IDENTIFYING THE GIFTED AND TALENTED STUDENTS IN THE PRIMARY GRADES

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ABSTRACT

This researcher has been interested in the gifted student for some time and has always felt a little uneasy about the fact that so many times these students become bored with school. The work is too easy and there is no challenge for them. So the purpose in doing this study was to find answers to some questions such as: 1) Who are the gifted? 2) How do you identify these students? 3) In what kind of program should a gifted student be placed? and 4) Will the student benefit from an individualized program? These questions are answered to some degree in the "Review of Literature."

The problem statement in this study is: Do students who have been properly identified as gifted or talented benefit more from an individualized program set up to meet their needs than from the regular curriculum for their age group?

The method used to carry out the experiment is the nonequivalent-control-group design. In this design there is a control group and an experimental group and there is both a pretest and a posttest given to both groups. The pretests used are the Otis-Lennon Mental Ability Test and

the Stanford Achievement Test (Primary I-Form A). These tests will be administered near the beginning of the school year to two hetrogeneously grouped second-grade classes.

After the tests have been carefully analyzed and the possible gifted students screened, then further individualized testing will have to be done to correctly identify the gifted student. Teacher and parental observations will also be taken into consideration in identifying the gifted students.

After the identification process has taken place then the individualized programs will be set up for those students in the experimental group who are considered gifted, while the students in the control group will continue to do just what the curriculum for that grade level requires. So the individualized program for each student is the experimental treatment.

Since Model I students at Lindenwood College are not required to carry out the experiment, there will be no results or conclusions in this study.

If the study were carried through there would be a posttest (Stanford Achievement Test - Primary I - Form B) given to the two groups near the end of the school year. Comparisons would then be made between the gifted students of both groups to see if the special programs had any significant effect upon the achievement scores of the subjects involved in the program.

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CHAPTER I

INTRODUCTION

SCOPE AND PURPOSE

One of America's greatest resources is her bright and talented children. But for too long our educational system has failed to challenge them to work to their fullest capacity. Too often these children go through school without really accomplishing what they are capable of doing. The work is boring to them and much too easy. They already know the material that is being presented so it becomes nothing more than busy work.

As young children, the gifted come to school eager to learn. Half of them have taught themselves to read, some as early as the age of two or three. Too often they are taught to read all over again according to the system used in the school.[1]

Most gifted children enter school eager and curious about everything, but because of their advanced skills and interests, they are "misfits." A child who asks questions about the justification of the Vietnam War or the hostages in Iran, who asks what causes cyclones or how an unborn

child eats, and who already reads fluently and knows numbers, or acquires the skills instantly, does not fit the usual readiness pattern. Because he has not yet learned acceptable substitute behavior or withdrawal tactics, he may encounter difficulty rather than understanding. Because he is like other primary children in wanting the approval of his teacher, he does his best to adapt to the situation as he finds it.[2]

Gifted children can often conceal their gifts and special abilities with little effort. Thus, they often are seen by their teachers as excellent students while actually functioning at a very low level of their potential.[3]

Gifted children are our future leaders, and they should be well prepared to take their places in important positions. Individually they represent every potential aspiration, creative effort, and worthwhile accomplishment of the next generation. The kind of education they receive will, to a very large degree, determine their hopes and achievements as adults. Since all individuals differ in their abilities and aspirations, all people need the education that will most effectively develop their own unique potentials.[4]

This researcher feels that it is very important that the gifted child be identified as early as possible and be placed in a program to meet the child's individual needs.

Statement Of The Problem

The problem to be researched in this paper is: Do students who have been properly identified as gifted or talented benefit more from an individualized program set up to meet their needs than from the regular curriculum for their age group?

In this particular study the age group will be 7 yr. old students in the second grade at Becky-David School in the Francis Howell School District. And the regular curriculum will be the second-grade curriculum.

One could hypothesize that students, who have been correctly identified as gifted or talented and placed in an educational program that fulfills their individual needs, will show greater academic achievement than the gifted and talented students in a regular classroom with no special programs.

The significance of the study is to support the idea that the bright students need more of a challenge in their total educational program than that which is outlined in the curriculum for their particular grade level.

Definition of Terms

ACCELERATION PROGRAM - a program in which the student progresses through at rates faster or ages younger than normal.

CONTROL GROUP - subjects in a research study that do not receive the experimental treatment whose performance or traits are compared to subjects who do receive the treatment.

CURRICULUM - the courses of study offered by a school for each grade level.

ENRICHMENT PROGRAMS - programs that are not in the regular curriculum but are advanced and enhance the curriculum.

EXPERIMENTAL GROUP - the group that receives the treatment in an experiment.

GIFTED PERSON - a person having great natural ability. This means having above average intellectual ability (I.Q. of 125 or above); being highly motivated, interested and creative; and being a productive, original flexible and divergent thinker.

HYPOTHESIS - an unproved idea taken for granted for the time being because it may explain certain facts or can be used as the basis for reasoning, or study.

IDENTIFICATION - the process used to show or prove that a person is gifted.

INDIVIDUALIZED EDUCATION PROGRAM - a program set up for each individual to meet the educational needs of that person.

SCREENING - a process of testing and observing to pick out possible gifted students - the step before identification.

SPECIAL PROGRAMS - programs for the gifted students outside the regular classroom.

STANDARDIZED TESTS - tests that have clear, concise instructions for administration and scoring, and have standard materials and procedures.

CHAPTER II

REVIEW OF LITERATURE

Historical Background

One could not speak about the gifted without reference to the monumental studies of Lewis Madison Terman. His work in identifying, testing, and educating the gifted has earned him a justifiable wide reputation as one of the founders of this multifaceted field.

In 1920, Terman began his major work with the gifted. He planned a two-pronged approach through analysis of biographies of historical geniuses and through study of the living gifted, followed through maturity.[5]

This longitudinal study of the living gifted started in 1922. Terman's assistants combed the school populations of the larger California cities for gifted children, asking for teacher nominations and for the youngest children in each class. After screening by group tests, promising children were given the Stanford-Binet. The gifted group chosen averaged about 11 years of age at the time, with an average Binet I.Q. of 151. Terman described these children in detail through supplemental studies of family and

activities, as well as through testing, and followed their progress repeatedly into later life. He found that, contrary to popular opinion, the gifted are superior in varying degrees not only in intelligence but also in achievement, personal qualities, health, and other aspects of development. This study is still going on, aided by funds from his estate.[6]

In some schools, programs for the gifted were funded by the government, but so often these programs were dropped when the funds ran out. This just shows that many people feel that special provisions for the gifted are primarily luxuries rather than necessities in the educational enterprise. Whenever schools can afford to introduce some kind of enrichment, it becomes icing on the curriculum cake, not part of the cake itself. The gifted get their fair share of stimulation at school only when there is enough money to pay the bill or something else happens to change public opinion.

With the launching of Sputnik into orbit in 1957, there was a sudden outpouring of widespread interest in the gifted. The Russian gambit damaged America's self-image as a world leader in technology, and the nation became conscience stricken over its failure to produce sufficient high-level manpower to meet the threat of its ideological and cold war adversary.[7]

The perceived threat of Russian superiority in stockpiling sophisticated human resources, together with the awareness of how America's gifted children were being all but neglected at school, produced a massive response to correct the inequity. Enormous public and private funds became available for crash programs in pursuit of excellence, primarily in the fields of science and technology. Academic coursework was telescoped and stiffened to test the brainpower of the gifted. Courses that had been offered only at the college level began to find their way into special enrichment programs in high schools and even elementary schools.[8]

But the post-Sputnik flurry did not last that long. By the early 1960's, national attention was beginning to turn to the civil rights movement. Alleviating the plight of the inner-city ghettos became a cause soon to be near the top of the list in America's priorities. Grave social injustice was seen in the way the ghetto masses suffered from racial inequality, and the only hope for rectifying the situation was an enormous public investment in upgrading their education, housing, and employment opportunities. Schools could no longer afford the luxury of investing extra funds in provisions for the gifted. Moreover, the socially disadvantaged were poorly represented in special programs for the gifted,

so conventional means of identifying highly able children were condemned as discriminatory. The I.Q. test, a major instrument for assessing academic potential ever since Terman initiated his monumental studies of genius in the early part of the century, came under heavy attack for being biased against some racial minorities and the socio-economically depressed.[9]

There are now unmistakable signs of a revival of interest in the gifted, but it remains to be seen whether it will be at the expense of commitments to the socially disadvantaged.

Probably the biggest boost came from a 1970 Congressional mandate that added Section 806, "Provisions Related to Gifted and Talented Children," to the Elementary and Secondary Educational Amendments of 1969. This document expressed a legislative decision to include the gifted and talented students among those benefiting from Titles III and V of the Elementary and Secondary Education Act and the Teacher Fellowship Provisions of the Higher Education Act of 1956.[10]

Who Are The Gifted?

Definitions of giftedness go from one extreme to another. In a very strict sense of identification we have Lewis Terman's early definition of giftedness as "the top 1% level in general intellectual ability, as measured by the Stanford-Binet Intelligence scale or a comparable instrument."[11] This definition

applies only to the extremely intelligent; those with an I.Q. of 130 to 150 and above.

Terman believed that youngsters who scored well on his I.Q. test were to be the future leaders in all fields of endeavor. If one could measure innate intelligence (as Terman believed his I.Q. test did), and if intelligence was a general capacity for excellence removed from any specific field (as Terman believed it was), then an estimate of a child's I.Q. was all one needed to be pretty sure which children were gifted.[12]

It is impossible to calculate the full impact of Terman's view of giftedness on educational policy and practice, but it seems that giftedness and genius came to be defined in I.Q. terms not just among educational researchers but in the public's mind as well.

As early as the 1920's, critics such as the late Paul Witty were arguing that much more than I.Q. was involved in giftedness. He states:

> There are children whose outstanding potentialities in art, in writing, or in social leadership can be recognized largely by their performance. Hence, we have recommended that the definition of giftedness be expanded and that we consider any child gifted whose performance, in a potentially valuable line of human activity, is consistently remarkable.[13]

Researchers, such as DeHaan, Havighurst, Sumption, Luecking, Renzulli, Thomas, Crescimbeni, Passow, Goldberg, Tannenbaum and French also voiced their definitions of giftedness.

DeHaan and Havighurst consider any child gifted as one who is "superior in some ability that can make him an outstanding contributor to the welfare of, and quality of living in society.[14]

Sumption and Luecking define the gifted as "those who possess a superior central nervous system characterized by the potential to perform tasks requiring a comparitively high degree of intellectual abstraction or creative imagination or both.[15]

An advisory panel reporting to Congress in 1971 defined giftedness as:

> 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 require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society. Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination. 1. general intellectual ability 2. specific academic aptitude 3. creative or productive thinking 4. leadership ability 5. visual and performing arts 6. psychomotor ability.[16]

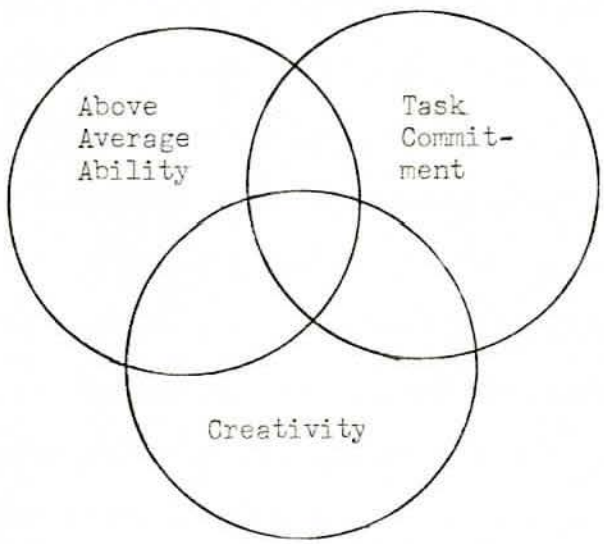
The United States Office of Education's definition has been accepted and used by many districts throughout the nation. However, a current researcher on giftedness, Joseph Renzulli, says that this definition causes some problems because it is often misinterpreted and too often giftedness is based on

intellect alone. He feels that a gifted person is:

> a creative/productive person who posses a relatively well-defined set of three interlocking clusters of traits. These clusters consist of above-average though not necessarily superior general ability, task commitment, and creativity. ...It is the interaction among the three clusters that research has shown to be the necessary ingredient for creative/productive accomplishment.... Each cluster is an "equal partner" in contributing to giftedness.[17]

See Figure1.

FIGURE I[18]



When the Stanford-Binet score is used in identifying those who are gifted, the range and label may vary. Gowan and Demos define the Gifted in the following way:

a) the academically talented: above 115 I.Q. (16% of the population)
b) the superior: above 125 I.Q. (5% of the population)
c) the gifted: above 140 I.Q. (.6% of the population)
d) the highly gifted: above 160 I.Q. (.007% of the population)[15]

The National Education Association in using the Stanford-Binet score, defines the gifted in this way:

Superior -- 120 or 125 and up
Gifted -- 135 or 140 and up
Extremely Gifted -- 170 or 180 and up[20]

Thomas Crescimbeni states that the gifted have an I.Q. of 115 - 120. The highly gifted are those with an I.Q. of 137 and over and the moderately gifted being those between 120 - 137.[21]

Most of the other researchers feel that an I.Q. of 125 to 130 and up on the individually administered intelligence test is considered a sign of giftedness or talent.

Researchers such as Passow, Goldberg, Tannenbaum and French feel that since intelligence is probably an essential component of many talents, and since students with special aptitudes in academic areas will usually come from those of high I.Q., measurement of intelligence is important in the identification of the gifted and talented.[22]

The two groups of children that most researchers pinpoint as gifted is the kind of youngster we call the high I.Q., highly motivated, highly interested child. The second group is called the highly creative, productive thinker, the youngster who is very original, fluent, flexible, or divergent in his thinking. These are usually the two groups that we think of when we talk about the gifted and talented youngsters in our schools.

But there are other gifted children that are sometimes overlooked. The first is the bright underachievers. These are children who score at a high level and should make it, but because of some social or environmental inhibitors they do not make it. Then we have the disadvantaged child in the urban and sparsely populated areas of the country. These are children who are judged to possess potential superior ability but who have been inhibited by a certain cultural, environmental, and economic limitations in their life style. Lastly we have the whole area of the creative arts. The creative arts may be broken down into three subcategories: Music, the visual arts, and the performing arts, such as theater and dance. So many times these talented youngsters are overlooked in the gifted programs in our schools.

One could assume from the research that a gifted student is one who has an I.Q. of 125 or above, and is very creative and highly motivated. He is one who is a productive, original, flexible and divergent thinker.

Identification of the Gifted

According to Fliegler, "Identification is a process which attempts to screen and select bright individuals in order to plan a program for them."[23]

Martinson and Lessinger feel that identification of the gifted should begin at the kindergarten level and should be a continuous process extending through the grades. They go on to say that "the problem of identification is one of using the best available measures in order to arrive at an assessment of pupil potential which is as accurate as possible."[24]

According to Martinson and Lessinger there are three steps in identification. These are 1) screening, 2) identification, and 3) program planning. The authors feel that all three of these steps must precede any educational provisions for the student. They describe screening as involving the use of carefully selected group tests and other devices. They say identification is based on preliminary screening and involves establishment of the true potential of the pupil. They go on to say that identification is determined through individual tests given by a specialist in such a way as to permit assessment of the level and quality of the pupils ability to learn.[25]

DeHaan says, "Identification consists in the process of screening children by means of standardized test proceedures and/or observational methods and selecting the superior children for educational programs designed particularly for them."[26] He also feels procedures for identifying gifted children should be functional, systematic and inclusive.

He continues in describing an identification program:

> A good identification program should discover other characteristics of gifted children besides their aptitudes and capacities. The interests of gifted children are important in a program for these children. Motivation, personality and social factors can and should be tested and observed in order to round out the picture of a given child and to provide important leads to his educational program.[27]

Fliegler agreeing with many other authors on the subject of identification says that any identification measures must be varied enough to include all areas of behavior as well as talents. They should be subjective as well as objective in order to include not only test data but teacher and parent observations.[28]

The North Central Association in 1958 put out a check-list of behavioral characteristics to help teachers know what to observe in identifying gifted students.

1. The student learns rapidly and easily.
2. He uses a great deal of common sense and practical knowledge.
3. He reasons things out, thinks clearly, recognizes relationships, and comprehends meanings.
4. He retains what he has heard or read without much rote drill.
5. He knows about many things of which most students are unaware.
6. He has a large vocabulary, which he uses easily and accurately.
7. He can read books that are one or more years in advance of the rest of the class.
8. He performs difficult mental tasks.
9. He asks many questions and has a wide range of interests.

10. He does some academic work one or more years in advance of the class.
11. He is original in his thinking.
12. He is alert, keenly observant, and responds quickly.[29]

Terman who did some of the earliest studies on giftedness also did some follow-up studies to determine why some of the subjects of his early research had succeeded and some had not. Since the subjects were of equal intelligence he concluded that achievement calls for more than a high order of intelligence. The results of his research indicated that:

> Personality factors are extremely important determiners of achievement....The four traits on which (the most and least successful groups) differed most widely were persistence in the accomplishment of ends, integration toward goals, self-confidence, and freedom from inferiority feelings. In the total picture the greatest contrast between the two groups was in all-round emotional and social adjustment and in drive to achieve.[30]

One can conclude from previous research that the best method of identification is a combination of many measurement techniques. The first step is to give standardized group intelligence tests and achievement tests. If the score on the intelligence test is 110 or more combined with high achievement scores, then the next step is to verify the findings with a standardized individually administered intelligence test. Most researchers agree that an I.Q. score of 130 and over on the individual test combined with other traits is an indication of giftedness. Many of the behavioral traits

of a gifted person cannot be tested but can be observed. After a careful analysis of all the results of the tests and observations, one can be fairly sure that the student has been correctly identified.

Teachers must be aware, however, that some very gifted students may not do well on standardized group tests. Reasons for this are pointed out in an article by James Alvino on "How Standardized Testing Fails To Identify the Gifted and What Teachers Can Do About It." He states that 50% of all gifted children may go unidentified if group tests alone are used. He feels that the individual tests are more accurate than group tests in identifying the gifted.[31]

In administering a group test with multiple-choice items, we fail to see the "thinking process" the child exercises in order to arrive at the answer. If a child who has other characteristics of giftedness, such as classroom performance and behavioral characteristics of a gifted child, but does poorly on the achievement test than the process of having the student rationalize his responses by externalizing his thinking may be very helpful in clearing up some doubts on whether this child should be considered for the gifted program or not. Unless the teacher inquires into what rationale the student used in selecting his answer, intricate, creative, and often sophisticated lines of reasoning may remain unrecognized and a gifted child may remain

unidentified.[32]

The process of identification must be continual in the educational system. It must begin early and continue late in a child's career. All along the way the educational system must provide the child with a wide range of opportunities to learn and develop, and it must also provide frequent occasions for observing all aspects of his development and where it appears to be taking him. These observations must include formal tests of intelligence and academic achievement at regular intervals. But educators must be aware that all measurement of student performance does not reside in objective paper-and-pencil tests and that,indeed, the measurement of human behavior is ultimately rooted in subjective judgments. The task is to make these judgments as good and reliable as possible.[33]

Programs and Teachers of the Gifted

Martinson and Lessinger say that program planning is an outgrowth of proper identification based on thorough knowledge of pupils, their abilities, achievement levels and personal attributes.[34]

Gold stresses that in planning programs for the gifted one must keep in mind several principles. The first principle is that programs must be based on sound educational and psychological foundations that can be supported by research.

Second, education of the gifted has to take into consideration community attitudes toward exceptional performance in any field and in academic fields in particular. Third, education of the gifted is founded upon a good program of education for all students. It is not separate from the total program and it is certainly not in competition with it. Fourth, the program should express a clearly reasonable philosophy of education of the gifted. This philosophy should include the educational outcomes that represent goals for each gifted child as well as the objectives of the school system.[35]

Durr states that programs for the gifted are usually classified under the headings of special classes, acceleration, or enrichment in a regular classroom. The term special classes usually applies to any grouping of gifted students outside the regular, heterogeneous class. This can either be full-time or part-time.[36]

The second type of program, acceleration, has been defined as "progress through an educational program at rates faster or ages younger than conventional."[37]

Durr points out that acceleration can be done in a number of ways. The first is early school entrance. Children can enter kindergarten or first grade at an age below that of normal school admittance. He also states that "research shows no evidence that early school entrance is

detrimental to the subsequent growth of gifted children."[38]

The second method of acceleration, according to Durr, is the ungraded school, where the student is allowed to progress through the whole educational program at his own speed. A gifted child could complete the whole primary program in two years or less.[39]

A third accelerating procedure is grade skipping. This kind of program has caused the most controversy among educators, parents, and others. According to Hildreth, "There is widespread belief that a gifted child in a group or class of older students will become a social misfit....and this will cause social and emotional imbalance."[40]

However, Durr reports in his findings that acceleration is valuable. "Accelerating generally leads to improved achievement, an eventual higher level of education, and greater success in adult life. With these advantages it does not harm social adjustment, personality development, mental health, attitudes toward school, or scholastic and vocational interests."[41]

Morgan has collected considerable evidence on acceleration in the elementary school. She reported that many gifted children could stand from one to two years acceleration in age-grade status provided they were socially mature and could hold their own with older children. She did a study of twenty-

five bright students of which twelve of them had been accelerated. A comparison was made between the accelerated students and the non-accelerated students and the study showed that the accelerated students equaled the nonaccelerated in school achievement, social leadership, and emotional adjustment.[42]

The third kind of program that can be worked out is enrichment in the regular classroom. The term "enrichment" is best defined by DeHaan: "Enrichment consists of learning experiences that are advanced, that require mental functions more complex than average, that require greater than average speed at higher levels of generalizations and abstractions, and that are designed with the needs and capabilities of particular students in mind."[43]

According to Durr there are three different kinds of enrichment methods: 1) horizontal, 2) vertical, and 3) supplementary enrichment. Horizontal enrichment proceeds outward from the regular program or curriculum for that grade level. It broadens or enhances the knowledge of what is being studied. Vertical enrichment is when the student progresses through the normally required school learnings at a more rapid pace than normal. This type of program provides learnings that other children will acquire in later years. And supplementary enrichment emphasizes activities not immediately or directly related to the regular grade level

program.[44]

Schools use either special classes, acceleration, or enrichment programs or a combination of the three. The three plans are administrative rather than instructional. They stress differences in class organization rather than in what goes on in the classroom.[45]

Gutts finds that "whether in special classes or in acceleration programs, enrichment is basic to all sound teaching and to every plan for providing for bright pupils. However bright students are grouped, they remain individuals with varying interests and aptitudes."[46]

Ruth Martinson feels that programs for the gifted should not be limited to skills acquisition, but also education that is based on the right of the gifted child to take an active part in the determination of his own learning agenda, to question and to learn from the search for his own answers. Such an education will only come about if the teacher is aware that a gifted child educates himself in many areas -- including the basic skills -- over a period of time, when he has regular, private time available to pursue interests, sometimes quite independently.[47]

Interest-based projects may originate with the children or may be selected by them from available materials that intrigue them. Teachers may have available special kits that

deal with problems of predictable interest to young gifted children, such as prehistoric animals, biography, ecology, insects, or space exploration.

Gifted children, even very young ones, do not need the close supervision required by many of their peers. Moderately gifted 6 and 7-year-olds with special interests can use libraries and other facilities independently to produce such results as metal sculptures and their own essays on birds, prehistoric life, and atomic fission and fusion. To follow these intense interests to their own satisfaction, children need private time and teacher permission to work independently inside and outside the classroom.[48]

Teaching the gifted is a challenging occupation. Some teachers work well with the gifted; others do not. Some teachers enjoy the challenge of adapting to deviant interests, such as creative productions, unusual ideas, and the opportunity to work with the child in mutual search for information alien to the group curriculum. Some teachers, on the other hand, are threatened by a young child who has knowledge they themselves do not possess or are impatient with a child who makes it necessary to take time away from routine activities.[49]

The gifted child needs a teacher who responds to him, shares his interests, works with him and recognizes his accomplishments. Martinson goes on to say that "the teacher who is

himself interested in learning, has sufficient background to sense the significant, has varied interests, has himself experienced the satisfaction of working at a problem or creative product, has the ability to inspire, and, most important, is sufficiently sure of his own ability that the gifted child does not threaten him."[50]

Evaluation of the Gifted Program

After a program for the gifted has been set up, it is very important that it be continuously evaluated to see if the program is meeting the needs of the individuals involved in the program.

Here are some criteria on which many gifted programs are evaluated:

1. Student involvement and enthusiasm.
   How much do the students like the class?

2. Intellectual atmosphere.
   Is there an interest in "playing with ideas"? Are ideas enjoyed for their own sake?

3. Higher thought process.
   Does the program involve a variety and complexity of intellectual thought? Is problem solving emphasized more than fact gathering?

4. Independence.
   Are the students free to exercise some independent choice in what they do?

5. Divergence.
   Are creative and "far-out" ideas tolerated and encouraged?

6. Self-concept.
   Is the class detrimental to the student's self-concept in any way?[51]

SUMMARY

The needs of gifted and talented children are, in a sense, the same as those of other children, differing in degree and quality. All children need opportunities to develop their individual talents, and the gifted and talented students are no exception. Such talented individuals come from all races, socioeconomic groups, geographic locales, and environments.

The best way to prevent problems for the gifted and to provide a setting in which they may develop wholesome attitudes toward themselves and others is through special and realistic educational opportunities. Programs for the gifted are a necessity. To deny the needs of the gifted is to deny the reality of an exceedingly wide and complex array of human differences.

CHAPTER III

METHOD

Procedure For Experiment

The subjects for this study will be two hetrogeneously grouped second-grade classes at Becky-David Primary School in the Francis-Howell School District, because this is the age group that this researcher is teaching. It could be done at any grade level. One class will serve as the control group and the other group will be the treatment group.

The design of research will be one of the quasi-experimental designs: the nonequivalent-control-group design. In this design both groups take a pretest and a posttest to see if the experimental treatment has had an effect on the performance of the experimental group. This study can only be done if there are gifted students in both groups.

In this study both groups will be given the Otis-Lennon Mental Ability Test and the Stanford Achievement Test (Primary I - Form A). An explanation of the validity and

reliability of these tests can be found at the end of this chapter. These tests will serve as a comparison of the two groups before any treatment is given. The average I.Q. score as well as the average achievement scores for both groups will be compared and will serve as the pretest in the experiment.

After screening through the use of group tests parental permission will be obtained to do further individualized testing and observing of the potential gifted individuals to correctly identify the gifted or talented in these groups. The Stanford-Binet Intelligence Test will be individually administered to those students who had an I.Q. score of 120 or more and showed high levels of achievement on the group tests given earlier. Those students scoring 130 and above on the Stanford-Binet test with scores on the achievement test of 95% in at least three areas, will be carefully observed by the teacher as very possibly gifted students. The teacher will go over the Rating Scale of Behavioral Characteristics for each student and send an Inventory to their parents to be filled out on their child. (See Appendix.)

If test scores and observations determine that the child is gifted then the next step is to work out a program for each student properly identified as gifted or talented in the experimental group. This program will have to be set

up to meet the needs of each individual. This can only be done after careful study of test scores and the teacher's observations of the student. Whether the program is an enrichment program or an acceleration program will depend upon the individual's needs.

The experimental treatment, then, is the individualized program that the gifted student will be involved in. In the control group the bright students will go through the regular curriculum for their grade level without any kind of special provisions made for them.

This experiment will take a full school-year to complete. The Otis-Lennon Mental Ability Test and the Stanford Achievement Test (Primary I - Form A) will be given to both the control group and the experimental group within the first three or four weeks of school. Within the next couple of weeks the teacher will administer the Stanford-Binet Intelligence Test to each student who scored above the cut-off point on the group intelligence test and also scored high on the achievement test. As soon as possible all the test scores and observations will be compared and analyzed so that the programs can be set up. These programs will be in operation during the last three quarters of school. During the last three or four weeks of school both the control group and the experimental group will be given the posttest,

which is the Stanford Achievement Test (Primary I - Form B). Again, the average scores from each group will be compared.

Comparisons will be made to see if the scores of the students involved in the gifted programs show a significant increase in achievement since the pretest at the beginning of the year. Comparisons will also be made between the gifted students in both groups to see if the special programs had any significant effect upon the achievement scores of the subjects involved in the experimental treatment.

If the hypotheses is right, there will be a significant difference in the achievement scores of the students who were involved in the individualized educational program, but Chapter III does not show the outcome of the research because for Master's Seminar, The Lindenwood Colleges does not require that the study be completed.

Technical Information on Tests

The Stanford Achievement Test and the Otis-Lennon Mental Ability Test used for screening in this study were chosen because they are intercorrelated. These intercorrelations are helpful to the classroom teacher in two ways. First, they provide information about the interrelationships among the school subjects as measured by these tests. Secondly, they give data which are useful for the interpretation of test results. A study of this data may provide a great deal of insight into

scholastic achievement and assessment. The Stanford Achievement test covers areas of vocabulary, reading, word-study skills, math and listening.[52] The Otis-Lennon test reflects the ability of an individual to reason abstractly with a wide sampling of verbal, numerical, symbolic, and figural stimuli which are important for success in academic work.[53]

The reliability of a test may be defined as a measure of percision or consistency. This consistency of measurement may be indicated by a correlation coefficient or by the standard error of measurement. Two types of reliability coefficients are presented for each test: one in terms of Split-Half estimates and the other on the Kuder-Richardson formula. (See Tables 1 and 2). The Split-Half Reliability is done when a test is divided into two halves for the purpose of determining reliability, and an attempt is made to establish two equivalent half-length tests each of which represents the content and specifications of the test as a whole. The Kuder-Richardson procedures result in an estimate of reliability which indicates the internal consistency of a test. These reliability coefficients reported in the third column of Table 1 and the last column of Table 2 present some evidence to support the claim that the tests are measures of general mental ability.[54]

The validity of a test may be assessed by examining data which furnish evidence concerning the extent to which

the test measures those behaviors for which it was designed. The content of the Otis-Lennon test and the Stanford Achievement test can be examined and will determine the extent to which the various items appear to measure the verbal, numerical and symbolic reasoning abilities associated with the assessment of general mental ability.[55]

TABLE 1[56]

Reliability Coefficients of Stanford Achievement Test For Beginning of Grade 2

Test	No. Items	Split Half	K-R #20	Std. Error Meas.
Vocabulary	37	.87	.86	2.5
Reading Part A	45	.95	.94	2.5
Reading Part B	42	.95	.95	2.4
Word Study Skills	60	.94	.93	2.8
Math. Concepts	32	.81	.81	2.3
Math. Computation and App.	32	.90	.87	2.2
Listening Comp.	26	.81	.77	2.0

TABLE 2[57]

Reliability by Grade for Otis-Lennon Mental Ability Test

Level	Grade	N	No. of Items	Raw Score		Correlations	
				Mean	S.D.	Split Half	K-R #20
Pri. II	1	14,044	55	35.11	9.83	.90	.90
Elem. I	2	13,416	80	37.41	11.08	.89	.88
Elem. I	3	13,460	80	45.75	12.65	.92	.91

APPENDIX A

PARENT INVENTORY

and

RATING SCALE FOR THE IDENTIFICATION OF GIFTED AND TALENTED STUDENTS

BY

Joseph S. Renzulli

PARENT INVENTORY

Name _____ Date _____

School _____ Grade/Cycle _____

Birthdate _____ Teacher _____

A. What special talents or skills does your child have?

_____

B. Give examples of behavior that illustrate this.

_____

C. Check the following items as best describes your child as you see him or her.

	LITTLE	SOME	A GREAT DEAL
1. Is alert beyond his years			
2. Likes School			
3. Has interests of older children or of adults in games and reading			
4. Sticks to a project once it is begun			
5. Is observant			
6. Has lots of ideas to share			
7. Has many different ways of solving problems			
8. Is aware of problems others often do not see			
9. Use unique and unusual ways of solving problems			
10. Wants to know how and why			

	LITTLE	SOME	A GREAT DEAL
11. Likes to pretend			
12. Other children call him/her to initiate play activities.			
13. Asks a lot of questions about a variety of subjects.			
14. Enjoys and responds to beauty.			
15. Is able to plan and organize activities			
16. Makes up stories and has ideas that are unique			
17. Has a wide range of interests.			
18. Is able and willing to work with others			
19. Likes to do many things and participates wholeheartedly.			
20. Likes to have his/her ideas known.			

D. Reading interests (favorite type of books) _____

_____

E. Favorite School Subject _____

F. General Attitude toward school _____

G. Hobbies and special interests (collections, dancing, making models, swimming, singing, painting, drama, etc.)

_____

H. What special lessons, training, or learning opportunities does your child have outside school?

_____

I. Favorite playtime, leisure time activity_____

_____

J. Additional information you feel would be helpful.

_____

_____

RATING SCALE FOR THE IDENTIFICATION OF GIFTED AND TALENTED STUDENTS

Name_____ Grade_____

School_____

_____
Signature of Teacher

	Check appropriate column		
	YES	NO	UNCERTAIN
A. LEARNING			
1. Has unusually advanced vocabulary for age or grade level.	___	___	___
2. Has verbal behavior characterized by "richness" of express elaboration, and fluency.	___	___	___
3. Possesses a large storehouse of information about a variety of topics beyond the usual interests of age peers.	___	___	___
4. Has rapid insight into cause-effect relationships; tries to discover the how and why of things; asks many provocative questions.	___	___	___
5. Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things.	___	___	___
6. Is a keen and alert observer.	___	___	___
7. Reads a great deal on his/her own; does not avoid difficult materials.	___	___	___
8. Tries to understand complicated material by separating it into respective parts; reasons and thinks things out.	___	___	___
9. Likes structure and order but not static procedures.	___	___	___

B. MOTIVATION	YES	NO	UNCERTAIN
1. Becomes absorbed and involved in certain topics or problems; is persistent in seeking task completion.	—	—	—
2. Requires minimal drill to grasp concepts.	—	—	—
3. Follows through with tasks when motivated.	—	—	—
4. Is self-critical; strives toward perfection.	—	—	—
5. Prefers to work independently; needs minimal direction from teacher.	—	—	—
6. Often is self-assertive.	—	—	—
7. Has tendency to organize people, things and situations.	—	—	—
8. Is concerned with right and wrong, good and bad; often evaluates and passes judgment on events, people and things.	—	—	—
9. Evidences power of concentration.	—	—	—
C. LEADERSHIP			
1. Carries responsibility well; follows through with tasks and usually does them well.	—	—	—
2. Is self confident with age peers as well as adults.	—	—	—
3. Seems comfortable in making presentations to the class.	—	—	—
4. Is generally easy to get along with.	—	—	—

	YES	NO	UNCERTAIN
5. Can express himself well; has good verbal facility and is usually well understood.	___	___	___
6. Adapts readily to new situations and adjusts to changed routines.	___	___	___
D. CREATIVITY			
1. Displays a great deal of curiosity about many things.	___	___	___
2. Generates a large number of ideas or solutions to problems and questions.	___	___	___
3. Displays intellectual playfulness; fantasizes; imagines; manipulates ideas by elaboration or modification.	___	___	___
4. Is a high risk taker; is adventurous and speculative.	___	___	___
5. Displays a keen sense of humor.	___	___	___
6. Is individualistic; does not fear being different.	___	___	___
7. Predicts from present information.	___	___	___
8. Shows ability in oral expression.	___	___	___
9. Demonstrates exceptional ability in the fine or performing arts.	___	___	___
10. Is sensitive to melody, rhythm, and other qualities showing music appreciation.	___	___	___
11. Demonstrates exceptional ability in the practical or mechanical arts.	___	___	___

	YES	NO	UNCERTAIN
12. Shows exceptional skill and coordination in athletics.	___	___	___

Adapted from:

Renzulli, Joseph S. and Hartman, Robert K. Scale for Rating Behavioral Characteristics of Superior Pupils.

APPENDIX B

LETTERS TO PARENTS

Date_____

Dear_____,

_____records indicate that he/she might be eligible for the GIFTED Program which provides additional work for students who excel in one or more academic areas. In order to make a final determination, we are requesting your permission to administer additional individual tests. The information gained will be held in strict confidence for use by professional school personnel. Should you be interested, we will be happy to share the results with you at a mutually convenient time. If you should have questions, fell free to contact me at 447-4232.

Sincerely,

_____

- -

Permission is granted to administer the necessary tests to

_____.

Signature_____

Date_____

Date_____

Dear_____,

We are pleased to inform you that_____ has met all of the requirements necessary for placement in the GIFTED Program for the current school year. This program will provide opportunities for him/her to work on challenging activities that cannot be provided in a regular classroom setting. These activities will be at a time that are mutually convenient for all involved. We feel this is an excellent opportunity for your son or daughter. In order to begin planning a program, it is necessary to obtain your permission. Should you have any questions, feel free to contact me at 447-4232.

Cordially,

_____

- -

Permission is granted to place _____ in the GIFTED Program.

Signature_____

Date_____

FOOTNOTES

[1]Milton J. Gold, Education of the Intellectually Gifted (Columbus, Ohio: Charles E. Merrill Books, Inc. 1965), p.7.

[2]Ruth A. Martinson, "The Gifted and Talented: Whose Responsibility?" Principal (February, 1972), p. 46.

[3]Ibid., p. 47.

[4]A. Harry Passow, "The Gifted and the Disadvantaged" Principal (February, 1972), p. 28.

[5]Lewis M. Terman, et al., Genetic Studies of Genius: Mental and Physical Traits of a Thousand Gifted Children, vol. 1 (Stanford, California: Stanford University Press, 1926), pp. 26-28.

[6]Ibid., pp. 30-34.

[7]A. J. Tannenbaum, "Recent Trends in the Education of the Gifted." Education Forum, Vol. 26 (March 1962) pp. 335-336.

[8]Ibid., pp. 337-340.

[9]Ibid., pp. 340-342.

[10]S. P. Mariland, 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 Office of Education (Washington, D.C.: U.S. Government Printing Office, 1972), pp. 41-44.

[11]Terman, et. al., Genetic Studies of Genius: Mental and Physical Traits of a Thousand Children. p. 43.

[12]Ibid., pp. 48-53.

[13]Paul A. Witty, "Who Are the Gifted?", N. B. Henry, ed., Education of the Gifted, Fifty-seventh Yearbook of the National Society for the Study of Education, pt. 2, (Chicago: University of Chicago Press, 1958), p. 62.

[14]Robert F. DeHaan and Robert J. Havighurst, Educating Gifted Children, 2nd ed. (Chicago: The University of Chicago Press, 1961), p. 15.

[15]Merle R. Sumption and Evelyn M. Luecking, Education of The Gifted (New York: The Ronald Press Co., 1960), P. 5.

[16]Marland, Education of the Gifted and Talented, p. 36.

[17]Joseph S. Renzulli, "What Makes Giftedness?", Phi Delta Kappan, vol. 60 (November 1978), p. 180.

[18]Ibid., p. 182.

[19]Owenita Sanderlin, Teaching Gifted Children (New York: A.S. Barnes Company, 1973), p. 71.

[20]National Education Association, Administration Procedures and School Practices For The Academically Talented Student In The Secondary School (Washington, D.C.: National Education Association Press, 1960), p. 32.

[21]George I. Thomas and Joseph Crescimbeni, Guiding The Gifted Child (New York: Random House, 1966), pp. 54-55.

[22]Harry A. Passow, et. al., Planning For Talented Youth (Bureau of Publications, Teachers College, Columbia University, 1955), p. 19.

[23]Louis A. Fliegler, Curriculum Planning For The Gifted (Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1961), p. 18.

[24]Ruth Martinson and Leon M. Lessinger, "Problems In The Identification of Intellectually Gifted Pupils," in Educating The Gifted, ed. French (Chicago: Holt, Rinehart, and Winston, 1964), p. 85.

[25]Ibid., pp. 84-86.

[26]Robert F. Dehaan, "Identifying Gifted Children," Educating The Gifted, ed. French (Chicago: Holt, Rinehart, and Winston, 1964), p. 66.

[27]Ibid., p. 67.

[28]Fliegler, Curriculum Planning For The Gifted, p. 18.

[29]North Central Association of Colleges and Secondary Schools, Superior and Talented Student Project, Identification, (Chicago: The Association, 1958), pp. 8-9.

[30]Lewis M. Terman, Genetic Studies of Genius: The Gifted Group at Mid-Life, vol. 5 (Stanford, California: Stanford University Press, 1959), p. 148.

[31]James Alvino and Jerome Weiler, "How Standardized Testing Fails To Identify the Gifted and What Teachers Can Do About It," Phi Delta Kappan (October 1979), p. 107.

[32]Ibid., pp. 108-109.

[33]Margery Thompson, "Identifying the Gifted," Principal (February 1972), pp. 43-44.

[34]Martinson and Lessinger, Educating The Gifted, p. 85.

[35]Milton J. Gold, Education of the Intellectually Gifted, pp. 136-138.

[36]William K. Durr, The Gifted Student (New York: Oxford University Press, 1964), p. 73.

[37]Sidney L. Pressey, Educational Acceleration: Appraisals and Basic Problems, (Columbus, Ohio: Ohio State University, 1949), p. 2.

[38]Durr, The Gifted Student, p. 104.

[39]Ibid., p. 105.

[40]Gertrude H. Hildreth, Introduction To The Gifted (New York: McGraw-Hill Book Company, 1966), p. 281.

[41]Durr, The Gifted Student, p. 102.

[42]Antonia B. Morgan, "Critical Factors in the Academic Acceleration of Gifted Children: Hypotheses Based on Clinical Data" Psychological Reports (March 1957), pp. 71-77.

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[44]Durr, The Gifted Student, pp. 122-124.

[45]Passow, et. al., Planning For Talented Youth, p. 36.

[46]Norma E. Cutts and Nicholas Mosley, Teaching the Bright and Gifted, (Englewood Cliffs, N.J.: Prentice Hall, Inc. 1957), pp. 38-39.

[47]Ruth A. Martinson, "The Gifted and Talented: Whose Responsibility?" Principal, (February, 1972), p. 48.

[48]Ibid., p. 47

[49]Ibid., pp. 47-48.

[50]Ibid., p. 49.

[51]Ernest R. House, "Whose Goals? Whose Values? Whose Kids?" Principal, (February 1972), p. 61.

[52]Richard Madden, et. al., Stanford Achievement Test (New York: Harcourt, Brace, Jovanovich, Inc., 1973), pp. 15-16.

[53]Arthur S. Otis and Roger T. Lennon, Otis-Lennon Mental Ability Test, Elem. I Level, Manual for Administration (New York: Harcourt, Brace and World, Inc., 1968), p. 18.

[54]Ibid., pp. 20-21.

[55]Ibid., p. 22.

[56]Madden, Stanford Achievement Test, p. 15.

[57]Otis, Otis-Lennon Mental Ability Test, p. 20.

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