the selection of gifted students. However, these methods were usually supplementary and often employed as screening or referral techniques, with the final decision depending on an IQ score. The methods most frequently utilized were teacher ratings, achievement tests, and grades (Maker, 1986).

School psychologists are most often involved in the assessment of students referred for placement in gifted programs. The school psychologist will administer a standardized intelligence test once children have been referred and/or have passed the screening process. The selection of tests and interpretation of tests are important factors in making a placement decision. Klausmeier, Mishra, and Maker (1987) surveyed over four hundred school psychologists in forty-five states and found that the Wechsler scales were the most extensively utilized intelligence test used for the identification of gifted students. Often, the determining criteria for program
placement is the student's overall intelligence score, which must be at least two standard deviations above the population mean. Numerically, this would be a score of 130 or more on the Wechsler Intelligence Scale for Children-Revised (hereinafter termed, WISC-R) or 132+ or more on the Stanford Binet. By using this criterion, only 2.14% of the normal population will score two standard deviations above the mean, thus only a small percentage of children will be identified. Based on this low percentage, it is important that the screening and referrals of children be effective in order to identify the truly gifted children.

Teachers have been frequently relied upon to make referrals as a part of the screening of gifted children. Quite often, teachers are asked to nominate children from their classrooms whom they feel would qualify as intellectually gifted. These youngsters are subsequently given an intelligence test and reviewed for appropriate placement. It seems practical to involve teachers in the identification process of intellectually gifted youngsters because teachers are familiar with the work and behavior of their students. Guskin, Peng, and Majd-Jabbari (1988) reported that experienced and inexperienced teachers alike conceptualize intellectual competencies similar to Gardner's
(1984) model of multiple intelligences. They also reported both experienced and inexperienced teachers differentiate among verbal, analytic, personal-social, artistic-creative, and motor skills and do not overgeneralize or fail to recognize relationships among these skills.

Research has consistently indicated that teachers are relatively inaccurate in their judgements concerning intellectually gifted children (Baldwin, 1962, Gear, 1976, Martinson, 1962, & Pegnato & Birch, 1959). However, teachers' judgments improve when using a rating scale in identifying gifted characteristics. Ashman & Vukelich (1983) found that teacher rating scales were more effective in identifying a higher percentage of gifted children as determined by their overall intelligence test scores than other forms of teacher nomination. Furthermore, Gear (1978) found that teachers who received training in identifying potentially gifted children were more effective in identifying intellectually gifted children.

Significance of the problem

The teachers of Richmond Unified School District (hereinafter termed, R.U.S.D.) are responsible for the referral and screening of children whom they believe are
gifted. Teachers are relied upon to select children, provide necessary demographic data and pertinent achievement test data, and to complete a teacher rating form as a part of the screening process for the Gifted and Talented program. Many administrators of the schools value gifted education and endeavor to receive additional funds to implement a suitable program in their schools and, as a result, they place a great deal of pressure on their teachers to refer effectively as many children as possible.

Once the referrals have been approved, each child is administered a WISC-R by either of the district's two school psychologists or the school psychology intern. The determining criteria for placement into the gifted program is a Full scale score of 130 or above. Because only 2.14% of the normal population will score above 130, a small percentage of children will be identified as gifted and be placed into the program. Based on this low percentage, it would be important that the referrals and screening of children be effective and efficient in order to identify the greatest number of children.

The information from this study will help determine if there is a relationship between the present rating scale used by the R.U.S.D. teachers and the overall intelligence scores
on the WISC-R. This information can be useful in determining the effectiveness of this rating scale as a screening measure. If the teacher rating is found to be an ineffective measure of screening children, then other methods must be adopted.

This study will also determine if the present rating scale relates more with the Verbal scale or the Performance scale on the WISC-R. If the rating scale is found to be related more to one scale, then the teacher rating scale can be revised to include items that identify characteristics that are measured by the other, the Verbal or Performance scales.
CHAPTER II

REVIEW OF LITERATURE

This review was limited to the following areas: definitions of giftedness, characteristics of gifted children, identification of gifted students, teachers' judgment of giftedness, and problems in the identification of giftedness.

Definition of Giftedness

The term gifted can be defined in a number of ways, including a) those who have already achieved outstanding prominence in an area, b) those who have an extremely high IQ (e.g., above 130), c) those who excel in art or music, or d) those who score high on tests of creativity. The most widely recognized definition of gifted and talented children was offered by the U.S. Office of Education as follows (Harland, 1972, p. 10):

Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who required differentiated educational programs and services beyond those normally provided by the regular program in order to realize their contribution to self and society.
Children capable of high performance included those with demonstrated achievement and/or potential ability in any of the following areas: 1. general intellectual ability, 2. specific academic aptitude, 3. creative or productive thinking, 4. leadership ability, 5. visual and performing arts, 6. psychomotor ability.

This definition reflected an attempt to specify types of giftedness and to define giftedness in terms of educational needs. It is estimated that this definition would result in identification of 3 to 5 percent of the population as being gifted (Sattler, 1974).

Lewis Terman was one of the original researchers to define giftedness. In the early 1920's, Terman selected and observed 1500 children. His work focused on the intellectually gifted and was successful in dispelling many of the stereotypes of gifted youngsters that were prevalent at the time. Also, his work gave a conceptual focus to the field of giftedness by defining giftedness in terms of IQ (Colangelo, 1984). He viewed intelligence as essentially being manifested in the ability to acquire and manipulate concepts (Wolf & Stephens, 1986). It was Terman's belief that the genius could be identified by an IQ score. From the early 1900's up to the early 1960's, the major component of giftedness was a high score on an intelligence test. Intelligence tests were designed to predict success in school or other academic pursuits, and the validity of IQ tests was measured by their correspondence with a child's achievement.
test scores or a teacher's judgment of academic ability. Thus, the definition of giftedness was necessarily limited to the potential for success in an academic setting (Makler, 1986)

Much of the early research on intelligence focused on the identification of general factors, mainly analytical reasoning ability. Earlier investigators assumed that intelligence was stable and that it was largely a product of heredity. Later research focused on the specific factors involved with intelligent behavior, and it indicated that scores on intelligence tests could be modified by a number of factors, especially by providing a stimulating environment (Makler, 1986).

Thurstone (1938) defined intelligence as multidimensional, consisting of independent faculties or mental abilities. These primary mental abilities are 1) verbal, 2) perceptual speed, 3) inductive reasoning, 4) deductive reasoning, 5) rote memory, 6) number, 7) word fluency, and 8) space visualization. Wechsler (1958) defined intelligence as the global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.

Gardner (1983) asserts that there is no general smartness; instead, children are born with potential to develop a multiplicity of intelligences, and these can be
initiated for a variety of purposes. He proposes seven basic intelligences: linguistic, logical mathematical, musical, bodily movement, spatial, interpersonal, and intra-personal. Gardner explains that people will vary in both potential and achievement in these domains. Children who are classed as gifted, learning disabled, or autistic characteristically show more extreme highs and lows in their profiles than others (Wolf & Stephens, 1986).

Piaget (Flavell, 1977) defined intelligence as a form of biological adaptation in which cognitive processes develop through interaction between the individual and the environment. As a result of the interaction, psychological "structures" are reorganized in stages, over time. Two biologically inherent processes govern the effects of interaction: Assimilation (of knowledge and experience), and Accommodation (to what was previously assimilated).

Renzulli (1976) defined giftedness as an interaction among three basic clusters of human traits: 1) above-average general ability, 2) high level of task commitment, and 3) high level of creativity. He expounded that these three ability clusters act on one another as they are applied to any performance area. He further stated that evidence of these clusters emerges early in life. Renzulli suggested that these traits must be applied to some useful area of endeavor,
and one is only gifted when actively engaged in high level productive work.

Current definitions were contributed by Kaufman (1983) who described intelligence in terms of problem-solving ability and knowledge of acquired facts in terms of achievement. Fuerstein (1985) described the distinguishable elements of intelligence as learning-of-content vs. processing skills. Learning ability is tested clinically, rather than measured. The student's performance is tested before and after closely guided practice on a precisely defined objective. The net gain is learning ability. Gallagher (1975) pointed out that what gifted children have in common is the ability to absorb abstract concepts, to organize them more effectively, and to apply them more appropriately than does the average youngster.

Guilford's research contributed a major influence on definitions of giftedness (Talaker, 1986). Guilford was one of the first researchers to try to isolate characteristics of creative thought processes and to expand the definition of intelligence. He developed a different approach to the concept of intelligence. He described intelligence as three-dimensional, consisting of independent abilities. His model divides intellectual performance into three dimensions: 1) Operations (e.g. cognition, memory, divergent and convergent production, and evaluation), 2) Content (e.g. figural,
symbolic, semantic, and behavioral), and 3) Product (e.g.
units, classes, relations, systems, transformations, and
implications). Guilford emphasized that a single IQ score
could not be an accurate index of an individual's
intelligence because there were, in fact, a number of
intelligences (Wolf & Stephens, 1986). Guilford
differentiated between those dimensions of intellectual
performance that are not assessed by standardized
intelligence tests and those that are. He asserted that
intelligence tests tend to assess convergent thinking rather
than divergent thinking. Most classroom activities also tap
convergent thinking (Wolf & Stephens, 1986).

Since Guilford's research, definitions of giftedness
have expanded to include creativity in addition to superior
intellectual potential. Creativity is defined as the process
of bringing a new, different, and unexpected response to a
situation. However, this definition limits the very notion
of creativity, and people can be creative in many different
ways (Wolf & Stephens, 1986). Creativity can be defined in
terms of Guilford's concept of divergent thinking, which he
defines as the ability to produce many alternative ideas in
provided another useful definition of creativity. He
identified some of the appropriate characteristics: 1)
fluency of ideas, 2) flexibility, 3) originality, and 4)
elaboration. He stressed creative thinking ability as a criterion for giftedness.

As a part of the definition of giftedness, the concept of talent was added in 1972 by the U.S. Senate Report and resulted in a broader definition. Some educators used the term giftedness to denote outstanding intellectual ability and the term talent to indicate superlative skills in a specific area, particularly in the area of arts. Gifted and talented are frequently used interchangeably. Based on these conclusions, in 1976 the U.S. Department of Education adopted a definition of gifted and talented which reflects concern for the many aspects of giftedness. Their definition is as follows:

"Gifted and Talented children means children who are identified at the preschool, elementary, or secondary level as possessing demonstrated or potential abilities that indicate high performance capability in areas such as intellectual, creative, specific academic, or leadership ability, or in the performing and visual arts, and who by reason thereof require services or activities not ordinarily provided by the school". The federal government's definition is important because it is applied in policy and funding decisions (Wolf & Stephens, 1986).

Characteristics of Gifted Children

Some pupils with high IQ's respond to instruction easily, give answers that are precisely what teachers want, and are models of good conduct. In terms of Guilford's
description of intellectual operations, such students might be classified as extremely competent convergent thinkers. When teachers are asked to nominate the most capable pupils in their classes, they tend to choose children of this type (Wolf & Stephens, 1986).

Early researchers such as Terman and Hollingworth found that mentally gifted children were larger and healthier than average children (Fischman, 1985). Terman and his associates observed specific characteristics in children with high IQ's such as: fast learning ability, interest in reading biographies, scientific inclination, reading prior to entering school, enjoyment of learning, good abstract reasoning, good command of language, etc.... Gallagher's study in 1975 confirmed most of Terman's findings (Wolf & Stephen, 1986).

Socially, the gifted child was a popular, outgoing, socially responsible leader who was less a part of a clique than that of his/her average peers (Fischman, 1985). Rimm and Davis (1977) and Duncan and Dreger (1978) found that gifted children exhibited advanced verbal fluency, more sustained attention, quicker reaction time to questions, higher general energy levels, and more and varied play interests. They also found that gifted children displayed greater self-confidence, independence, and risk-taking ability in competitive situations. Gifted children often
displayed a canny sense for the interests of attentive adults (Fischman, 1985).

Hollingworth (1942) described five major problems of very gifted children: finding work challenging enough to maintain interest, adjusting to less conceptually capable and less verbally proficient classmates, choosing appropriately stimulating play, conforming at various developmental levels to social situations, and coping with one's social and familial origin and destiny. More recently, according to Hollingworth, a newer stereotype has developed among psychologists and educators which depicts the gifted child as so capable that he/she needs little educational help. Some professionals have stated that such children can get by on their own while others need the resources of the school much more (Fischman, 1985).

Fischman reported that gifted children who are either socially immature or who are placed in untenable social situations are often highlighted as proof that they are not so smart after all. If the gifted child does not fit the system, the system will find some far less desirable eligibility or placement. The gifted most easily identified are those who fill the societal needs of a given time. Today, the ideal is the highly achieving, highly motivated student. In other times the model was the food gatherer, hunter, warrior, or philosopher. However, these gifted
comprise only a small subgroup of the gifted population. Of
great loss to us are gifted children who do not achieve
academically because of emotional and social problems,
cultural and language differences, or learning disabilities
(Fischman, 1985)

Hollinger and Kosek (1986) found that even among a
highly homogeneous ability group, significant variability in
levels of performance exist, reflecting individual
differences across diverse cognitive ability areas. They
administered WISC-R's to 26 intellectually gifted children.
The results indicated that 35% (22 of the 26 children) of the
sample obtained significantly discrepant Verbal-Performance
IQ scores. The results of this study indicated that an
individual intellectually gifted student may demonstrate an
idiographic weakness and/or normatively average performance
on any WISC-R subtest.

Karnes and Brown (1980) found that the factor
structure of the WISC-R for gifted children is similar to
those found for other special groups (e.g. retarded children,
children with learning disabilities). The first and second
factors, Verbal Comprehension and Perceptual Organization,
respectively, remained stable for gifted children and was
consistent with the factor structures for retarded children
and children with learning disabilities. However, the factor
structure of the third factor, Freedom from Distractibility,
differed from the other two group. The first factor, Verbal Comprehension, had substantial loadings from all Verbal subtests except Arithmetic. The second factor Perceptual Organization, is best represented by the Block Design and Object Assembly subtests; Picture Completion and Picture Arrangement loaded moderately on this factor. The verbal-performance distinction appears to be relatively stable across all groups, whereas the third factor appears to take on different meanings for different groups.

Sapp, Chissom, and Graham (1985) replicated the study by Karnes and Brown (1980) and their results were very similar. Sapp, et al. (1985) found a strong verbal component with high loadings from the Vocabulary, Information, Comprehension, and Similarities subtests. The second factor showed high loadings from two perceptual subtests, Object Assembly and Block Design. Thus, the factor structure was reconfirmed with a gifted sample. Sapp, et al. (1985) also found that the third factor appears to measure different abilities for the gifted sample. In this study, Coding loaded negligibly, whereas Information and Vocabulary loaded the highest. Also, Coding did not load substantially on any other factor in the solutions.
Identification of Gifted Children

Many techniques have been used in identifying gifted students. These included intelligence and achievement tests, tests of creativity, teacher nomination and parent, peer and self-nomination. Although none of these identification methods is adequate alone, according to Fischman each has a place in the identification process. When used in some logical combination, these approaches can strengthen our ability to identify gifted children (Fischman, 1985).

Identification measures have traditionally included intelligence and achievement tests. Intelligence tests usually provide IQ or other standard scores. It is estimated that 95% of all children identified as gifted were classified by performance either on an intelligence or specific aptitude test (Fischman, 1985). The two individually administered intelligence tests most frequently used are the Stanford Binet and the Wechsler Intelligence scales. Klausmeier, Mishra, and Maker (1987) surveyed 131 school psychologists from 35 different states and found that the Wechsler scales were the overwhelming first choice among the ability tests with 124 out of the 131 respondents selecting them.

Intelligence tests measure a variety of abilities, including social, problem-solving, and abstract and concrete reasoning abilities. They provide opportunities for both verbal and nonverbal responses. Intelligence tests provide
valuable standardized information about a child's abilities and learning style, as well as providing significant nonstandardized information (Wolf & Stephens, 1986).

When a score on an IQ test was perceived as the major element in defining giftedness, these scores were used as the sole criterion determining admission into programs (Maker, 1986). As early as Terman's first study, methods other than intelligence tests were used in the selection of gifted students. In most cases, these methods were usually considered supplementary and often utilized as screening or referral methods, with the final decision depending on an IQ score. The most frequently employed methods were teacher ratings, achievement test, and grades, with other procedures, such as age-grades status, interviews, and performance evaluations used occasionally (Maker, 1986).

In the late 1970's and 1980's, movement has been toward the use of multiple measures in a matrix format or a case study approach (Maker, 1986). The most common procedures used in the identification process are the following: individual or group intelligence tests, individual or group achievement tests, personal interviews, assessment of student products, auditions or performances, interest inventories, creativity tests, developmental histories, parent interview, Piagetian tasks, and structured problem-solving tasks. The matrix method utilizes a weighting
system, so that higher weights are given to higher scores and lower weights are given to lower scores. These weighted scores are tallied, and admission to the program is based on the total of weighted scores rather than on any individual score. This method provides a systematic or standardized procedure for examining all the information available on a particular child.

One limitation to the matrix method is that scores from all types of instruments are considered in the scores for all children even though the instruments are designed to measure very different types of ability or talent (Maker, 1986). The child's performance on all these measures is reduced to one number, and it is impossible that one score can provide an appropriate basis for decisions about whether or not an individual is gifted. Moreover, educators have a tendency to consider only the composite score in placement decisions.

Another method, closely related to the matrix method, is a case study approach. This method differs from the matrix method mainly in the use of a matrix for equating scores. In the case study approach, a variety of procedures are used and the results are considered, but no numerical quantification is included. All test scores, rating scales, and subjective information are considered in decisions about the most appropriate placement of the student. A committee
is selected as the decision-making body rather than one individual (Makko, 1986).

Delisle and Renzuli (1982) discussed a revolving door approach to gifted identification that emphasizes task commitment and product. This model considers giftedness as topical, temporal, and behavioral. The model allows the inclusion of students for selected area at selected times. For those with a greater breadth of interest, commitment or production, more inclusion is allowed. However, according to Fischman (1985) this type of program is limited to the actual products of gifted students and may further entrench them in their own areas of interest.

One widely used procedure for locating gifted children is teacher nomination. Gear (1976) stated that teacher reliability in the referral of gifted students was frequently challenged. Much of the research has consistently indicated that teacher selection of gifted students is unreliable. Early studies of teacher identification required teachers to make global assessments of students' abilities. These assessments were general and related more to good behavior, high grades, and the value systems of the teachers than to the students' abilities (Wolf & Stephens, 1986). More recent studies have shown that when teachers are given specific criteria, they are more accurate in identifying gifted children.
Teachers' Judgment of Giftedness

Pegnato and Birch (1959) tested the effectiveness and efficiency of various methods of identification. Using teacher rating, group IQ test, group achievement tests, honor roll placement, and artistic creativity measures, five different lists of referrals were obtained. They defined effectiveness as the ratio of the number of gifted found through a particular screening method to the "true" number of gifted, and efficiency was defined as the ratio of the number of gifted found using a particular method to the total number of screened as gifted. Their results indicated that teachers had a surprisingly low level of effectiveness and efficiency, while group IQ tests, group achievement, and honor roll placement were much better methods.

In a review of the literature, Gear (1976) reports that the accuracy of teachers' judgments of intellectual giftedness of children is poor. Gear reviewed several studies which measured the effectiveness and efficiency of teachers' nominations of gifted students. She found that teachers' effectiveness and efficiency varied from study to study. Effectiveness generally ranged from 10% to 48% and teachers' efficiency between 30 to 50% (Gear, 1976). Gear asserted that when teachers' referrals are used as a screening device, it should be supplemented with more objective measures. She further suggested that if teachers
can be trained in the identification skills, then teacher referral can become an effective screening procedure in the search for the intellectually gifted.

Gear (1978) found that training teachers in identifying giftedness does improve the effectiveness of teachers' referrals of intellectually gifted children. Gear found that teachers who participated in the training program were twice as effective in making referrals as those who were not provided with the training. Teachers in the experimental group nominated a slightly greater number of youngsters and their referrals were more accurate than the control group. Teachers who were provided appropriate instruction were significantly more effective in their referrals, and equally as efficient as those who did not receive the training.

Guskin, Feng, and Majd-Jabbari (1988) examined the perceptions of relatedness among abilities of undergraduate education students and graduate students who were experienced teachers. These students were asked to indicate resemblance among 20 different kinds of abilities, using sorting, similarity ratings, and/or trait ratings. Guskin, et al. (1988) found that both groups of students (prospective and experienced teachers) agreed on five categories of giftedness. Furthermore, both prospective and experienced teachers differentiate these skills consistent with Gardner's (1984) conception of multiple intelligences. Guskin, et al.
(1988) concluded that teachers do not overgeneralize nor do they fail to recognize relationships among subsets of abilities.

Ashman and Vukelich (1983) compared three different teacher nomination forms and found that the rating scale form of teacher nomination is more effective than other forms of teacher nominations in identifying gifted children. This form of nomination had correlations between each of its items and IQ scores. Ashman and Vukelich concluded that using a rating scale is the most sensitive means of obtaining teachers' nominations because of its high effectiveness, its acceptable completion time, and its scores' positive relationship with the intelligence test scores. Borland (1978) found positive correlations between teacher ratings and IQ scores but also found that teachers were more accurate in identifying gifted girls than gifted boys and gifted underachievers than gifted achievers.

Problems in the Identification of Giftedness

Much concern over identification of gifted children is indicated in the literature. Despite the impetus of "multiple criteria" identification, many school systems, in actuality, utilize only one criterion, namely, a cut-off score on an individually administered intelligence test (Colangelo, 1984). Regardless of the array of other data
that might be collected about a child, the decision of "is
gifted" or "is not gifted" is narrowed down to falling on one
side or the other of the IQ cut-off score. This point of
demarcation renders a decision of convenience (Birch, 1984).
Colangelo, (1984) believes that people hold onto the
"omnipotence" of the IQ despite all the evidence about the
shortcomings of the IQ. Furthermore, he states that while
there is much discussion of utilizing multiple identification
measures, many school districts hold that IQ is still the
real criterion.

Valid measurements of intelligence should require more
of the flexible and novel kinds of thinking that are
currently measured by creativity tests, while at the same
time maintaining the emphasis upon analytic skills that has
characterized intelligence tests and distinguished them from
creativity tests. Intelligence seems to consist of, in large
part, the ability to deal with nonentrenched tasks and
concepts, but this ability seems only to be peripherally
measured by current tests of intelligence (Sternberg, 1982).
Failing to measure this ability may trivialize, to some
degree, measurements of intelligence, especially at the upper
levels, where novel ways of thinking may be critical to
success (Sternberg, 1982).

Feldhusen, Asher, and Hoover (1984) have elucidated
the problems in the current identification practices.
Feldhusen, et al. (1984) pointed out that the general, indiscriminate use of tests to identify the "all-purpose" gifted student, regardless of the nature of the program offering, is a serious problem. This type of procedure fails to provide diagnostic information about the individual child's special talents, abilities, strengths and weaknesses.

Another problem is the selection of teacher rating scales and checklists (Feldhusen, et al., 1984). Directors of gifted programs should be discouraged from attempting to create their own rating scales unless they have had considerable training in psychometrics. There is also a need to train teachers in the use of the instrument to make certain the terminology and concepts are understood clearly. Ratings scales that have been developed locally most often have yielded total scores that are meaningless and useless (Hagen, 1980).
CHAPTER III

DESIGN AND PROCEDURE

Specific Statement of the Problem

As a part of the screening process for the Gifted and Talented Education program (hereinafter termed GATE), the teachers of Richmond Unified School District (R.U.S.D.) have been relied upon to select and refer children whom they feel are gifted. In addition, they are required to complete a teacher rating scale. This rating scale has been divided into three domains: Intellectual, Academic, and Creative Arts and Leadership (see Figure 1). It has been composed of items such as curiosity, intellectual playfulness, manipulates ideas (Intellectual domain); strong inner motivation, verbal fluency, superior basic skills (Academic domain); and intensive interest in art/dance/drama/music/psychomotor skills, instrument/vocal talent, and demonstrated skill in persuasion, etc... (Creative Arts and Leadership domain).

The screening process has involved the classroom teacher in selecting and referring children whom she/he feels is gifted. When referring children, the classroom teacher has been required to complete a two-part referral form, the first part requiring the teachers to provide: (1) demographic
FIGURE 1

Richmond Unified School District
Gifted & Talented Education
REFERRAL FORM (PART 2)

G. Identifying Characteristics

Compared with chronological peers, this student displays this characteristic:

1 — far above (3 or more years)
2 — considerably above (1 to 2 years)
3 — at a similar level
4 — at a lower level
5 — rarely
0 — not observed, not applicable

These characteristics cover a broad range from K-12; a student is not expected to rate highly on every one, therefore please be objective. Please mark those not observed or not applicable with a zero.

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<tr>
<td>1 2 3 4 5 0 curiosity</td>
<td>1 2 3 4 5 0 adapt, improve, modify</td>
</tr>
<tr>
<td>1 2 3 4 5 0 imagination</td>
<td>1 2 3 4 5 0 offer variety of solutions</td>
</tr>
<tr>
<td>1 2 3 4 5 0 intellectual playfulness</td>
<td>1 2 3 4 5 0 manipulate ideas</td>
</tr>
<tr>
<td>1 2 3 4 5 0 individuality (even non-conformism)</td>
<td>1 2 3 4 5 0 analyze, synthesize, and evaluate</td>
</tr>
<tr>
<td>1 2 3 4 5 0 flexibilityfluency in communication</td>
<td>1 2 3 4 5 0 move easily from concrete to abstract</td>
</tr>
<tr>
<td>1 2 3 4 5 0 skill in coping with environment</td>
<td>1 2 3 4 5 0 deal with abstractions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACADEMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 0 strong inner motivation</td>
</tr>
<tr>
<td>1 2 3 4 5 0 insatiable thirst for academic activities</td>
</tr>
<tr>
<td>1 2 3 4 5 0 verbal fluency</td>
</tr>
<tr>
<td>1 2 3 4 5 0 advanced vocabulary</td>
</tr>
<tr>
<td>1 2 3 4 5 0 extensive interest and skill in reading</td>
</tr>
<tr>
<td>1 2 3 4 5 0 superior basic skills</td>
</tr>
<tr>
<td>1 2 3 4 5 0 well developed research ability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CREATIVE ARTS AND LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 0 intense interest in art/dance/drama/music/psychomotor skills</td>
</tr>
<tr>
<td>1 2 3 4 5 0 extensive ability/depth/originality in any of the above (specify)</td>
</tr>
<tr>
<td>Demonstrates exceptional:</td>
</tr>
<tr>
<td>1 2 3 4 5 0 instrumental talent (specify:)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 vocal talent (solo/choral)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 ability to harmonize (voice/instrument)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 ability to compose (specify:)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 drawing/painting talent for figures, still life</td>
</tr>
<tr>
<td>1 2 3 4 5 0 ability to design (graphics, sets, clothing, structures)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 skill in writing varied forms of literature (poetry, essay, original story, research paper, script)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 creativity in planning and executing solutions to a variety of problems</td>
</tr>
<tr>
<td>1 2 3 4 5 0 ability in dealing with high level abstraction</td>
</tr>
<tr>
<td>Has:</td>
</tr>
<tr>
<td>1 2 3 4 5 0 planned, directed and successfully concluded a group activity (play, dance, charity drive, election, etc.) (specify:)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 served as president/leader of a school or well-known community organization (e.g. scouts, student council) (specify:)</td>
</tr>
<tr>
<td>1 2 3 4 5 0 demonstrated skill in persuasion</td>
</tr>
<tr>
<td>1 2 3 4 5 0 adapted to new situations</td>
</tr>
<tr>
<td>1 2 3 4 5 0 displayed confident independence</td>
</tr>
<tr>
<td>1 2 3 4 5 0 related well to both peers and adults</td>
</tr>
<tr>
<td>1 2 3 4 5 0 readily used influential social skills in a variety of situations (positive or negative)</td>
</tr>
</tbody>
</table>
information, (2) language data (3) all achievement test scores, and (4) supporting data (e.g. classroom performance, exceptional products, creativity, etc...). The second part has required the teachers to complete a rating scale. Once the referral was completed and signed by the teacher, it was reviewed and signed by the principal and the site psychologist. The referral was then been submitted to the GATE department for review. Once the teacher's referrals were reviewed by the GATE department, a school psychologist has administered a WISC-R to determine eligibility for the GATE program. The determining criteria for placement into the GATE program has been a Full Scale score on the WISC-R which is at least two standard deviations above the population mean (130 or above). Only a small percentage of children have been identified as gifted by the R.U.S.D.'s criterion.

Research has indicated that teachers' judgments of intellectual giftedness are generally poor (Pegnato & Birch, 1959, Martinson, 1961, Baldwin, 1962, & Gear, 1978). However, teachers' judgments have improved when using a rating scale in identifying gifted characteristics. Because the rating scale has been utilized as a screening measure by R.U.S.D., it was anticipated that if the items on the rating scale were found to be associated with the intellectual characteristics measured by the WISC-R, this would be useful.
Is there a significant relationship between R.U.S.D.'s teachers' ratings of gifted characteristics in children and identified intellectual giftedness as defined by a Full Scale score of 130 or above on the WISC-R, which is the determining criterion for the certification and placement into the GATE program? Would teachers' ratings of gifted characteristics associate more closely to the children's verbal intelligence or nonverbal intelligence as indicated by the Verbal and Performance scores on the WISC-R?

Hypotheses

1. There will be a significant positive relationship between teachers' ratings of children's gifted characteristics as measured by the R.U.S.D. in children and identified intellectual giftedness represented by the Full Scale score on the WISC-R.

2. Teachers' ratings of giftedness in children will correlate highly with the children's Verbal score than to the Performance score on the WISC-R.

Population and Sample

The sample for this study consisted of elementary school-age children, ages seven to twelve, who were enrolled in schools within the R.U.S.D. This sample was selected from archival data that were collected between the school years of
1987 to 1989. The data consisted of children's protocols and teacher rating scales which were completed by teachers who referred children to be evaluated for the GATE program. The protocols contained children's scores on the Verbal, Performance, and Full Scale sections on the WISC-R.

The location of the schools involved in this study ranged from lower socio-economic areas to higher socio-economic areas within R.U.S.D. The sample for this study included sixty children, thirty who did qualify for the GATE program, and thirty who did not qualify for the program. The children who qualified for the GATE program had Full Scale scores that were between 130 and 160 on the WISC-R. The children who qualified for the GATE program by alternative criteria such as cultural and linguistic difference or being educationally disadvantaged, such as children with physical disabilities, were not included in the study.

In order to obtain a reliable measure of association between the teachers' ratings on R.U.S.D.'s rating scale and the Full Scale score on the WISC-R, rating scales were completed for all the children in the classes and every child was administered a WISC-R. Because this is a lengthy and costly process, this study included only the teacher ratings and IQ scores of the referred children. Thus, the range of association between the R.U.S.D. teachers' ratings and the WISC-R Full Scale scores is restricted to only the children
who were referred for a GATE evaluation. This was a limitation to the study in the sense that the correlation between teacher ratings and test scores will be attenuated due to the absence of a cross section of children in the sample data.

Instruments

The instruments utilized in this study were the R.U.S D.'s teacher rating scale and the WISC-R. The teacher rating scale was produced in 1986 by the GATE coordinator. The GATE coordinator during that period was an administrator who had also taught gifted children for several years. She compiled the items on the rating scale from different sources and then divided them into three sections, intellectual, academic, and leadership/creative. Reliability and validity information had not been collected for this rating scale.

The WISC-R is a standardized intelligence test for children which covers an age range from 6-0 to 16-11 years. The WISC-R contains twelve subtests, six of which form the Verbal scale and the other six form the Performance scale. The WISC-R provides three separate IQ's, a Verbal Scale IQ, a Performance Scale IQ, and a Full Scale IQ. The WISC-R has outstanding reliability. Each of the three IQ scales has a reliability coefficient of .89 or above in the standardization group over the entire age range covered by
the scale. The WISC-R has satisfactory concurrent validity when compared with other intelligence tests, receptive vocabulary tests, achievement tests, and school grades. Median correlations range from the upper .30's to low .80's (Sattler, 1974).

Procedures for Collecting Data

The teacher rating scale required the classroom teachers to rank characteristics of children as compared with chronological age peers. The ratings were divided into three domains: intellectual, academic, creative and leadership (see Figure 1). Only the intellectual and academic domains were included in the data analysis. For the purpose of this study, the ratings were reorganized to have the scale increase in a uniform manner, therefore, the lowest rating was "0" (not observed), and the highest as "5" (far above). The WISC-R was administered by either of the District's two school psychologists or the school psychology intern.

Procedures for Analyzing Data

The ratings in the intellectual and academic domains were summed and combined to form a single score. This combined score was then compared to the Verbal, Performance, and Full Scale scores on the WISC-R. A Pearson r correlation coefficient was computed to determine whether there was a
significant relationship between teachers' ratings and the Full Scale score on the WISC-R. Also, Pearson r coefficients were computed to determine the existence of a relationship between the teachers' ratings and the Verbal score or the Performance score. Statistical procedures were calculated according to computer programming contained in SPSS for the Pearson correlation.
CHAPTER IV

RESULTS

This chapter reports and discusses the results of the hypotheses that were tested in their null form and rejected if significant at the .05 level.

Tests of Null Hypotheses

$H_{10}$: There will be no significant positive correlation between teachers' ratings of children's gifted characteristics, as measured by the Richmond Unified School District, in children and identified intellectual giftedness.

$H_{20}$: Teachers' ratings of giftedness in children will not be correlated more highly with the children's Verbal score than to the Performance score on the WISC-R.

Table 1 presents a comparison of the correlation coefficients between "not certified" and "certified" groups of children. The correlations are of the children's WISC-R scores with the summed rating scores in the Intellectual domain, the Academic domain, and the Total Rating score. Inspection of Table 1 indicates a significant positive correlation at the .05 level between the Performance scores of the certified children...
Table 1

Correlations of WISC-R Scores with Rating Scale Items

<table>
<thead>
<tr>
<th>WISC-R Scores</th>
<th>Intellectual</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Scale Score</td>
<td>-.2720*</td>
<td>-.2709*</td>
<td>-.2753*</td>
</tr>
<tr>
<td>Verbal Score</td>
<td>-.1952</td>
<td>-.1781</td>
<td>-.2076</td>
</tr>
<tr>
<td>Performance Score</td>
<td>-.2230</td>
<td>-.2242*</td>
<td>-.2125</td>
</tr>
<tr>
<td>Full Scale Score</td>
<td>.1255</td>
<td>.1079</td>
<td>.1296</td>
</tr>
<tr>
<td>Verbal Score</td>
<td>.0507</td>
<td>-.1416</td>
<td>-.0539</td>
</tr>
<tr>
<td>Performance Score</td>
<td>.1980</td>
<td>.3442**</td>
<td>.3041**</td>
</tr>
</tbody>
</table>

*a Full Scale Score < 130

*b Full Scale Score > 130

*p < .10

**p < .05
and the summed Academic rating score and the total rating score. A nonsignificant negative correlation was found between the Full Scale scores of the children who were not certified and all three groups of summed ratings. In addition, there was a nonsignificant negative correlation between the Performance scores of the children who were not certified and the Academic rating score. These correlations reached only the .10 level. The correlations of the Full Scale scores and the Verbal scores of the certified children with each of the three groups of summed ratings were not significant. Therefore, the null hypotheses were not rejected.

Correlations of individual items with each of the WISC-R scores were computed to determine if a significant relationship existed between individual items and WISC-R scores. Figure 2 presents each of the items in the Intellectual and Academic domains.

Table 2 presents correlation coefficients of individual Intellectual ratings with WISC-R scores and compares the correlations of children who were not certified with children who were certified. Inspection of Table 2 indicates, for the Not Certified group, there was a negative correlation between items #4, 5, 6, 9, and 10 and the Full Scale scores, significant at the .05 level. Item #9 also significantly correlated with the Performance score for children not
FIGURE 2

*Intellectual Items*

IR 1. Curiosity
IR 2. Imagination
IR 3. Intellectual playfulness
IR 4. Individuality
IR 5. Flexibility, fluency in communication
IR 6. Skill in coping with environment
IR 7. Adapt, improve, modify
IR 8. Offers a variety of solutions
IR 9. Manipulates ideas
IR 10. Analyzes, synthesizes, and evaluates
IR 11. Easily moves from concrete to abstract
IR 12. Deals with abstractions

*Academic Items*

AR 1. Strong inner motivation
AR 2. Insatiable thirst for academic activities
AR 3. Verbal fluency
AR 4. Advanced vocabulary
AR 5. Extensive interest and skill in reading
AR 6. Superior basic skills
AR 7. Well developed research ability
AR 8. Displays wide range of interests and skills
AR 9. Asks many questions
AR 10. Displays interest in solving problems
AR 11. Pursues task to conclusion
Table 2

Correlations of Individual Intellectual Ratings with WISC-R Scores

<table>
<thead>
<tr>
<th>Rating #</th>
<th>FSCR</th>
<th>VS</th>
<th>PS</th>
<th>FSC</th>
<th>VS</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR 1.</td>
<td>-.0415</td>
<td>.0860</td>
<td>-.1534</td>
<td>.0440</td>
<td>.0080</td>
<td>.1006</td>
</tr>
<tr>
<td>IR 2.</td>
<td>.0409</td>
<td>.0141</td>
<td>.0642</td>
<td>.2393*</td>
<td>.0113</td>
<td>.3650**</td>
</tr>
<tr>
<td>IR 3.</td>
<td>-.1522</td>
<td>-.2593*</td>
<td>.0277</td>
<td>.0293</td>
<td>.0309</td>
<td>.0317</td>
</tr>
<tr>
<td>IR 4.</td>
<td>-.4264**</td>
<td>-.4648</td>
<td>-.1836</td>
<td>.0579</td>
<td>.0075</td>
<td>.1220</td>
</tr>
<tr>
<td>IR 5.</td>
<td>-.2497**</td>
<td>-.2084</td>
<td>-.2569*</td>
<td>.0043</td>
<td>-.1104</td>
<td>.1330</td>
</tr>
<tr>
<td>IR 6.</td>
<td>-.2950**</td>
<td>-.2393</td>
<td>-.2201</td>
<td>-.2997**</td>
<td>-.3587**</td>
<td>-.0794</td>
</tr>
<tr>
<td>IR 7.</td>
<td>-.2397</td>
<td>-.1698</td>
<td>-.1841</td>
<td>-.2773*</td>
<td>-.2603</td>
<td>-.1316</td>
</tr>
<tr>
<td>IR 8.</td>
<td>-.1588</td>
<td>-.2686*</td>
<td>-.0470</td>
<td>.2399*</td>
<td>.2697*</td>
<td>.1355</td>
</tr>
<tr>
<td>IR 9.</td>
<td>-.3022**</td>
<td>-.1644</td>
<td>-.2967**</td>
<td>.1185</td>
<td>.0916</td>
<td>.1251</td>
</tr>
<tr>
<td>IR 10.</td>
<td>-.2969**</td>
<td>-.2652</td>
<td>-.1892</td>
<td>.2999*</td>
<td>.1689</td>
<td>.3281**</td>
</tr>
<tr>
<td>IR 11.</td>
<td>-.2703*</td>
<td>-.2234</td>
<td>-.1756</td>
<td>.1800</td>
<td>.2623*</td>
<td>.0463</td>
</tr>
<tr>
<td>IR 12.</td>
<td>-.2330</td>
<td>-.0988</td>
<td>-.2448*</td>
<td>.2894</td>
<td>.1367</td>
<td>.3093**</td>
</tr>
</tbody>
</table>

*aFull Scale Score < 130

*bFull Scale Score > 130

*p < .10

**p < .05
certified. In addition, a significant negative correlation at the .01 level is indicated between item #4 and the Verbal score.

Further inspection of Table 2 indicates, for the Certified group, that there was a significant negative correlation (.05 level) between item #6 and both the Full Scale and Verbal scores. There is a significant positive relationship (.05 level) between items #2, 10, and 12 and the Performance score.

Table 3 presents correlation coefficients of individual Academic items with the WISC-R scores and also compares the correlations of children who were not certified and children who were certified. Inspection of Table 3 indicates a significant negative correlation (.05 level) between items #1 and 5 and the Full Scale score for children not certified. Item #1 also negatively correlated (.05 level) with the Verbal score. Furthermore, a significant negative correlation at the .05 level is indicated between items #3, 4, and 5 and the Performance score.

Further inspection of Table 3 indicates a significant positive correlation (.05 level) between item #4 and the Full Scale score for certified children. In addition, a significant positive correlation at the .05 level is indicated between item #3 and the Performance score. Furthermore, a significant positive correlation at the .01 level is indicated between items #4 and 8 and the Performance score.
Table 3

Correlations of Individual Academic Ratings with WISC-R Scores

<table>
<thead>
<tr>
<th>Rating #</th>
<th>FSCR</th>
<th>VS</th>
<th>PS</th>
<th>FSCR</th>
<th>VS</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR 1.</td>
<td>-.3593**</td>
<td>-.3057**</td>
<td>-.2468*</td>
<td>-.2884*</td>
<td>-.2694*</td>
<td>-.1495</td>
</tr>
<tr>
<td>AR 2.</td>
<td>-.2590*</td>
<td>-.3105**</td>
<td>-.0866</td>
<td>-.0836</td>
<td>-.1294</td>
<td>-.0250</td>
</tr>
<tr>
<td>AR 3.</td>
<td>-.1740</td>
<td>.0942</td>
<td>.3772**</td>
<td>-.3060*</td>
<td>.0906</td>
<td>-.3967**</td>
</tr>
<tr>
<td>AR 4.</td>
<td>-.1975</td>
<td>-.0007</td>
<td>-.3013**</td>
<td>.3788**</td>
<td>.1707</td>
<td>.4265***</td>
</tr>
<tr>
<td>AR 5.</td>
<td>-.3103**</td>
<td>-.1627</td>
<td>-.3347**</td>
<td>.0883</td>
<td>.0112</td>
<td>.1493</td>
</tr>
<tr>
<td>AR 6.</td>
<td>-.2022</td>
<td>-.2035</td>
<td>-.1041</td>
<td>.1639</td>
<td>-.0022</td>
<td>.2772*</td>
</tr>
<tr>
<td>AR 7.</td>
<td>-.0356</td>
<td>-.0412</td>
<td>-.0050</td>
<td>.1456</td>
<td>-.0094</td>
<td>.2777*</td>
</tr>
<tr>
<td>AR 8.</td>
<td>-.0450</td>
<td>-.0388</td>
<td>.0925</td>
<td>.1022</td>
<td>-.2591*</td>
<td>.4361***</td>
</tr>
<tr>
<td>AR 9.</td>
<td>-.0873</td>
<td>-.2389*</td>
<td>.1154</td>
<td>-.0874</td>
<td>-.0456</td>
<td>-.0402</td>
</tr>
<tr>
<td>AR 10.</td>
<td>-.0901</td>
<td>-.1355</td>
<td>.0033</td>
<td>-.1609</td>
<td>-.1829</td>
<td>-.1572</td>
</tr>
<tr>
<td>AR 11.</td>
<td>-.1794</td>
<td>-.1595</td>
<td>-.1139</td>
<td>.1717</td>
<td>.0095</td>
<td>.2496*</td>
</tr>
</tbody>
</table>

*a Full Scale Score < 130

*b Full Scale Score > 130

*p < .10

**p < .05

***p < .01
Summary

Pearson correlation coefficients were computed to determine if a significant positive relationship existed between the teachers' ratings and the Full Scale score of children in the two categories of certification who were not certified and with children who were certified. Also, Pearson correlation coefficients were computed with the teachers' ratings and the Verbal and Performance scores to determine if there was a significant relationship. The results indicated that the relationship between teachers' ratings and the WISC-R scale scores was, for the most part, not significant. Thus, the two major research hypotheses were not confirmed.

In addition, Pearson correlation coefficients were computed between the individual items of the Rating Scale and each WISC-R score to determine if a significant relationship existed. The results indicated that for the Not Certified group there is a negative relationship with some of the ratings in both the Intellectual and Academic domains and the WISC-R scores. The results for certified children indicated that a negative relationship exists with some of the ratings and the WISC-R scores. The ratings that indicated the highest correlation were exhibited between two of the items in the Academic domain with the Performance scores. These were items #4 and 8, "advanced vocabulary" and "displays wide range of interests and skills."
CHAPTER V

CONCLUSION AND LIMITATIONS

Conclusions

The results did not support the hypothesis that there is a positive relationship between teachers' ratings of gifted characteristics in children, as measured by the R.U.S.D. teacher rating scale, and the Full Scale score on the WISC-R (determining criteria for giftedness in R.U.S.D.). The results also did not support the hypothesis that teachers' ratings of giftedness will correlate highly with the children's Verbal score on the WISC-R. However, the results did indicate a positive relationship between teachers' ratings and Performance scores on the WISC-R for children who were certified as gifted.

The results of statistical correlations between individual items and the WISC-R scale scores showed mixed performance. Some items from both Intellectual and Academic domains exhibited correlations with the Performance scale on the WISC-R. However, others from both domains showed significant negative correlations with the WISC-R. For the most part, positive correlations appeared for those students who were ultimately certified as gifted. But, the pattern of
correlations did not offer much hope for a consistent or reliable measure of giftedness by these teachers.

This study indicates that R.U.S.D.'s teacher rating scale, as a whole, was not statistically associated with the R.U.S.D.'s criteria for identified giftedness. However, the summed total ratings of children who were certified for the GATE program did associate with the Performance scores on the WISC-R. Thus, individual teacher ratings of certified children were statistically associated with the children's visual perception and visual organizational skills as measured by the items on the Performance scale of the WISC-R. This outcome was in contrast to the expectation that teacher ratings would be more closely associated with the verbal scores.

Limitations

A few limitations need to be mentioned in regards to the above study. The sample in this study included only the teachers' ratings for children who they nominated for the GATE screening and had passed the screening process, as well as the WISC-R scores of these children. The correlations between teacher ratings and the WISC-R scores are attenuated due to the absence of a representative cross-section of children in the sample data. In order to obtain a reliable association between teachers' ratings and WISC-R scores, a
rating scale should be completed for all the children in the classes and every child should be administered the WISC-R.

Based on the results of the present study, the R.U.S.D.'s rating scale probably needs to be revised. However, this study unfortunately does not provide a clear direction for such revision. It is unclear, and frankly a bit puzzling, as to why certain items in the Intellectual domain were statistically related to the Performance scale on the WISC-R. These items appeared to call for teacher judgment of verbal behavior and therefore should relate to the Verbal scale of the WISC-R. Since they did not, it is not clear how such items should be modified, and less clear as to what type of new items might be added.

The criteria for identifying gifted children in R.U.S.D. could be expanded to include multiple measures in identifying giftedness. Although intelligence tests provide important and useful information about a child's cognitive ability and learning style, it is probably not an adequate measure in identifying giftedness when used in isolation. Settler (1974) reported that IQ is a good predictor of school success. However, school success is not sufficient evidence of giftedness (Fischman, 1985). Using an IQ score as the sole criterion in identifying giftedness perpetuates a fallacy that "there is a definite natural intelligence quotient point dividing gifted children from others." (Birch,
Birch further states that the point of demarcation usually represents a decision of convenience (1984). Most often, programs for the gifted utilize an overall IQ score as the single determining criterion of giftedness. Research has indicated that gifted children exhibit significant variability in levels of performance on intelligence tests, namely the WISC-R, reflecting individual differences across diverse cognitive ability areas (Hollinger & Kosek, 1986, Karnes & Brown, 1980, Sapp, Chissom, & Graham, 1985). Thus, children with high IQ's, who are identified as gifted, exhibit strengths and weakness in different intellectual ability areas. Definitions of giftedness have expanded over the years to include a broader and more diverse range of gifted characteristics. Utilizing multiple criteria in the identification of gifted children would provide a more comprehensive profile of children's abilities (Haker, 1986, Fischman, 1985, Birch, 1984). Furthermore, training teachers in identifying gifted characteristics using the teacher rating scale can improve the effectiveness and efficiency of a teacher's nomination of gifted children (Gear, 1978).

In conclusion, a revision of R.U.S.D.'s teacher rating scale is recommended. However, the results of this study have not provided a clear indication of which items on the rating scale need to be revised. The possibility of adopting a published rating scale and training teacher-raters in the
use of the instrument to assure that terminology and concepts used in the scale are clearly understood might be considered. Also, expanding criteria to include multiple measures instead of a narrowly defined criterion, namely the IQ score, is recommended in determining giftedness for placement into subsequent programs.
BIBLIOGRAPHY


