THE RELATIONSHIP BETWEEN THEORIES USED IN DEALING WITH SUPERIOR CHILDREN AND THE GROWTH OF DEMOCRACY

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CHAPTER I

INTRODUCTION

Statement of Problem

After teaching for a number of years in several elementary schools in Texas, and having encountered a number of superior children in the various classes from year to year, the writer became interested in this group. For this reason, this study attempts, through research work, to discover what has been done in the past and what is now being done for the superior children in our school population.

Plan

This study centers around the evolution in theory and practice used in dealing with superior children. The manner in which the growth of democracy has influenced this evolution is pointed out. The study begins with a definition of the superior or bright child. This is followed by an explanation of what is meant by the term "democracy." In Chapter III the methods used in the development of an educational program for gifted children are set forth. The early methods, beginning with approximately 1900, are discussed first. The latter part of the chapter

deals with later developments and current trends. The last chapter contains conclusions derived from a wide reading of numerous pamphlets, bulletins, articles, magazines, and books on the subject of the education of the exceptionally bright child.

CHAPTER II

NECESSARY DEFINITIONS

> In America, the highest type of education consists in developing the capacities which the child possesses - whether they be academic, social, musical, artistic, manual, routine, or of any other type - to the end that he may live happily as an individual and as a member of a democratic society. Each child should be held responsible for the maximum development and optimum use of his abilities, and it is our privilege and responsibility as educators to help him reach these goals.[1]

If we center attention educationally upon the average and the subnormal child to the exclusion of the superior child, society may discover to its sorrow that it is saddled with mediocre leadership. The training provided for prospective leaders must be just as carefully planned and as thoughtfully administered as is the program for the followers. The notion that ability will push up of its accord, that the capable child can take care of himself, is wrong. Much potential leadership has been lost entirely by being ignored. It is tragic to think of those thousands of potential leaders who have failed to

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[1] Agnes Mahoney, "Classes for Mentally Retarded Children," National Elementary Principal, Bulletin, National Education Association, V. 19, October, 1939-July, 1940, p. 448.

overcome economic or social handicaps. Educators need to give the gifted child an opportunity to develop his ability as adequately as other children are permitted and helped to develop theirs.

Pearl Buck, in one of her stories of Chinese life, has Wang the Tiger to say: "The thing to do when one kills a centipede is to crush its head and then its hundred legs are in confusion and they run hither and thither against each other and they are harmless."[2] It is perfectly possible that if we neglect the brilliant children in our public schools, we may find ourselves to be a nation with a hundred well-trained legs, but without a head that would make effective the work of those legs.

The first thing that must be considered in a study of bright children and their growth in a democracy is a definition of bright or superior children. Who are the superior children in our schools? How are they different from the normal and the sub-normal children?

A gifted child refers to a child with a high intelligence quotient. Such a child may at the same time have some other special ability. However, regardless of how talented a child may be along a certain line, if he does

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[2]A. O. Heck, The Education of Exceptional Children, p. 389.

not have a high intelligence quotient, he is not considered gifted in the sense in which the term is usually used.[3] The superior child is the one who tests above average on a standard scale designed to measure intelligence.

Terman gives the following classification for the placing of children in relation to their mental ability.[4]

	I. Q.
Genius or near genius	above 140
Very superior	120-140
Superior	110-120
Average	90-110

The percentage distribution for the superior children whom he tested was announced by Terman as follows:

The highest one per cent go to 130 or above
The highest two per cent go to 128 or above
The highest three per cent go to 125 or above
The highest five per cent go to 122 or above
The highest ten per cent go to 116 or above
The highest fifteen per cent go to 113 or above
The highest twenty per cent go to 110 or above

It is this twenty per cent of our juvenile population

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[3] Ibid., p. 390.

[4] L. M. Terman, Measurement of Intelligence, p. 78.

which has an intelligence quotient of 110 or above that can be classed in rapid groups. Only one child in every hundred tests 130 I. Q. or above, and few gifted children that reach an I. Q. of 190 can be found among many thousands of our school population. Stedman reported, in 1924,[5] the very exceptional case of girl whose I. Q. was 214. Thus there are children in the rapid groups who should receive special attention because of extremely high intelligence quotients. Individual differences, particularly in the case of genius or near genius, must be provided for almost to the same extent as it would be necessary in an unsegregated group. Just as all the children in a school system can be divided into the superior, the average, and the dull, the children who are above average can be grouped into the superior, the very superior, and the genius or near genius.

There are certain mental, physical, emotional, and social qualities that characterize the bright child. First, there are mental differences between the superior on the one hand and the average or the dull on the other.[6] The superior child has a high degree of general intelligence which is, according to Terman, the "ability to carry on abstract

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[5] Lulu M. Stedman, Education of Gifted Children, p. 58.

[6] Harry J. Baker, Characteristic Differences in Bright and Dull Children, p. 12.

thinking."[7] His actions and responses show that he thinks in a logical way. His general reasoning ability helps him to find illogical statements of conclusions. The superior child has a much longer span of attention; he is able to concentrate for a greater length of time without allowing his interest to lag. The bright child has originality in that he prefers to create something new, rather than to make copies of something already existing. His resourcefulness is astonishing at times, for he can usually find a substitute for some needed material that is not available or he can think of a novel way of presenting some abstract idea. That the superior child has an outstanding degree of initiative has been proved by the fact that a far greater number of them turn in unassigned, voluntarily enriched work than do the average children, even though the superior child is many times outnumbered by the average students. The bright child can understand and follow directions. He can relate the material in the books he reads or the questions, answers and illustrations used in class discussion to actual life situations. This ability to think from the abstract to the concrete, as well as a similar ability to generalize readily from specific data, is seen in his interest in working out his original ideas into concrete form.

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[7] Terman, op. cit., p. 15.

As a usual thing, the ability of the superior child is general rather than special or one-sided. "Occasionally he has a marked deficiency in music, drawing, or mechanical manipulation, and sometimes in the field of reading, spelling, or arithmetic."[8] The cases are very rare in which the achievement in some line of activity is definitely below the level of his general intelligence. When a child combines a superior intellect with a high degree of special talent he is likely to become very outstanding in his chosen field. Perhaps it might be said that our famous orators, in addition to their high degree of intelligence, have had marked magnetic and linguistic ability, and that our great inventors have had special mechanical ability. Special talent, together with a superior mind, has probably accounted for the great strides which civilization has taken in certain periods of history.

In the past there has been a popular misconception that the bright child was always small and weak physically. Possibly this idea grew because the bright child was so often advanced in grade that he did seem and actually was much smaller than the average children in the same grade who were several years older. On comparing the superior child with other children of the same age, he is often found to be both

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[8] Leta S. Hollingworth, Gifted Children, p. 217.

taller and heavier than the average child.[9] Hollingworth and Taylor, after measuring forty five school children who ranged from an I. Q. of 135 to an I. Q. of 190 and comparing them with children testing as average and with others testing below an I. Q. of 65, found that the median height for the gifted children was 52.9 inches, for the average, 51.2 inches, and for the very stupid, 49. 6 inches. This, together with Terman's investigations of bright children, is an indication that the gifted are likely to be taller than the average and slow children.

The same study also revealed that the superior children were heavier, not only because of their greater height, but also in relation to their height. Evidently the bright children, as a class, are well nourished. Terman, in his study of one thousand gifted children, found that the children who had an I. Q. of above 140 were one pound heavier at birth than were unselected children.[10]

Although superior children often have larger heads, the head is not larger in proportion to the rest of the body. The greater length of the skull seems to be a more reliable factor in determining intelligence than the size of the head. As compared with their contemporaries of the same age, sex, and race, the bright children seem to be

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[9] Ibid., p. 89.

[10] Jay Adams and Walker Brown, Teaching the Bright Pupil, p. 19.

long-headed. There are so many exceptions to this rule, however, that it seems impossible to determine the intelligence of any individual merely from cranial measurements.

Modern research has also exploded the fallacy that bright children are inferior in strength. In measurements taken by the use of the dynamonometer, it has been found that bright children are as strong in the left hand and stronger in the right hand than average children, and stronger in both hands than the stupid. They have a surprising degree of motor ability and motor control.

A comparison of the social characteristics of superior children with other children is very interesting. Terman, in particular, has made careful studies of the personality traits of the bright child by means of such tests as the Haubenheimer-Ruch overstatement test, the Raubenheimer test of questionable interests, and the Voelker-Cady test of conscientiousness.[11]

The concensus of opinion, after taking into consideration the work of other research specialists, as well as that of Terman, seems to be that the superior child has a high degree of moral stability. It was found that the character of the gifted child of nine years reaches a development corresponding to that of the unselected children

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[11]Charles C. Grover, "Gifted Children," Nation's Schools, V. 16, pp. 12-16.

of fourteen years. The bright children rated higher in trustworthiness and reliability as well as in honesty. In fact, approximately eighty-five per cent of the gifted surpassed the average in tests of honesty. Since there were exceptions to this superiority, it is not to be implied that the superior children are free from faults and need no character training. The bright child who is not cooperative can cause many times more trouble and disturbance than any other child in the class. Fortunately the character of the superior child seems to develop early. Less than one out of every twenty presents any serious problem.

In concluding this section of study regarding the bright children, the following brief summary of mental, physical, social, and emotional characteristics may be given, with the understanding that the specific characteristics have been appraised rather than determined by many objective studies, from the authorities given, as well as from the experience of observant teachers:

1. They have a high degree of general intelligence.
2. They have remarkable powers of analysis and of general reasoning ability.
3. They have a longer span of attention than the average and dull children.
4. They can understand and follow directions better than the average and dull children.

5. They have an outstanding degree of originality, resourcefulness, initiative, play of imagination, and ability to interpret abstract ideas.
6. They can recognize related material and can therefore look up reference material pertinent to the lesson.
7. They can relate their thought, illustrations, and answers to life situations.
8. They can learn through their mistakes and avoid repeating errors.
9. They have a natural, aggressive interest in most subjects, and therefore less motivation is required on the part of the teacher.
10. They like to read. The gifted child of seven years frequently reads more than the average child of fifteen.
11. Their ability usually is general, not special or one-sided.
12. Their superiority shows in early life, and is little influenced by formal instruction.
13. They are often underestimated by parents, and occasionally by themselves.
14. They often have the home advantages of superior cultural conditions.
15. They are, as a group, taller and heavier.

16. They are stronger and healthier than average and dull children.
17. While they are likely to be accelerated on the basis of chronological age, they are usually two or three grades retarded on the basis of mental age.
18. They are usually small for their grade, but large for their age.
19. They are average to above average in nervous stability.
20. They show marked superiority in moral and personal traits.
21. They are usually good citizens, and their general deportment is satisfactory.
22. They occasionally tantalize teachers and prove to be a source of worry to them, because they are so keen that they surpass the teacher in mental ability.
23. They resent corporal punishment more than average children of the same chronological age.
24. They are reasonable and easy to discipline if their elders are kind and tactful in dealing with them.
25. They are interested in play and tend to choose playmates of their own mental age.
26. They usually like to be leaders.

27. They usually come from superior parental stock.[12]

As American teachers seek guidance for the building of a school program to meet the crises of the present day, they are driven inevitably to the central ethical tradition of the American people - the tradition of democracy. Education as a creative factor in history is dependent on the democratic conception of society and the democratic way of life.

What is that democratic conception? Where did the idea of our American democracy originate? In thinking of the origins of our American democracy, one must keep in mind that at the very heart lies the great ethical conception of the fundamental equality, brotherhood, and moral worth of all men. This conception came out of the deepest experiences of common people and pervaded the life and work of generations. It was that ideal that has become not only a construction of the mind but it has also been translated into attitudes, ways of life, and social structure, until today democracy is far more than just a form of government. It has gone beyond the bounds of politics. It is an attitude of mind to which the exploitation of man by man is abhorrent. It is a way of life in which human personality is judged of supreme, of measureless worth. It is, in other words, a society

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[12] Fay Adams and Walker Brown, op. cit., p. 10.

"of the people, by the people, and for the people." One might say that American Democracy is an order of social relationships dedicated to the promotion of the individual and collective interests of common folk.[13]

Even though historians tell us that a new aristocracy has arisen in America, in superficial respects one of the most powerful in history, democracy in the ordinary social relationships is still fairly characteristic of the masses of the American people. Americans are still inclined to judge a person by his own powers and individual achievements and relatively little store is set by ancestry, family and social position. Our democracy has some great liabilities, and one liability that has increased with the rise of industrialism is the concentration of economic power in the hands of a few people. Two generations ago this liability was not so great, for the forces of democracy were strong then.

Democracy as we have it today has its concepts of freedom and equality of opportunity for the individual. This is a far cry from the undemocratic "class" society of Europe which was really a social order of stratified classes. Children were born in one "class" of a rigidly stratified society, with little chance of ever advancing to a higher

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[13]Harold Rugg and others, Democracy and the Curriculum, p. 190.

one. America has tended toward a society in which the social barriers between the classes were obliterated. Within the limitations to real freedom set by their possible lack of money, the mass of Americans are free - free to move about, free in their houses and on their land, free to speak and write what they think and feel, free to choose their representatives in government, free to be chosen to hold office. However, since December 7 no predictions, more or less accurate, can be made as to the fate of democracy in America.

American democracy and organized education are equally dependent on one another.[14] While education cannot completely defend and advance democracy, yet education is fundamental to the entire undertaking. The understanding of the present status of American democracy, and awareness of the problems involved, guidance from past and present experiences, and the achievement of a practical program of action - all these depend on a comprehensive program of education. In the last analysis, whatever happens to American democracy will vitally affect American education, for the two are definitely involved. If the democratic way of life is given up, then the conception of education as a progressive and enlightening force in society will be utterly destroyed.

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[14] Ibid., p. 222.

The term democracy is not one that can be clearly defined in a sentence. It is far too big for that. Perhaps the best summary of what democracy really is can be given in ten great ideas which serve as a solid basis upon which new schools of living can be built:

1. That the living creature is a growing organism evolving, maturing, from small but "whole" beginnings... the concept of growth.

2. That each human act is integrative not additive, the organism acting and growing as a whole... the scientific principle of integration.

3. That the delicate highly differentiated living creature, continuously beset by the danger of instability, is equipped with sensitive means of self-regulation. . . the concept of self-balancing.

4. That the living creature is dynamic, always characterized by active movement, thus learning is reacting, making responses... the concept of dynamic response.

5. That man thoughtfully is a generalizing being... that central to every response is the perception of the relationships between parts of the whole situation... hence that continuous education in seeing relations, in generalization, in problem-solving is basic... the concept of generalization.

6. That the living creature is primarily a goal-seeking organism... ends and means are continuous, unified... the concept of purpose.

7. That by the process of interaction between the individual and his environment the Self is formed, egocentric and defensive, the product of learning...the concept of self and personality.

8. That the individual learns to adjust to his world by patterns of behavior which have been selected and stereotyped for him by the culture...the concept of the stereotype.

9. That indispensable technical competence in behavior (intellectual, social, manual, and other physical skills) is furthered by recurrence of learning situations in which settings are varied and marked by purposive intention to learn...the new concept of habit.

10. That integrity of expression requires: originally imagined conceptions...the concept of the creative act.

In the chapter that follows, methods used in dealing with superior children will be discussed from the angle of their relationship to the growth of American democracy.

CHAPTER III

METHODS USED WITH SUPERIOR CHILDREN

Early Developments

The problems of stimulating and fostering maximum development and adjustment in the large number of mentally, emotionally, and physically atypical children in America is one of great magnitude and of utmost social significance. It is estimated[1] that there are at least ten million "deviate" children in the United States, of whom more than eighty per cent are failing to receive the attention they require for rehabilitation or for effective adjustment. Two groups, however, merit special consideration because of the extent of their deviation, their social significance, and their unusual needs: the feeble-minded and the gifted.

As a rule, the gifted child has been more or less the "forgotten man" in the educational field, at least until recent years. Although the gifted children have always been present, in varying numbers, in the classrooms of the nations, the history of the development of

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[1] Paul A. Witty, Mental Hygiene in Modern Education, p. 553.

an educational program for such children is less definite than that of the growth of practices to be used with other special groups.

History shows that people before our time recognized the fact that all men are not born into the world with equal mental endowment. More than twenty-two hundred years ago, Plato developed, in his remarkable essay The Republic, a concept of the ideal state and the educational plan by which it might be achieved. Plato's fundamental thesis was the training of citizens to do that for which they were best fitted by nature. He suggested that those young men who gave evidence of unusual mental alertness should be separated from those of average intelligence and should be given a specialized type of education. Plato believed that the Greek democracy could not hope to maintain its preeminent position in the world if it failed to provide the best educational opportunities for those who would become the leaders of the future.

A realization of the outstanding contributions made by persons of marked ability has led to the study of superior groups of persons. The first of such scientific observations was made by Galton, about 1865, in England.[2] Galton compiled facts concerning certain individuals who

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[2] Leta S. Hollingworth, op. cit., p. 27.

had attained notable distinction in their work or profession. Included in the study were men whose names stood high on the list of the eminent in the fields of writing, law, science, music, and scholarship. After studying all the facts he had amassed, Galton came to the conclusion that the proportion of great men to a given population is exceedingly limited, and that the number of unselected people can almost be foretold.[3] Galton also made the discovery that eminent men have a greater number of eminent relatives. He believed this to be proof that mental ability is inherited in the same way that the color of the eyes and hair or physical traits are handed down from parents to children.

Many studies have been made by scientific investigators both in America and on the Continent. Those studies of superior ability which have been made in the United States are particularly interesting to us. Cattell chose for his investigation,[4] one thousand American men of science living between 1900 and 1915 who, in the judgment of their fields, were men of very superior mental ability. These discoveries which he reported were that the fathers of these men were most of them in professional life, that

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[3] Ibid., p. 28.

[4] Ibid.

the laborer's children were almost never among them and that scientists tend to grow up in cities rather than on farms.

A questionnaire[5] sent out to those listed in the 1922-23 edition of Who's Who in America, and answered by approximately eighty per cent of those still living, reveals that the fathers of these men who had made marked contributions were engaged in business or were in the professional class. Twenty-three per cent were farmers, six per cent were skilled laborers and four-tenths of one per cent were unskilled laborers. The seventy per cent belonging to the professional or business class were divided into the proportions of thirty-four and three-tenths per cent and thirty-five and three-tenths per cent, respectively.

From these and other studies of early days certain deductions have been made to which most investigators even today have tentatively agreed. The percentage of famous persons coming from families whose social-economic status is decidedly above the average far exceeds the percentage coming from other classes. Perhaps as educational opportunities become more differentiated and widespread this condition will not be so noticeable. So far,

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[5] Ibid., p. 28.

the mental achievements of the men have outranked those of the women. The writer found very few women, from early days down to the present, who have been noted for their intellectual work in comparison to the large number of men that can be listed. Incidentally, sociology suggests that this difference may be due to historical status.

Are inherent qualities rather than education and opportunity the prime factors which determine achievement? That is the question that eugenists, psychologists and sociologists have been debating for decades. Galton concluded from his study that achievement was conditioned by inherited mental ability, rather than social influence.

It was also agreed by early educators that an unfavorable environment for the superior child would be likely to hamper his development, and probably would curtail the attainment that might otherwise be possible. In other words, "A Darwin born in China in 1809 could not have become a Darwin, nor could a Lincoln born here on the same day have become a Lincoln had there been no Civil War."

The elementary school in America took the lead in interest shown in the bright pupils. A greater emphasis has been placed on the development of special classes and special technique in the elementary than in the secondary schools. It will be well to consider here very briefly

some of the plans which have been offered by elementary schools.

Flexible schemes of promotion were among the first adaptations of the school to meet the needs of the superior children. St. Louis was the pioneer taking the lead in this plan.[6] In 1868 Dr. W. T. Harris made his first report before the National Education Association, telling of the results which had been secured by developing a system of school progress in which the pupils might be promoted at short intervals. Promotion was made every ten weeks, or, in the lower grades, as short an interval as five weeks.

In 1886, at Elizabeth, New Jersey, Superintendent Shearer worked out a plan in which each of the eight grades was divided into three or four sections, according to ability.[7] Each group was allowed to set its own pace in covering the essentials of the curriculum. Among the plans similar to this, in use at the present time, is the Concentric Plan of Santa Barbara, California, which divides the grades into three groups: A. B. C. All

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[6] Fay Adams, "The Elementary School Leads", Twenty-Third Yearbook, National Society for the Study of Education, p. 8.

[7] Leta Hollingworth, op. cit., p. 31.

must master the minimum essentials of the curriculum, but section B does more work than section C, and A more than B. Although this plan provides for individual promotion the emphasis seems to be placed on the enrichment of the course of study rather than the acceleration of rapid students.

Another flexible promotion plan, begun in the early days and extending down into the present, is the Cambridge Double Track Plan which is applied to an eight-year course of study, a fast track making it possible for the brighter children to do the regulation eight years of work in six years. The course of study in Portland, Oregon, is divided into fifty-four parts, covering eighteen terms of five months each. Provision is made for the bright students to advance more rapidly. According to the North Denver Plan all students do the minimum essentials, but the more capable are released from the regular classes to give time to special investigation and research. Here again the plan is for enrichment rather than acceleration.

The idea of special classes for children with traits markedly different from the average child has been advocated by advanced thinkers for several years. From 1900 to 1920 attention has begun to turn to the children who show unusual ability. Dr. E. L. Thorndike, in an

address in New York City, in 1914, stated[8] that the United States government and numerous organizations of the state and city, to say nothing of private societies, were spending millions of dollars for the care of those who were low on the scale of mental ability, such as paupers and the mentally and physically handicapped, but that nothing was being done in the state or nation in the way of special care for those who were unusually gifted. He further stated that the benefit arising from special attention to the gifted would far out value that derived from the care of the less able. Since that time, students of mental development, especially those working in educational psychology, have shown a keen interest in the gifted child and his opportunities. As far as 1916, no work had been done in the public schools for the gifted child, comparable with the specialized effort made to train the feeble-minded.

In 1916 a class for exceptionally bright children was organized under the control of the administration of the city of Louisville. For two years Louisville had had an accelerated class where children of the fourth grade, who in the judgment of the teacher and principal were considered especially able, were allowed to complete in one

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[8] Bertha E. Roberts, "Curriculum Enrichment for Gifted Children," National Elementary Principal, V. 19, p. 523.

half year the work prescribed by the course of study for one year. It was found that children who did this differed greatly in mental caliber. Not all were exceptionally able. To secure the class sixty-two children were examined and fifteen were selected who had an I. Q. ranging from 120 to 145. The Terman Revision of the Binet-Simon Scale Test was made the basis for entrance. Judging from the results of the educational tests, children of 120 I. Q. and above can do school work at least two or three years in advance of the average child and can master the different studies of the curriculum almost equally well. The members of the class exceeded the average children in height and weight. In character and disposition these children were conceded by all who worked with them to be superior. They did not become conceited or puffed up by their selection or work in the class. There were evidences of higher morale; some showed a more cooperative spirit; others became less nervous and less self-conscious and also became more sympathetic and less critical.

San Francisco, California, has been for many years "gifted child" conscious.[9] Undoubtedly the early work of

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[9] Henrietta V. Race, "A Study of a Class of Children of Superior Intelligence," Journal of Educational Psychology, V. 9, pp. 91-97.

Terman who used the San Francisco schools as a laboratory, helped stimulate the teachers to an awareness of the superior child. This growing awareness gradually developed into systematic study.

When Terman began to study gifted children in the San Francisco schools, his discoveries aroused great concern. The teachers learned, to their chagrin, that the pupils who were greatly superior to their classmates in native ability were the victims of educational negligence. Terman pointed out that society though quick to recognize well-developed talents, was slow to provide an opportunity for all children to develop them. There is a familiar saying that the world will make a well-worn pathway to the doorway of the man who makes the best of any kind of article, even though it be only a mousetrap. This is society's way of telling the specially gifted individual that it approves of him; talent must, however, not only be present but it must be developed and used effectively to secure this approval. The talents referred to are musical, artistic, poetic, mechanical, and the like. Terman further showed that indications of these talents frequently appear at a very early age; perhaps, if observed closely enough, they would all be noticeable in early childhood.

Most ability of the kind referred to above may be illustrated by describing what such specially gifted

children have been able to do. Mozart, when three or four years of age, began to invent musical ideas. Before his fifth birthday, he learned at half-past nine at night and in half an hour a minuet and a trio. He had published four sonatas by seven years of age; he had given his first operetta at twelve, and his first Italian opera at fourteen.[10] Beethoven enjoyed music from an early age; he began taking lessons every day when six years old. Among the artists, it has been found that Rembrandt did some excellent pieces at the age of fourteen.[11] The poet Tennyson wrote poetry at eight years of age. Lord Byron composed the "Epitaph on a Friend" at fifteen, and Cowper's gift for poetry was apparent at fourteen. Goethe, before he was nine, wrote "Morning Salutations" in German, Latin, and Greek. Longfellow's first printed verses appeared when he was thirteen, and Sir Walter Scott translated Latin poems at the age of eleven.

Terman pointed out, in his experiment, that the superior children in the San Francisco schools were healthier than the children of average ability, but not happier. He further pointed out to the teachers that, through a lack

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[10] Catharine M. Cox, "The Early Mental Traits of Three Hundred Geniuses," Genetic Studies of Genius, V. 2, p. 593.

[11] Ibid., pp. 255-256.

of complete understanding, they were responsible in a great measure for the maladjustments of these children, and assisted them in discovering the gifted pupils in their classes by a city-wide testing program. By 1925 the local schools had taken two vital steps in the study of gifted children: (1) a continuous survey of ability and achievement had been put into effect, and (2) the teachers had been aware of the presence of superior children in their classrooms and of their responsibility to these children. The third step, that of guiding these richly endowed children happily through childhood and youth to successful manhood and womanhood, was still an unsolved problem. To recognize a pupil's ability and needs was one thing, and to meet his needs in a classroom along with those of forty other children of widely varying abilities and experiences was quite another.[12]

Skipping a grade was one of the earliest methods of meeting the needs of the bright child. It is a method that is still quite common in many school systems. However, recent interest in curriculum adjustment is tending to thrust skipping as a solution far into the background. Mateer has this to say about skipping: "Several years ago, it was no unusual thing to meet the educational needs of

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[12]Bertha E. Roberts, op. cit., p. 538.

the precocious or very bright child by promoting him to the grade where his mental age ranked him, regardless of the obvious lapses in his academic acquisition thereby involved." [13]

Such ventures are less openly advocated today. Gillingham of the Ethical Culture School, New York, has pointed out some of the fallacies and consequent problems of such dispositions. "The bright child in advance of the group where he belongs by reason of his actual age is very apt to be poor in muscular control, inaccurate in details, lacking maturity of judgment, giving symptoms of a neurotic nature, and frequently presenting moral problems." [14]

For years American school people have been content to cut up old subject matter and present it under the guise of new plans. Thus we have had our cycles of supervised study, socialized recitation, and city-named plans. These methods were accepted as cure-alls by many teachers, without realization on their part that the content materials must also receive attention. The style in education has changed, and the nation is now at work on the curriculum.

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[13] Florence Mateer, The Unstable Child, p. 58.

[14] Ibid.

It might be said that because the average students have been in the vast majority in our school population, they have in the past received the lion's share of attention. With the widespread adoption of compulsory attendance laws, markedly affecting the secondary years of the school system, the slow pupil, who formerly was eliminated, made his presence felt in the junior and senior high schools. His scholastic aptitude was so relatively inferior that he created an imperative demand on the time and attention of teachers and administration. Even the interests of the great, average majority became secondary in importance. As for the rapid pupils, inasmuch as they could be left to themselves, they received only the residue of the teacher's attention. Therefore this group has been allowed to develop habits of idleness, habits of work resulting in superficial mastery, and attitudes of unfounded superiority because of tasks too easily accomplished. Such were results of the early methods used with bright children.

Before proceeding to the discussion of later developments and current trends in methods of dealing with the bright child, something should be said regarding the theories of genius set forth by educators during the years, concerning the problems dealing with the selection of the bright pupils,

and concerning other problems facing teachers of such pupils.

Theories of genius.--There has naturally been much speculation concerning the factors which contribute to works of genius. In discussing these the writer will use Terman and Burk's classification: (1) social; (2) psychoanalytic, and (3) psychological theories.[15]

First, the social interpretation. Some writers assert that individuals who rise to eminence have been greatly aided by favorable environmental and social forces, or by fortunate combinations of local or national circumstances. Historians have pointed out, for example, that Abraham Lincoln's prominence was attributable, not to exceptional or essentially creative ability, but primarily to unique "constellation of national events." Such a position is disturbing to people who believe strictly in heredity, since it implies that inherited capacity is not a prerequisite to social achievement and distinction. Nevertheless, in view of the accumulating evidence pertaining to the desirable effects of favorable opportunity upon both intellectual status and personality development, this theory doubtless will receive increasing recognition as a partial explanation of outstanding attainment.

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[15] Terman and Burks, A Handbook of Child Psychology, p. 799.

Second, the psychoanalytic interpretation. Many students consider genius to be the expression not only of superior intelligence but also of compensatory drives. It is now generally recognized that human behavior is begun and carried on by fundamental motives which constitute the dynamics of action. Intelligence is highly important for attainment, but it appears to be primarily an agent operating in the service of fundamental "drives" and impelling environmental forces.

A "drive" is a very complex factor made up of many subtle elements. A drive may appear as the product of an intense energy and a desire to achieve; it results apparently in other instances from physiological irregularities (including glandular malfunction); and in other cases, it has its origin in the special opportunities and high goals of attainment which are characteristic of some superior homes and of some school situations. "Drive" may also be traced to certain psychological and physical inferiorities. Back of every great attainment may be found a "drive."

The notion that genius is almost invariably associated with some form or degree of psychosis or neurosis is still prevalent. In early days, the idea was current that nervous instability and genius went hand in hand. However, it has been demonstrated that many gifted individuals and

some geniuses are no more subject to personality disorders than are people of average intellectual ability.

Third, the psychological interpretation. This view holds that instead of assigning the incidence of genius to one factor or to a small number, such as intelligence, judgment, persistence of motive, or nervous instability, it is proper to recognize that a mass of interrelated and shifting factors is responsible for the rise of genius. Certainly, intelligence quotient and genius are not synonymous, since "drives" other than those predominantly intellectual are needed to bring ability to fruition. Sometimes emotional cravings are the causes of some creative work.

Witty and Skinner conclude[16] that "while the evidence available indicates that superior children come largely from superior families and superior homes, there is as yet little reason for using these data to support either a hereditary or an environmental theory of causation."

Although it is still asserted that most gifted children come from the homes of professional and highly successful business people, this notion is so patently false that it could be dismissed summarily, according to certain educators.[17]

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[16] Paul A. Witty and Charles E. Skinner, Mental Hygiene in Modern Education, p. 359.

[17] Ibid., p. 362.

On the other hand, this notion cannot be cast aside too lightly since it is being advanced and defended by leaders in American education. A study has been made of the relationship between intelligence test scores of children and the occupation of parents.[18] The report of the study shows that more than three-fourths of the children rated above average have parents whose occupational pursuits rank lower than those of professional or highly successful business people. Perhaps it is because poor and average homes are so numerous and very superior homes are so rare that the total number of gifted children coming from the homes of the poor and middle classes is consequently high.

Problems in the selection of bright pupils.--The very first question a teacher must answer is "How can I recognize the exceptionally bright child in my classroom?" Usually the youngest child in a grade is among the brightest. The very fact that these children are younger than most children in the class shows that they have been able to master the work of the previous grades more rapidly.

Age is not always a reliable factor upon which to

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[18] Ibid., p. 363.

base one's estimate, for the child who is much younger than his classmates often is physically smaller, is socially immature, and is sometimes shy and retiring, so that he shrinks into the background of the class picture, even though he may be superior intellectually.

Again, some very bright children move along from grade to grade at just the regular pace without ever having the opportunity to quicken their progress through school. This shows that the teacher must, along with the age of the child, consider also the quality of his school work, his interests, his ability in creative activities and, where possible, the result of standardized tests of achievement and of intelligence.

As yet the most important single measure of intellectual capacity of any child is the individual intelligence test. Critical workers in the field of psychometrics have shown that our intelligence tests are imperfect instruments for measuring and differentiating precisely the abilities of the very bright. For tests to reveal extraordinarily high intelligence quotients, children must be examined when they are very young. For example, a child of birthday five may earn a mental age of ten and receive an intelligence quotient rating of 200. In order that a child of twelve may secure the same rating, a mental age of twenty-four must be obtained. This is impossible since our tests do not have

reliable norms for young people and adults. However, Terman and Merrill's 1937 revision of the Stanford-Binet Test includes more appropriate norms for mentally superior children and for adults.

Another limitation of the tests is found in their failure to test high intelligence consistently. For example, a child whose Intelligence Quotient upon the Stanford-Binet Test was 200, had an intelligence quotient range on four other tests of 170 to 185. Paul A. Witty points out[19] that discrepancies in intelligence quotients of the very bright who are re-tested by the same instrument illustrate further the difficulty of measuring with exactitude the intellectual abilities of these children.

A more serious limitation of the intelligence test is reflected by the fact that educators do not know the implications of the high intelligence quotient in so far as adult creativity is concerned. Nevertheless, the assumption that gifted children will become the geniuses of the future is often set forth. Little realizing the complexity of interrelated abilities and personal qualities involved in genius, newspapers confidently inform us that a child of intelligence quotient 230 excels the

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[19] Paul A. Witty, "Exploitation of the Child of High Intelligence Quotient," Educational Method, V. 15, pp. 298-304.

potentialities of a child Einstein or a boy Shakespeare! Post-mortem studies of recognized genuises led Terman and Cox to observe[20] that the childhood of certain "proven" geniuses and that of the potential genius (the gifted child) are similar. Among several points, these writers stressed the nervous stability and emotional adjustment of both groups. Terman was so impressed by these comparisons that he once asserted: "The eccentricity of genius is largely a myth."[21]

Roughly speaking, there are two kinds of general intelligence tests that may be used in selecting bright children: the individual test and the group test. The individual test is given to one child at a time by the teacher or some one who has been specially trained in psychological teaching. The group test may be given to a whole class at one time. Neither should ever be given without careful preparation. The results are expressed in terms of "mental age" which shows the level of the child's intellectual ability at the time of the test. The mental age divided by his "chronological age" at the same date gives the child's intelligence quotient. Without such a test there may be an excellent judgment on the part of the

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[20] Catharine M. Cox, op. cit., V. 2, p. 6.

[21] Ibid.

teacher but it is still a judgment or a subjective estimate.

Achievement tests may be given by the teacher if she carefully studies and follows directions. These tests do not furnish an intelligence quotient, for they give give only a measure of what the child has actually achieved in some particular subject. For the exceptional child the achievement test is valuable in that it shows what he has done, but the intelligence test is also needed because it shows what he can do. In the last analysis, in order to make a more accurate selection of bright children, and in order to more perfectly understand the mental development of the gifted child, both achievement and intelligence tests should be used, together with the teacher's judgment of his ability and a consideration of other factors already mentioned.

That the gifted sometimes become victims of personality maladjustment and character defects is conceded by competent students of bright children. In discussing the attainments of gifted boys and girls Bentley makes the following statements:

> It must not be taken for granted that children of high intelligence are free from moral faults. On the contrary, disciplinary cases are common, and criminal records appear. Clever minds sometimes use their wits for success in unprofitable pleasures and pursuits. Untrained in the preferences of moral society the

> intellectually gifted may become a devastating social menace, as has been instanced over and over again. The gifted in mind need character training in the moral codes that seek to stabilize mankind. [22]

Louttit lists as possible sources of difficulty among gifted children:

1. Lack of teacher's recognition of superiority leading to an antagonism toward the school as an institution

2. Lack of parental recognition of superiority with resulting lack of stimulation or positive discouragement

3. Superiority over available associates so marked that social adjustment is extremely difficult

4. Development of poor study or work habits because of lack of stimulation of classroom work

5. Development of misdirected, narrow or undesirable interests because of lack of guidance

6. Possible interference of sensory or motor defects with full accomplishment

7. Development of inferiority feelings because the child's interests and activities are not socially recognized by his group

8. Development of a boastful, conceited personality because of unwise emphasis by adults

9. One-sided personality development because of lack of normal social activities resulting from parental intervention or from number three above. [23]

Paul Witty studied a group of fifty gifted children for a period of ten years and found that ten of that number appeared to be maladjusted, three decidedly so. All had

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[22] J. E. Bentley, Superior Children, p. 16.

[23] C. M. Louttit, Clinical Psychology, p. 236.

reached or exceeded medians for children of their ages upon four character tests. Seven were boys and three were girls. The ten maladjusted children fell into these two general types: (1) the withdrawn, displaying anxiety feelings and uncertainty about the future, and (2) the indifferent, socially inadequate, bored dilettante who understand life's issues but refuse to participate in them. Beyond doubt the school had had an important role in creating the dilettante, for the five boys and the two girls in this group had never been interested in striving, according to Witty.[24] Success had come too easily during the elementary school, and disillusionment too quickly during the socio-economic crisis which attended their adolescent development.

Later Developments and Current Trends

There are at least three major methods which schools have employed in an effort to provide optimum opportunities for the educational development of superior children. They are as follows: (1) rapid advancement or acceleration, (2) enrichment of the regular curriculum, and (3) special classes. These methods are not mutually exclusive in every respect, for all three are concerned to some extent with enriching the school programs of superior children. Each

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[24] Paul Witty, op. cit., pp. 31-33.

of these methods will be discussed briefly and evaluated in the light of the growth of democracy.

Rapid advancement.--Rapid advancement or acceleration is the oldest and probably the most common method of providing for children of superior ability. One of the chief characteristics of this method is the time-saving element, for under it a child can complete his school in much less than the regular time. On the surface, that characteristic seems important in this age of stepping-up, merging, advancing and rushing everything in every phase of life. In this rapid age that method has its appeal.

Acceleration is brought about through one of the two following procedures; (1) giving extra promotions to individuals - "skipping grades" as it is more familiarly termed - or (2) sectioning superior pupils in rapidly moving classes, doing two years' work in one, or three years' work in two.

According to the first procedure a bright child who has just finished the third grade might, for example, be promoted to the fifth grade without ever taking the fourth grade. As a rule the bright third-grader who find himself elevated to the fifth grade has little trouble in keeping up with his new class. He is "kept out of mischief" and in general finds the new studies, which are more commensurate with his ability, challenging to him. In many

school systems this is often the only avenue open for the effective education of superior children.

This procedure, however, possesses several rather objectionable features. In the first place, children who skip grades often miss much basic content material which is never covered in their further studies. Although the child may not immediately recognize that large gaps exist in his scholastic experiences, sooner or later he may find himself without a specific tool or skill which was taught in the grade he skipped. Wherever any skipping of grades is done, the teacher should be sure that provision is made for mastery of the intervening subject matter, either through individual coaching of the child or through some other means which will leave no gap in his knowledge. This often avoids periods of baffled discouragement and depression on the part of the child who has been advanced one or more grades. A second criticism of this plan of acceleration arises from the possibility that the child may be placed in a social group for which he is unfitted. His physical, emotional, and social development may be normal for his age, but grade acceleration forces him to associate with children who are much more mature in these respects than he.

One principal says, "few products I have ever heard of are improved by speed of completion, whether the product be an automobile, some fruit or whatnot; and I believe

children do need this gradual ripening process of full time in school to secure the best results in a sensible way."[25] Many undesirable consequences may affect the child who is placed in such an unsatisfactory situation.

J. E. Dransfield says acceleration has two limitations: (1) It deprives the bright child of educational opportunities since every year that he skips reduces his stay in school by that much and deprives him of educational advantages which his community should provide and for which his parents are taxed. (2) It is not assured to all children of equal ability.[26]

Adams and Brown illustrate this in these words:

> The teacher and authorities of one school will encourage having Willard skip a grade because school work comes so easily for him that he could be certain to make a success of the grade above him. Another school will refuse permission to have Eliza pushed ahead a grade because the authorities claim that education, even in the case of an intelligent pupil such as Eliza, is not a question of so many grades or credit points but of habit building, time and enriched experience.[27]

The second acceleration procedure, namely, that of sectioning superior pupils to rapidly moving classes, has

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[25] William Healy and Augusta Bronner, "How Does the School Produce or Prevent Delinquency?", Journal of Educational Sociology, V. 6, pp. 450-470.

[26] J. E. Dransfield, Administration of Enrichment to Superior Children in the Typical Classroom, p. 5.

[27] Fay Adams and Walker Brown, op. cit., p. 56.

certain distinct advantages over the plan of giving extra promotions. The most important advantage is that no serious gaps are allowed to occur in the child's scholastic experience. No grades are skipped. The entire work of two grades will often be covered in one year. An example of this type of arrangement is found in the experimental school of the University of Illinois. Children of the schools in the vicinity of the university who have finished the sixth grade with at least a B average in all their elementary school subjects are eligible to take the examinations for admission to the sub-freshman group of the University of Illinois High School. The examinations consist of a battery of achievement tests and an intelligence test. Those children ranking highest on these tests are admitted to the sub-freshman class where they complete the work of the seventh and eighth grades in one year. In addition to covering the regular two years' work in one, the children participate in a number of enrichment activities such as the study of art and music appreciation.

The Chicago public schools are experimenting with rapidly moving classes for superior pupils. Children with superior general ability are identified after their first half year in school and are placed in classes where they will complete the first seven grades in six years. They spend a full year in the eighth grade but they save one

year in completing the entire grade school course.[28]

A limited amount of acceleration such as provided in rapidly moving classes is no doubt desirable. There is evidence to show that a moderate amount of acceleration produces no detrimental effects upon a superior child.[29] Besides saving a possible year of time, the superior pupil will tend to avoid habits of indolence which he might acquire if he were not allowed to occupy himself with studies which constitute a real challenge to his intelligence.[30] When the accelerative process is carried to extremes, however, it can easily be a major factor contributing to a child's maladjustment. Perhaps one might say in conclusion that for the intellectually superior child his pace in school should be determined on the basis of his mental capacity plus his physical development plus his social maturity. Each of these three is an important factor in guiding the whole child.

Enrichment of regular curriculum.--The second major method used in the educational development of superior children is the enrichment of the regular curriculum. In order to avoid any undesirable effects that may result from

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[28] Glenn Myers Blair, "New Plan for the Chicago Schools," School and Society, V. 45, p. 450., March 27, 1937.

[29] Ibid., p. 6.

[30] W. L. Wilkins, "The Social Adjustment of Accelerated Pupils," School Review, V. 44, pp.445-455.

accelerating superior pupils, a number of schools have set this type of program which does not call for special or rapid promotions of any kind. The superior pupil remains at his grade level and in his regular room, but carries on a wide variety of activities in addition to the regular class work. These activities often take the form of supplementary reading, the development of special problems and projects, and simple research.

The St. Louis schools furnish an example of an attempt to provide for superior children and at the same time leave them in their regular room and grade.[31] Each teacher is made responsible for meeting the individual needs of all types of pupils in his class, superior as well as average and retarded children. One fourth grade teacher, for example, guided a ten year old boy with an I. Q. of 137 in supplementing his regular work in science with special exhibit pictures and in history with a report on Andrew Carnegie and the Palace of Peace. This boy also wrote an original play.

From a theoretical standpoint this method of having each teacher provide for her own gifted pupils by encouraging and supervising appropriate supplementary work is very desirable. Many obstacles, however, are found in

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[31] M. V. Bear, "How St. Louis Schools Serve the Bright Pupils," Journal of the National Education Association, V. 38, p., 121.

its practical application. The typical teacher is often too busy with her average and slow-learning pupils to devote much time to the one or two very superior children in her classroom. Furthermore, it is too much to expect that every teacher in charge of a class will be sufficiently versatile and ingenious to arrange suitable activities for certain children of unusual ability. It might, for example, be desirable to teach a foreign language to an especially gifted sixth-grader or to assist him with some complicated science project. It is questionable whether the average teacher would have the qualifications for directing such work. However, if sufficiently high standards for teacher personnel can be met, the method of enrichment in regular classes is ideal.

A somewhat different type of enrichment program for gifted children has recently been carried out in Washington, D. C., at the fourth, fifth, and sixth grade levels.[32] Hobby clubs have been formed to give opportunity for enrichment to children who possess unusual talents and interests along specific lines. There is a glee club, a creative writing club, an art club, a science club, and a creative dramatics club. These groups are guided by teachers who

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[32]Julia L. Hahn, "Hobby Clubs for Children with Special Gifts," Educational Method, V. 18, pp. 21-26.

are skilled in these respective areas and who are interested in working with gifted children. The clubs meet once a week at two o'clock in the afternoon. At this time the selected children leave their regular classrooms and go to a centrally located school where the club activities are carried on. Admission to membership in the clubs is not based upon scores made on an intelligence test, but upon the basis of interest and unusual ability in the work to be undertaken by the club. Experience has shown that the majority of the qualifiers are also children of superior general mental ability and outstanding achievement.

A most carefully planned and complete program of enrichment for superior children is that found in New York City, in Public School No. 500 (Speyer School).[33] The classes conducted there are composed of children whose I.Q. ranges from 130 to 200, according to Stanford-Binet Tests. The age range of the children at the time the study was made, 1938, is from nine to twelve years.

The chief enrichment project which the classes have undertaken is a study of what has been called "The Evolution of Common Things." The children, being of such a high level of intelligence, are unusually curious and enjoy tracing the history and development of many of the

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[33]Leta S. Hollingworth, "An Enrichment Curriculum for Rapid Learners at Public School 500; Speyer School," Teachers College Record, V. 39, pp.296-306.

common things which are customarily taken for granted. Clothing, transportation, communication, shelter, illumination, and sanitation have all been investigated by the pupils from this point of view. This type of activity not only provides much stimulating work for the children, but also gives them an acquaintance with the evolution of our civilization which is so essential for one who would make further contributions to what now exists. It is from children of the mental ability range found in these classes that we may expect the leaders, scientists, and philosophers of tomorrow to emerge.

The children are also being taught to read and speak the French language. There is also further special work in general science, music, dramatics, and handicrafts. Reading, writing, arithmetic, and other tool subjects are not neglected, for the mornings are spent in mastering the established elementary school curriculum by means of the "contract method." Tests have shown that the children are well in command of these fundamental subjects.

Special class.--The third major method used in the educational development of superior children is the special class for such children. This is the oldest method in use and much has been written about it. There is still much difference of opinion on this point among educators. Some say such a class is never feasible.

Others would say: "Whenever the number of available children permit it."[34] In school systems in which gifted children have actually been grouped into separate classes, the sentiment in favor of such a procedure has developed into real enthusiasm. Intellectually superior children have been gathered together from a whole school or from several schools and have been organized into miniature communities of their own, not, however, without opportunity for contact with other children in various types of activities in which all can join. Children who are considered eligible for such classes usually have an I. Q. of at least 120, and in some cases the lower limit stands at 125 or 130.

Again, educators argue that the segregated class for gifted children leads to egotism and social snobbishness. Leaders who have had experience with them say that the problem is not more serious, and perhaps less so, in a special class than in a regular one. If rightly handled, such a class should indeed lessen the possibility for self-glorification. In the regular class, the gifted child finds himself so easily surpassing other children that he may very quickly form a false notion of his own superiority. As a member of a special class, however, in which he is

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[34] Elise H. Martens, "Teachers' Problems with Exceptional Children," Pamphlet No. 41, p. 24, U. S. Government, Department of Education.

only one of a group, he finds others who are just as bright as or brighter than he is. This, in the opinion of the writer, is likely to exert a very wholesome influence against any tendency to egotism on his part.

Many of the unwholesome social reactions on the part of gifted children originate in the home, when parents yield to foolish pride and encourage the feeling of superiority in their children. If parents can be led to understand the special class without demonstrating and without emphasis upon the child's superior ability, the dangers of undesirable social reactions will be minimized. The intellectually gifted child, his teacher, and his parents need to appreciate the things which other children can do better than he can and to recognize the fact that they are all needed quite as much as he is in this great task of living together in the same world.

In considering the program for special classes of gifted children, the writer found that the activity plan was used. Fixed desks have been replaced by tables and chairs, and there is the utmost freedom for both children and teachers. The understanding is usually that the group will cover the year's work in the academic branches of the usual curriculum for any particular grade, and perhaps one new subject. Beyond that their time is their own, and in consultation with the teacher, they may spend it as seems

best. The result is a wide range of activities, following as far as possible the desires of the individual child or of groups of children, and doing things with an enthusiasm and a thoroughness that must be seen to be fully appreciated. The rooms should be equipped with exceptionally good lists of books, including encyclopedias, dictionaries and other reference books. The children often work as much outside of the room as they do inside. They also spend much time visiting important industrial plants, such as banks, newspaper offices, courts, factories of various kinds, post offices, educational institutions, and museums.

The activity unit seems to offer the most promising method of coordinating the entire program about a central theme of interest. The skilful teacher finds the opportunity for giving experiences in creative writing, creative art, and creative music.

Creating in education is much advocated today. When one looks into the schools he sees that traditionally, creating has no admitted place.[35] In modern schools, and particularly in the special class for superior children, it is advocated, but thinking about it is seldom clear and practice accordingly suffers.

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[35] Wm. H. Kilpatrick, "The Place of Creating in the Educative Process," Childhood Education, V. 7, p. 115.

All children can create to some degree. The more of creativity teachers can put into the life of the bright child, other things being equal, the richer it is in satisfaction, and satisfaction of a kind that is called "higher." It is the business of educators to try to bring into each child's life as much of creation as possible.

Creative work is more than making pictures or composing music or writing. So far as concerns the school, everything proper to go on there has its possibility of the creative in it. Teachers can measure their success largely by the amount of creativeness that emerges in all that is done. Along with creativeness the teacher must seek the integration of personality. These two stand together helping each other and quite opposed to the ordinary subject matter achievements. To stress subject matter more and of itself, especially as measured by centrally administered standardized tests, is often mis-educative, hurtful both to creativenss and to the integration of personality.

In the creative arts, according to Mabel Arbuckle,[36] ways and means of directing and conserving individual talents are being effectively developed and evaluated. Many public school systems are carrying on experiments or well-established programs in the fields of language arts,

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[36] Mabel A. Arbuckle, "Providing Opportunities for Children With Unusual Ability in the Visual Arts," National Elementary Principal, V. 19, p. 422.

drama, music, and graphic, plastic, or industrial arts. In many instances this work is being offered as part of the regular curriculum and during school hours. Through art education classes it is comparatively easy to discover a child's dominant interest and ability in visual art expression.

In the Detroit public schools the art instructors first attempted to provide for talented children by organizing after-school classes on all levels of instruction. This was originally an experimental program, initiated by the instructors and the children but carried on with all necessary supervisory and administrative aid. In these after-school classes, children with outstanding ability to the point of genius in the visual arts were discovered. It soon became advisable to separate those with real genius from others with less talent and aptitude. Accordingly, a Saturday morning class for the very unusual children was organized. The whole program of after-school and Saturday classes met with the interested support and cooperation of the principals and the general school administration.

The school administration has made these classes a part of the program of art education for the entire educational system by providing a stated budget for teaching service and art supplies. Rigid entrance standards require evidence of exceptional talent before a child can

be admitted to a class. Classes are organized for all school divisions according to the recommendations of the principals as to the needs of each division. As children of ability are discovered during a school year they are either immediately enrolled in a class or are placed on a waiting list if the class limit of thirty pupils has already been reached.

As to methods of instruction, Arbuckle says the students are encouraged to use and experiment with all types of materials and processes. They use water colors and oil paints, chalk and crayons, pencil, and pen and ink. They try the reproduction process of lithography, etching, and block printing. They experiment in clay modeling, soap and wood carving, pottery-making and ceramics, and textile design in weaving and dyeing. Designs and compositions are the children's own.[37]

Group activity in these special classes provides for recognition of personal characteristics and for development of superior capacity. It also gives opportunity for socialized endeavor.

This extra-curriculum program is the result of fifteen years of experiment and practice in the Detroit public schools. Many of the contemporary artists in metropolitan Detroit received their original direction

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[37] Ibid., p.427.

and stimulation from instruction in these special classes. This fact alone, in the opinion of Mabel Arbuckle,[38] justifies the belief that this phase of art education in the public school curriculum is filling a vital need for children with unusual ability in the visual arts.

Woods believes that the special class can provide necessary methods and materials for social and emotional adjustment. He writes of an experimentation carried on in Los Angeles, California, for several years with these aims: "To cultivate a live curiosity not only in the world of books but in the world outside; to stimulate initiative and creative power."[39]

Another study revealed[40] that industry and initiative were fostered through the special class in an elementary school organization and that the gains persisted in high school.

Extensive experimentation with special class instruction for gifted children should prove of considerable value. However, in more than a decade of limited experimentation there has been developed surprisingly

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[38] Ibid., p. 428.

[39] E. L. Woods, "The Gifted Children," National Educational Association Proceedings, V. 59, pp. 378-380.

[40] White House Conference on Child Health and Protection Report, Section III, p. 56.

few enrichment programs, and crucial data regarding the desirability of special classes still are lacking. The following are some suggestions whereby enrichment through the special class may result in merging life experiences with worth while school endeavor for bright children.

Opportunity for "free reading" is necessary for the gifted. Studies disclose, however, a continuous increase in the amount of reading as the gifted child matures. The height of the "reading craze", which occurs for the average child at thirteen, seems not to have been reached by gifted children at seventeen and a half years; they show a progressive and appreciable yearly increase in the amount of their reading until they are at least eighteen.

The voluntary reading of gifted children cannot be considered as other than a serious reflection upon the effectiveness of the school in developing permanent interests in reading as a leisure activity. Although the reading of the gifted child is relatively high in quality and large in amount, it is not as high as we might anticipate; it neglects several important fields of human endeavor, noticeably, the arts.

It is noteworthy that eleven of the fourteen most promising youthful writers designated by Terman for intensive study were girls. Three boys only were cited,

and in no case did the writing of a boy reach a level superior in quality to that of the poorest of the eleven girls. It is significant also that musical ability, painting, drawing, and other specialized abilities are not displayed in marked degree by the hundred gifted children studied by one of the writers.[41] Two boys give promise of attaining high rank in the arts for they have produced some excellent thought and quantitatively unmeasured works in music.

An increasing number of cities, in their school systems, have set up special classes for children of superior general mental ability. These classes differ from the rapidly moving classes discussed earlier under the heading of acceleration in that their sole concern is enrichment with no attempt at shortening the period of formal education.

Cleveland was one of the first cities to establish this type of special class. In this school system, classes enrolling twenty-five to thirty superior children pursue an enriched curriculum, usually by the use of the project method. Many field trips are made. French is taught. Wide supplementary reading is done and every child learns

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[41] Paul A. Witty, op. cit., p. 369.

to typewrite out of curiosity. Discipline is no problem. Goddard states[42] that in observing these classes for five years he has never seen a child that needed disciplining. The children are apparently too interested in what they are doing and too busy to get into mischief as so often happens when superior children are left to their own devices in the traditional classroom.

Dorothy Norris says[43] that Cleveland's special interest in superior children began in October, 1921 when a class of pupils with high intelligence quotients was established in one of the elementary schools. As a result of cooperative interest and effort the city now has classes for superior children in ten elementary schools, four junior high schools, and three senior high schools. The total enrollment in these classes is about 1600, of whom a third are in the elementary grades. The groups are officially called "Major Work Classes," a name which avoids the objectionable connotations of such a term as "high I. Q."

In establishing and maintaining these classes, Cleveland schools have recognized that the superior child needs special study and treatment no less than does the

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[42] H. H. Goddard, School Training of Gifted Children, p. 225.

[43] Dorothy E. Norris, "Special Classes for Superior Children in an Eastern City," National Elementary Principal, V. 19, p. 397.

child of inferior ability. Those responsible for the program believe, moreover, that while some of the necessary educational opportunities can and should be provided in heterogeneous groups, the peculiar needs of the gifted pupil can best be met by placing him in a relatively homogeneous group for a major part of his classroom work.

The children in each Major Work Class at the elementary school level are drawn from several schools within reasonable traveling distances of the school in which the class is housed. The grade range of each group depends upon the number of superior children available from each grade in these neighboring schools. The enrollment of each class is between thirty and thirty-five. The children are selected by means of standardized intelligence tests.

The school hours for these classes are the same as for the regular classes. In fact, each Major Work Class is an integral part of school, enjoying and participating in all its functions. The gifted children mingle freely and democratically with the other children on the playground, in physical education periods, in school assemblies, and in special-interest clubs. On the other hand, the program of the Major Work Class provides a special stimulus to creative effort, encourages critical thinking, and helps to keep the children working up to

their high levels of mental ability. As has been indicated in previous paragraphs, the content of the curriculum for superior children, like that for ordinary children, is not a fixed, permanent thing. It must evolve gradually in accordance with social changes, progress in science, and increasing knowledge of the needs, and development of children.

There are certain enduring principles on which the program of Major Work Classes is based. The development of essential skills and understanding in the children is of first importance. The innate ability of the gifted child, however, enables him to master such content with much less than the usual expenditure of time and effort. The school environment of the gifted child should provide superior intellectual stimulation and furnish significant and satisfying outlets for his superior energy and ability. His unusual readiness of comprehension, his power to draw conclusions from specific data, and his capacity for leadership must be developed and turned into constructive channels through a variety of mental and social activities.

To bring about the maximum growth of each child, the curriculum must be sufficiently broad and flexible to care for the diverse needs of all the children in the class. Even in Major Work Classes there are wide

differences among pupils. Moreover, there is usually some unevenness in the abilities of the individual pupil. Hence, each child must be given the space, the freedom, and the materials necessary to develop his powers to the full, and an incentive to use those powers for the good alike of himself and of society.

Concerning basic skills and understandings, it is agreed that the children in the Major Work Classes, like all other pupils in the Cleveland schools, are expected to master a common core of basic skills and essential information. These essentials are covered in a series of separate subjects, including reading, writing, arithmetic, spelling, language, history, geography, civics, and science. The administration and enrichment of this curriculum are the responsibility of the individual teacher under the guidance of the school principal and the assistant supervisor in charge of Major Work Classes.

An integrated program coordinates a large part of the work in each class around one central theme or interest. Among the topics studied are lighting, communication, transportation, colonial life, and the nationality backgrounds of pupils in the class. When a comprehensive plan had been developed, individuals and small groups accepted responsibility for exploring the various sub-topics. Much

research was done in the school library and in books sent to the classroom from the library. Separate objectives and outlines were set up under various subject headings.

In all such units the active participation of individual pupils and their unique contributions to the group are strongly emphasized. Group discussions around a table with a class member acting as leader, comparable to the seminar method of the college, provide opportunities for synthesizing and evaluating the results of individual research. This method involves the use of dictionaries, encyclopedias, and other reference books as well as slides, motion pictures, charts, maps, ordinary pictures, exhibits, radio programs, and phonograph records. In addition to books and other aids to learning in the school, trips to places of interest are an integral part of the curriculum. The teacher seizes every opportunity to enrich the superior pupil's program with an abundance of worth while and stimulating experiences. A special teacher directs the art and handwork, but these also are frequently correlated with the major activity in progress. As a result, the children gradually acquire ideals of sustained effort, of high achievement, and of efficient self-management.

In the Major Work Classes there is much enrichment in literature, for the purpose of the literature periods is to develop an acquaintance with the best the world has

to offer in the field of literature suitable for the children's level of maturity. Almost all bright children are omnivorous readers and therefore kind and tactful guidance in the selection of books is necessary. Teachers make a constant effort to develop tastes for the finer types of reading. Much is accomplished through club work and weekly discussions. Book lists and club programs are prepared by the children. Some of the procedures used to improve children's tastes are illustrated by fifth-sixth grade activity on the enjoyment of poetry which is outline in part below:

A. Objectives

1. To become familiar with many poets and to esttablish wide contact with poetry

2. To write some poetry (an effort is made to have this done spontaneously)

3. To present an auditorium program of poems chosen by the class

4. To develop a pleasing voice, clear enunciation, and correct phrasing in the reading of poetry

5. To learn some of the elements and characteristics of various kinds of poetry

B. Procedures

1. Weekly class poetry periods were held. The programs at these meetings were presented largely by the children, with only a brief contribution brought by the teacher.

2. Two poetry clubs were formed within the class.

3. The programs were varied in nature and some of

them showed considerable originality and ingenuity on the part of the children. One program consisted entirely of poems by Carl Sandburg. In another, poems illustrating a variety of very pronounced rhythms were assembled.

4. At the close of each weekly poetry period the class undertook to evaluate the program, considering both the material presented and the excellence of its presentation.

5. Sometimes a "request program" followed the regular, prepared program.

6. At intervals during the class poetry meeting, new aspects or characteristics of poetry were considered.

7. An auditorium program for the rest of the school and a program for parents during National Poetry Week were presented as the climax of the entire activity.

8. A booklet of "choice lines" was compiled.

9. Some children wrote original poems.[44]

Each Major Work Class devotes one hour each day to the study of the French language under the tutelage of a special instructor. Special emphasis is placed on the conversational phase of the language, and most of the talking during the class period is done in French, especially in the upper grades. The children learn rapidly, as a rule, and are enthusiastic about being able to use the language of another nation.

A discussion of the results obtained by Cleveland's Major Work Classes follows. Norris makes this comment: "As most important and most emphasized objectives cannot be adequately measured, so subjective appraisals

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[44] Ibid., p. 401.

indicate that the special classes facilitate, rather than impede, personality growth and adjustment, while objective measurements show that these classes are not neglecting the academic phases of school work."[45]

The informal, attractive classrooms in which the Major Work Classes are housed provide a suitable setting for desirable social relationships among the children, and here good social habits are carefully fostered. Release from unnecessary routine affords opportunity for exercise of the child's self-control and judgment. Here in his small community he learns to accept responsibility willingly. His school situation calls for constant cooperation. His program of work is so adjusted that his time is fully occupied and he seldom creates a disciplinary problem.

While the Major Work Class permits the gifted child to work on an enriched program with his mental equals, he is at the same time associating with children of all intellectual levels in cooperative social activities. Like all the others, he is a citizen of the school, takes part in its clubs, entertainments and other activities, and shares in its responsibilities. In addition, group work within his class helps him in the cultivation of important civic qualities. He learns that each person is entitled to his

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[45] Ibid., p. 402.

own opinion but is responsible to the group in many ways. He learns to respect the rights and opinions of others. He learns to be cooperative in work and play, and to be a "good sport."

In a segregated group of this kind the pupil is challenged by other children who are of similar mentality. He soon comes to respect and enjoy the achievements of the others. The attitude of aloofness or superiority which the superior child sometimes manifests toward the average or inferior child is thus counteracted to a large extent.

The activity program with its lifelike situations creates a real need for knowledge, and the child experiences satisfaction in his accomplishments. In his freedom to express himself his talents are released. Sometimes these abilities develop as hobbies.

Studies have shown that the gifted child usually possesses a strong love of beauty. The special work offered in art and music, as well as the enrichment provided by radio and the symphony concert, is contributing greatly to the nurture of this quality which is so important in the development of a well-rounded personality. Thus, in many ways the special class fosters the personality adjustments of the gifted child, who, with his larger capacity for emotional feeling and his greater social and civic insight, should have an environment unusually rich in

opportunities for self-realization and service.

In every grade the composite median achievement of the Cleveland Major Work Class pupils was above the test norms for pupils of normal and superior mental ability in that grade. This superiority in achievement may be attributed in part to the higher average intelligence of the Major Work Class pupils and in part to the enriched program of work.

For many years the Birmingham, Alabama, public schools have been concerned about adequate provisions for the education of children with superior general mental ability. On the basis of a philosophy of education that implies that every child has a right to both physical and mental health and to intelligent participation in family and communal responsibilities, this southern city has endeavored to evolve a program which would more nearly meet the needs of superior children than the conventional type of school organization. Three procedures have been used: (1) segregation of the children in special classes involving an enriched curriculum; (2) provision for individual differences through an enriched curriculum; and individualized instruction in conventional classes; and (3) ability grouping of children in the primary grades.[46] Recognizing the conflicting points

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[46]I. R. Obenchain, "Providing for Superior Children in a Southern City," National Elementary Principal, V. 19, pp. 407-415.

of view regarding these various methods of providing for superior children and the merits and demerits of each method, Birmingham, has, nevertheless, proceeded along all three lines.

1. Special classes. One of the first efforts to make special provision for superior children was the establishment of two enrichment classes in an elementary school in 1929-30. Candidates for these classes are selected from all schools in the city on the basis of teachers' and principals' recommendations, achievement test results, physical condition and psychological examination records indicating an I. Q. of 120 or above.

Because the Birmingham schools are organized on the platoon basis, it was necessary to fit the enrichment classes into the platoon schedule. This means that the enrichment class teacher has charge of two groups, each of which spends one-half the day with her. During the day, wherever art, dramatics, music, and other similar subjects are involved in the unit of work that is under consideration, the children are integrated into the study plan.

The children for these classes are usually selected from the low and high fifth grades of the regular classes in the various schools of the city. Since the city schools of Birmingham are organized on the 8-4 plan, these children remain with the same enrichment class teacher until they have completed the high eighth grade.

Teachers of enrichment classes have not had previous experience with such work. Usually they are selected on the basis of their education and experience, enthusiasms and alertness, understanding of the child, capacity for leadership, interest in creative education, and cultural background.

All the children live in the same school community and there is no transportation problem. No special examinations are given and no specific standards are set up as bases for enrollment. In most cases the pupils remain with the same teacher, as in the special enrichment classes, as two sections which function in accordance with the regular platoon schedule.

The closing of a project was made an important occasion. A program or party was planned in order that invited guests might see and hear about the activities just concluded. The programs were not given to show off what the children had done but in the spirit of sharing pleasurable experiences with interested friends.

This class worked always in small groups with rotating leadership, frequently changing officers. No pupil monopolized the center of attention or shirked his responsibilities. Many extra curriculum activities were enjoyed by the children throughout their years together. They participated in oratorical contests, athletic events,

orchestra, band, glee club, and dancing parties. When they graduated these children left their fellow elementary schoolmates a record worthy of emulation and carried with them a memory of school days filled to overflowing with interesting achievements and happy experiences.

In the fall of the school year 1937-38 a special class of thirty fifth graders was adopted by this same home-room teacher as her other section. This class soon caught the spirit of the older group and followed in its footsteps. The pupils are known as "The Workers," and are no less determined than the original group to "go places and do things."

Often enrichment classes are organized somewhat after the manner of a city government. In one class an election is held each year at a designated time to fill the following positions: first commissioner, second commissioner, third commissioner, superintendent of instruction, tax assessor and collector, radio announcer, newspaper editor, librarian, Red Cross representative, and banker. Campaign speeches are made over an improvised radio. Notices are placed on the bulletin board and a committee arranges and prints a ballot. The ballots are counted by the pupils and the results announced by them. Regular board meetings and town meetings are held at which

problems concerning the group are discussed. The teacher makes a point to remain in the background and to enter the discussion only when called upon or when it is absolutely necessary. At one town meeting the first commissioner discussed the duties of the officers and citizens in general.

To date, Birmingham has found that the enrichment class groups are made up of children from both rich and poor, cultured and uncultured families from all strata of life. By far the predominant number of enrollees, however, comes from families in the average income brackets. Only one pupil has failed to make a satisfactory adjustment.

As far as possible a record is kept of the adjustment of enrichment class children after they leave school. Such records show that many of these pupils have gone out into the fields of journalism, radio work, music, chemical engineering, military service, naval service, medicine, teaching, and dramatics. One class of seventeen furnished six members to the National Honor Society in high school.

The problems encountered in connection with the administration of enrichment classes are those common to most similar endeavors. They have to do with arranging for the transportation of the children; providing sufficiently for their individual differences even in the special groups; cultivating an objective attitude toward the classes in both elementary and high school teachers of regular pupils,

and in some parents of regular and enrichment class students; surmounting mechanical or administrative difficulties involved in coordinating the special class work with that being done throughout the school. It is to be said, however, that although these problems have not been adequately solved in every case, they are not formidable as to preclude good work or to overshadow the obvious contributions the classes are making to the education of superior children.

2. Enrichment in regular classes. Provision for superior children is also made in regularly organized classrooms but the program is not so clearly defined as it is in the special class.

Studies are usually undertaken as functional problems. The pupils are encouraged to consider the improvement of existing conditions by discussing such questions as, "How can I make my community a better place in which to live?" Pupils help set up objectives, plan activities, suggest references and supplementary materials and evaluate procedures and results.

Teachers of all subjects are freely called upon to make specialized contributions. The results of this program have been very gratifying, and it is felt by the teachers that not only has provision been made for the needs of the superior child but also the average and slow-learning children have been stimulated by the contact with the enriched activities.

3. Ability grouping for primary children. Still another effort is being made by Birmingham to provide for the superior child, as shown by what has been done for a number of years with primary children. In the first grades of the larger schools, where there are enough enrollees for more than one teacher, the children are frequently grouped according to learning ability at the beginning of each semester. In some instances there have been as many as three or four different divisions. In these cases the upper group is usually composed of superior children and efforts are made to provide for their educational needs through emphasis on an enriched curriculum and individualized instruction. No special attempt is made to continue these groups intact through the elementary school.

In concluding the discussion of the Birmingham schools' provisions for the needs of superior children, the following summary is given. These provisions have been shown to be: (1) segregation in special classes involving an enriched curriculum; (2) non-segregation in conventional classes with special provision for individual differences through an enriched curriculum and individualized instruction, and (3) ability grouping of children in the primary grades. It is felt by the educators in charge that the results of the various attempts have been reasonably successful. The greatest handicap has been the lack

of funds, a difficulty which has made it impossible to extend the program into a number of areas where the need for such provision is particularly evident.

Chicago, Illinois, is another city that has made special provision for superior children.[47] The following four points are involved in the La Fayette School:

1. The most able five per cent of the pupils manage the school's affairs according to the ideals of the United States Civil Service, which call for competent, skilful, technically trained servants of the public interest.

2. These pupils are trained in the exercise of leadership and in the technical skills necessary to enable them to render expert service to the school.

3. Rules are definite, explicit, and precise and are made and enforced by the group.

4. Two ends are achieved: (a) efficient student government, and (b) vitalization of the education of superior children by giving them an opportunity to serve the public interest.

An advantage of the plan in the La Fayette School is that it insures from the very outset that each member has earned his right to that position. Each one knows he can be on one of the councils only if he merits selection by

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[47] G. E. Rickard, "Superior Pupils Take Charge of the School's Affairs," National Elementary Principal, V. 19, pp. 416-421.

virtue of his scholastic standing. Another advantage is that under this system pupils are not being trained in the art of demagogy and in the use of vote-catching phrases and political chicanery, but rather in the virtues of the upright, intelligent, and skilful public servant. The leaders are being imbued with the ideals of civil service rather than those of the "spoils" system.

There are many advantages in placing student government on this basis. The superior students in general have a special concern for the good name of the school. Also, they can best spare the time to devote to community affairs. The ablest pupils are capable of developing a more mature point of view and they will learn to consider the problems of the school community in a broad sense much more quickly than the less competent. Pupils of high standing will be adept at understanding the public and social business of the school.

The leadership is not a gift but a complex skill built up by the exercise of certain special abilities through purposing, planning, executing, and judging. Thus, skill in leadership is being learned, not as it is going to be used, but as it actually is used.

The LaFayette plan includes a senior central council of forty members from twenty home rooms of the departmentalized division of the schools, Grades VI-B through VIII-A, and a junior council of twenty-eight members from

fourteen home rooms of the non-departmentalized division, Grades III-B through V-A. The senior council holds a general half hour session each Wednesday from 11:30 A. M. to 12:00 noon under the sponsorship of the assistant principal.

The representatives from each room are obligated to take back from council meetings a weekly summary of activities and accomplishments. Home room pupils are asked to contribute suggestions to members of the councils. Each council has its own president, secretary, and treasurer elected by the council at the first meeting of the semester. Procedure in council meetings follows the usual order of reading of minutes and committee reports. It is obvious that the administration of such an extensive pupil personnel requires a very high degree of competence on the part of every member of the central council.

Another city, in another section of the country, the far West, that has been doing an excellent piece of work for its superior children is Los Angeles, California. The public schools of this city were among the first to organize special classes for children of superior general mental abilities. These opportunity classes were conducted according to the philosophy that curriculum modification and enrichment in homogeneous groups are the most desirable means of conserving and developing the capacity

for creative leadership among superior children. Such classes are organized in elementary schools upon the request of the principal if the number of pupils of superior mental ability indicates the need for them.[48] There must be approximately thirty pupils with intelligent quotients of 125 or above. The chronological age range is limited. Children are selected for the special classes by mental examinations.

A paramount consideration is given to curriculum adjustments and teaching methods used in these classes. Los Angeles has come to believe, after eighteen years of experience with opportunity class children and their teachers, that enrichment is largely a matter of methods of instruction rather than of changes in subject matter or materials. Course-of-study requirements, where such exist, can be made to enrich the lives of the children if they are "pupil purposed" and taught through actual pupil experiences.

Children with high intelligence quotients need, as much as any other children, to acquire skill in arithmetic, spelling, the grammar of language usage, and the other tools of learning, according to the Los Angeles authorities. In fact, these boys and girls are the ones who will

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[48] Cora Lee Danielson, "Special Classes for Superior Children in a Far Western City," National Elementary Principal, V. 19, pp. 388-396.

make the most valuable use of the tools. Imposed drill, as such, is meaningless to them and usually unnecessary. They seek for meanings and relationships in what they do, and they work with definite purposes in view. In the opportunity classes tool subjects make up an integral part of the enriched experiences of the pupils through the methods of lesson assignments and no required "recitations." Each pupil is encouraged to watch his own progress and improvement.

Adjustment of the curriculum to meet the needs of these groups also involves giving the children daily practice in creating, discovering, inventing, adapting, and problem-solving on their own levels. A major field of experience is set up for each group, the selection of the field being governed by the interests of the pupils. In theory, approximately one semester's study is devoted to the general field of science or the "evolution of common things." The second semester's work is built around the cultural aspects and institutions of some period in the history of civilization, including the people of that period and their achievements in art and literature.

Each unit is organized, as far as possible, as a problem to be investigated and solved. The units are not presented as opportunities for collecting facts of acquiring knowledge for its own sake, since it is recognized that such activity requires little or no exercise of

critical judgment. Rather, each project grows out of pupil interest, has a specific purpose, and evolves through careful pupil planning. Among the subjects chosen for unit study have been the following: (1) food and nutrition; (2) what people know of astronomy and how they use the knowledge (an observatory and a planetarium in the vicinity aided in this study); (3) weather; (4) publishing a newspaper; (5) music on the pages of our history (the production of a pageant showed the connection between the stages of our historical development and their music; (6) illumination; and (7) plant propagation and chemiculture.

Each boy and girl contributes his or her part to the accomplishment of the common goal. The development of habits of working together is essential. It is equally essential that each child follow his own interests and develop his special abilities. Practical provisions are made for, and encouragement is given to pupil investigation, research, and production. The class is assembled wherever a child or group of children wants to report or to walk for assistance from others. In each group there are a number of clubs, pairs, and individuals work informally on their particular contributions to the unit.

The creative ability of children of superior general intelligence is of high order and needs only the right soil

in which to flourish. The encouragement of appreciative attention brings forth original expression in simple inventions, music, dances, stories, and poems. The workshop period, during which all are free to engage in the "making of things" or in such creative work as drawing, painting, and modeling, is an established part of the program. Another part of the program is the individual contribution of time, or class meeting, when the group listens to its own members as they present their offerings for information or appreciation. In these classes most major units engage much in creative as well as in research ability. For example, one class wrote the verse and composed the music for a pageant illustrating the development of music. The class newspaper furnishes incentive for writing and for illustrating. However, the children often write, draw, or model purely for the pleasure of expression. It is not a rare phenomenon for a pupil to write a book of poems or to fill a portfolio with sketches.

As a general appraisal of the program, Los Angeles is not entirely satisfied with its provisions for gifted children. The experiences of pupils and teachers have convinced all who have watched the program through its experimental stages that it (1) brings to the children happiness in work and freedom for development, (2) brains for leadership, (3) brings out initiative and research ability

and teaches children how to study, (4) develops a sense of responsibility to others, and (5) relieves teachers in regular classes of their responsibility to these superior children, and thus makes way for special attention to the needs of children of lesser ability. Records show that children from these opportunity classes hold more than a normal per cent of the positions of leadership in high schools and colleges. Also these children, upon completion of their high school work, are known to receive a greater proportion of college recommendations than other children of like ability.

Certain school systems have experimented with the problem of individual instruction. The best known development along this line is the Winnetka Plan,[49] developed by Superintendent C. W. Washborne of Winnetka, Illinois. The child moves from one common essential in the curriculum to another, setting his own pace. The children are tested individually; they can cover the material in a length of time commensurate with their own ability.

Of all the experiments which various cities have been carrying on none has received more attention than the plan developed in Dalton, Massachusetts.[50] The essential idea,

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[49] Fay Adams and Walker Brown, op. cit., p. 32.

[50] Ibid., p. 33.

as in the Winnetka Plan, is to allow the child to progress at his own rate of speed. The courses of study are differentiated on various levels of achievement by means of contracts. The child selects his contract, and by means of written instructions may fulfil it either alone or working in a group. Arrangements are made for discussion periods when pupils facing similar problems may consider them together with their teacher. As one contract is fulfilled, the pupils go on to the next, finishing the course as soon as they can. Many modifications have been made in the original plan as it has been adapted to use in other school systems throughout the country.

Although greater emphasis has been placed on the development of special classes and a special teaching technique in the elementary school, the problem as it relates to the junior and senior high school has been widely discussed, and considerable experimentation is being done. One of the outstanding studies in this field is that made by Almack and Almack, who studied the superior children of Eugene, Oregon.[51] It was found that the educational age of these high school students did not correspond to the mental age. In other words, the most capable students were not working up to the limit of their capacity. This

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[51] Leta S. Hollingworth, op. cit., p. 285.

conclusion has been reached by other research workers. For instance, James D. Voss, whom Terman quotes, says:

> It may be stated that the achievement level of the gifted children is forty per cent above that expected for their chronological ages and approximately ten per cent below that expected for their intelligence level. While the gifted children have an achievement level well above that of other children, it is nevertheless so much below their level of intelligence as to make the condition a definite challenge to both the parent and to the teacher.[52]

By way of summarizing the discussion of the use of special classes in the educational development of superior children a brief survey of objections and advantages will be given.

Objections to the special class, as found by the investigator in her reading, are:

1. The pupils become conceited. This depends upon the method followed in organizing the class. If they are told that they are gifted, it is likely that the children may be flattered into self-conceit. If, however, they are grouped according to ability to do their work by classification tests, and if this classification is accepted as a routine part of school procedure, they will likely not be conceited. In the special classes these gifted children meet real competition, whereas in regular classes they usually are given excellent ratings without putting out much, if any, effort.

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[52] Ibid., p. 286.

2. The plan is undemocratic. The critic defines democracy as identity of school offerings; he insists that the special class brings the bright child into contact with opportunities that are withheld from the larger group of children. If democracy is defined as equality of opportunity, where an attempt is made to adjust the school program to the abilities and interests of each child, then perhaps the special class is a more democratic way of dealing with gifted children than is the usual procedure.

3. It tends to create an aristocracy and a chasm is developed between those of high mental ability and those of average ability. There might be some basis to this if the gifted children were completely out of touch with the average individual, but the special class merely assembles these children for a few hours of each day for study in a group where all have relatively similar ability. They play with other children in and out of school; they cooperate with other children in all school projects; they associate with other children in various neighborhood organizations.

4. It results in jealousy on the part of the average child. Observation shows that when the gifted children are segregated for class work they are less resented than when they recite daily with children of average ability. Gifted children are mentally more alert, quicker to think, observe, and see relationships, and constant association

in class discussion would probably develop jealousy more quickly than segregation.

5. The claim is made that the gifted children tend to over work. On the contrary, the gifted child is likely to be healthier than other children; he can do his academic work with greater ease. He can accomplish more than the average child and does it without undue mental strain.

6. Fewer leaders are developed. Before grouping, every class had one or more able leaders. When the leaders are gathered into one class, it is claimed that only three or four develop, whereas there were thirty or forty before. Not all children of high I. Q. are leaders; they were not before segregation, and they will not be leaders in the special class. However, the special class gives such a child a much greater opportunity for the development of leadership. In the special class, each child in his own special field of interest may become a leader. No potential leaders are lost. Too, when the brighter children withdraw, others who were temporarily suppressed come to the front and become leaders.

7. Average children lose educationally, when the gifted are withdrawn. There is no conclusive evidence, as yet, that the regular or average child learns from the gifted. Rapidity of progress should not be measured by

the rate the abler students can achieve. Too often, teachers proceed upon this basis. When the gifted children are taken from the group, the rate of progress is much slower, more explanations are made than before, and the work proceeds even more rapidly than when handicapped by having several abler pupils in the class.

8. Implements of selection are inadequate. This is true. Yet those used today are better than those of twenty years ago. Errors in placement can be adjusted and corrected.

9. The cost is prohibitive. It is true that the per capita costs will be greater if the advantages of a smaller teacher load and of greater facilities for an enriched program are to be offered.

Advantages of the special class are:

1. The child is permitted to work to the level of his superior ability. His program is not set at a slower tempo than his ability would permit. The greater the ability of the group makes possible a more rapid development of projects that are part of the common curriculum; this makes possible the development of many common projects that could not be added to the regular course of study because of lack of time.

2. The child does not develop habits of carelessness and slothfulness in doing his work. A child of unusual academic ability may waste that ability if he never has

to exert himself in public school. He refuses to work, gives up school early, and possibly becomes one of society's malcontents. The special class does not guarantee success for such an individual, but it will give him an opportunity to work instead of loaf, and encourage him to do his best.

3. The enrichment program not only keeps the child profitably occupied, but makes it possible to adapt school work to his unique abilities. The numerous projects undertaken give ample opportunity for making these adjustments.

4. The enriched program as given in a special class makes it possible for these children to progress through the grades normally with respect to chronological age. They do not reach senior high school by eleven or twelve years. They are likewise better adjusted. It is possible for children who are advanced a year or two years to be perfectly adjusted physically and socially, but if that advancement reaches three or more years, the situation is questionable.

5. The special class program may prevent social maladjustment. Superior children who attend regular school are content to remain idle. Their alert minds are likely to seek an outlet through other channels if they are not kept occupied by a school program that challenges their

efforts. Among truants and delinquents are children of unusual ability who, because of too little to do, dislike school and seek to escape its boredom. Some play truant, meet undesirable characters, and finally become young criminals; others misbehave in school, become the school's bad boys, and finally are classed as delinquents.

6. The special class helps the child put forth his best efforts. He sees others as capable as he. He then realizes he must work. He becomes interested because interesting things are discussed. Thus, without any external pressure, forces within himself demand that he really achieve.

7. These youths secure a definite training for leadership along many lines. One boy may be a writer, one a poet, one a scientist. Each would be recognized as a leader in his own area; each would have worth while material to present to the group.

8. It permits the use of materials and methods adapted to the unique ability of these youths. They are more alert and think quicker. This fact creates a classroom problem when they are combined with normals. These differences alone might well be the only reasons needed to justify the organization of special classes for children of high intelligence quotient.

The biggest problem faced in organizing special

classes for gifted children is that of convincing the lay public that these classes are needed. Neither the mental, the physical nor the social condition of these children lends itself to making an emotional appeal upon their behalf. Appeals to the emotions are always far more potent in securing popular approval than are appeals to the intellect. This fact is recognized by preacher, philanthropist, and politician. To the average layman an object lesson is sufficient; the man of the street sees something pathetic in the blind, the crippled, the subnormal child. The worker with gifted children is forced to depend upon an appeal to the intellect; this situation is, doubtless, one very real reason why special education for the gifted has not been so widely developed as has that for handicapped children.

It is encouraging to find in our schools an upward trend of interest in gifted children and their adequate training. Educational literature is giving more space to consideration of the subject. Teachers colleges are impressing upon their students the importance of special attention to pupils with unusual capacity. The federal office of education has for some time been actively engaged in studying the needs of and provisions for mentally superior children in the United States.

Efforts to provide for the education of gifted children have taken different forms due to divergent opinions

as to the kind of learning situation that is preferable. Some authorities believe superior children should find their places as the leaders in regular heterogeneous class groups; others maintain that such children should be allowed to advance through the standard curriculum at a rapid rate; a third group believes that the needs of mentally gifted children are best served in special groups of a more or less homogeneous nature.

In the last analysis, whatever method is used in developing the education of superior children, a large per cent of the resulting success depends very definitely upon the classroom teacher. A number of schools have set up qualifications for teachers of such children. An example of this is the Los Angeles, California, city system. A teacher who wishes to be selected to guide the activities of the special classes in Los Angeles, California, must satisfy the following conditions: (1) be a quick and eager learner herself; (2) be a student of mental hygiene; (3) know literature, the arts, and the sciences and be able to recognized creative ability in these fields; (4) have among her teaching tools music, drawing, and a modern language. Such a teacher should be acquainted with the tools of fine living, books and bookmakers, music and musicians, art and artists of all kinds, people and their institutions. These she should know and her knowledge

appreciation should grow from day to day. A teacher of superior children should possess the habit of tolerance and appreciation of the efforts of all with whom she comes in contact in order that she may cultivate such a habit in the children she guides. Hollingworth has said, "Failure to learn how to tolerate in a reasonable fashion the foolishness of others less gifted leads to bitterness, disillusionment, misanthropy which are the ruin of potential leaders."[53]

Well-qualified teachers of gifted pupils know children and their needs. They recognize the desires and drives of childhood. They understand thoroughly the laws of mental hygiene and how to apply them to individual cases under specific conditions. They are leaders of the type that expect pupils to take the initiative wherever possible, and they exercise no thwarting dictatorship. If teachers claim to know all the answers, they fail in the endeavor to assist pupils through an experience curriculum. For the most part, competent teachers of superior children know how to find the answers and have the ability and the willingness to help children search for them.

Beyond doubt, gifted children possess unusual potentialities. In order that their ability may become

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[53] Leta S. Hollingworth, op. cit., p. 586.

effective it seems essential that teachers change the standards for rich academic attainment, rewarding initiative and self-direction in creative endeavor, and encouraging cooperation and participation in varied group enterprises of social worth. Freedom for critical evaluation of the products of the school should do much to develop self-direction, self-criticism, and continuous reconstruction of experience. Surely schools should be organized in ways such that these essentials for the maximum development of the children are provided. In such programs there should be opportunity for the free expression of special abilities; and the development of alert, flexible, discrimination. Socially oriented, critical intellects are urgently demanded if we are to control the forces and evade the ruin of the regimentation of a machine age.

Freedom for self-direction under expert and sympathetic guidance should characterize any adequate educational plan. Respect for individuality is an ideological counterpart of the whole scheme of progressive education. But true respect for individuality implies an educative process more penetrating than that which leads merely to common outlooks and attitudes. These are surely demanded at present since changing conditions have forced us to realize that individualistic competitive control in some

areas of life is being swept away. In view of this, there must be developed new schools in which cooperative thinking and acting are basic and wherein individual aptitudes and abilities are fostered and oriented socially.

Children of high I. Q., as well as those of exceptional talent should be respected and given an opportunity to strive for goals commensurate with their ability. They should be provided with work that is challenging as well as satisfying; they should be encouraged to seek out special interests and express them even if they disrupt somewhat an ostensibly logical school organization. Then, too, educators must attempt to keep from confusing activity and sociability with maximum growth. There are some things which cannot be shared with every one in any group. Undoubtedly some of the maladjustments of the gifted may be attributed to the teacher's attempts to enforce participation in a child society upon children having adult or very advanced intellects. Because children are so complex, differences in interest, emotional growth, and ability are great. Teachers must learn to respect individuality and they must come to realize that intelligence test results reflect only one phase of growth. They should study each gifted child; explore his interests; ascertain his

special aptitudes and limitations, direct his emotional drives, and assist him in attaining wholesome creative adulthood.[54]

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[54] Ibid., p. 370.

CHAPTER IV

CONCLUSIONS

Mythology and history both indicate that the leaders of a tribe or of a state maintained their positions because of two qualities: (1) physical strength, and (2) cleverness in outwitting their opponents.[55] Perhaps in the beginning, brute strength was more important than intelligence. Later on, intelligence became the domineering factor in successful leadership. Today we realize that intelligence combined with physical strength is the heritage educators wish to pass on to the next generation. It is also realized that today's world is one in which no one person or thing is independent of every one else. Each has an art to perform, a duty toward society to fulfill, and the aims of education should be to help each individual to find what he is best fitted to do and then prepare him to do that thing to the best of his ability.

If these aims of education are accepted, it seems as though part of the educational program should be to select these children who possess superior intelligence and to

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[55] John J. Hall, "The Bright Child," Journal of Educational Research, V. 22, September, 1930.

make it possible for them to develop along the lines of their special interests and abilities. A considerable amount of material has been published in this connection, especially during the last twenty years.

The whole question of personality and individual differences is still in the experimental state. Gradually, however, certain general principles are being formed. There is today a wide recognition of the problem of the gifted child and there is a great divergence of opinion as to what should be done. It is perhaps this uncertainty as to what is the right procedure that accounts for the small extent to which the theory has been put into practice.

As the result of somewhat wide reading of educational literature in the field of what has been and is being done for the superior child in our schools, the writer makes the following conclusions:

1. Distant values seem hard to visualize. In other words, society is much more willing to provide for the immediate and observable needs of children who are physically or mentally handicapped than to spend money on the superior children, who, seemingly, are doing very well in the regular classroom.

2. Happiness is the first right of every child, and whatever contributes to the genuine happiness and welfare of the superior child, contributes to his education.

3. Superior children, along with other exceptional children, have these common needs: discovery, diagnosis, understanding, social adjustment, enriched environment, educational guidance, placement, and follow-up.

4. The gifted child is essentially the thinker and the problem solver of a group. He is not content with merely learning what other people say but is eager to think through his own problems and to extend his interests beyond the immediate present into unknown fields. Hence the gifted or superior child is defined as the child who possesses exceptional intelligence which expresses itself in the ability to carry on reasoning and creative thinking at the higher levels. He is the child who will be the leader of tomorrow, and the kind of leader he will be depends largely upon the type of training the school of today gives him.

5. Great achievement in the world depends upon more than a high intelligence. The leader of men needs not only to think clearly, deeply, and accurately; he needs the power of initiative, the capacity for hard work, and the ability to get along with other people. There is no field of great accomplishment which does not require great power of concentration and at least a fair measure of adjustment to the life about one. The capacity which the gifted child possesses can reach its highest expression only if there developed along with it traits of character that will make him overcome obstacles and give his best to the world.

6. Provisional selection of the gifted for special educational advantages is usually based upon: teacher recommendations, previous school marks, achievement tests, group mental tests. Final selection is often based upon results of a Binet Test, physiological and social maturity, health, and emotional stability.

7. Some of the outstanding significant specific problems in developing an educational program for superior children are: avoiding prejudice, planning the curriculum, selecting the children, adapting the methods of instruction to members of the group, determining needed equipment, securing adequately trained teachers, and the financing of such a program.

8. "Enrichment" seems to be the key word in the educational program to be developed for superior children. This is true irrespective of whether the special class is formed or whether the enrichment is given in the regular classroom.

9. The state office should help to organize local programs for educating the specially gifted. Emphasis at the beginning should be placed upon selling the idea through personal contact with local school people and showing them how to gather data that will help them to see the need.

10. A continuous and intelligently conceived program of mental hygiene in both home and school is imperative for the superior child. High intelligence is no guarantee against

the ravages of personality disintegration. It should be the duty of teachers to watch the emotional reactions of each of their pupils, gifted or otherwise, so that incipient personality maladjustments may be detected and difficulties corrected before they have an opportunity to reach fruition in serious form.

11. Although the education of superior children is still an unsolved problem in many respects, it is the duty of every progressive administrator, supervisor, and teacher to give careful thought and consideration to this major problem around which many minor difficulties of the educational world have grouped themselves for the past thirty years.

12. The education of children of high I. Q. is a challenge to all who recognize society's need of capitalizing upon all available ability as a means of furthering social improvement. At present, most schools are organized for children of average ability and the handicapped, but it is the gifted child who has become the forgotten child.

> When you have helped a man to help himself, your accomplishment leaps into the realm of the sublime. Parents, have during all time, caught the essential truth of this idea; they have given of time, strength, and even life itself in order that their children might grow into young manhood and young womanhood with that ability. Teachers are happy, as they grow old in the service, in the thought of the youth they have helped to grow in physical stamina, mental stature, and social power. 56

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56 A. O. Heck, op. cit., p. 511.

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