

A STUDY OF GIFTED STUDENTS AND THEIR DEVELOPMENT IN A SOCIALIST DEMOCRATIC SOCIETY

By

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PART I

Introduction

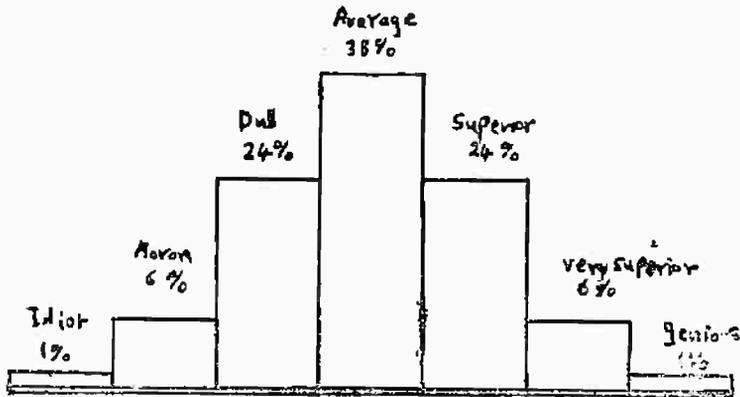
Since the early days of history people could recognize that individuals were not the same; neither in their physical shapes and capacities, nor in their mental abilities. The folk-lore of all old civilizations tell us how they distinguished between the superior, the normal, the feeble-minded and the mad.

This does not necessarily mean that they conducted scientific study among the population to identify and put each individual in his own category, but at least we can consider the attempt of Plato 2300 years ago to speculate upon ways of telling which children were gifted so that they might be educated for leadership in the state. He was convinced that Greek democracy would be no better than its leadership and he wished to educate superior **youth** for this important task¹. The ancient Egyptians used to invite a number of foreign students who were sons of leaders or **bright children** (as potential leaders) to their institutions for political reasons. The Romans, the Arabs, and the Turks were aware most of the time of the existence of the exceptional children. They tried to help the defective children and to make use of the gifted.

In this paper we will concern ourselves with the gifted children and their place in our present day socialist democratic society. As a matter of fact during the last few centuries which were accompanied with the fast development in all aspects of life, little attention was paid to make use of the gifted or even study them scientifically. Attention to gifted children was:

stimulated by the publication in 1869 of Galton's *Hereditary Genius* which marked the beginning of the era of strong interest in individual differences². Since this time evidence accumulated from many years of research and observation indicated that the range of intellectual abilities, interests and capacities among individual human beings is very great³. (see Fig. 1).

The intelligence of the population



You will notice on the graph that the highest percentage of the population (38 per cent) is of average intelligence. An additional 48 per cent of the population is divided equally on either side of the average group. These are the somewhat-less-than-average and the somewhat above average segments of the population. The feeble-minded and the gifted, the extreme ends of the graph, comprise only about 14 per cent of the total population.

Who Are The Gifted Children :

The gifted group are defined as those who have special abilities or talents of social value. These include :

1. High intelligence.
2. Talent in creative fields, such as art, music, and writing.
3. Special abilities in a variety of socially useful areas, such

* After Thelma Guin Thurstone, and Katharine M Byne. *Mental abilities of children*, science research assn. Chicago, 1951, p. 9.

as mechanics, science, dramatics, athletics, human relations, social organization.

4. Creative talent or the ability to make new and novel solutions to problems⁴.

In general, we may assume that with few exceptions, the gifted children will have superior intelligence, though not always the very highest. Within this category the child must rank in the top 2 or 3 percent of the age group in at least one area of special significance, such as art, verbal intelligence, or spatial imagination. The types of talent to be included are those which have social value and are of sufficient complexity to permit further development. Hence we will concern ourselves with children who have high intellectual ability and children with creative ability. Creative children are those who have unusual ability to evolve new methods and improved procedures for doing things. They are resourceful and have great initiative. The child with unusual creative ability usually has high intellectual ability, though many children with high intellectual ability do not have **high creativity**. The child who excels in this area will usually have other talents in addition to his creative ability⁵. Mentally gifted children have a high degree of general intelligence in the sense of the ability to do abstract thinking and other types of relational thinking. Those children rate high in respect to the general intelligence factor which Spearman designated by the letter "G". In terms of Thurstone's theory they possess to a high degree most if not all, of the eight mental abilities. According to Thorndike, they excel in the abilities involved in "abstract" intelligence. The mentally gifted are characterized by "power" that is, they are able to do mental tasks of a high degree of difficulty. The mentally gifted are alert and quick. Spearman thought that intelligence and speed of response were not separable to any great degree. The mentally gifted are also characterized by broad attention-span, by a high degree of insight into problems, and by ability to generalize⁶.

There is a traditional belief that gifted children are usually one sided and they are almost always weak, suffering self-torment and unhappy. We do not know whether they are more happy or less happy than the average person in the generality. We do know that they are better fed, better housed, and better doctored than the average person, that they are in a position to

care better for their children, and that they have less reason generally to be anxious about the future. Such things can't insure happiness, but they would seem to favor it. The more important results, however, can be stated : children of I.Q. 140 or higher are in general, appreciably superior to unselected children in physique, health and social adjustment; markedly superior in moral attitudes as measured either by character tests or by trait ratings; and vastly superior in their mastery of school subjects as shown in a three hour battery of achievement tests⁷.

Special attention was given the geniuses who had sometime or other been labeled as backward in childhood and in every one of these cases the facts clearly contradicted the legend. In these cases one notes a tendency for the direction of later achievement to be foreshadowed by the interests and preoccupations of childhood⁸. Terman says, "Gifted children do work of superior quality in all subjects requiring abstract thought, but only slightly better than average in subjects depending upon manual dexterity or special talent." The reason why many children with high I.Q.'s have poor muscular control is because muscular development is not so dependent upon mental age as upon physical development⁹. Furthermore, Terman found in his gifted group that success is associated with stability rather than instability, with absence rather than with the presence of disturbing conflicts in short, with well balanced temperament and with freedom from excessive frustrations¹⁰.

Even the famous idea of C.F. Hohan and Edgar Dale about using films, "the effectiveness of films with children of a given level of "Intelligence" must be expected to vary with the subject taught and with the learning out-comes measured¹¹". Where effectiveness is considered in terms of verbal responses to information tests, films seem to be relatively more effective for "dull" than bright children, is not accepted by recent studies. Herbert Smith in conclusion of his study about that says, "In view of the probable penalty which the use of gains places on brighter students, and the depressing effect on the correlation coefficient of unreliability in the measuring instrument, the positive correlations obtained seem to be conclusive evidence that bright children learned more of the information demanded by the five different tests employed in the two studies than dull children¹²".

As a summary to answer who are the gifted we can use the conclusion of Lewis Terman¹³ of his study which was designed to discover what physical, mental and personality traits are characteristic of gifted children as class, and what sort of adults they become. The subjects investigated were selected by methods which insured that they would be fairly representative of the top 1 percent of the general school population in I.Q. All but a few members of the group were first tested and studied in 1921-22. The follow-up has included two extensive field studies, with retests in 1927-28 and 1939-40. On several follow-up studies by mail (the latest 1945) some of the most significant findings are as follows :

1. The typical gifted child is superior not only in intelligence but in practically all the traits that were studied, including school achievement, versatility, character traits, play information, social adjustment, and physique.

2. As adults, the group as a whole averaged in tested intelligence about 1.0 S.D. above the average college students, and between 2.0 and 2.5 S.D. above the average adult. None of the subjects have regressed to average adult intelligence, but perhaps 10 percent have regressed from the 99th percentile to the 85th percentile or below.

3. The mortality in the group has been only about four-fifths of the expectancy for the general population of comparable age. The insanity rate has been low, and serious maladjustment (other than insanity) amounted to only 6 percent by 1945.

4. Nearly 90 percent of the group have had some schooling above the secondary level, and about 70 percent have graduated from college. Two-thirds of the men, and three-fifths of the women who graduated from college have had one or more years of graduate work.

5. The school records in general have been superior at all educational levels, but a good many of the subjects have failed to achieve in proportion to their intellectual ability. Of the numerous causes responsible for such failure, one of the most important has been the absence of educational procedures adapted to children of exceptional ability.

Limitation of the Study :

The very fact why we are concerned with the study of the gifted is the trend in this age towards mass production. I do not only mean the modern method in industry, but I really also mean the impact of the quick development in all aspects of life. The competition which exists between men and nations and what follows of involving the masses of people and providing service and education for all the people, may be, because it is the best way to produce optimum efforts. It is not a question of the direction in which modern life is leading us, but rather how can optimum achievement by the gifted be accomplished. It is clear that the basic idea of Plato is still valid, "Put the right man in the right place". If we want to choose the right man for leadership and responsibility, then they are the gifted individuals. It is the responsibility of society and education, then to locate these individuals and give them the suitable training for their own benefit and our own welfare.

Prior to speaking about how to locate these children and how to use them, we like to point to the special difficulties which stood in the way of the progress of such study. Terman lists four factors which operated to limit research on the gifted:

1. The influence of current beliefs, partaking of the nature of superstitions, regarding the essential nature of the great man who has commonly been regarded by the masses as qualitatively set off from the rest of mankind, the product of supernatural causes, and moved by forces which are not to be explained by the natural laws of human behavior.

2. The widespread belief, hardly less superstitious in its origin, that intellectual prococity is pathological.

3. The vigorous growth of certain so called democratic sentiment in Western Europe and America during the last few hundred years, which has necessarily tended to encourage an attitude unfavorable to a just appreciation of native individual differences in human endowment.

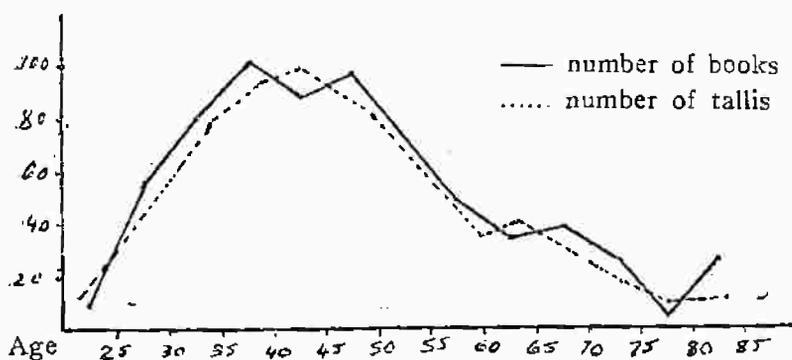
4. The tardy birth of the biological sciences, particularly genetics, psychology and education¹⁴.

PART II

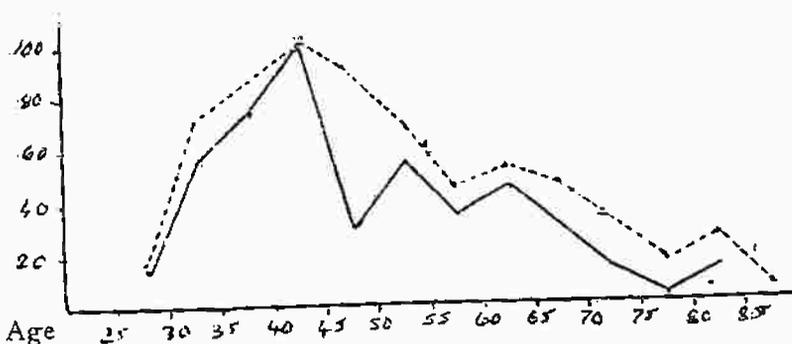
Identifying the Gifted

The studies made in the 1930's by Stoke and Lehman, as well as by others, have revealed that gifted children are usually found in average and inferior socioeconomic groups because of the greater number of children that make up such groups. And despite earlier implications, based upon percentage of their quota, that the gifted are to be found primarily among the professional and higher occupational group. Lehman and Stoke concluded from their studies of the number of gifted children in unselected populations that the great majority of children with I.Q.'s above 140 come from non-professional classes¹⁵. The identification of gifted children is not as easy as it appears at first thought. Sometimes the lack of interest in classroom routine manifested by many gifted children has misled the teacher in many cases and caused her to regard them as dull or slow learning individuals. Attitudes growing out of frustration have caused gifted children to be classified as delinquent and socially maladjusted cases. There is need for careful systematic identification in all schools. Many schools make no effort to learn who the gifted are, and still others make the attempt in such haphazard fashion that the results have little reliability and still less usefulness¹⁶. It is a matter of high importance though to locate these gifted and as early as possible. These early identified gifted are the geniuses and leaders of the future. Both the evidence on early mental development of historical geniuses and that obtained by follow-up of gifted subjects selected in childhood by mental tests points to the conclusion that capacity to achieve far beyond the average can be detected early in life by a well constructed ability test that is heavily weighted with the "G" factor¹⁷.

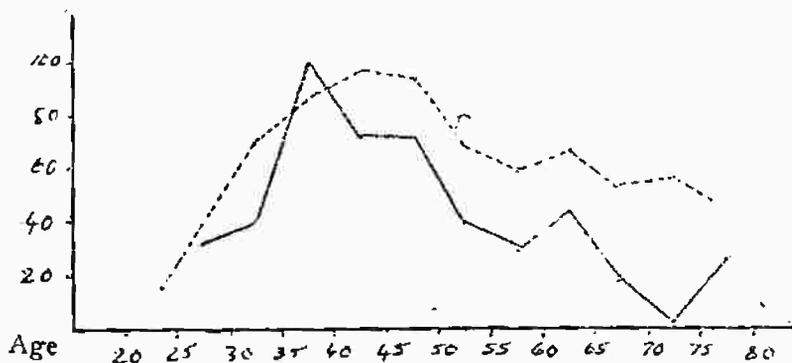
In the following pages we located some charts which illustrate the age versus production in different fields¹⁸. We can see that the best work in science is done between ages 25-35 and rarely later than 45. The peak productivity for works of lesser merit is usually reached 10 years later in philosophy, art, psychology, and education, etc.



Age versus production of 128 philosophical works each of which was alleged by one or more of the 50 historians to be authors (chief work). (Lehman P. 44)



Age versus production in educational theory and practice.
 — one superior contribution by each of 75 individuals born from 1750-1850.
 425 contributions of lesser merit by 206 individuals born from 1750-1850. (Lehman P. 137)

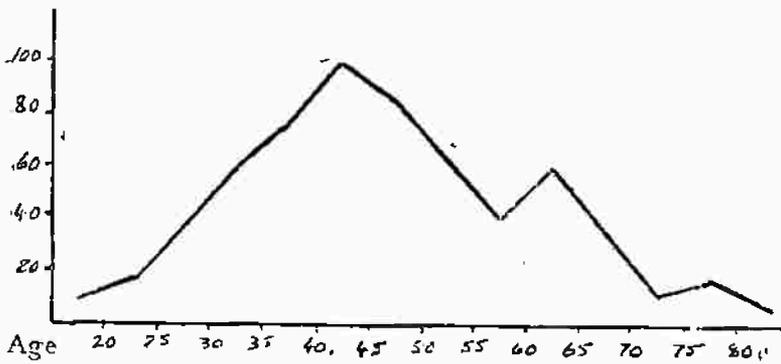


Age versus production in psychology.
 — 85 superior contributions by 50 individuals.
 4687 contributions of lesser merit by 339 contemporary psychologists. (Lehman P. 136)



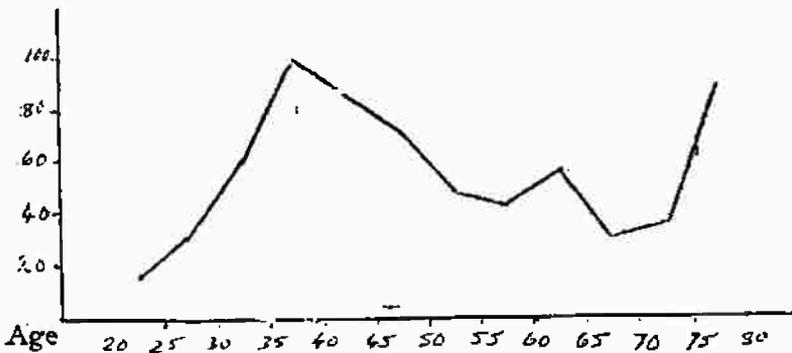
Chronological Ages

Average number of practical inventions during each five year interval of the inventors' lives. Based on 554 inventions by 402 inventors now deceased. (Lehman P. 10)



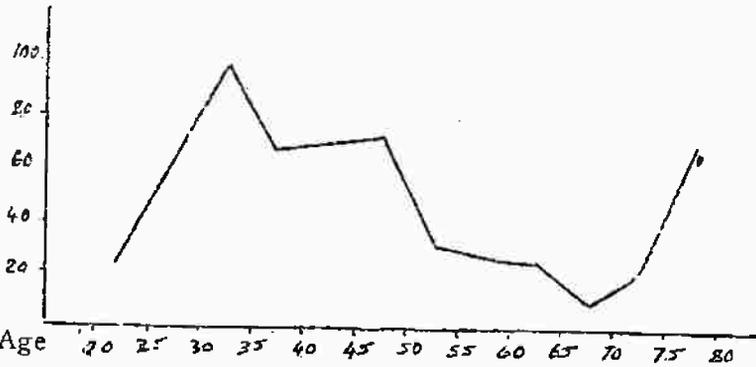
Chronological Ages

Age versus the production of 274 superior prose selections by 62 authors. (Lehman P. 111)

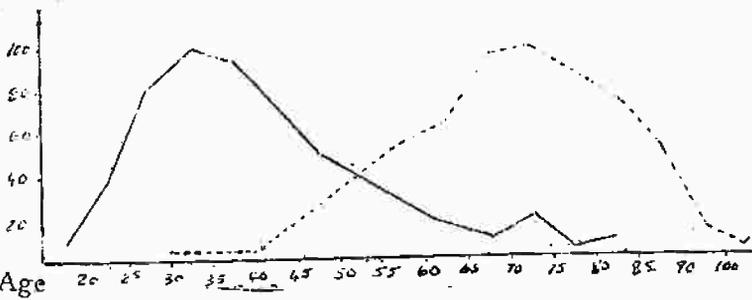


Chronological Ages

Age versus important pictures in the Louvre. Based on 53 paintings by 32 artists. (Lehman P. 73)



Average number of contributions by physicists during each five-year interval of their lives. Based on 141 contributions by 90 physicists now deceased. (Lehman, P. 9)



993 significant contributions by 244 noted chemists. Percentage of the 244 chemists who died during each five-year interval. (Lehman, P. 17)



Age versus medical discoveries and inventions. Data for 159 individuals who made 188 medical discoveries and inventions. (Lehman, P. 27)

We can see from this study of Lehman that the youth of high achievement potential should be well trained for his life-work before too many of his most creative years have been passed.

How to Identify the Gifted :

It is clear that in any program concerned with the identification of gifted children, it is important to develop methods of detecting individuals of high intellectual ability as well as those who exhibit special gifts in such areas as the arts, music, mechanics, science, social relations, leadership and organization¹⁹. However, we should be very careful in our judgments and conclusions. We should not confuse mental ability with scholastic ability. A child may do poorly in school because he is not high in verbal comprehension and word fluency. Learning in our schools depends largely on these two abilities. But a child may possess high mental abilities that the school does not utilize. It takes intelligence to find the cause of a motor knock, to lay out a dress pattern economically and to plan the scaffolding for building a new house — yet the child may not have the opportunity to show these abilities in class work. We should not label a child "smart" or "dull" on the basis of his ability in one or two areas of intelligence²⁰.

Enlightened by all the limits to the way of identifying the gifted, there are three general methods of identifying superior children which **supplement each other** and which, taken together, provide an excellent program of identification²¹.

1. **Standardized Tests** : Standardized tests used with good common sense are excellent means of arriving at the gross mass of gifted children. Such tests include group intelligence tests, vocational aptitude tests, academic achievement tests and the like. If these tests are followed by a Sanford-Binet, after careful study of the child emotionally and socially, such procedures will come as near identifying the gifted as any other means. There are, however, some who, believing the total organism of the child to be a combination of physical, emotional and intellectual traits, say that these traits operate so closely in an individual that it is impossible to measure them separately²². On the other hand, the adequacy of the intelligence test score itself

(I.Q.) in giving a true picture of the child's intellectual endowment is conditioned in part by the child's performance and cooperation at the time of the test. In evaluating the results, a reviewer needs to take many other factors into consideration. The test score itself usually gives only the barest clue to other abilities of the gifted, such as initiative, creativeness, and intellectual curiosity²³. Furthermore, there are more questions about the validity of the tests. Terman said: our conclusion is that for subjects brought up under present-day educational regimes, excess in I.Q. above 140 or 150 adds little to one's achievement in early adult years. The data revealed that above the I.Q. level of 140, adult success is largely determined by such factors as social adjustment, emotional stability, and drive to accomplish. Why is it that high I.Q. has proved so generally disappointing in fulfilling the promise some investigators held for it? An answer to this recurring question should be of interest to teachers in their attempts to reorient their thinking concerning the role of intelligence in modern life.

If by gifted children we mean those youngsters who give promise of creativity of a high order, it is doubtful if the **typical intelligence test is suitable for use in identifying them.** For creativity posits originality, and originality implies successful management, control and organization of new materials or experiences.

Intelligence tests contain over-learned materials which, as Rockwell states, call for stable predictable response, not original creative reaction. It is evident, then that an acceptable criterion for giftedness must be sought primarily outside the provinces covered by the intelligence test. For the content of the intelligence test is patently lacking in situations which disclose originality or creativity.

Another criticism of the intelligence test which may help explain its failure in the identification of creative ability lies in its maker's disavowal of concern for the motive or drive which actuates high attainment. The intelligence test neglects the role of feeling and motive and requires only the habituated response of the child to situations which are "set" and which are "low in feeling tone"²⁴. After all this criticism for using tests, and while current tests of general intelligence will not pick out all the

mentality gifted children in any group, **these tests** are probably the most effective single instrument now **available** for selecting such children. About aptitudes, it is a controversial issue. So far as identifying gifted children is concerned, there is, at present, a tendency to use such aptitude tests as are **available** in order to cast some light at least on the nature of the abilities of the gifted. The value, of those tests depends upon the background and training of those who interpret them²⁵.

2. **Teacher's judgment**: A clear idea of the nature of intelligence is little understood by the best of educators. Disregard for the age of the child is a common error in choosing a bright child. Over-aged pupils, doing excellent with children chronologically younger, are sometimes erroneously judged bright by teachers or people. The child who has fine character traits, whose personal appearance is flawless, and who behaves himself well, surely makes a better impression than one who causes the teacher untold difficulty. We ~~mean then~~ that a combination of teachers' judgment and the result of standardized tests is much better than the use of tests alone as a means of choosing the bright child²⁶.

3. **Classroom Performance**: No one deny that good school marks usually indicate good intelligence. Certainly, if the consensus of opinion of several teachers is that certain children rank high in their school subjects, and if these children are not over-age for their grade, school marks then might be used as the basis of selecting gifted children²⁷. However, we know that school marks can't be proof for anything, we only can say that the probability of finding more gifted children between the children with high school marks is more than the probability of finding them between children with low school marks.

Austing H. Turney found that the correlation between marks and I.Q. is not more than the correlation between marks and any of the other factors²⁸.

"The average correlation between marks and each of these variables for the high school classes of 1926-1927 was :

Marks and Industry	.72
Marks and Cooperativeness	.62
Marks and Perseverance	.74
Marks and Ambition	.77
Marks and Dependability	.75
Marks and I.Q.	.64

Each of these traits appear to be equal to or greater than I.Q. in their effect upon achievement as measured by teacher's marks in the University High School. Inter-correlations indicated that these traits may be measures of the same factor to some extent."

Anyhow, though we can say that we do not have a perfect means to identify the gifted we can say that the best method is the best available one. Hence, we suggest a combination of the three methods which we spoke about. We can claim that the results which we will get out of it can be accepted for the time, for all practical purposes.

PART III

Developing the Gifted

The question of how to handle gifted children is a question about the core of Democracy. The people who urge for special care and special education and special future are arguing that in the name of democracy. They say that a democratic society should give individuals equal opportunities to develop their personalities to their maximum capacity. And as long as the gifted or the exceptional children can't achieve that in the common system, then it is their right and the duty of society to provide for each individual person the kinds and quality of educational experience needed to develop, to the fullest extent possible, his unique combination of personal characteristics. Bearing in mind that the improving of the capacities of these people is improving the general capacity of society, and denying them special care which will affect the development of their capacity is a sort of waste in society resources as well as denying the democratic concept of equality.

On the other hand, people, especially, in older days who were arguing against special care of the gifted, based their opposition on the notion that special education means special privilege which is undemocratic practice.

Democracy according to Bayles²⁹ is : "It is a form of socio-governmental organization in which there is equality of freedom or opportunity to participate in making decision on matters of

group or individual concern, and equality of obligation or responsibility to abide by such decisions and carry them out”.

Democratic education then is founded on the ideal of opportunity. Too often equality of opportunity has meant **Identical opportunity**. Opportunity to be equal must be measured in terms of individual abilities and capacities to the end that all will be challenged to utilize their powers to the fullest. Society will reap a rich reward from such policy. It makes possible the full development of individual capacities so that both the individual and the society which educates him may be mutually benefited. As John Dewey says, “If democracy has a moral and ideal meaning, it is that a social return be demanded from all and that opportunity for development of distinctive capacities be afforded all.”³⁰

There is nothing undemocratic in utilizing all social resources for the betterment of society. No people can afford to disregard the differences in human materials. Special education aims to prepare the child of low mentality for a place in society for which he is best fitted. Is it any less important that the child of superior mentality be prepared for social leadership?³¹

Special education is not favoring some individuals, and does not mean special privilege, as long as it is provided according to the rule and not for personal reasons. The gifted child is both an asset and a responsibility. He is an asset of uncalculated value to society. His potentialities for good are difficult to overestimate. Our socioeconomic structure, both national and international, demands leadership of the highest quality and keenest intelligence. Where else may we look for this type of leadership except among those of intellectual superiority?

The basic concepts upon which the special education movement rests are quite simple. It is assumed that the first step in education is a careful diagnosis of the abilities, disabilities, capacities, and adjustment of an individual, using the greatest degree of expertness obtainable in a given school setting. The second step is to plan in terms of this diagnosis a program of education and training which will include the services of specialists, the development of special curricula, the use of special equipment or facilities, or the utilization of any other services,

devices or means which research or other experience has shown to have promise, and that may appear to be needed. The third step in the process is continuous evaluation of the progress of the individual and readjustment of the program as appears to be warranted by such evaluation³².

The situation of gifted education: In spite of the fact, that along with the increasing use of tests and perhaps largely as a result of it, there is a growing verbal interest, in improving educational methods for the gifted³³; only an extremely small percentage of school systems make any special adjustment in program to give the exceptionally superior child a full opportunity to develop his powers.

Some of the reasons why more do not, are that such programs may mean :

1. Increased financial outlay necessitated by special classes, program adaptations, additional supervisors, extra equipment, and similar expenditures.

2. Difficulty in securing teachers who have the knowledge and skill required to make curricular adjustments for the gifted or to conduct special classes for them.

3. Administrative difficulties encountered in making program adjustments and providing special classes.

4. General apathy toward the problem commonly expresses as, "why worry about the gifted? they'll get along all right."

An analysis of these factors would seem to indicate that the basic difficulty lies in the public attitude rather than professional practice³⁴. Now with reference to the need for special education, extensive and careful studies show that approximately 22 percent of all children are exceptional to the extent that at some time they need the benefits of specialized educational opportunities. At the same time similar studies abroad have shown that, in cities providing the **most** extensive facilities for the exceptional, only about 6 percent of the children, who differ most widely from the so-called normal and whose needs are most extreme, have been placed in special schools and classes. Sixteen

percent, or nearly three times as many as are ever placed in special schools or classes remain in the regular grades. The individualization and specialization needed by most of the children can and will continue to be provided by regular teachers in the regular grades.³⁵

Despite the foregoing evidence of gains, the gifted child continues to be grossly neglected throughout his school career. The U.S. office of Education reports that in 1948 *only* 4,080 elementary school pupils and 16,632 secondary school students were enrolled in special classes.³⁶

Methods of Education for the Gifted :

The principle that special provisions should be made for students of high ability because of their high ability is a part of the broader principle that all educational programs should be adapted to meet the needs and abilities of all students. Because the gifted children's intellectual interests and prospective futures differ from others, and because they can learn more and learn it more rapidly, the educational experience which gifted students should have in school and college ought not be identical with the experiences of other students. Some of their **educations should be the same**, but some of it should be different — different as to **kind, quantity, and level of insight**.³⁷

The methods which may be used throughout a school system for dealing with the mentally gifted may be listed as follows : 1. Homogeneous grouping. 2. Intraclass grouping. 3. Special classes. 4. Enrichment. 5. Acceleration.³⁸

1. Homogeneous Grouping : 39

Results of the studies indicate that homogeneous grouping will tend to enhance educational achievement when accompanied by provision for the abilities and needs of the groups concerned. The following general types of segregation and grouping have been tried by Dvorak and J. Rae : (1) Classification into three groups — bright, average and slow ; (2) Classification into two groups — average and above in one and slow in the other, or bright in one and average and dull pupils in the other ; and (3) No special clasification, but rather intraclass grouping.

It is impossible, however, to have complete homogeneous grouping of children. Howard Taylor gives the following principles as bases for the classification of gifted children :

1. Education should promote social adaptation.
2. Education should challenge fully the ability of the pupil.
3. Education should be within the physical and mental limits of the child.
4. Education should have depth and breadth through (enrichment) rather than height through acceleration.
5. Maturation is important as well as learning ability.
6. Education should provide for individual differences.

2. Intra-class Grouping :

It should be recognized that even though a twofold or threefold grouping is used, there will be also a great deal of intra-class grouping. The good teacher will recognize the variation in interests and abilities and will automatically conduct a sort of grouping so as to render the school work more effective. Group projects, individualized work, contract methods, and socialized recitations can be adapted to intra-class groupings. The intra-class grouping will furnish opportunities for leadership and for individual pupils to apply their knowledge, experiences, special abilities, and intelligence in a very desirable manner if the teacher knows his pupils and enlists their interest and help in planning units of experience. However, intra-class grouping, unless carefully planned and executed, tends to promote habits of laziness and superficial thinking among gifted children. The gifted child, like other children, needs materials that will challenge his abilities.⁴⁰

3. Special Classes and the Specialized High School :

Such a procedure has the advantage of presenting a situation where methods and materials suitable for gifted children can be used for enhancing educational development. Since keen minds will be helping and competing with one another, such an organization has possibilities for the development of increased initiative and motivation. There are certain inherent dangers in such an organization such as lack of democratic practices in living, lack of widespread opportunity to learn to work with and

adjust to individuals of different levels of mental ability. But this argument is specious. It is not true that individuals in a democracy live and work in groups as heterogeneous as the generality of the population. The home, the family, and the circle of friends which surround a person are often fairly homogeneous groups. On the other hand, it is certainly not true that forcing individuals of widely divergent abilities into a single class is the best method of teaching them to understand each other, or to make pleasant and mutually helpful contacts.⁴¹

4. Enrichment :⁴²

Professor Hillingworth adopted the statement by Thorndike that the education of the best thinkers should be an "education for initiative and originality". She contended that any study undertaken as "general discipline" for the minds of the rapid learners or any work which involved simply covering materials that would be required again in high school or college would be useless in achieving this objective. "The education given", she wrote, "should be such as will function specifically and uniquely in their lives. It should afford them a rich background of ideas, in terms of which they may perceive the significant of ideas, in terms of which they may perceive the significant features of their own times". Thus, the objectives of the curriculum for rapid learners differed perhaps in degree, but not essentially in kind from the objectives of a functioning curriculum for all children.

We see then that the method most often advocated is curriculum enrichment for the gifted without segregating them from ordinary class. Under ideal conditions enrichment can accomplish much, but **in these days of crowded schools**, when so many teachers are overworked, underpaid, and inadequately trained, curriculum enrichment for a few gifted in a large mixed class can't begin to solve the problem.⁴³

It is clear then that the amount of enrichment possible is usually limited by lack of special teachers, a dearth of time and inventiveness on the part of the regular teacher, and lack of facilities on the part of the school. No cases of too much enrichment have been recorded. If a broadly enriched program is offered the child during his first six or seven years in school he

will be challenged to build a background of experience which will stand him in good stead for future acceleration. Meanwhile, he will have an opportunity to mature socially and physically so he will not be at a loss to adjust as he moves ahead more rapidly in subsequent years.⁴⁴

5. Acceleration :

We can imagine the great unhappiness and sometimes, serious emotional maladjustment develop when a gifted child's mental tasks are too easy for him or when he invites ridicule or jealousy or even fear because of his manifest superiority.⁴⁵ It is hard for him to maintain silence when ideas press for utterance. The tendency is for many to speak at once, each striving to out-speak the others. An atmosphere of confusion is thus created unless discipline can be imposed. To **hold his tongue**, to listen quietly and respectfully to others, to speak according to some order of procedure, and to restrain disappointment at failure to be heard at all these habits seem especially difficult for gifted children to form. Only gradually do these children learn self-government in this respect.⁴⁶

Hence, it is a conservative estimate that more than half of the children with I.Q.'s of 135 or above had already mastered the school curriculum to a point two full grades beyond the one in which they were enrolled,⁴⁷ and some of them as much as three or four grades beyond. We can not put a general rule for the suitable number of years for acceleration, it depends upon the individual, sometimes it can be done safely for four years, sometimes it may be harmful for two years. Acceleration is an easy solution for the case of gifted children but it causes sometimes more troubles than what it solves. If the child be greatly accelerated in grade status, so that he is able to function intellectually with real interest, he will be misplaced in other important respects. A child of eight years graded with twelve year olds is out of his depth socially and physically, though able to do intellectual work as well as they can. These problems come out clearly when we consider that the seats and desks planned for twelve year olds will not fit him; that he will always be the last one chosen in athletic contests; that no one will know how to treat him at class parties, that the teacher will be prone to complain of his manual work such as handwriting; and that he

will be emotionally **immature** in comparison- with older class mates.⁴⁸ Moreover, the child who accelerates, may, in many cases, miss many of the basic ideas which he may lose for all his life. Then there is possibility, not only that his emotional life is threatened, but also his academic life may be, not on a concrete base.

Finally we have suggested a number of ways in which the potentialities of gifted children can be more fully realized by home and school training. In this connection we have especially emphasized the importance of curriculum enrichment, special classes, vocational guidance, and a greater amount of school acceleration.⁴⁹

The Teacher :

It is felt that a study of gifted education can not avoid speaking about teachers. As a matter of fact, all the basic philosophical consideration in the gifted education, and the curriculum can only get its meaning and value through the method and spirit of applying it, in short, the **teacher**. Upon the understanding and the desire of the teacher depends the whole system.

The point of view of the N.E.H. Policies Commission that the qualities especially needed in a teacher of gifted children are "superior intelligence, a rich fund of information; versatility of interests; an inquiring mind; ability to stimulate and inspire; modesty; a sense of social and professional responsibility; freedom from jealousy; freedom from excessive sensitivity to criticism; understanding of educational psychology, with special knowledge of psychology of the gifted children". The lack of any one of them is a distinct handicap to a teacher of the gifted.⁵⁰

In the Spring of 1953 Hunter College in the U.S.A. undertook a survey of opinion among school administrators. Study of the replies received from institutions raises these questions :

1. How far are teacher education institutions meeting the needs which superintendents regard as important ones in providing for the education of gifted children?

2. How concerned are these institutions to accept or take

leadership opportunities and responsibilities in the development of suitable programs for the education of gifted children?

3. In the preparation of teachers for gifted children should more emphasis be placed on broad background courses and less emphasis on professional preparation for handling classroom situations?

Answers to questions 1 and 2 seem for most colleges to be toward the negative. The answer to question 3 is at present almost wholly a matter of opinion and the question is one which might well be made subject for scientific evaluation by some college or colleges.⁵¹

Success and Adjustment of the Gifted :

A. **Success :** The criterion of "success" was the extent to which a subject had made use of his superior intellectual ability, little weight being given to earned income.⁵² Adult success of the group of Terman and Oden,⁵³ whether measured in terms of educational or vocational achievement, has been on the whole outstanding. Compared to a random population of similar size, the gifted group, selected in childhood solely on the basis of I.Q., has furnished many times the usual proportion of doctors, lawyers, university teachers, engineers, and leaders in business or other fields. Even the least successful 20 percent of the group don't compare badly with the average run of college graduates. The prognostic significance of superior childhood I.Q. has thus been established beyond question. Results⁵⁴ show that the incidence of mortality, ill health, insanity, and alcoholism is in each case of gifted below that for the generality of the population of this age. Their I.Q. developed, "early ripe, early rot" does not hold for these subjects. As for schooling, 90 percent entered college, 70 percent graduated. Thirty percent of the graduates were awarded honors and about two-thirds remained for graduate work. They earned a lot of their expenses and had scholarships. The follow-up of these gifted subjects has proved beyond question that tests of "general intelligence" given as early as six, eight, or ten years, tell a great deal about the ability to achieve either presently or 30 years hence. Such tests don't however, enable us to predict what direction the achievement will take, and least of all do they tell us what personality factors or what accidents of

fortune will affect the fruition of exceptional ability. Granting that both interest patterns and special aptitudes play important roles in the making of a gifted scientist, mathematician, mechanic, composer, Terman⁵⁵ is convinced that to achieve greatly in almost any field, the special talents have to be backed up by a lot of Spearman's "G".

Another factor in success : At any rate, Terman⁵⁶ has seen that intellect and achievement are far from perfectly correlated. A study by him to identify some of the nonintellectual factors that have influenced life success among the men in his gifted group. He found that his A's (he called his more successful group "A" and the other "C") tended to be more successful in high schools and college, the differences between the educational histories of the A's and C's reflect to some degree the differences in their family backgrounds. Fifty percent of the A's fathers, but 15 percent of C's were college graduates. The estimated number of books in the A homes was 50 percent greater than in the C homes. When the average age of the subject was about 16 years, more than twice as many of the C parents as of A parents had been divorced. Eighteen years before the study, the only trait on which the C's averaged as high as the A's was general health. The superiority of the A's was especially marked in four traits : prudence, self-confidence, perseverance, and desire to excel. A's also were higher in leadership, popularity, and sensitiveness to approval or disapproval. Later 80 percent of A's married, and better wives, but only 66 percent of C's. The divorce of C's was twice as high as for the A's. There are also differences in persistence in the accomplishment of ends, "integration toward goals, as contrasted with drifting", self-confidence and freedom from inferiority feelings.

Cox⁵⁷ defined her three traits for the personality of her groups :

1. Youths who achieve eminence have in general: A. Heredity above the average. B. Superior advantages in early environment.

2. Youths who achieve eminence are distinguished in childhood by behavior which indicates an unusually high I.Q.

3. Youths who achieve eminence are characterized not only

by high intellectual traits, but also by persistence of motive and effort, confidence in their abilities, and great strength or force of character.

We like to add another factor, or idea, which can help us in avoiding wrong or misleading predictions. Whatever efficiency our tests may have in discovering exceptional talents, and whatever schools may do to foster these discovered, it is the prevailing spirit of the age that will decide, by the rewards it gives or withholds, what talent will come to flower! The most favored by the current spirit of the age, are those that can contribute to science and technology. One may regret that the spirit of the time is not equally favorable to the discovery and encouragement of potential poets, prose writers, artists, statesmen and social leaders.⁵⁸

As a summary we can say that achievement in school is influenced by many things other than the sum total of intellectual abilities. The same is true of success in life.⁵⁹

The following table (after Havighurst) shows the probability of going to college for gifted. Cells 5 and 7 represent large number.

**Probability that Youth of Superior Mental Ability
will go to Post High School Institutions⁶⁰**

Socioeconomic Status	Individual Motivation		
	Low	Medium	High
High (upper and upper middle)	3 — Doubtful probability	2 — high probability	1 — very high probability
Medium (lower middle)	6 — low probability	5 — doubtful probability	4 — high probability
Low working class)	9 — very low probability	8 — low probability	7 — doubtful probability

B. Adjustment: The abilities of the gifted are superior almost in all areas, including adjustment. But it is not fair to compare the adjustment of the average individual to average individuals and the adjustment of the gifted to average individuals.

There is difference in the efforts which are made in the different cases. So, in spite of the great efforts, in comparison with average, which the gifted can make to adjust, he may not achieve adjustment like an average one who has and makes less efforts than him. The higher capacity the gifted has, the more difference and troubles in adjustment he faces.

Hollingsworth recognized also that the farther removed the child is from the average in intelligence, the more pressing his adjustment problems become. By trial-and-error experience, the highly intelligent child has to work out an adjustment, if he can, but there is likely to be noticeable difficulty if he tests above 170 I.Q.⁶¹

She realized that the friendships of any person are determined by his degree of intelligence and that congeniality between persons depends to a large extent upon their ability to think of the same things. Hence, since there are so few children at the top levels of intelligence, that is the upper 1 percent of the child population, it is very difficult for such children to find congenial friends.

These young children of extremely high intellectual acumen fail to be interested in child's play for the same reasons that in adulthood they will fail to enjoy pop-corn at amusement parks. It is futile, and probably wholly unsound psychologically, to strive to interest the child above 170 I.Q. in ring-around-the-rosy or blind-man's-bluff. Many well-meaning persons speak of such efforts as "socializing the child", but it is probably not in this way that the very gifted child can be socialized. The problem of how the play interests of these children can be realized is one that will depend largely on individual circumstances for solution.⁶² They generally try to change in the direction of more complex patterns with more remote goals. The rest of the group don't like that, and usually lose interest and drift away. Repeating this attempt at reorganization of activities, the highly gifted child finds himself marginal, if not isolated. It is not surprising, then, that in the typical elementary school we find that highly gifted children have little chance of achieving group leadership. Indeed, Iona Kerstetter's sociometric studies reveal that even when in special classes and schools for gifted children, the highly gifted are more likely to be followers than leaders,

tending to rank in the middle in terms of acceptance and rejections⁶³

However, the distribution curve of intelligence implies that a child of 140 or 150 I.Q. may find a fairly large group of associates whose mental development and range of interests are not hopelessly far behind his own, and who react to him as to a congenial playfellow, perhaps elevating him to a position of real leadership. The child of 170 or 180 I.Q. on the other hand, stands in an extremely sparsely populated region of intelligence. Only one child in thousands makes so high a score; and only one child in two hundred or more comes within such a long distance range as 140 I.Q. If he is promoted to a school grade in which the intelligence level of the pupils is at all commensurate with his own, he is likely to be immature in size, strength, and social emotional development.⁶⁴

It is in the case of the child with extraordinarily high I.Q. that the social problem is most acute. If the I.Q. is 180 the intellectual level at six is almost on a par with that of the average eleven-year-old. Physically, development on the other hand, is not likely to be accelerated more than 10 percent, and social development probably not more than 20 or 30 percent. The inevitable result is that the child of 180 I.Q. has one of the most difficult problems of social adjustment that any human being is ever called upon to meet. He speaks a language which average children of his age literally do not understand. Their stupidities render him impatient. They are interested in nothing that he is interested in.⁶⁵ It is really wise that the genius is of necessity solitary.

On 25 cases sufficiently detailed information was available to permit rating of social adjustment.⁶⁶ The subjects were rated on a five point scale : a rating of (1) indicated marked sociability and leadership; (5) indicated serious maladjustment or almost complete lack of social intercourse. The ratings were distributed as follows :

Rating of Social Adjustment

Rating	(1)	(2)	(3)	(4)	(5)
Number	0	2	14	7	2
Percentage	0	8	58	28	8

Conclusion :

We tried in this paper to follow the spirit of our age, the current spirit is towards sufficiency and justice. Socialist democracy is the fashion of the age, and democracy means "People's Rule". When the people are ruling there is no place for individual privilege. Neither majority nor minority have special rights. Equality is the trend of this type of society. In the history of mankind, there were rulers who were superman — also there were stupid and idiotic rulers. We are not discussing what type of rule is better; individuals are not ruling anymore. No man now is over or beneath other men — this is the fashion of the age. "People" want to use all that they possess, nobody alone owns himself; hence the gifted are not for themselves, they are gifts to all the "people". Therefore, these gifted "gifts" should be maintained, and developed to their greatest extent. Any addition to their powers, or to anybody's powers, is an addition to the "people's" powers.

- We should identify the gifted.
- We should handle the gifted with care.
- We should put the gifted in the right places.

We are not particularly helping the gifted, we are helping all the people.

The gifted will not live alone, he will live with the people, and by the people.

The people will live better, by him, with him, if he is better.