7-1-1942

Gifted children

Annie Belle DeHart Atwill

GIFTED CHILDREN

BY

ANNIE BELLE DeHART ATWILL

A THESIS

PRESENTED TO THE GRADUATE FACULTY

OF THE

UNIVERSITY OF RICHMOND

IN

CANDIDACY FOR THE DEGREE OF MASTER

OF SCIENCE IN EDUCATION

AUGUST, 1942

DEDICATED TO

MY HUSBAND

THOMAS OTHO ATWILL, JR.

WHO HELPED MAKE THIS STUDY POSSIBLE

PREFACE

Intellectually gifted children constitute one of a nation's greatest natural resources. High intelligence is the most important single attribute of the human race. All progress of civilization has probably been achieved through persons possessing special talents, together with a superior mind; all future progress will also depend on such persons with ability.

This study is delimited, first, by selecting the demarcating place at a point that will include all children falling in the hundredth percentile; the one per cent of the elementary school population that can earn a 140 I.Q. or above on the Stanford-Binet Scale. These children will be called "gifted."

Secondly, this thesis is further delimited by using the Normative Survey Technique method of research for the accumulation of data. The survey will be made of literature relative to; the characteristics of gifted children, how to discover gifted children, qualifications of gifted teachers, and the underlying principles of an individualized enriched curriculum based on needs and interests of gifted children.

It does not include materials for enrichment in specific curriculum areas; but, it is concerned with broad

over view of programs of instruction and a number of general techniques that have been used in various places.

Finally, the survey will include all literature that is available in the form of books, periodicals, articles in magazines and newspapers, and reports relative to the problem mentioned.

There have been few books, but more than five-hundred articles have been written about gifted children in this new field of education in the last two decades. The literature is experimental and meager about the best methods of instruction and a curriculum for gifted children.

The lack of knowledge relative to the needs of gifted children has hindered the formation of a solution of many problems. Chapters II and III contain material which may be helpful to teachers who have gifted children in their class.

The following terms will be used synonymously in this thesis: gifted children, mentally superior children, intellectual superior children, super normal children and the bright pupil.

ANNIE BELLE DeHART ATWILL

ACKNOWLEDGMENTS

I am especially grateful to Dr. David Andrew Weaver of the Education Department of the College of the City of New York, Professor of Education at the University of Richmond during the summers of 1940-1941, who suggested the present study to me; he gave both material and helpful suggestions regarding source materials which aided in the research. I am, also, indebited to Professor William Loftin Prince, Dean of Summer Session at the University of Richmond, for helpful suggestions after having read the manuscript. Special thanks are due Mrs. Elliott Toler Vaughan, a graduate of the University of Richmond, for having read the manuscript.

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

The American public school system, "with thirty million children and youth in its care, staffed by one million teachers and guided by half a million schoolboard members"[1] is engaged in an enterprise essential to national defense and the general welfare of our nation.

It is the teacher's obligation to identify the intellectually gifted children, to promote better educational opportunities for them, to experiment with instructional techniques and educational procedures that will develop better educational opportunities for all superior children. The very superior children have never had an equal opportunity in the American scheme of public school education for full development according to their capacity.[2]

---

1. W. G. Carr, "This is not Treason", The Journal of the National Education Association, Vol. 29, No. 8, November, 1940, p. 237.
2. F. M. Garver, "Curriculum Reorganization According to the Philadelphia School Survey", Elementary School Journal, Vol. 39, December, 1939, p. 262.

Many educators believe that mentally superior children need special training. They should have teachers that are well trained and a curriculum made to fit their individual needs.

Franklin K. Lane said, "Progress means the discovery of the capable. They are our natural masters. They lead because they have the right. And everything done to keep them from rising is a blow to what we call our civilization."[3]

Dr. Witty of Northwestern University says, "The present social order is neglecting its richest asset, the gifted and precocious child."[4]

In a democratic society it is important that every individual, no matter what his ability, have a chance to develop to the limit of his ability, both as a person and as a citizen. "The leveling tendency of democracy has created a problem in American public education."[5] The curriculums are made to fit the abilities of the child in the majority, the average child. John Dewey has said, "Democracy has

---

3. Leta S. Hollingworth, Gifted Children, New York: The Macmillan Company, 1926, p. 313.
4. P. A. Witty, "Exploitation of the Child of High Intelligence Quotient", Educational Method, Vol. 15, March, 1936, pp. 298-299.
5. R. R. Foster, "The Superior Student in High School", The Journal of the National Education Association, Vol. 30, No. 7, October, 1941, p. 215.
6. Fay Adams and Walker Brown, Teaching the Bright Pupil, New York: Henry Holt & Company, 1930, p. 3.

been unjust to the gifted student."[7]

The theory heard often in educational groups, that the child with ability needs no special attention as he "will take care of himself",[8] has caused the bright child to be the most neglected child in our educational system.

Schools for superior children are a new venture in education.[9] The gifted children in the public schools represent one of the greatest unsolved problems in education today.[10] American public schools are now responsible for the education of 1,500,000 children of distinctive high mental ability.[11] The future leaders of this nation will be drawn from this rank of gifted children and upon them will fall the task of guiding the trends of our democracy.

According to the report of a New York State

---

7. Ibid., p. 3, also,
J. E. Bentley, Superior Children, New York: W. W. Norton & Company, 1937, p. XXVIII.
8. A. O. Heck, Education of Exceptional Children, New York: McGraw-Hill Book Company, 1940, p. 389.
9. Adelaid Kerr, "Bright Pupil Forgotten Child of Education", The Richmond News Leader, September 10, 1941, p. 24, also,
   (b) Hollingworth, Gifted Children, p. 297.
   (c) Merle R. Sumption, Three Hundred Gifted Children, New York: World Book Company, 1941, p. 15.
10. Bentley, op.cit., p. XXI.
   (b) Sumption, op.cit., p. V.
   (c) H. H. Goddard, School Training for Gifted Children, New York; The World Book Company, 1928, p. 87.
11. (a) Harold Rugg, "The Curriculum for Gifted Children," Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Company, 1924, p. 91.
   (b) White House Conference on Child Health and Protection - The Handicapped and the Gifted, New York: The Century Company, 1931, p. 549.
   (c) Sumption, op.cit., p. XVIII.

Commissioner, not "more than 3 per cent of the gifted children" of that state were provided for in the public schools.[12] It is important for both the public schools and society to recognize exceptionally gifted children and to be able to offer the means and opportunity for their fullest development. If the present methods are continued, H. G. Wells says: "The world of the future will hunt with a fine toothed comb for genius in its midst."[13]

Research studies show that these bright children do adapt themselves and go forward in school, but they do not function to the level of their capacity.[14] Hamilton's study found that 75 per cent of the superior students are not making full use of their capacity.[15]

If our public schools hope to keep democracy from the level of mediocrity, educators and administrators are challenged to seek the goal in education that will develop superior children for social and civic responsibilities.[16]

---

12. Report: "Classes for Gifted and Retarded Pupils in New York State", School and Society, Vol. 41, June 8, 1935, pp. 779-80.
13. Stanwood Cobb, Discovering the Genius Within You, New York: The World Publishing Company, 1932, p. 265.
14. (a) Hollingworth, Gifted Children, p. 297.
    (b) Sumption, op.cit., p. 7.
15. R. L. Hamilton, "Undeveloped Resources", School and Society, Vol. 16, June 1922, p. 416.
16. R. R. Foster, "The Superior Student in High School", p. 215.

Bruner[17] believes that the gifted child should be carefully educated so that he can take his place among the trained leaders of the country. Our democracy needs leaders now as never before to meet the problems of war, leaders who will understand and know how to meet the problems of peace which will follow the problems of this World War II. In this belief lies the stimulus for the drive for individualized education for the gifted children.

The White House Conference on Child Health and Protection held in Washington, D. C., November, 1930, reports in the following manner:

> "It is agreed that in a democracy more than any other form of government, high-grade leadership is essential. The United States of America with its Congress; with its 48 commonwealths, each with its legislature; with its hundreds of municipalities, each with its own local government; must have intelligent leaders or fail in the struggle. Surely there was never greater need of able leadership than at the present time. And yet there are one million and a half children in our public schools with exceptionally good brains and exceptionally high intelligence, who need only the permission and the opportunity to develop the leadership for which they have the foundation; therefore, we urge the White House Conference, and all intelligent, patriotic citizens of the United States take active and efficient steps to save this large number of children from the idleness, the more or less malicious mischief, and the neglect which is their portion in the average public schools of today.

---

17. Adelaid Kerr, op.cit., p. 24.

> Aside from the injustice to the child himself, it is almost a social crime to neglect these highly endowed children." [18]

Civilization is becoming more complex; our modes of living are changing with each generation. Our democracy needs many kinds of leaders; leaders in government, in business, in industry, in inventions, in science, in research and in good living. If our civilization is to progress, its leaders must be selected from the citizens who possess ability. Superior children must be taught and trained to be leaders. [19]

Evelyn Dewey has said:

> "We have not made good citizens when we have taught every child to read and write and salute the flag. That is not education, but a gilded ignorance that leaves underdeveloped leadership, independence, and initiative, all the qualities that are necessary in a democratic society. An educated person is one who has had a chance to learn as much as his natural capacity allows and thinks honestly along the lines of his own temperament and personality understanding his physical and social environment. Such characters do not spring into existence with manhood. They develop gradually from the day the individual is born. It is the school's business to let them develop and see to it that they develop so that they are a constructive force in society not a dead weight or a destructive misfit." [20]

---

18. (a) White House Conference, op.cit., p. 549.
    (b) Sumption, op.cit., pp. 20-21.
    (c) Bentley, op.cit., pp. XIX-XX.
19. Griffin and others, Mental Hygiene, New York: American Book Company, 1940, p. 144.
20. Evelyn Dewey, The Dalton Laboratory Plan, New York: Dutton & Company, Inc., 1922, p. 164.

These existing conditions have imposed upon the schools the responsibility for discovering and educating the talented and the highly intellectually endowed pupils for the most desirable citizenship, a better society, and a broader life.[21] Society can not afford to neglect children who give evidence of exceptional ability. It is essential that both society and the individual with such talents realize that they have definite social responsibilities for the full development of these talents which "can not be stored and will be lost if they remain unused."[22] Therefore, a democracy must train and use its most superior members as leaders in the solution of its problems.[23]

Our trends in education should change to meet changing conditions which bring new demands and new objectives. Educators of the nation are now experimenting with new curricula revisions to meet these demands. Not only the Virginia State Course of Study but also other state courses of study, dealing with curricular revision for the elementary schools, give evidence of this interest.

The average child has been in the majority in our

---

21. (a) Sumption, op.cit., p. 21.
    (b) E. C. Skinner, Educational Psychology, New York: Prentice-Hall, Inc., 1936, p. 471.
22. F. D. Roosevelt, "International Program - Address", National Education Association Proceedings, 1938, p. 102.
23. R. R. Foster, op.cit., p. 215.

elementary school population, and he in the past has received the most attention. Educators have made the curriculum to meet his needs and have neglected the highest one per cent.[24] This realization was made clear by the increasing knowledge of individual differences brought out by mental tests.

After the adoption of the compulsory attendance laws, markedly affecting the elementary schools, the slow pupil who formerly eliminated himself, made his presence felt not only in the elementary schools but also in the first year of senior high school. His scholastic aptitude was so relatively inferior that he created a demand on the time and attention of both teachers and administrators. The bright pupils could be left to themselves, and the idea that they could take care of themselves resulted in their having received no special attention.[25]

Thus, this group of bright pupils has been allowed to develop lackadaisical habits, habits of idleness, "lock-stepping" with the pupils of average ability, habits of work resulting in superficial mastery, and attitudes of superiority

---

24. Foster, op.cit., p. 215.
25. (a) Edith C. Peters, "The Gifted Child in Cleveland", The Journal of Exceptional Children, Vol. 7, No. 8, May, 1941, p. 304.
(b) L. A. Averill, Psychology for Normal Schools, New York: Houghton Mifflin Company, 1921, pp. 312-313.

because the tasks were so easy for them.[26] With no group is it more important to develop fine ideals and attitudes than with the future leaders of a democracy.

Whipple has said,[27] "If any nation is destined to perish, it is the nation that fails to provide the best educational opportunities for those who show promise of leadership."

There should be a constant search for these super-normal children who will carry on the work of a nation. It is extremely important that they be early discovered and be given training according to their abilities, capacities, and needs.

"As the farmer plants in fertile soil a seed which bears a hundred-fold, so could society enrich itself by undertaking to develop the individual."[28]

---

26. (a) Sumption, op.cit., p. 7.
    (b) Elsie Martens, Parents' Problems with Exceptional Children, Bulletin No. 14, D. C.: Washington, Government Printing Office, 1932, p. 25.
27. Adams and Brown, op.cit., p.11.
28. Cobb, op.cit., p. 266.

CHAPTER II

WHO IS A GIFTED CHILD?

Educational experts[1] have antithetical opinions about a definition of what is a gifted child; however, most educators agree that he must have a high I.Q. and possess high general intelligence which is a necessary factor in learning.

It is rather hard to define general intelligence. Most psychologists agree that intelligence is native endowment and later development.

Terman[2] defines intelligence "as the ability to do abstract thinking."[3] Buckingham considers it "the ability

---

1. (a) Sumption, Three Hundred Gifted Children, New York: The World Book Company, 1941, p. 15.
2. (a) L. M. Terman, "What Do Mental Tests Measure", Journal of Educational Psychology, March, 1925, pp. 127-33.
   (b) Norma Noonan and Dorothy Norris, "Studies of Gifted Children", Journal of Exceptional Children, (extra issue), January, 1938, p. 46.
3. R. B. Buckingham, Research for Teachers, New York: Silver, Burdette & Company, 1926, p. 142 and p. 203.

to learn",[4] while Baker says that intelligence is defined in terms of responses which are made possible by the psychological constitution of the brain; then it may be defined as the ability to react to situations in a logical way.

Carlyle[5] characterized mentality, "as an infinite capacity for taking pains."

Thomas A. Edison[6] defined ability from another point of view. He says, "Genius is 5 per cent inspiration and 95 per cent perspiration."

The New York University Clinic for Social Adjustment of the gifted defines a gifted child as one whose intelligence quotient is 130 or above, the highest one per cent of the child population in intelligence.[7]

Hollingworth[8] says gifted children "are those who test much above the average on standardized scales for the measurement of intelligence, and also those who test much

---

4. H. J. Baker, Characteristics of Bright and Dull Pupils, Bloomington, Illinois: Public School Publishing Company, 1926, p. 12.
5. F. Slocum, "Intellectual Curiosity", School and Society, Vol. 48, August 6, 1938, p. 160.
6. (a) Ibid., p. 160.
   (b) H. A. Carroll, Genius in the Making, New York: McGraw Hill Book Company, 1940, p. 25.
7. Harvey Zarbough and Rhea Broodman, "Salvaging Our Gifted Children", Journal of Educational Sociology, Vol. 10, No. 2, October, 1936, p. 101.
8. Leta S. Hollingworth, Gifted Children, New York: The Macmillan Company, 1926, p. 42.

above average on scales for the measurement of the special talents."

Terman and Burks have commented as follows in defining the gifted child:[9]

> "It seems best to draw our arbitrary line at 130 or 140 I.Q. for two reasons. In the first place, children of this grade of superiority are sufficiently unlike average children to need special educational opportunities. In the second place, the most extensive investigations of superior children as a class have concerned themselves for the most part with subjects of this grade of intelligence or above."

Terman's classification in 1916 suggested the following on the basis of I.Q.'s earned on the Standard Revision of Binet-Simon Intelligence Scale:[10]

"Genius or near genius . .	above 140
very superior	120 - 140
superior	110 - 120
average	90 - 110

---

9. L. M. Terman and Barbara S. Burks, "The Gifted Child", Handibook of Child Psychology, Worcester, Massachusetts: Clarke University Press, 1933, p. 774.

10. (a) L. M. Terman, Measurement of Intelligence, New York: Houghton Mifflin Company, 1916, p. 78 and p. 95.

(b) Research Bulletin, High School Methods With Superior Children, D. C., Washington, National Education Association, Vol. XIX, No. 4, September 1941, p. 158.

(c) G. M. Blair, "Types of Provision for Children of Superior Ability", The National Elementary Principal, Nineteenth Yearbook, Vol. XIX, No. 6, July, 1940, p. 380.

dull normal . . . . . 80 - 90

dull. . . . . 70 - 80

feebleminded . . . . . below - 70"

In 1937 a change was made with respect to what should be considered superior intelligence. Children who make I.Q.'s of 140 and above, instead of 130 I.Q. on the Revised Stanford-Binet Scale are now referred to as "very superior."[11]

The range of intelligence of gifted individuals, the one per cent of the population, varies widely. It is possible for a difference of sixty points to exist in the terms of I.Q. between the least gifted child and the most gifted child.[12]

Thus, a gifted child is one that is endowed with high intelligence and receives an I.Q. of 140 and above on[13]

---

11. (a) Maude A. Murrill, "The Significance of I.Q.'s on the Revised Stanford-Binet Scale", Journal of Educational Psychology, Vol. 29, December, 1938, p. 650.
    (b) (Author not given), "Characteristics of Superior Children", Research Bulletin, Washington, D. C.: National Educational Association, Vol. XIX, No. 4, September, 1941, p. 158.
    (c) Blair, op.cit., p. 380.
    (d) William Connor, "The Education of Gifted and Talented Children", The Phi Delta Kappan, Vol. XXIII, No. 2, October, 1940, p. 73.
    (e) C. E. Skinner, Educational Psychology, New York: Printice-Hall, Inc., 1936, p. 453.
12. Hollingworth, Gifted Children, p. 45.
13. A. O. Heck, The Education of Exceptional Children, New York: McGraw-Hill Book Company, 1940, p. 389.

a standard intelligence test.[14]

Hollingworth has set 180 I.Q. rather than Terman's[15] 140 I.Q. as the lower limit for true genius; however, she[16] uses 130 I.Q. to indicate a gifted child.

In Terman's California group of 643 children testing[17] 140 I.Q. and above, fifteen were found who tested at or above 180 I.Q. These extremely high I.Q. cases are rare. It has been found that children with an I.Q. above 170 "differ from those with an I.Q. above 170 as much or more than the latter differ from average children."[18] One child in several thousand can be found in our school population that tests 190 I.Q.[19] However, Stedman reported a very exceptional[20]

---

14. (a) H. A. Carroll, "Intellectually Gifted Children", Teachers College Record, Vol. 42, No. 3, December, 1940, p. 212.
    (b) Carroll, Genius in the Making, p. 36.
    (c) P. A. Witty, "Contributions to the I.Q. Controversy From the Study of Superior Deviates", School and Society, Vol. 51, April 20, 1940, p. 504.
15. (a) Heck, op.cit., p. 426.
    (b) Carroll, Genius in the Making, p. 5.
    (c) P. A. Witty, "Enriching the School Life of Exceptional Children", School and Society, Vol. 39, January 27, 1934, p. 103.
16. Witty, loc. cit.
17. Hollingworth, Gifted Children, p. 223.
18. Carroll, "Intellectually Gifted Children", pp. 219-224.
    (b) Leta S. Hollingworth, "The Development of Personality in Highly Intelligent Children", Fifteenth Yearbook, Elementary School Principals, Washington, D. C.: National Education Association, 1936, pp. 272-81.
19. Adamsand Brown, op.cit., p. 13.
20. Lula M. Stedman, Education of Gifted Children, New York: The World Book Company, 1924, p. 58.
    (b) Hollingworth, Gifted Children, p. 235.

case of a girl whose I.Q. was 214. This girl entered high school at the age of eight years eleven months.

A child with a 160 I.Q. can be expected to win honors in college, but those who fall below this status "rarely win honors."[21] Those testing 140 I.Q. will not approach those children testing 180 I.Q. in honors or tests scored on standardized scales.

In most elementary schools, children who test 140 I.Q. dawdle one-half of their time. Those who test above 170 I.Q. dawdle almost all of their time.[22]

A ten-year old boy, who has "dazzled" his instructors with his ability, was admitted to Western Reserve University, September, 1941. He read before he walked, composed music at six and seemingly knows all the answers in the first semester chemistry course. He has been studying chemistry for five years.[23] He is not only the smallest member of his class but is the youngest member.

Most of these children who test 180 I.Q. have been problems in school.[24] They do not fit into the regular school

---

21. Norma Noonan and Dorothy Norris, "Studies of Gifted Children", Journal of Exceptional Children. (extra issue), January, 1938, p. 47.
22. Leta S. Hollingworth, "What We Know About the Early Training of Leaders", Teachers College Record, April, 1939, p. 585.
23. (Newspaper), "10-Year Old Boy in University Dazzles Teachers", The Richmond Times Dispatch, Vol. 91, No. 348, December 14, 1941, p. 30.
24. Hollingworth, Gifted Children, p. 265.

program and are not understood by their teachers. Teachers have been known to analyze their troubles as "stupidity, willfulness or nervousness on the part of the child."[25] The mental tests are the best method to be used to analyze a school problem of this type.

The public schools are not equipped to identify or care for children testing 180 I.Q. and above in a way to develop their abilities according to their capacities and needs.[26] Cases of this intelligence are rare.

It is probable that men like Milton, Goethe, Newton, Galton, John Adams, Thomas Jefferson, Longfellow and Dickens had an I.Q. between 180 and 200.[27]

Distribution

There are approximately 100,000 gifted children in the United States according to Terman's definition[28] and 1,500,000 by Cleveland's definition.[29] Moreover, Bentley[30] claims that there are approximately 250,000 children in the United States that possess an I.Q. of 140 and above.

---

25. Hollingworth, Gifted Children, p. 265.
26. (a) Elsie Martens, Parents' Problems With Exceptional Children, Bulletin No. 14, Washington, D. C.: Department of the Interior, 1932, p. 19.
    (b) Elsie Martens, Teachers' Problems with Exceptional Children, Pamphlet No. 41, Washington, D. C.: U. S. Office of Education, p. 9.
27. A. E. Wiggam, "How Smart Are Your Children?", American Magazine, Vol. 102, October, 1926, p. 8.
28. Heck, op.cit., p. 418.
29. Sumption, op.cit., p. XVII.
30. Bentley, op.cit., p. XV; Carroll, op.cit., p. 5.

Just as the entire school population can be divided into bright, average and dull; so can the children above 140 I.Q. be grouped superior, very superior, and genius.

In any large group of children, 60 per cent will be found to have average mental capacity; 20 per cent will be below average, and the remaining 20 per cent will deviate above the average.[31]

The percentage distribution for the superior children whom Terman tested shows the following facts according to the I.Q.'s.[32][33]

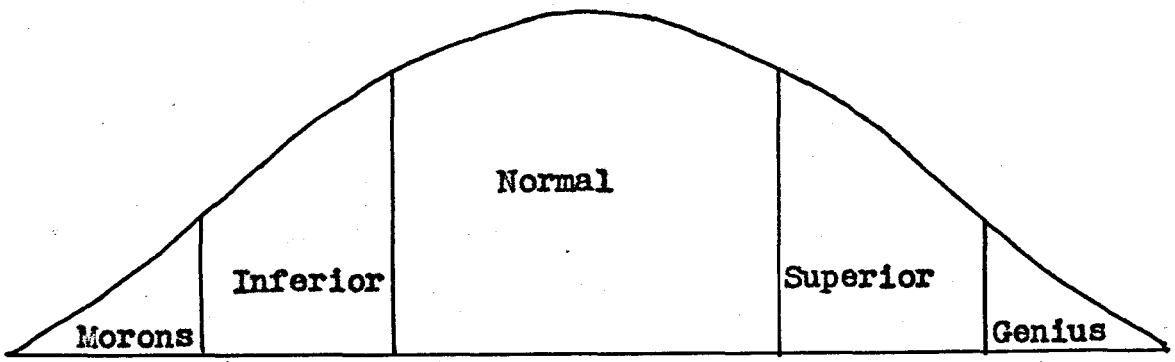
"the	highest	1%	reached	130 and above
"	"	2%	"	128
"	"	3%	"	125
"	"	5%	"	122
"	"	10%	"	116
"	"	15%	"	113
"	"	20%	"	110"

Through the use of intelligence tests it has been definitely established that intelligence is distributed over

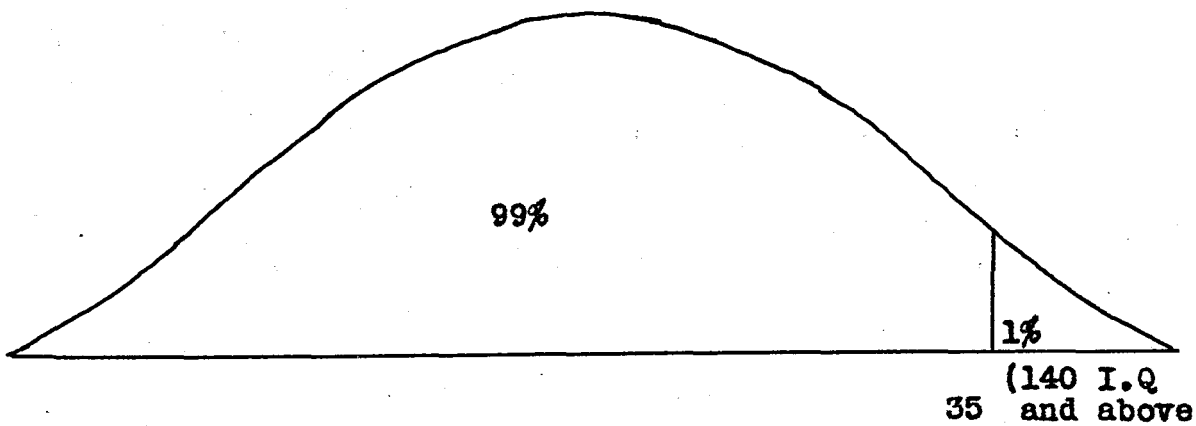
---

31. I. N. Kugelmas, M.D., Growing Superior Children, New York: D. Appleton-Century Company, 1940, p. 398.
32. Skinner, op.cit., p. 457.
33. L. M. Terman, Measurement of Intelligence, p. 78.

what is termed "the normal-probability curve."



Distribution of mental ability of all children[34]



Gifted children in relation to general population.[35]

Woods[36] reported that "the highest one per cent of

---

34. Kuglemass, op.cit., p. 388.
35. (a) Carroll, Genius in the Making, p. 4.
    (b) Sumption, op.cit., p. 6.
36. L. A. Averill, Psychology for Normal Schools, New York: Houghton Mifflin Company, 1921, p. 316.

the population of a country produces as many men of genius as all the other ninety-nine per cent put together."[37] Carroll and Skinner[38] explain the I.Q. in the following manner:

> "The intelligence quotient is arrived at by the following formula: M.A./C.A. = I.Q. M. A. stands for "mental age" which is determined by comparing the score which the child earns on an intelligence test with the test standards or norms. If this score is the same as that earned by the typical child of nine, then he is said to have a mental age of nine. If his C. A. (chronological age) is also nine, then he is of average intelligence. M.A./C.A. = $9/9$ = 1.00 I.Q. (Commonly expressed as 100 I.Q.)"

Therefore, a child who has an intelligence quotient of 140 I.Q. possesses a mental age of fourteen; his mental age is "40 percent higher than the chronological age."[39]

Methods of Selection

In every large school system it is known that a proportion, one per cent, of the children will be gifted mentally; how can they be discovered or identified?

The mere knowledge that there are exceptionally bright children in a school system will not help them unless they are discovered. It is the duty of each classroom

---

37. Carroll, Genius in the Making, p. 4.
38. Skinner, op.cit., p. 438.
39. Martens, "Gifted Children", p. 15.

teacher to find out for how many of these children he himself is responsible. Some gifted children will force themselves upon the teacher's attention; others need to be discovered. The gifted child does not always appear to be the most superior child in a classroom.[40] Herein, lies the cause of a large number of gifted children not being discovered or given the opportunity for full development of their intellectual ability.

In our elementary schools are many children testing 140 I.Q. and above who are unrecognized, unprovided for in mass education, are functioning far below their mental level. Yet, they are "maintaining themselves scholastically and socially" without giving much trouble to either school or society. They earn high marks without effort and waste one-half or more of their time in school in idleness or in performing routine tasks.[41] Society can not afford to sacrifice the contributions that these gifted children might make. Our geniuses are not recruited from the mediocre children, but from its superior children. Theoretically, the most scientific procedure used to identify them would be to give each child well-individualized mental tests and evaluate[42]

---

40. Averill, op.cit., pp. 313-14.
41. (a) Sumption, op.cit., pp. 6-7.
    (b) Carroll, "Intellectually Gifted Children", p. 226.
42. (a) Revised Stanford-Binet Scales (2 forms), Boston, Mass.: Houghton Mifflin Company.
    (b) Tests of Mental Development by F. Kuhlman, (1 form), Minneapolis, Minn.: Educational Test Bureau.

the data in the light of facts about heredity, health, home conditions, environment, and education.[43] However, this method is not practical.

Educators and psychologists have produced various possible ways of making preliminary selections of mentally superior children to whom tests are given. The usual criteria for selection are: parents' judgment, teachers' judgment, age-grade status, past school marks, intelligence tests and standardized achievement tests. While each of these procedures has its value, each also has limitations.

The intelligence test[44] is by far the most reliable method of selecting gifted children. A combination of subjective estimates and objective measures should be used whenever possible to approach scientific methods in accuracy of selection.

Parents' Judgment

Parents' estimates concerning the intelligence of their children have value because of their intimate and detailed knowledge of the child. This information is important in evaluating the intelligence of pre-school children. When a psychologist tests the young child he frequently

---

43. Hollingworth, Gifted Children, p. 44.
44. (a) Carroll, Genius in the Making, p. 6.
    (b) Carroll, "Intellectually Gifted Children", p. 213.

finds it difficult to gain the child's co-operation, and so the knowledge of the child rests heavily upon the observation of the child's parents.[45] A baby book written by either the father or the mother on the early mental development contains important data about the activities of the child.

In general, parents are poor judges of the intellectual ability of their children. Their misunderstandings "come from three sources: bias, inaccurate observation, and failure to keep in mind the total child population."[46] Most parents want their children to be bright. This causes them to observe everything in a favorable light and offer excuses for their failures. Many meaningless sounds made by children are interpreted by parents as words and memorized statements are recorded as reading. Their failure to keep in mind the wide mental ability between various social groups, namely: unskilled or semi-skilled and the professional classes causes them to believe their children are average. For example, a college professor and his wife, a former schoolteacher, each of whom is intellectually gifted and whose friends and relatives are superior mentally to the average population, are very likely to judge their child

---

45. Carroll, Genius in the Making, p. 6.
46. loc. cit.

as just an average girl even though she is in the higher one per cent of the population. The parents compare their child with the children of their friends who are also above the average in intelligence.[47] Therefore the opinions of parents must be used with caution, for parents are known to under-estimate children who test high on intelligence test.

Teachers' Judgment

The opinions of public schoolteachers are of more value than those of parents, even though they have conflicting opinions. Teachers' judgment is more valuable as their excellence in judging is based upon their professional training and experience with school work of a great variety of children; including the dull, average, and bright, which gives a reliable method of comparison. The public schoolteacher is a better judge than the private schoolteacher. The private schoolteacher sees only selected children of parents who are able to pay tuition, while the public schoolteacher sees only an unselected class of children. Although the public schoolteachers are the best judges of any single group of judges, their opinions are subject to all errors

---

47. (a) Adams and Brown, op.cit., p. 24.
(b) Carroll, Genius in the Making, p. 18.

that enter into all human judgment and are very fallacious in comparison with scientific tests.

Carroll[48] grouped the causes of error in teachers' judgment under three headings: "(1) the inevitable intrusion of the personal equation, (2) lack of standards as a basis for comparison, (3) failure to consider the important factor of chronological age differences."

Terman[49] says, "If one would identify the brightest child in a class of thirty to fifty pupils, it is better to consult the birth records in the class register than to ask the teacher's opinion." Select the youngest child. Terman found 20 per cent of his group of gifted children by this method.[50]

Teachers are prone to select those children who do things, who participate in school life, and who have a large range of interests and activities. In general, teachers have shown an amazing lack of ability to identify gifted children.[51]

Goddard[52] reported that research had proved "as a rule the teacher's judgment of mentality of the child is

---

48. Carroll, Genius in the Making, p. 9.
49. Carroll, Genius in the Making, p. 9.
50. A. E. Wiggam, "How Smart Are Your Children?", p. 9.
51. L. M. Elledge, "Present Requirement for Teachers of Subnormal and Superior Children", Elementary School Journal, Vol. 29, December, 1928, p. 306.
52. H. H. Goddard, School Training of Gifted Children, New York: The World Book Company, 1928, p. 609.

notoriously bad."[53]

Terman found only 16 per cent of his children in the gifted group by using teacher judgment.[54]

Variner stated in his study that teachers are more successful in selecting dull children than bright children. Teachers can select "one-fifth to two-fifths of the bright children" in their class and from "one-half to three-fifths of the dull children."[55]

An excellent teacher in the elementary school, with five years of experience, was asked to name the five most intelligent of the forty pupils in her class which she had been teaching for three months. It was discovered later by tests which indicated that "two of these were bright, two average, and one dull."[56] Teachers are likely to rate low the bright pupils who are shy, those that lack industry, or stand low in deportment.[57]

The teacher may create an atmosphere which makes talent show itself.[58] Moreover, the teacher and her methods are important aids in finding superior and talent children.[59]

---

53. A. E. Wiggam, "How Smart Are Your Children?", p. 9.
54. Hollingworth, Gifted Children, p. 58.
55. Ibid., p. 48.
56. Hollingworth, op.cit., p. 48.
57. (a) Wiggam, "How Smart Are Your Children", p. 8.
    (b) T. P. Giddings, "The Smart Pupil", Etude, Vol. 47, September, 1929, p. 658.
58. W. J. Osborne and B. J. Rohan, Enriching the Curriculum for Gifted Children, New York: The Macmillan Co., 1931, p. 98.
59. Ibid., p. 98.

If teacher judgment is used, it is better to obtain the opinions of several teachers.[60]

Age-Grade Status

Terman[61] found the age-grade status to be 4 per cent more reliable criterion than the teachers' ratings in the selection of superior children for his study of gifted children at Stanford University. The age-grade status is a great source of error in the teachers' judgment in her selection of mentally superior children. The teacher is likely to judge as the "most intelligent" those who are doing excellent work in the grade that she is teaching. A dull child over-age who is doing work of good quality in the grade with younger children is liable to be judged as bright by the teacher. For instance, a boy fifteen years of age doing excellent work in a 7L grade with younger children averaging twelve years of age is liable to be selected as the most intelligent in the grade. The youngest child in the grade is most likely to be the most intelligent[62] because his intellectual capacity would have to be very much greater to make it possible for him to do the same quality

---

60. Ibid., p. 97.
61. (a) Wiggam, "How Smart Are Your Children", p. 9.
    (b) Carroll, Genius in the Making, p. 9.
62. Martens, Gifted Children, p. 8.

of work that the older children are doing.

Carroll[63] actually found the following case of two sisters, three and four years old:

> "The father had brought them to a psychologist to have them tested, remarking that he was somewhat worried about the younger child because she did not seem to be nearly so bright as her sister. The psychologist, on testing them, found that the three-year-old girl was intellectually gifted while the four-year-old sister had a considerably lower I.Q. The father had been expecting the younger child to behave as intelligently as the older one, quite overlooking the year's difference in their chronological ages. It had been especially easy for him to do this because the two children were of almost the same age."

Terman found "19.7 per cent" of his California group of gifted children by this method,[64] the age-grade status. This was his most reliable method.

Standard Achievement Tests

These tests only measure what a child has actually achieved in a subject, as; in arithmetic, in spelling, in reading, or in any other subject. Most children in a grade do school work which in quality is near their capacity to achieve; the results of achievement and intelligence tests have been found to agree closely.

The achievement test is a valuable aid in discovering[65]

---

63. Carroll, Genius in the Making, p. 12.
64. Carroll, Genius in the Making, p. 9.
65. Osburne and Rohan, op.cit., p. 90.

the superior child since it shows what he has done. The intelligence test is also needed because it indicates in a general way what a child is capable of achieving. Both kinds of tests, teachers' judgment of his ability, and past school records will make possible an understanding of the child's mental development.[66]

School Marks

Excellent school marks are strong indications of a very high intellect;[67] however, school marks are subject to many fallacies[68] and are known to vary widely with different teachers from elementary schools through colleges and universities.[69]

Marks ranging from "ten to ninety per cent on a scale of one hundred have been obtained from teacher's independent ratings of a student's paper."[70]

Hollingworth says that when grades are used as a criteria for selection, select children that have made high marks "from at least three different teachers."[71]

---

66. Martens, Gifted Child, p. 11.
67. Osburne and Rohan, op.cit., p. 98.
68. Skinner, op.cit., p. 493.
69. W. M. Mallen, "Problems of a College Dean", The University Administrator Quarterly, Vol. 1, No. 1, October, 1941, p. 25.
70. Skinner, op.cit., p. 492.
    Hollingworth, Gifted Children, p. 49.
71. (a) Ibid., p. 49.
    (b) Osburne and Rohen, op.cit., p. 97.

Stanwood Cobb, a former president of the Progressive Education Association, advocates the whole elimination of grades to be given children; grades are given but should be used only to aid schools and parents.[72]

School marks should not be used alone. Important qualities to consider are quickness, accuracy of mental grasp, originality, ability to reason clearly about new and different problems, breadth and accuracy of information, intellectual curiosity, vocabulary, common sense, and independent judgment.

Intelligence Tests

The intelligence test was introduced by Binet in 1905.[73] It was brought to America by Goddard who revised and published it in 1911.[74] The work of Goddard, Thorndike, and[75] others was important; it was Terman who demonstrated the inherent possibilities of use in a testing program.

In 1916 Terman, after five years of work with expert psychologists and a physician, published the Stanford Revision of the Binet-Simon tests.

Although he used the Binet technique, he made several

---

72. Stanwood Cobb, op.cit., p. 236.
73. Carroll, "Intellectually Gifted Children", p. 213.
74. H. H. Goddard, "A Revision of the Binet Scale", Vineland Training School Bulletin, Vol. VIII, 1911, pp. 56-52.
75. Skinner, op.cit., p. 437.

contributions and additions. He improved "the reliability and validity of the test and added the vocabulary test and the fables."[76] He improved the method, using the mental age concept and applied Stern's proposal in calculating the I.Q.'s.[77]

The research of the past quarter of a century has proved that the intelligence test is not only the most satisfactory objective method, but also the most reliable method of selecting mentally superior children.[78] It, also, is the best method for predicting the possible achievement and development of these children. Scores earned on these tests are used as a basis for individual prophecy and guidance. The best of a great number of tests now in use is the new Stanford Revision of the Binet-Simon Scale.[79] The first class to use this mental test was at Louisville, Kentucky.[80]

There are two kinds of general intelligence tests, the individual test and the group test. The individual test is given to one child at a time by a teacher, or a person[81]

---

76. Skinner, op.cit., p. 438.
77. (a) Skinner, loc.cit.
    (b) W. Stern, Psychological Method of Testing the Intelligence, Baltimore, Md.: Warick and York, 1914.
78. (a) Carroll, Genius in the Making, p. 6.
    (b) Osborn and Rohan, op.cit., p. 90.
79. (a) Carroll, "Intellectually Gifted Children", p. 213.
    (b) Carroll, Genius in the Making, p. 15.
80. Carroll, loc.cit.
81. Adams and Brown, op.cit., p. 32.

who has been trained in psychological testing. The group test may be given to a whole class at one time.

It is essential that the person who gives these tests must be thoroughly trained in both giving and scoring the tests, or that he is working under the supervision of an expert.[82]

In 1927 a study was made in 654 elementary schools; the principals who conducted the study were members of the Department of Elementary School Principals of the National Education Association. In one-third of these schools, if the intelligence test was given, it was given by the teacher, unaided.[83]

Although the intelligence test is the best method of evaluating mental abilities of children, it is not completely valid for two reasons. First, psychologists do not know what happens in the human organism which produces abstract thinking.[84] They must measure intellectual behavior indirectly.[85] This will result in some error. Second, the

---

82. (a) Martens, Gifted Children, pp. 9-10.
(b) Angelo Patri, Angelo Patri on the "I.Q.", The Journal of the National Education Association, Vol. 29, No. 8, November, 1940, p. 236.
(c) Wiggam, "How Smart Are Your Children", p. 9.

83. P. R. Mort, The Individual Pupil, New York: The American Book Company, 1928, p. 259.

84. P. A. Witty, "Contribution to the I.Q. Controversy from the Study of Superior Deviates", School and Society, Vol. 51, April 20, 1940, p. 507.

85. Osburn and Rohan, op.cit., p. 89.

accuracy of a score on an intelligence test rests upon the fulfillment of two fundamental assumptions; that the individual co-operates fully; that the individual's experimental background approximates that of the children on whom the test was standardized.[86] The intelligence test fails to measure originality and creative ability. It also fails to measure the "drive" which causes the highest attainments.[87]

The intelligence test is only partially satisfactory in testing pre-school children.[88] Anderson found the intelligence test to be most adequate when used to measure the abilities of elementary school children.

The most valid intelligence scores for superior children "can be obtained between the ages of six and twelve."[89] Hollingworth after a study of her group of gifted children, for more than ten years, found they held their "intellectual status through the years".[90]

In 1931 Detroit City Schools used 4,750,000 tests to check intelligence and achievement.[91]

Each pupil in the Cleveland Public Schools takes[92]

---

86. Carroll, Genius in the Making, p. 139.
87. Witty, "Contribution to the I.Q.", p. 504.
    (b) Carroll, Genius in the Making, pp. 168-169.
88. Ibid., p. 139.
89. Carroll, Genius in the Making, p. 17.
90. Ibid., p. 154.
91. Bentley, op.cit., p. 163.
92. Dorothy Norris, "Special Classes for Superior Children in an Eastern City", The National Elementary Principal Nineteenth Yearbook, Vol. XIX, No. 6, July, 1940, p. 298.

one of the following tests: Kuhlman-Anderson Intelligence Test, Grade II;[93] The National Intelligence Test;[94] The Cleveland Classification Test,[95] and The California Test of Mental Maturity, Primary Series.[96] In this school system, a "probable learning rate" is found for each child from the results of these tests and each child whose learning rate is "above 125 is sent to the Psychological Clinic for an individual Stanford-Binet examination."[97]

No one test will measure a child's intelligence. Terman "used six for each grade level. It is usually necessary to give thirty or more to each child."[98]

The score received on these tests may vary ten points, five points above or below the actual score received. Dickerson[99] states "A difference of five points in the I.Q. between the first and second tests is generally conceded as a reasonable possibility of error in results."

Washburne made a statement that "any attempt to group children by intelligence tests alone will result in the misplacement of practically one-half of the gifted group and

---

93. Educational Bureau, Minneapolis.
94. World Book Company, New York.
95. Bureau of Educational Research, Board of Education, Cleveland, Ohio.
96. California Test Bureau, Los Angeles, California.
97. Sumption, op.cit., pp. 48-50.
98. Wiggam, "How to Teach a Smart Child", p. 70.
99. Virgil E. Dickerson, Mental Test and the Classroom Teacher, New York: The World Book Company, 1923, p. 16.

of an equal number of the middle group."[100]

Dr. Goddard says that "in a brief period of six weeks" people can be taught to give and score intelligence tests "with a reasonable dgree of accuracy."[101]

Distribution of Gifted Children

Students of education and teachers should expect to find gifted children in every racial group.

A number of surveys have been made to test the intelligence of the American Negro children. The data invariably indicated a low average of 80-82 I.Q. among Negro children as compared with the average of 100 I.Q. for American white children.[102] Only a few Negro children have been included in the one per cent of white children. Moreover, Hollingworth reported an extremely exceptional family of mulatto children, five of whom tested between 130 and 170 I.Q.[103]

Peterson found the average I.Q. to be 75 among the Negro children tested in Tennessee schools, while[104]

---

100. C. W. Washburne, "The attainment of Gifted Children Under Individual Instruction", Twenty-third Yearbook, Bloomington, Illinois: Public School Publishing Company, 1924, p. 261.
101. L. M. Terman, The Measurement of Intelligence, New York: Houghton Mifflin Company, 1916, pp. 108-109.
102. (a) Carroll, Genius in the Making, p. 21.
(b) Witty, "Contribution to the I.Q.", p. 507.
103. Hollingworth, Gifted Children, p. 70.
104. Carroll, op.cit., p. 24.

Jordan found 71 I.Q. for the average of the Negro children in Arkansas.[105] The Northern Negro as a group has obtained higher ratings in intelligence than the Southern Negro.[106]

Statistically, a Negro child has only "one chance in 30,000 of being intellectually gifted while the American white child has 300 chances in 30,000 of being intellectually gifted."[107]

Terman[108] found two cases, both were part white, in his California group of gifted children. The Negroes represented two per cent of the population of the cities from which he selected his group.

The Army Alpha and Army Beta tests were given to the Negro recruits at the time of the World War I showed few gifted individuals among them.[109]

Witty and Jenkins found twenty-six Negro children with an I.Q. of 140 and above "among eight thousand Negro children."[110]

In 1934 Terwilliger[111] made a study of the Negro children in New York City who had an I.Q. of 125 and above.

---

105. Carroll, Genius in the Making, p. 24.
106. Ibid., p. 21.
107. Ibid., p. 22.
108. Carroll, loc.cit.
109. (a) Carroll, Genius in the Making, p. 21.
(b) Hollingworth, Gifted Children, p. 70.
110. Skinner, op.cit., p. 463.
111. A. Janet Terwilliger, "A Study of Negro Children of I.Q. Above 125", (Master's thesis), Teachers College Columbia University, 1934.

She found two Negro children with an I.Q. above 140. Child No. 1, a boy, had an I.Q. of 157.[112] He was the son of a professional football player, born in Petersburg, Virginia. Child No. 2, a girl, had an I.Q. of 143.[113] Both of her parents were college graduates. Terwilliger found "racial differences disappeared with the advent of superior intelligence."[114]

Moreover, Young found "lighter color to be 19.7 per cent better on the National Intelligence Test than was the darker group."[115]

Garth has made an extensive study of 2,650 American Indians and found an extremely low average I.Q. of 69; occasionally an Indian emerges who could be classified as intellectually gifted.[116][117]

In Terman's California group testing above 140 I.Q. he reported:

> "There is a marked excess of English, Scotch, and Jewish parentage. A tenth of our main group are Jewish, as compared with about five per cent in the general population of these cities. The proportion of Mexican, Spanish, Italian, Portuguese, and negro origin is very low."[118]

---

112. Ibid., p. 12.
113. Ibid., p. 14.
114. Terwilliger, op.cit., p. 49.
115. Skinner, op.cit., p. 461.
116. Carroll, Genius in the Making, p. 22.
117. Carroll, loc.cit.
118. Hollingworth, Gifted Children, p. 70.

Hollingworth found six extremely gifted children[119] in New York City that tested above 180 I.Q., "three were Jewish, one was Scotch-German, one Scotch-English, and one was Irish-English." American children whose parents are Italian test low in mental ability.[120]

---

119. Ibid., p. 71.
120. Ibid., p. 70.

CHAPTER III

CHARACTERISTICS OF GIFTED CHILDREN

Professor Terman and his associates have presented the most complete basic study[1] yet made of the characteristics of a group of gifted children. The purpose of this study was to determine the traits which characterize children of marked intellectual ability. The results found after trained workers administered physical and mental tests, made medical examinations, and secured character and personality ratings was that gifted children equalled or excelled the normal group in physical growth and in general health as well as in academic and in social ratings.[2] The gifted child proved to be an all-around individual, contrary to the common opinion that intellectual precocity goes with physical defects and social instability. The idea that

---

1. Merle R. Sumption, Three Hundred Gifted Children, New York: The World Book Company, 1941, p. 73.
2. Karl J. Holzinger, "Genetic Studies of Genius", Elementary School Journal, January, 1926, p. 387

gifted children are mentally strong, high strung and physically weak has been rendered obsolete by psychological and educational research in recent years.[3] They are not one-sided in their educational development.[4]

Early Characteristics

The simplest way to discover embryonic genius is to watch children's interest in play activities at home and at school.[5] "Interest is a sign of intelligence."[6] The superior child has many interests and enjoys them all.[7] Children who possess high general intelligence are characterized by "depth and a variety of interests",[8] an insatiable curiosity that is easily piqued.[9]

Studies show that "95% [sic] of adult interests

---

3. (a) B. T. Baldwin, "Methods of Selecting Superior or Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, 1924, p. 37.
   (b) Helen David, "Personal and Social Characteristics of Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, 1924, p. 126.
4. Skinner, op.cit., p. 470.
5. (a) P. A. Witty, "Contribution to the I.Q.", School and Society, Vol. 51, April 20, 1940, p. 507.
   (b) A. E. Wiggam, "Have You a Child Genius in Your Home?", Better Homes and Garden, Vol. 19, No. 10, June, 1941, p. 3.
6. Osborne and Rohan, op.cit., p. 98.
7. Bentley, op.cit., p. 25.
8. (a) L. F. Addington, "What Are We Doing for Gifted Children?", Virginia Journal of Education, Vol. XXXIII, No. 2, p. 77.
   (b) Osborne and Rohan, op.cit., p. 21.
9. Wiggam, "How Smart Are Your Children?", p. 27.

can be traced back to the time before one was ten years old and that 93% [sic] of the interests were initiated in the home."[10]

A typical gifted child will use "three words with understanding at the age of eleven months and walk at thirteen months." Both walking and talking at an early age is characteristic of superior children.[11]

Gifted children show an early "natural interest" in words and reading.[12] They have lexical ability.[13] Jones claims that the interest of gifted children in reading is "universal."[14]

Terman reported about one child: "As early as twenty-one months she read and apprehended simple sentences; by twenty-six months her reading vocabulary was more than seven hundred words."[15]

About 50 per cent of superior children learn to

---

10. Gladys Denny Shultz, "Do Things With Your Child", Better Homes and Gardens, Vol. 20, March, 1942, p. 44.
11. Carroll, Genius in the Making, p. 150.
12. H. J. Baker, Characteristic Differences in Bright and Dull Pupils, Bloomington, Ill.: Public School Publishing Company, 1927, p. 46.
(b) Hollingworth, Gifted Children, pp. 52-139.
13. Ibid., p. 399.
14. Alice Jones, "An Analytic Study of 120 Superior Children," Psychological Clinic, Vol. 16, 1925, p. 64.
15. Skinner, op.cit., p. 470.

read without formal instruction before they enter school.[16] Forty-five per cent of Terman's group read before going to school.[17]

About 25 per cent of gifted children learn to read before they are five years old.[18] Some learn to read at two and one-half years old or three years old.[19] Terman reported another example of a two year old child that he found who could read well from any primer, "which is a real performance for any child with high intelligence."[20] The child had an I.Q. of 150 and could read as well as any child seven years old.

However, all bright children do not learn to read at an early age for research studies show that 80 per cent of all these pupils who were retarded in reading had either normal or superior intelligence.[21] Moreover, after these children learn to read, they do not have to be urged to read and they read good books.[22] Girls are found to read

---

16. (a) Skinner, loc. cit.
    (b) Hollingworth, Gifted Children, p. 139.
    (c) Wiggam, "How to Teach a Smart Child", p. 66.
    (d) Wiggam, "Have You a Child Genius?", p. 99.
    (e) Martens, Gifted Children, p. 13.
17. Skinner, op.cit., p. 470.
18. Wiggam, "Have You a Child Genius in Your Home?", p. 99.
19. Skinner, op.cit., p. 470.
20. (a) Bentley, op.cit., p. 89.
    (b) Carroll, Genius in the Making, p. 272.
21. (a) A. E. Betts, The Prevention and Correction of Reading Difficulties, New York: Row, Peterson Co., 1936, p. 3.
    (b) Ralph W. House, Practical Problems in Education, New York: Silver, Burdette Company, 1938, p. 22.
    (c) Carroll, Genius in the Making, p. 198.
22. C. W. Raubicheck, "Reading of Superior High School Students", English Journal, Vol. 29, September, 1940, p. 542.

more and better books than boys.[23] Terman's study shows a continuous increase in the amount of reading as the gifted child matures. The height of the average child's desire for reading is reached at the age of thirteen while the gifted child's is not reached until seventeen and one-half years old.[24]

Another outstanding characteristic of a gifted child is his passion for hobbies that are worth-while. The average child has hobbies too, but he soon loses interest and drops them while the gifted child will hold his interest until the goal is reached. The gifted child has more determination and drive and has a longer span of interest.[25]

In some cases, superior ability is apparent early in life and no tests are required to reveal it. At five years old Mozart composed a minuet and at seven years old[26]

---

23. (a) P. A. Witty, "Enriching the School Life Experiences of Exceptional Children", School and Society, Vol. 39, January 27, 1934, p. 105.
    (b) Skinner, op.cit., p. 472.
    (c) May Lazar, Reading Interests, Activities and Opportunities of the Bright, Average and Dull, Contribution to Education, No. 707, New York, Teachers College, Columbia University.
24. (a) Skinner, op.cit., p. 472.
    (b) Witty, Enriching the Life Experiences of Exceptional Children, p. 104.
25. (a) Carroll, Genius in the Making, p. 248 and p. 167.
    (b) Cobb, op.cit., p. 42.
26. (a) I. N. Kuglemass, M.D., Growing Superior Children, New York: D. Appleton-Century Co., 1940, p. 401.
    (b) Carroll, Genius in the Making, p. 187.
    (c) Bentley, op.cit., pp. 74-75.

he was composing sonatas for both the violin and piano.[27] His I.Q. is estimated to have been 150.[28] Ignace Jan Paderewski began his study of music at three years old; he made his first tour as a pianist at the age of sixteen.[29] Ernest Schelling made his debut in the Philadelphia Academy of Music at the age of four and one-half years.[30] "Creative performance in any field carries with it the ability to solve problems" which is a characteristic of a superior child.[31]

Writing poetry is a specialized language ability that has been found to appear at an early age, however, not at so early an age as the music ability which appears frequently before three.[32] Terman found in his group many that possessed this creative ability.

Heck reported that we should expect "0.4 per cent of 1 per cent of the school population to be musically gifted."[33]

The children who have real capacity in these directions, even though they may never become famous authors,

---

27. (a) F. Slocum, "Intellectual Curiosity", School and Society, Vol. 48, August 6, 1938, p. 161.
    (b) A. O. Heck, Educating Exceptional Children, New York: McGraw-Hill Book Company, 1940, p. 427.
    (c) Sarah K. Bolton, Lives of Poor Boys Who Became Famous, New York: Thomas Y. Crowell Company, 1939, pp. 49-36.
28. Carroll, Genius in the Making, p. 188.
29. W. R. Tilford, "The Phenomena of the Wonder Child", Etude, Vol. 45, May, 1927, p. 345.
30. Tilford, op.cit., p. 345.
31. Martens, "Teachers Problem with Exceptional Children," The Gifted, pp. 13-14.
32. Carroll, Genius in the Making, p. 200.
33. Heck, op.cit., p. 434.

musicians, or poets, should have their experience enriched by giving them opportunities to appreciate the fine arts.[34]

Dictionaries and encyclopedias are a source of pleasure to the superior child.[35]

The boy F reported by Hollingworth[36] won a prize at school. Several books that would have interested a boy were offered him from which he was to select one. After examining the selection, he asked if he could be given a dictionary in the place of one of those books. He received his dictionary and made constant use of it.

Gifted children almost always prefer hard subjects. They show great interest in arithmetic, physics, chemistry, drawing and nature study.[37]

Terman[38] and Blair[39] found mathematics to be the most preferred subject by the gifted children, the very subject average children dislike. The mentally superior girls liked English. The subjects they liked least were penmanship, sewing, folk dancing, and spelling.[40]

---

34. Martens, Gifted Children, p. 26.
35. Hollingworth, Gifted Children, pp. 52 and 139.
    Osborne and Rohan, op.cit., p. 4.
36. Ibid., p. 259.
37. Wiggam, "How to Teach Smart Children", American Magazine, Vol. 102, November, 1926, p. 68.
38. G. M. Blair, "Mentally Superior and Inferior Children in the Junior and Senior High School", (abstract), Teachers College Record, Vol. 40, February, 1939, p. 443.
39. Wiggam, "Have You a Child Genius in Your Home?", p. 99.
40. (a) Wiggam, "How to Teach a Smart Child", p. 66.
    (b) Skinner, op.cit., p. 470.

If a child likes to debate and argue from his point of view on worth-while subjects, this is a good indicator of intelligence and an excellent prophecy for future leadership.[41] Many of our leaders today have been members of a debating team while in school.[42]

Psychologists have discovered that a good sense of humor is a good indicator of intelligence.[43] Gifted children like the comic strips more than the average child.

Bright children find complex associations, and large units are favorite types of material.[44]

At Christmas time these superior children think about Santa Claus just as all average children do, except that they are "more interested in fantasy and fairy tales."[45]

Mental Characteristics

A person is not bright or dull because he appears that way, but because of the quality of his thinking. The superior child has a high degree of general intelligence.[46]

---

41. (a) Wiggam, "Have You a Child Genius", p. 99.
    (b) Carroll, Genius in the Making, pp. 227-242.
42. Cohen, Helen and Coryell, Nancy, Educating Superior Students, New York: American Book Company, 1935, pp. 290-291.
43. Wiggam, "Have You a Child Genius in Your Home?", p. 99.
44. Baker, op.cit., p. 27.
45. (Newspaper), "Gifted Children Are Interested in Santa Claus", Richmond Times Dispatch, Vol. 91, No. 351, December 17, 1941, p. 28.
46. Baker, op.cit., p. 12.

which is according to Terman "the ability to carry on abstract thinking."[47] The gifted child's action and responses show that he thinks in a logical way. The superior intellect has the ability to create and make logical associations in solving problems and making associations.[48] If a child of superior ability is asked to name a series of words, one mental image will recall to mind another in such a way his thinking has been grouped around a central thought. He does reflective thinking; for example, barn would very likely be followed by such words as, hay, cow and a horse. They form associations out of a large reservoir of experiences which are a result of close observation and through accurate memory.[49]

The transfer of learning from one situation to another occurs easily and quickly with superior children chiefly because of their ability to generalize and recall facts of past experience.[50] They grasp more easily the essentials of a topic when it is under discussion. Gifted children as well as average children need reviews but they need less than the average children.[51] They enjoy the opportunity of giving free and full play to their mental powers.

---

47. Ibid., p. 15.
48. Adams and Brown, op.cit., p. 14.
49. Baker, op.cit., p. 26.
50. Griffin and others, Mental Hygiene, New York: American Book Company, 1940, p. 140.
51. Ibid., p. 138.

Gifted children are frequently accelerated one or more years beyond the average child of the same age.[52]

The bright child is able to concentrate for a greater length of time without losing interest, as his span of attention is longer.[53] Children of this group select activities that require a long period of time to finish. As for example:[54]

> "One boy . . . . was very much interested in learning all he could about early man. For more than one year he read every book on this subject he could find in the public and school libraries, or could borrow from his teachers and friends."

Mentally alert children have originality, they prefer to create something new rather than make copies of material already existing.[55]

They are resourceful for they can find substitutes for needed material that is not available and manifest new ways of presenting some abstract idea. This group of pupils will voluntarily enrich their work by turning in unassigned material.

If a pupil consistently does superior school work and forges ahead without effort, he is likely to be a gifted child.[56]

---

52. Baker, op.cit., p. 105.
53. Harold Speights, "Who is the Superior Student?", School and Society, Vol. 48, October 29, 1938, p. 548.
54. Adams and Brown, op.cit., p. 16.
55. Adams and Brown, op.cit., p. 16.
56. Martens, Gifted Children, op.cit., p. 4.

The superior child "can understand and follow directions"[57], and is capable of getting an understanding that will aid in arriving at a desired end. On the other hand, he can recognize related material and therefore is capable of finding reference material pertaining to a given subject. They can profit not only by their own mistakes but by the mistakes of others. They have the ability to think from the abstract to the concrete as well as to make generalizations from specific data and to use original ideas in reporting data. They have aggressive interest and the ability to work independently.

Appreciation of nature is also a characteristic of gifted children. They are accurate observers of nature and can apply meaning to what they see. They are usually successful in the study of nature. They like new situations and prefer to look up information for themselves.[58]

There are cases in which the achievement of an activity is below the level of general intelligence. There is a clear connection between achievement, ability, and study. Robbins[59] expressed the relationship by the equation:

"Achievement = ability X will to work."

---

57. Adams and Brown, op.cit., p. 16
(b) Charlott Hughes, "If Your Child is Exceptional", Parent's Magazine, Vol. 13, December, 1938, p. 26.
58. Baker, op.cit., p. 73.
59. E. L. Robbins, The Will To Work, New York: Row, Peterson & Company, 1928, p. 15.

Goddard says of gifted children: "Mentally they are more alert, they think quicker, they are more observing, they can see relationships more promptly. They have more good habits and fewer detrimental ones."[60]

Gifted children have a better use of language. They seem to have more appreciation of social responsibility. They have more curiosity and more energy. They see the end from the beginning more promptly. They interpret facts after they have been accumulated. Addington says, "this is one of the best ways of discovering the gifted youth."[61]

Sometimes gifted children are found to be retarded in subjects such as penmanship, sewing, and manual training.[62] They like to read.[63] A superior child seven years old frequently reads more than the average child of fifteen.[64]

The "size of vocabulary is generally considered by psychologists as being the best single indication of superior intellectual capacity."[65] This criterion is especially important in rating young children.

---

60. H. H. Goddard, School Training of Gifted Children, The World Book Company, 1928, p. 35.
61. L. F. Addington, "What Are We Doing for Gifted Youth?", Virginia Journal of Education, Vol. XXXIII, No. 2, November, 1939, p. 78.
62. Carroll, Genius in the Making, p. 198.
63. Charlotte Hughes, op.cit., p. 26.
64. Adams and Brown, op.cit., p. 24.
65. Wiggam, "Have You a Child Genius?", Better Homes and Gardens, Vol. 19, No. 10, June, 1941, p. 6.

Physical Characteristics

Before research studies were made of the physical qualities of the bright child, there was a popular misconception that he was small and weak physically. The idea most likely originated because the gifted child is often accelerated from one to three grades beyond the average child of the same age.[66] He was smaller and younger than the children in his grade. His health is usually good,[67] but there are exceptions.

Goddard[68] found the gifted children in Cleveland, according to the health department, "the healthiest children in the entire school system."

The mentally superior child in comparison with other children of the same age is found to be both taller and heavier than the average child.[69] Hollingworth and Taylor measured forty-five school children who ranged from 135 to 190 I.Q. and compared them with the children who tested 90 to 110 I.Q. They found the medium height for the "gifted children to be 52.9 inches" and for "the average to be 51.2 inches."

---

66. Baker, Characteristic Difference of Bright and Dull Pupils, Bloomington, Ill.: Public School Publishing Company, 1927, p. 105.
67. H. J. Baker, "The Psychology of Ability Grouping and Implications for Instructional Differentiation", Thirty-fifth Yearbook, National Society for the Study of Education, Part I, 1936, p. 138.
Baker, Characteristic Difference, op.cit., p. 85.
68. Goddard, op.cit., p. 63.
69. (a) Hollingworth, Gifted Children, p. 80.
(b) Carroll, Genius in the Making, p. 66.

They are usually "small for their grade and large for their age."[70]

Terman found that children who had an I.Q. of 140 and above were from three-fourths to one pound heavier when born than children of an average group.[71] [72]

The gifted children tend to have a longer head in comparison with the average children of the same sex, race, and age.[73] Their heads are larger, but only in accordance with their larger bodies.

Terwilliger's study of the Negro child with a high I.Q. showed the superior Negro child to be physically superior to the control group in height, strength, and weight.[74]

Witty, Terman, Hollingworth, and other educators found the gifted children to be healthy and well-rounded and they "are less susceptible to disease and injury."[75] [76] [77] [78] [79]

---

70. Adams and Brown, op.cit., p. 25.
71. Wiggam, "How to Teach Smart Children", p. 68.
72. Adams and Brown, op.cit., p. 19.
73. Adams and Brown, op.cit., p. 19.
74. Terwilliger, op.cit., p. 31.
75. P. A. Witty, "Some Considerations in the Education of Gifted Children", Reprint from October, 1940, Educational Administration and Supervision, Evanston, Ill.: Northwestern University, p. 512.
76. "Terman's Kids", Time, October 14, 1940, Vol. 36, p. 76.
77. Hollingworth, Gifted Children, p. 99.
78. (a) Skinner, op.cit., p. 469.
    (b) Adams and Brown, op.cit., p. 20.
    (c) L. A. Averill, Psychology for Normal Schools, New York: Houghton Mifflin Company, 1921, p. 319.
    (d) K. J. Hoke, "The Healthy Intellectually Superior Children", Twenty-third Yearbook, National Society for the Study of Education, 1924, p. 239.
    (e) Baker, op.cit., p. 63.
    (f) Baker, Characteristic Difference, p. 85.
    (g) Wiggam, "How to Teach a Smart Child", p. 70.
79. Bentley, op.cit., p. 94.

Yoder's study of the famous in childhood showed[80] that they were as healthy as average children.

The six thousand elementary school children in New York City whose I.Q.'s indicated that they possessed superior mental ability have been proved to be slightly superior in physical characteristics, and healthier than the average children of corresponding age. They are also superior in personality traits, character, emotional stability, and social adjustment. In the follow-up studies, they have been found to remain gifted.[81]

Social and Emotional Characteristics

Terman has also made careful studies of the personality traits of gifted children by the means of such tests as "the Raubenheimer-Ruch overstatement test, the Raubenheimer test of questionable interests, and the Voelker-Cady test of conscientiousness."[82] According to the data, superior children seem to have a high degree of moral stability. The superior child rates higher in trustworthiness and reliability as well as in honesty. The gifted children surpassed the average

---

80. (a) Hollingworth, Gifted Children, p. 99.
(b) Adams and Brown, op.cit., p. 20.

81. B. B. Groenberg, "Educating the Intellectually Gifted", National Educational Association Proceeding, Washington, D. C.: National Education Association, 1938, p. 95.

82. (a) Adams and Brown, op.cit., p. 20.
(b) "Terman's Kids", op.cit., p. 76.
(c) Terman, Twenty-third Yearbook, p. 163.

children in tests of honesty[83] "about 85 per cent." The gifted child that is not well adjusted or is not co-operative can cause more trouble and disorder than any other child in class; however, "less than one out of every twenty present any serious trouble."[84] These exceptions indicate that they are not free from faults and need character guidance.

Johnson[85] found that teachers in the schools of St. Paul, Minnesota, also rated the mentally gifted children superior to the average children on traits of character. These ratings were made on children who had been selected by intelligence tests as being superior mentally.

Witty[86] gave his group of one hundred gifted children an overstatement test and a test of honesty. The results on both of these tests indicated superiority on character traits of gifted children.

"The truth that brains and character actually tend to go together" is an established fact proved by more than three hundred investigators.[87] Terman also found that older

---

83. Adams and Brown, op.cit., p. 24.
84. Adams and Brown, op.cit., p. 21.
85. O. J. Johnson, "Teachers' Judgment of Qualities of Gifted Pupils as Related to Classroom Activities", School and Society, Vol. 17, 1923, pp. 466-468.
86. P. A. Witty, "Study of One Hundred Gifted Children", Kansas Studies in Education, No. 13, 1930, pp. 19-20.
87. A. E. Wiggam, "Do Brains and Character Go Together?", Readers Digest, Vol. 39, No. 235, November, 1941, p. 110.

children in both the superior group and the average group scored higher than the younger ones, because increased intelligence led to better judgment.[88]

Maller[89] of Columbia University analyzed the results of tests given 100,153 fifth grade pupils in New York City and found that he could predict the juvenile delinquency by the intelligence scores; or from the delinquency rate, he could predict intelligence scores, proving that brains and character go together.

The superior children prefer to associate with those whose mental level is similar to their own. The superior child in a class is usually selected as a leader, however, the child with an I.Q. of 160 or above has very little chance of becoming a leader of an unselected group, because this group would not understand his ideas or the words he used. There "must not be too big a difference in the I.Q. of the leader and those being led, but the leader will be found to have from 15 to 30 points higher I.Q."[90]

The gifted children are as nervously stable as are average children.[91] Hollingworth found that "the emotional

---

88. Ibid., p. 111.
Wiggam, "How Smart Are Your Children?", American Magazine, Vol. 102, October, 1926, p. 72.
89. Wiggam, "Do Brains and Character Go Together?", The Reader's Digest, Vol. 39, No. 235, November, 1941, p. 110.
90. Hollingworth, Gifted Children, p. 132.
91. Wiggam, "How Smart Are Your Children?", p. 70.

age" of an individual may vary widely with his "intellectual age."[92] Gifted children are found lacking in self-control as well as the average children. The opinion of investigators is that there are fewer nervous and neurotic children among the group of mentally superior children than the average group of children. Gifted children show instability in this respect by "extreme irrational timidity, unusual fears, rages, and other outbursts of emotion, when thwarted in carrying out impulses."[93] Gifted children sometime receive low marks for deportment.[94] They resent corporal punishment more than the average children of the same chronological age;[95] however, they are reasonable and are "easy to discipline if their elders are kind and tactful in dealing with them."[96]

Davis reported that the undesirable character traits most often displayed by gifted children seem to be "egotism and indolence."[97]

Goddard said that after observing mentally gifted children for five years, he had never seen a gifted child that needed to be disciplined.[98] They apparently were too

---

92. Hollingworth, Gifted Children, p. 128.
93. Ibid., p. 127.
94. Charlott Hughes, op.cit., p. 26.
95. Adams and Brown, p. 24.
96. Adams and Brown, p. 24.
97. Helen Davis, "Personal and Social Characteristics of Gifted Children," Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, 1924, p. 14.
98. Goddard, op.cit., p. 55.

interested in what they were doing to get into mischief. However, there are many gifted children found in our school system that need to be disciplined because some are not interested in what they are doing, while others do not have sufficient work to do.

CHAPTER IV

THE TEACHER AND THE CURRICULUM

In the education of gifted children, as well as all children, the teacher and the curriculum are the two chief agencies of the school. The teacher is the key person to the education of all children, but the centrality of the gifted teacher for gifted children is indisputable. The success or failure of any plan of education depends upon the qualifications and training of the teachers. The education and training of gifted children rests upon the teacher.[1]

The Teacher

"Teachers of America are the ultimate guardians of the human capital of America, the asset which must be made to pay social dividends if democracy is to survive."[2]

---

1. C. A. Carroll, Genius in the Making, New York: McGraw-Hill Book Company, 1940, p. 262.
2. F. D. Roosevelt, Address International Program, National Education Association Proceedings, 1938, p. 103.

An educational leader made the following statement: "Curriculum, organization, equipment, important as they are, count for little or nothing except as they are vitalized by the living personality of the teacher."[3]

Dr. Judd of the University of Chicago made a more challenging statement: "The teaching staff of an educational institution is its most essential item of equipment . . . our ability or inability to provide competent teachers will determine the success or failure of the American experiment of universal secondary education."[4]

Apropos to these statements another writer declares:[5] "The forward movement in human welfare becomes possible only from correct teaching. Civilization advances in accordance with the quality of the teaching service. The influence of a great teacher extends through many generations, doing high service beyond the limits of his natural life. It transcends geographical and national boundaries."

The best teachers should be recruited to teach the gifted children.[6] He is an essential factor among many conditions

---

3. N. L. Bossing, Progressive Methods of Teaching in Secondary Schools, New York: Houghton Mifflin Company, 1935, p. 39.
4. Loc. cit.
5. Ibid., p. 40.
6. (a) Helen Cohen and Nancy Coryell, Educating Superior Students, New York: American Book Company, 1935, p. 67.
   (b) N. L. Bossing, op.cit., p. 40.
   (c) W. L. Connor, "The Education of Gifted and Talented Children", The Phi Delta Kappa, Vol. XXIII, October, 1940, p. 76.
   (d) Leon O. Smith, "Some Phases of the Administration of the Education of the Gifted", Twenty-third Yearbook, Bloomington, Ill.: Public School Publishing Company, 1924, p. 68.

that determine the level of performance of such children. No curriculum can be made to fit the needs of gifted children without gifted teachers.[7] The elementary school child is at the "formative period of his development", and the personal influence of a teacher is more important "than subject matter achievement."[8]

The teacher should have "scholarship, professional training and a knowledge of children."[9] The well-qualified teacher must understand the gifted child; his needs, best methods of teaching the individual child, and have a wide knowledge of the subjects that he is to teach. A superior teacher can secure performance on educational test that is about "one year in advance of what a poor teacher can secure with the same group."[10] Baker[11] claims that "bright pupils profit most and slow pupils least from superior teaching."

Opinions of educators are divided on whether superior students need teachers with special qualifications, but most educators agree that the gifted child will make greater demands of a teacher than do children with average ability. Certain characteristics that are desirable in teaching all

---

7. Cohen and Coryell, op.cit., p. 67.
8. Bossing, op.cit., p. 41.
9. C. P. Colgrove, The Teacher and The School, New York: Charles Scribner's Sons, 1911, p. 34.
10. H. J. Baker, "Education of Bright Children", The Thirty-fifth Yearbook, National Society for the Study of Education, 1936, Chapter VIII, p. 142.
11. (a) Ibid., p. 142.
    (b) Cohen and Coryell, op.cit., p. 67.

children are needed to a high degree with pupils of superior mental ability.

Most of the educators agree that the qualifications of the teacher are necessary factors in the education of all children as well as the gifted.

When casting for a teacher for mentally superior children "special qualifications" should be considered.[12] The qualifications, both innate and acquired, should be given consideration.

The innate qualifications that are desirable are:[13] intelligence to a high degree, ambition, drive, good health, ability to get along with people, inspiring personality, originality, a learner's attitude, good appearance, sound judgment, enthusiastic, happy disposition, open-mindedness, free from jealousy, modest but very confident sense of humor, good voice, sociability, and a sense of justice.

---

12. Hollingworth, Gifted Children, p. 306.
13. (a) Hollingworth, Gifted Children, p. 306.
    (b) Carroll, Genius in the Making, p. 263.
    (c) Goddard, op.cit., pp. 54-55.
    (d) Skinner, op.cit., p. 699.
    (e) Bentley, op.cit., p. 181.
    (f) Cohen and Coryell, op.cit., p. 67.
    (g) Bossing, op.cit., pp. 47-51.
    (h) Sumption, op.cit., p. 32.
    (i) Heck, op.cit., pp. 415-416.
    (j) Elledge, L. M., "Present Requirements of Teachers of Subnormal and Superior Children", Elementary School Journal, Vol. 29, December, 1928, p. 306.

The acquired qualifications that are desirable[14] are: thorough training, teaching experience with average children, self-control, large fund of general information upon which he will draw heavily in teaching gifted children, wide knowledge in several fields of learning, modesty, leadership, wide traveling experience, wide knowledge of psychology and modern educational methods, knowledge of individual differences, characteristics, needs, and interests of gifted children, patience, cultured manner, cultured background, interest in children, love of his work, wide experience with literature, adaptability, industry, teaching skills, resourcefulness, co-operation, optimism, and good English.

These teachers should "possess in a marked degree, those qualities which characterize excellence, experience, knowledge of grade requirements, and special training are indispensible."[15]

---

14. (a) Baker, op.cit., p. 101.
(b) Bentley, op.cit., p. 699.
(c) Goddard, op.cit., pp. 54-55.
(d) Hollingworth, Gifted Children, p. 306.
(e) Carroll, Genius in the Making, p. 263.
(f) C. L. Robbins, The Will To Work, New York: Row, Peterson & Company, 1928, p. 97.
(g) Sumption, op.cit., p. 32.
(h) Bossing, op.cit., pp. 392-393.
(i) Heck, op.cit., pp. 415-416.
(j) Herbert Bixby, "Organizing Classes for Gifted Children", Educational Review, Vol. 67, 1924, p. 196.
(k) National Education Association, Research Bulletin, Vol. XIX, No. 4, September, 1941, pp. 178-179.

15. Algar Woolfolk, "The Case of Him That Hath Ten Talents", Virginia Journal of Education, September, 1917, p. 21.

Martens[16] believes that a skillful teacher will not only try to create an atmosphere and seize every opportunity "for giving experience in creative writing, creative art, and creative music." The average can "conserve but only the gifted can originate."[17]

They must understand the laws of mental hygiene and how to apply them to individual cases under specific conditions. He must have an understanding of human inspirations and aspirations which will equip him to stimulate and guide insatiable minds.[18]

Such teachers should have a wide knowledge and experience in travel for purposes of stimulating interest in pupils and of giving them a "wide horizon."[19]

Teachers of gifted children 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."[20]

Superior teachers should be trained in directing study activities and in teaching gifted children "how to study,

---

16. Martens, Gifted Children, p. 26.
17. (a) Hollingworth, Gifted Children, p. 313.
    (b) Carroll, Genius in the Making, p. 257.
18. Adams and Brown, op.cit., p. 54.
19. Hollingworth, Gifted Children, p. 579.
20. Cora L. Danielson, "Special Classes for Superior Children in a Far Western City", Nineteenth Yearbook, National Elementary Principal, July, 1940, p. 390 (Vol. XIX, No. 6).

how to use the library, and how to do research.[21] According to Risk[22] too little attention is given these important activities in learning. He states that this is almost "a new phase of teacher training."

A teacher who wishes to be selected to guide the activities of superior children must satisfy the following conditions: "be a quick and eager learner himself, be a student of mental hygiene, know literature, the arts, and the sciences, be able to recognize creative ability in the fields, and have among his teaching tools, music, drawing, and a modern language."[23]

The educational leaders in the St. Louis Schools maintain that a knowledge and skill for dealing with individual differences should be an essential part of every teacher's professional equipment. On each classroom teacher is placed the responsibility of adopting instruction to the different abilities and interests. St. Louis teachers have "listed more than two hundred activities" which they employ to meet the needs of exceptionally superior children.[24]

---

21. Stedman, op.cit., p. 8.
22. Risk, op.cit., p. 553.
23. G. M. Blair, "Types of Provision for Children of Superior Ability", Nineteenth Yearbook, National Elementary Principal, Vol.XIX, No. 6, July, 1940, p. 385.
24. M. V. Bear, "How St. Louis Schools Serve Their Bright Pupils", National Education Association Journal, Vol. 28, April, 1939, p. 121.

The fundamental task of all teachers is to help each child to discover his interests, help him develop his individual abilities, and guide him through educational experience for full development of his capacity.[25] Bentley states that "the teacher should be specially trained for the task."[26]

The task requires each teacher to participate in the selection and organization of materials to be studied. Wayne says from this point of view "each teacher is a curriculum maker."[27] Teachers should be able to select and direct long-time projects,[28] so that a balance of time and topic is maintained.

Cobb has stated that "every one has some unique quality of genius within him."[29] If a teacher can discover and help each child to find these latent qualities within himself, and help him develop his unique ability, he has become a successful teacher.

One of the greatest handicaps in the education of gifted children has been the lack of adequately trained teachers.[30] Teacher training institutions are making some

---

25. Carroll, Genius in the Making, p. 52.
26. Bentley, op.cit., p. 180.
27. John Wayne, The Teacher and The Curriculum, New York: Prentice-Hall, Inc., 1937, p. 5.
28. Harold Speights, "Who is the Superior Student?", School and Society, Vol. 48, October 29, 1938, p. 548.
29. Cobb, op.cit., p. 5.
30. Bentley, op.cit., p. 211.

attempt to provide courses of study, of a general nature, for those intending to engage in the teaching of gifted children.

Martens[31] accumulated data by the questionnaire method from eight hundred universities, colleges, and normal schools.[32] She found ten institutions that offered a course pertaining directly and wholly to the giving of information concerning the education of gifted children. No school offers a course in methods or practice teaching whose subject matter and experience deals only with gifted children,[33] as do many schools on the teaching of the mentally inferior children.

The University of Pennsylvania[34] has the most courses offered that pertain to the education of gifted children. It offers one course that includes "clinical teaching of children of superior intellect."[35]

"Gifted teachers are rare",[36] for too often they are promoted to supervision or administrative duties in order to receive a better salary.[37] However, Goddard says, "Good teachers are not hard to find." He has been able to secure enough good

---

31. Elsie Martens, Opportunities for the Preparation of Teachers of Exceptional Children, Bulletin, No. 17, 1937, p. 1.
32. Ibid., p. 3.
33. Ibid., pp. 10-12.
34. Ibid., p. 12.
35. University of Pennsylvania Catalogue of Courses.
36. Cohen and Coryell, op.cit., p. 30.
37. Goddard, op.cit., p. 52.

teachers for the special classes of the gifted children in Cleveland. There is a need for teacher training institutions to offer prospective teachers who will meet mentally superior children training in: psychology of children with a high I.Q., methods of instruction that take into account gifted children's learning ability, and a knowledge of methods and materials for enriching the curriculum for superior children.[38]

The Curriculum

The paucity of research studies in the field of education about a curriculum for the education of superior children indubitably indicates a need of objective research.[39] At present, the literature available is experimental and has contributed little objective data about the curriculum. The educators that have made contributions have antithetical opinions concerning the best way to provide for the superior child.

The curriculum problem is one that each generation must face because future needs will ever be changing and never

---

38. Heck, op.cit., p. 415.
39. (a) Eugene Youngert, "Is it Desirable to Organize Special Classes for Gifted Students?", Teachers College Record, New York: Teachers College Columbia University, Vol. 39, No. 5, February, 1938, p. 386.
    (b) Sumption, op.cit., p. 15.
    (c) P. A. Witty, "Intelligence - Its Nature and Nuture", "A Genetic Study of 50 Gifted Children," Thirty-ninth Yearbook, p. 407.

permanently solved.

Many gifted children are being neglected in our public schools,[40] and a need for a change in the curriculum and methods of instruction is imperative.[41] It is essential that the school know each gifted child as an individual; their needs, aspirations, achievement, potentialities, strength, and weaknesses. This achievement may be obtained through educational tests; intelligence tests, achievement tests, diagnostic tests, and prognostic tests, or a combination of all. A superior child progresses educationally at a rate that will accelerate him two or three grades mentally above those children classified as average in the elementary school.[42] Studies show that such superior children are given little that is mentally or educationally stimulating in subject matter or in the methods of instruction.[43]

Bobbit[44] and Woodrow[45] pointed out that "recognition of individual differences was fundamental in curriculum making", and the educators must take into account the interests,

---

40. Bentley, op.cit., p. 124.
Skinner, op.cit., pp. 469-471.
41. Bentley, op.cit., p. 215.
42. Research Bulletin, National Education Association, Vol. XIX, No. 4, September, 1941, p. 161.
43. Skinner, op.cit., p. 470.
44. Frank Bobbit, How to Make a Curriculum, Boston, Mass.: Houghton Mifflin Company, 1924, pp. 41-42.
45. Herbert Woodrow, Brightness and Dullness in Children, Chicago, Ill.: J. B. Lippincott Company, 1923, p. 258.

needs and abilities of the gifted child. They must also accept the capacities of a gifted child, as well as an average, as they find him; and "by affording them every exercise possible make them fit to render their greatest service."[46] The school should deal with each individual by means of a differentiated curricula, "enriched by wider and richer materials".[47] Yet, no plan will meet the entire range of individual needs.[48]

Miller states that the "task of education is the production of a people capable of thinking and with a mental attitude which is tolerant, fearless, honest, expectant of change, and creative."[49]

The elementary school system to make adequate provisions for individual differences must take into consideration the following factors: first, unequal rate of progress made by each child, with different degrees of intelligence as indicated by intelligence test; secondly, different rates of progress in different subjects; and thirdly, a "high degree of individual attention" given each child in each class.[50]

In order for the teacher to provide an "environment

---

46. Woodrow, op.cit., p. 309.
47. Henry Harap, "Differentiation of Curricula Practices and Instruction in the Elementary School", Thirty-fifth Yearbook, Chapter IX, National Education Association, p. 161.
48. Paul Mort, The Individual Pupil, New York: The American Book Company, 1928, p. 261.
49. H. L. Miller, The Self Directed School, New York: Charles Scribner's Sons.
50. Woodrow, op.cit., p. 267.

suitable to the child's abilities, the school must know two things: it must know the nature of the child's abilities and the best environment for his exercise."[51] Skinner says that "early identification is the first essential" in the curriculum for gifted children.[52]

The curriculum must be flexible,[53] enriched, and expanded to meet the needs of each child. The responsibility of adjusting the methods and of organizing materials will become the teacher's every day problem. Each child and his problems must be understood.

Educators and administrators must have a broad knowledge of mental, physical, social, and emotional characteristics of intellectually superior children before definite conclusions can be formulated for them.

The majority of the schools do not have a definitely planned curriculum for superior children. The responsibility of directing the work and fitting the school to the needs of the bright pupil is placed upon the teacher.[54] The regular work of the classroom is usually determined by the abilities and interests of the average child.[55] Many gifted children are undiscovered and are lock-stepping with the average pupil.[56] The atmosphere of such a school does not stimulate the superior

---

51. Ibid., p. 258.
52. Skinner, op.cit., p. 471.
53. Stedman, op.cit., p. 11.
54. Heck, op.cit., p. 397.
55. Carroll, Genius in the Making, p. 207.
56. Griffin and others, op.cit., p. 140.

child enough for him to give the teacher a clue to his latent ability. Many teachers' methods and materials are based upon his own philosophic outlook in the attempt to solve the problem. Many teachers face the problem unaided.

A stereotyped or uniform curriculum[57] will not fit the needs of gifted children, and the methods that are now in use should be "denounced as inexpedient".[58] Bentley[59] states that "A recognition of individual differences in the capacity and learning habits of gifted children demand a differentiated program in teaching and curricula."

Washburne,[60] Kilpatrick,[61] Miller,[62] and Dransfield[63] believe that the solution of the problem depends upon a discovery of a method by which the child can remain in his own social group and receive the training suited to his abilities and interests.

The Twenty-third Yearbook[64] is based completely on the study and education of gifted children. In this publication

---

57. J. C. Bell, "The Gifted Child", Journal of Educational Psychology, Vol. 11, April, 1920, pp. 229-231.
58. Bentley, op.cit., p. 71.
59. Loc. Cit.
60. C. W. Washburne, Results of Practical Experiments in Fitting the School to the Individual, Bloomington, Ill.: Public School Publishing Company, 1926.
61. Kilpatrick, W. H., Foundation of Method, New York: The Macmillan Company, 1926.
62. H. L. Miller, Directing Study, New York: Chas. Scribner and Sons, 1922.
63. Edgar J. Dransfield, "Administration of Enrichment to Superior Children in the Typical Classroom", Teachers College Record, XXXV, January, 1934, pp. 326-7.
64. G. M. Whipple, Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Co., 1924, pp. 444.

many educators advocated the use of some form of individual instruction.

Washburne,[65] the most prominent among these, made the assertion that re-adaptation of the schools for the gifted child "must come through some form of individual instruction which will recognize the wide variety of abilities among the children, both as to general rate of progress and as to the subject in which the superior progress can be made."

Rugg[66] and other educators have advocated the socialized method of teaching superior children, claiming that it offers more opportunity for self expression, that it tends to increase one's ability to express his ideas in the presence of others. English, literature, and social studies lend themselves best to this form of instruction.

Stedman[67] also favors the individualized method of instruction for gifted children. She found that this type of pupil learns "more easily and rapidly than the average child",[68] their progress is more satisfactory when this method is used. Individualized instruction furnishes an opportunity

---

65. C. W. Washburne, "The Attainment of Gifted Children Under Individual Instruction", Twenty-third Yearbook, Bloomington, Ill.: Public School Publishing Company, 1924, p. 261.
66. Harold Rugg, "The Curriculum for Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, 1924, pp. 21-121.
67. Stedman, op.cit., pp. 9-10.
68. Ibid., p. 11.

to teach pupils how to study.[69] Stedman,[70] Bentley,[71] and others[72] think that a large amount of drill, explanation and development necessary in teaching the average child can be eliminated for gifted children who are capable of dealing with abstract material and can solve "problems with a minimum of assistance."[73] Carroll says about "one-half as much drill is needed as would be required for children of overage mentality."[74] Yet drill is needed for even bright children.[75] Sometime a teacher will not require enough drill to eliminate errors in spelling, handwriting, and arithmetical computation.

An Appraisal Program

In order for the elementary school curriculum to meet the needs of mentally superior children, it must be reorganized on the learner-centered basis. This type of reorganization must be based upon three fundamental assumptions:[76] first, "education is guidance"; second, guidance is

---

69. Walter Monroe and Dora Mohlman, "How Bright Children Study", Training in the Technique of Study, Urbanna, Ill.: University of Illinois, 1924, pp. 47-52.
70. Stedman, op.cit., p. 11.
71. Bentley, op.cit., p. 129.
72. (a) Goddard, op.cit., p. 90.
    (b) Griffin and others, op.cit., p. 142.
    (c) Carroll, Genius in the Making, pp. 124-259.
    (d) Heck, op.cit., p. 390.
    (e) Hollingworth, Gifted Children, p. 308.
73. Stedman, op.cit., p. 11.
74. Carroll, "Intellectually Gifted Children", p. 227.
75. Hollingworth, Gifted Children, p. 308.
76. T. M. Risk, Principles and Practice of Teaching in Secondary Schools, New York: American Book Company, 1941, p. 123.

successful to the degree that the needs of the individual are recognized; and third, education increases individual differences which are based on concomitant outcomes of classroom activities.[77]

In many schools these three principles are violated by requiring all pupils to engage in the same activities and to follow the curriculum that is geared for the average child. A re-orientation can not be achieved by a mere rearrangement of pupil's desk, by inserting a period called "activities" in the school program, by establishing opportunity rooms, by purchasing new series of textbooks. Instead, the first reorganization must be made in terms of the approach to the problem.

Among the first consideration is the development of a program for the appraisal of pupil needs. Although standardized tests may be useful for the appraisal of certain group needs, a program limited to such measures would have serious defects. The elementary school teacher, for example, has access to no standardized instruments for the determination of the level of emotional development for the appreciation of music, art, or poetry. In many ways, all good teaching is diagnostic; therefore, the extent to which crucial

---

77. Ibid., p. 353.

needs are identified depends to a large degree upon the preparation of the teacher. An adequate appraisal program should provide evidence on capacity for achievement, achievement level, and physical status.

In a well-developed program for appraisal of individual pupil needs, it is necessary to secure an index to capacity for achievement. Although the new revision of the Stanford-Binet test is probably the best single index to mental capacity, individual tests are available which can be administered by a well-trained teacher. In addition, certain data secured from the parents should be recorded in the individual folder.

Heck[78] recommends a case study be made of each child that has exceptional ability. "Home data, school data, health data, facts secured through personal conference" should be obtained and used in trying to understand the child.

A second important type of evidence that should be secured from an adequate appraisal program is the individual achievement level. After this basic concept is established, there will be less emphasis on standard achievement or rate of speed in a grade level, but more emphasis on differentiating instruction to provide equal opportunities for learning activities. For instance, some third grade pupils

---

78. Heck, op.cit., p. 413.

may be challenged with so-called first grade materials; while others will be capable of dealing with sixth grade material. Likewise, some may be emotionally mature enough to enjoy Stevenson's Treasure Island or Melville's Moby Dick. One of the first steps toward caring for pupil needs is certainly a defining of levels of achievement.

Interrelated with capacity for achievement and achievement levels is the physical status of the individual. The school physician and school nurse should be the closest allies of the teacher if the whole child is to receive consideration in the school. Not only the health conditions, but also, home conditions and his happiness must be considered.[79]

"In the adaptation of the curriculum and methods to the atilities of gifted children, it is necessary to keep in mind that they differ from other children not in kind but in degree. Consequently, many of the principles underlying an enlightened education for average children are basic also to an education for mentally superior children."[80]

The elementary school curriculum has a preparatory function, to fulfill in so far as it seeks to meet the needs of various future needs and present interests of pupils. The

---

79. Goddard, op.cit., p. 609.
80. H. A. Carroll, op.cit., p. 253.

curriculum must give these gifted children an opportunity to acquire the basic skills in formal arithmetic the grammar of language usage, oral and written expression, spelling and penmanship.[81] These children will need these skills mastered more than the average child because they will use them more.[82] The curriculum must also provide for the informational activities, thought provoking activities, and appreciational activities.[83] The informational activities will include history, science, geography, arithmetic, civics and industrial arts. The appreciational activities will include literature, drawing, and music.[84]

The four basic skill subjects, spelling; arithmetic; grammar; and handwriting, have consumed the larger part of our school time. These skill subjects can be mastered in "one-half" of the time by gifted children.[85] To do this, certain changes should be made. The method of teaching the basic skill subjects should be accomplished by individualized technique, as learning is an individual activity.

The instruction for the informational and thought

---

81. Stedman, op.cit., p. 183.
82. Cora Danielson, "Special Class for Superior Children in a Western City", National Elementary Principal, Vol. 19, July, 1940, p. 392.
83. Rugg, op.cit., p. 111.
84. Loc. cit.
85. Carroll, Genius in the Making, p. 259.
Stedman, op.cit., p. 187.
Goddard, op.cit., p. 90.

provoking activities should be both individual and group instruction.[86] Rugg, also, recommends individual instruction for the appreciational activities, "as the development of the abilities in art, music and writing is an individual matter."[87]

Teachers and principals, as shown by reports, are not satisfied with methods of meeting the needs of gifted children, but they are aware of their responsibilities for the superior group.[88] While unanimity of opinions about the best methods of teaching gifted children does not exist yet, the teachers and administrators are experimenting with various plans for special education of mentally superior children. There are many schools trying to enrich the curriculum.[89]

The following ways have been reported by cities giving recognition of gifted children: special classes,[90]

---

86. Rugg, op.cit., p. 116.
87. S. C. Parker, "Adapting Instruction to Difference in Capacity", Elementary School Journal, Vol. 25, September, 1924, p. 30 and p. 120.
88. Osburne and Rohan, op.cit., p. 57.
89. Baker, Twenty-third Yearbook, p. 99.
90. (a) Stedman, op.cit., pp. 5-21.
(b) Martens, Gifted Children, pp. 24-26.
(c) Paul R. Mort, The Individual Pupil, New York: American Book Company, 1928, pp. 328-330.
(d) Paul Gossard, Superior and Backward Children in Public Schools, Chicago, Ill.: The University of Chicago Press, 1940, pp. 70-87-101.
(e) Eugene Youngert, "Is it Desirable to Organize Special Classes for Gifted Students?", Teachers College Record, New York: Teachers College Columbia University, February, 1938, pp. 375-88.
(f) A. O. Heck, Education of Exceptional Children, New York: McGraw-Hill Book Company, 1940, pp. 397-398.
(g) Goddard, op.cit., p. 49 and p. 84.
(h) Bentley, op.cit., p. 168.
(i) Carroll, Genius in the Making, p. 253.
(j) G. M. Blair, "Types of Provision for Children of Superior Ability", p. 384.

X,Y,Z grouping[91], elective courses in special fields of interest[92], individual instruction[93], Winnetka plan[94], class in a foreign

---

91. (a) H. J. Baker, "XYZ Pupils in the Detroit Public Schools", School and Society, Vol. 21, May 9, 1921, pp. 570-2.
(b) F. M. Garver, "Curriculum Reorganization According to the Philadelphia School Survey", Elementary School Journal, Vol. 39, December, 1938, pp. 257-63.
(c) Bentley, op.cit., pp. 163-167.
(d) H. J. Baker, Characteristic Differences in Bright and Dull Pupils, Bloomington, Ill.: Public School Publishing Company, 1927, pp. 104-105.

92. (a) Goddard, op.cit., p. 128 and p. 132
(b) P. A. Witty, "Enriching the School Life Experiences of Exceptional Children", School and Society, Vol. 39, January 27, 1934, p. 106.

93. (a) Gossard, op.cit., p. 103.
(b) Estelle B. Culp, "A Plan of Individual Instruction", Western Journal of Education, Vol. 34, March, 1928, pp. 8-9.
(c) S. D. Stephens, "Individual Instruction-Some Blind Alley", English Journal, February, 1929, pp. 243-5.
(d) Stedman, op.cit., pp. 9-10.
(e) C. W. Washburne, "The Attainments of Gifted Children Under Individual Instruction", Twenty-third Yearbook, Bloomington, Ill.: Public School Publishing Company, pp. 247-261.
(f) B. B. Greenberg, "Education of the Intellectually Gifted", National Education Association Proceedings, Washington, D. C.: 1938, p. 96.
(g) Mort, op.cit., pp. 343-356.
(h) Bentley, op.cit., p. 160.
(i) Heck, op.cit., p. 433.
(j) H. E. B. Speights, "Who is the Superior Student?", School and Society, Vol. 48, p. 546.
(k) Albrighty and Brim, "Relation to the Newer Educational Practices to Grouping", Thirty-fifth Yearbook, Part I, p. 120, 1936.
(l) Culp, Estella B., "A Plan of Individual Instruction", Western Journal of Education, Vol. 34, March, 1928, pp. 8-9.

94. (a) Skinner, op.cit., p. 481 and p. 528.
(b) Washburne, "The Attainments of Gifted Children Under Individual Instruction", p. 247.
(c) Washburne, "The Individual System in Winnetka", Elementary School Journal, Vol. 21, September, 1920, pp. 52-68.
(d) B. R. Buckingham, Research for Teachers, New York: Silver, Burdette & Co., 1926, p. 362.
(e) Risk, op.cit., pp. 423-426.
(f) Mort, op.cit., pp. 356-359.
(g) Bentley, op.cit., pp. 160-163.
(h) Gossard, op.cit., p. 105.
(i) Adams and Brown, op.cit., p. 33.
(j) Osburne and Rohan, op.cit., p. 63.

95 96 97 98 99
language, clubs, maximum assignments, excursions, hobbies,
100 101 102
extensive reading, summer classes, unit assignments, enrichment

---

95. (a) Research Bulletin, Vol. XIX, No. 4, September, 1941, Washington, D. C.: National Education Association, p. 177.
(b) Stedman, op.cit., p. 14 and p. 88.
(c) Gossard, op.cit., p. 132.
(d) T. Huebener, "Foreign Language in the Elementary School", Hispania, Vol. 22, February, 1939, pp. 98-100.
(e) Carroll, Genius in the Making, p. 260.
(f) F. H. A. Thorn, "French for Bright Young Pupils in New York Public School", French Review, Vol. 13, pp. 303-13-90-406.

96. (a) Gossard, op.cit., p. 113 and p. 153.
(b) Cohen and Coryell, op.cit., p. 26.

97. (a) Washburne, "The Attainments of Gifted Children Under Individual Instruction", p. 247.

98. (a) Anne E. Cebrat, "Experience-A Gateway to Learning", Virginia Journal of Education, Vol. XXXV, No. 1, September, 1941, pp. 20-21.
(b) Sumption, op.cit., p. 32.
(c) Heck, op.cit., p. 412.
(d) Goddard, op.cit., p. 100.

99. (a) J. L. Hahn, "Hobbie Clubs for Children with Special Gifts", Educational Method, Vol. 18, October, 1938, pp. 21-6.
(b) Elsie Martens, "Teachers' Problems with Exceptional Children", II, Gifted Children, p. 24.
(c) Osburn and Rohan, op.cit., p. 113-114.
(d) Blair, op.cit., p. 383.
(e) Hollingworth, Gifted Children, p. 311 and p. 335.

100. (a) Bentley, op.cit., pp. 142-160.
(b) Heck, op.cit., p. 395.
(c) Baker, op.cit., p. 47.
(d) Griffin and others, op.cit., p. 143.

101. K. K. Merry, "Summer Classes for Gifted Children", Educational Method, Vol. XIV, April, 1935, pp. 388-390.

102. (a) The Unit Assignment-Secondary Education in Virginia, Bulletin, Vol. XIII, No. 8, Feb., 1929, p. 3-86. Charlottesville, Va.: University of Virginia.
(b) Martens, op.cit., pp. 31-44.
(c) Risk, op.cit., pp. 307-346.
(d) A. J. Jones, E. D. Grizzell and H. J. Grinstead, Principles of Unit Construction, New York: McGraw-Hill Book Company, 1939.
(e) Cora Danielson, "Special Classes for Superior Children in a Far Western City", National Elementary Principles, Nineteenth Yearbook, July, 1940, p. 393.

103 104 105
by various methods, acceleration, projects, the Dalton

---

103. (a) Cohen and Coryell, op.cit., pp. 142-149.
(b) Carroll, Genius in the Making, p. 243.
(c) Adams and Brown, op.cit., pp. 74-218.
(d) Sumption, op.cit., pp. 29-39.
(e) Baker, op.cit., p. 63.
(f) Stedman, op.cit., p. 186.
(g) Martens, Gifted Children, pp. 26-27.
(h) Griffin and others, op.cit., p. 142.
(i) Mort, op.cit., p. 195.
(j) H. W. Holmes, "The General Philosophy of Grading and Promotion in Relation to Intelligence Testing", School and Society, Vol. 15, April 29, 1922, pp. 457-461.
(k) H. W. Holmes, "Intelligence Test and Individual Progress in School Work", Twenty-first Yearbook, National Society for the Study of Education, Part II, pp. 117-122.
(l) David Snedden, "Toward More Efficient Elementary School Education", Teachers College Record, Vol. 39, No. 5, February, 1938, p. 400.
(m) Hollingworth, Gifted Children, pp. 311-312.
(n) Goddard, op.cit., p. 90-102.

104. (a) A. S. Gist, "The Acceleration of Pupils", School and Society, Vol. 5, January 27, 1917, pp. 116-118.
(b) Carroll, Genius in the Making, p. 219.
(c) Blair, op.cit., p. 282.
(d) Goddard, op.cit., p. 121.
(e) H. J. Hoke, "The Health of Intellectually Superior Children", Twenty-third Yearbook, Bloomington, Ill.: Public School Publishing Company, p. 239.
(f) Walter L. Wilkins, "The Social Adjustment of Accelerated Pupils", School Review, Vol. 44, June, 1936, pp. 445-55.
(g) Sumption, op.cit., p. 27.
(h) Martens, op.cit., p. 27.
(i) F. L. Engle, "Achievement of Pupils Who Have had Double Promotions in Elementary School", Elementary School Journal, Vol. 36, November, 1935, pp. 185-89.
(j) Goddard, op.cit., p. 53 and p. 91.

105. (a) Cohen and Coryell, op.cit., p. 142.
(b) Baker, op.cit., pp. 73-78-79.
(c) Hollingworth, Gifted Children, p. 309.
(d) Adams and Brown, op.cit., p. 71.
(e) Stedman, op.cit., p. 109-148.
(f) Goddard, op.cit., p. 91.
(g) Osborne and Rohan, op.cit., pp. 70-71.
(h) B. B. Greenberg, "Education of the Intellectually Gifted", National Education Association Proceedings, 1938, pp. 95-96.

106 107
plan, special study of "common things" and biography, segre-
108 109 110 111
gations, A,B,C Grouping, Activity program, seminar, and extra-
112
curricula activities.
113
Most educators believe that the best policy for the

---

106. (a) Gossard, op.cit., pp. 115 and 103.
(b) Evelyn Dewey, The Dalton Laboratory Plan, New York: E. P. Dutton & Co., 1922, p. 143.
(c) Carroll, Genius in the Making, p. 220.
(d) Adams and Brown, op.cit., p. 33.
(e) G. H. Meyer-Oakes, "The Dalton Plan in a Small High School", Education, Vol. 57, December, 1936, pp. 244-48.
(f) Cohen and Coryell, op.cit., pp. 24-71-72.

107. (a) Hollingworth, Gifted Children, pp. 320-321.
(b) Greenberg, op.cit., p. 95-96.
(c) Hollingworth, "What We Know About the Early Training of Leaders", Teachers College Record, Vol. 40, April, 1939, p. 582-83.
(d) Harold Rugg, "The Curriculum for the Gifted Children", Twenty-third Yearbook, 1924, p. 101.
(e) Carroll, Genius in the Making, p. 260.

108. (a) Martens, Gifted Children, p. 24.
(b) Bentley, op.cit., p. 166.
(c) Stedman, op.cit., pp. 19 and 187.

109. (a) National Education Research Bulletin, Vol. XIV, No. 4, September, 1941, pp. 188-189.
(b) Robert White, Jr., "A Sectioning Program Using Large Classes", School Review, Vol. 48, May, 1940, pp. 355-62.
(c) M. V. Bear, "How St. Louis Schools Serve Their Bright Pupils", National Education Association Journal, Vol. 28, April, 1939, p. 121.

110. Skinner, op.cit., p. 309.

111. Hollingworth, Gifted Children, p. 309.

112. (a) Osborne and Rohan, op.cit., pp. 142-179.
(b) National Education Research Bulletin, op.cit., p. 177.
(c) Carroll, Genius in the Making, pp.111-112-165.262.

113. (a) Sumption, op.cit., p. 39.
(b) Carroll, op.cit., pp. 243-264.
(c) Osborne and Rohan, op.cit., p. 287.
(d) Goddard, op.cit., pp. 90-102.
(e) Bentley, op.cit., pp. 195-210.

development of the gifted individuals is "not to hurry them through school, but to give them more advantages from school; not to cram their minds, but to enrich their lives."[114]

Since one-half of the school-time is saved from the basic subjects, the other half of the school-time may be used for enrichment of the curriculum based on one or a combination of several of the methods reported in use by schools in this study. It will be the teacher's responsibility to select, to direct and to adapt methods and materials to the needs and to the interest of each gifted child. "They are individuals and need individual training."[115]

Every gifted child in any school system has a right to and can receive a better education according to his abilities, even though he is allowed to remain in regular classes with average children; if both individualized instruction and socialized methods of instruction, and the curriculum is enriched to meet his needs. Bright pupils are able to profit by individual instruction.[116]

The principles underlying an enriched program can be achieved to a certain degree by the teacher and the pupils

---

114. (a) Sumption, op.cit., p. 39.
(b) Stedman, op.cit., p. 187.

115. (a) Angelo Patri, "Angelo Patri on the I.Q.", The Journal of the National Education Association, Vol. 29, No. 8, November, 1940, p. 256.

116. (a) Heck, op.cit., p. 410.
(b) Baker, Characteristic Differences in Bright and Dull Pupils, p. 114.

planning activities that will include experience in: thinking, studying, reporting, investigating, judging, carrying responsibility, speaking, writing, creating, debating, singing, painting, dramatizing, discussing, constructing, getting information, explaining, demonstrating, problem solving, interviewing, using the library, locating materials not available, observing, drawing, and wide reading. "These are real enrichments."[117]

Baker[118] says, "the library probably offers the greatest source of enrichment of all school studies."

"French is one of the requirements of enrichment in the Cleveland Public Schools."[119] Stedman alleged that a foreign language should be included in the curriculum "as childhood is the time to learn a foreign language."[120] Hollingworth recommended Latin as an enrichment in the elementary schools.[121]

Wide reading in a field of interest of a gifted child should be encouraged, and a well-planned bibliography of the best literature in many fields be given them for guidance.

Inspecting trips offer opportunity for real enrichment[122]

---

117. Goddard, op.cit., p. 102.
118. Baker, op.cit., p. 63.
119. Goddard, op.cit., p. 89.
120. Stedman, op.cit., p. 14.
121. Hollingworth, Gifted Children, p. 312.
122. (a) Goddard, op.cit., p. 100.
(b) Heck, op.cit., p. 413.
(c) Stedman, op.cit., p. 15.
(d) Anna Elizabeth Cebrat, "Experience-A Gateway to Learning", Virginia Journal of Education, Vol. XXXV, September, 1941, p. 20.

for mentally superior children as well as for the average child, but the gifted child will be benefited most. Some trips may include a visit to: a paper mill, docks, banks, a flour mill, a bakery, an art museum, a public library, a post office, the city hall, the city prison, the city courts, the city water plant, a zoo, an aviation field, the telephone exchange, a radio broadcasting station, a factory and the theaters.

A typewriter should be in every schoolroom. It is "one of the greatest promoters of correct spelling, capitalization, punctuation, and paragraphing ever brought to the schoolroom."[123] Typewriting is another form of enrichment that superior children enjoy. Many learn to write by the "touch system" without formal instruction.[124]

"History is one of the greatest means of enrichments,"[125] and gifted children are extremely interested in reading about early man and human stories.[126]

If the curriculum for gifted children is enriched to meet the needs and interests of each superior child, instruction is adapted to the level of his ability, and he has a gifted teacher, no one can say about a single gifted child, "This is the stone which the builders neglected."[127]

---

123. Goddard, op.cit., p. 101.
124. Heck, op.cit., p. 408.
125. (a) Goddard, op.cit., p. 101.
(b) Hollingworth, Gifted Children, p. 313.
126. Loc. cit.
127. Lucy Mason Holt, "Size of Classes from the Teachers Standpoint", National Education Association Proceedings, Vol. 70, 1932, p. 146.

SUMMARY

1. A gifted child is an individual endowed with high general intelligence.
2. The gifted child has been the most neglected child in the public school system.
3. One per cent of the school population will be mentally gifted with an I.Q. of 140 and above.
4. The best criteria to be used for selecting gifted children are: parents' judgment, teachers' judgment, age-grade status, intelligence tests, and school marks.
5. Gifted children may be found in all races.
6. Gifted children need to be discovered at an early age in order to receive full development of their abilities.
7. Characteristics of an embryonic genius are: large vocabulary, varied interests, insatiable curiosity and early reading ability.
8. High school marks received from several teachers are an indication of high mental ability.
9. Physically, the mentally superior child is neither undersized nor a weakling. To the contrary, there is a

pronounced physical acceleration in regard to weight and height.

10. Teachers are very ineffective in their efforts to recognize superior children. It follows that teachers need to be given training relative to the characteristics of gifted children in order for them to be able to recognize a larger per cent.
11. The teacher is an important factor in the education of superior children.
12. The chief task of the teacher is to identify a gifted child and to help him to discover and develop his unique ability.
13. The teacher should have high intelligence, wide knowledge, and an understanding of gifted children.
14. No institution has a well-organized unit of curriculum to assure one interested in teaching gifted children of a thorough and efficient preparation for that work.
15. University of Pennsylvania offers the most courses for gifted children.
16. The curriculum for the gifted children must be flexible, enriched, and expanded to meet the needs and interests of superior children.
17. Many educators agree that individualized instruction is most suitable for the basic skilled subjects.
18. Educators have agreed that bright children need drill in tool subjects, but less drill is needed than for the

average child.

19. Socialized and group instruction is needed for informational and thought provoking activities.
20. Individualized instruction is suitable for appreciational exercises.
21. Enrichment should be planned according to individual needs and interest of the gifted child.

CONCLUSIONS

The conclusions involving general questions of procedure in the education of gifted children are stated in the following paragraphs:

The antithetical opinions of educators only served to make the problem more perplexing. The important thing this study has attempted to accomplish is to show to some extent, where and how teachers and administrators have been making efforts to solve the problem of a suitable education for mentally superior children. It has also demonstrated that the problem of a suitable curriculum can not be solved yet by authority due to the lack of objective data in this field of education.

However, most educators and psychologists agree who have studied the problem that mentally superior children need an enriched program; but the opinions are divided on how it shall be done.

Opinions of educators are evenly divided on whether superior students need better teachers than are needed for the average students. Most educators agree that the bright pupils

make greater demands of a teacher than do children with average ability. This indicates that many characteristics desirable in teaching all children are needed in an unusually high degree with gifted children. Such teachers for gifted children should rank high in general intelligence, good health and have a large stock of information suitable for gifted children.

The research studies indicated that there is a need for teacher training institutions to offer more courses suitable for the training of teachers of gifted children.

The data also indicated that much remains to be done in working out the details of a curriculum for gifted children.

There should be continuous observation and a reappraisal of the curriculum materials and methods of enrichment in the light of needs and interest of gifted children.

There is a need for detailed reports on the nature and scope of curricula changes for gifted children, including a choice of subject matter, and how to differentiate methods of instruction.

BIBLIOGRAPHY

BOOKS

Adams, Fay and Brown, Walker, Teaching the Bright Pupil, New York: Henry Holt & Company, 1930.

Austin, Mary, Everyman's Genius, Indianapolis, Indiana: The Bobbs-Merrill Company, 1923.

Averill, L. A., Psychology for Normal Schools, New York: Houghton-Mifflin Company, 1921.

Baker, H. J., Characteristic Difference of Dull and Bright Children, Bloomington, Illinois: Public School Publishing Company, 1927.

Betts, A. E., The Prevention and Correction of Reading Difficulties, New York: Row, Peterson Company, 1936.

Bentley, J. E., Superior Children, New York: W. W. Norton & Company, 1937.

Bobbit, Frank, How to Make a Curriculum, Boston, Massachusetts: Houghton Mifflin Company, 1924.

Bolton, Sarah K., Lives of Poor Boys Who Became Famous, New York: Thomas Y. Crowell Company, 1939.

Bossing, Nelson L., Progressive Methods of Teaching in Secondary Schools, New York: Houghton Mifflin Company, 1935.

Buckingham, B. R., Research for Teachers, New York: Silver, Burdette & Company, 1926.

Cobb, Stanwood, Discovering the Genius Within You, New York: The World Book Company, 1932.

Cohen, Helen and Coryell, Nancy, Educating Superior Students, New York: American Book Company, 1935.

Colgrove, Chauncey P., The Teacher and the School, New York: Chas. Scribner's Sons, 1911.

Dewey, Evelyn, The Dalton Laboratory Plan, New York: Dutton & Company, Inc., 1922.

Dewey, John, How We Think, New York: D. C. Heath & Company, 1910.

Dickerson, Virgil E., Mental Tests and the Classroom Teacher, New York: World Book Company, 1923.

Ellis, Robert Sidney, The Psychology of Individual Differences, New York: D. Appleton & Company, 1928.

Griffin, J. D. M., Laycock, S. R., and Line, W., Mental Hygiene, New York: American Book Company, 1940.

Goddard, Henry Herbert, School Training of Gifted Children, New York: Yonkers-on-Hudson: World Book Company, 1928.

Gossard, Arthur Paul, Superior and Backward Children in Public Schools, Chicago, Illinois: The University of Chicago Press, 1940.

Heck, A. O., Education of Exceptional Children, New York: McGraw-Hill Book Company, 1940.

Hazlett, V., Ability, New York: Macmillan Company, 1926.

Hollingworth, L. M., Gifted Children, New York: The Macmillan Company, 1929.

House, R. H., Practical Problems in Education, New York: Silver, Burdette & Company, 1938.

Jacobson, A. C., Genius, New York: Greenberg Company, 1926.

Kilpatrick, W. H., Foundation of Method, New York: The Macmillan Company, 1926.

Kugelmass, I. N., M.D., Growing Superior Children, New York: D. Appleton & Company, 1935.

McCall, W. M., How to Measure in Education, New York: The Macmillan Company, 1922.

McKown, Harry, Character Education, New York: McGraw-Hill Book Company, 1935.

Miller, H. L., Directing Study, New York: Chas. Scribner's Sons, 1922.

Miller, H. L., Self Directed School, New York: Chas. Scribner's Sons, 1925.

Mort, Paul, Individual Pupil, New York: American Book Company, 1928.

Osburn, W. J. and Rohan, Ben J., Enriching the Curriculum for the Gifted Children, New York: Macmillan Company, 1931.

Robbins, C. L., The Will to Work, New York: Row, Peterson & Company, 1928.

Risk, Thomas M., Principles and Practices of Teaching in Secondary Schools, New York: American Book Company, 1941.

Skinner, C. E., Educational Psychology, New York: Prentice-Hall, Inc., 1936.

Stedman, Lula M., Education of Gifted Children, Chicago, Illinois: World Book Company, 1924.

Sumption, Merle R., Three Hundred Gifted Children, Yonkers-on-Hudson, New York: The World Book Company, 1941.

Terman, Lewis M., and Burks, Barbara S., Handbook of Child Psychology, Worcester, Massachusetts: Clarke University Press, 1933, (Edited by Carl Murchison).

Terman, Lewis M., The Measurement of Intelligence, Boston, Massachusetts: Houghton Mifflin Company, 1916.

Terman, Lewis M., The Intelligence of School Children, New York: Houghton Mifflin Company, 1919.

Tucker, Beverley R., The Gift of Genius, Boston, Massachusetts: The Stratford Company, 1930.

Washburne, C. W., Better Schools, New York: John Day Company, 1930.

Washburne, C. W., The Results of Practical Experiment in Fitting Schools to Individuals, Bloomington, Illinois: Public School Publishing Company, 1926.

Whipple, G. M., Classes for Gifted Children, Bloomington, Illinois: Public School Publishing Company, 1919.

Whipple, G. M., Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Company, 1924.

White House Conference on Child Health and Protection. The Handicapped and the Gifted, New York: The Century Company, 1931.

Woodrow, Herbert H., Brightness and Dullness in Children, Philadelphia, Pa.: Lippincott & Company, 1923.

Wynne, John P., The Teacher and the Curriculum, New York: Prentice-Hall, Inc., 1937.

ARTICLES, BULLETINS AND REPORTS

Addington, L. F., "What Are We Doing for Gifted Youth?", Virginia Journal of Education, Vol. XXXIII, No. 2, November, 1939, p. 77.

Albrighty, H. B., and Brim, O. B., "Relation to the Newer Educational Practices to Grouping", Thirty-fifth Yearbook, National Society for the Study of Education, Part I, Bloomington, Illinois: Public School Publishing Company, 1936, pp. 117-133.

Anderson, J. E., "The Intelligence of a Highly Selected Group", School and Society, Vol. 16, 1922, pp. 723-725.

Arbuckle, M., "Providing Opportunities for Children With Unusual Ability in the Visual Arts", National Elementary Principal, National Education Association, Vol. 19, Nineteenth Yearbook, July, 1940, pp. 422-427.

"The Baltimore Program of Education for Pupils of Superior Ability", The Baltimore Bulletin of Education, Vol. XVIII, September, October, 1940, pp. 1-97.

Baker, Harry J., "The Psychology of Ability Groups and Implications for Instructional Differentiation", Thirty-fifth Yearbook, National Society for the Study of Education, Part I, 1936, pp. 135-160.

Baker, Harry J., "X Y Z Pupils in the Detroit Public Schools," School and Society, Vol. 21, May 9, 1925, pp. 570-2.

Baker, Harry J., "Qualification and Training of Teachers of Bright Children", Thirty-fifth Yearbook, National Societyfor the Study of Education, 1926, pp. 142-143.

Blair, G. M., "Types of Provision for Children of Superior Ability", National Elementary Principal, Nineteenth Yearbook, Vol. 19, July, 1940, pp. 380-7.

Blair, G. M., "Mentally Superior and Inferior Children in the Junior and Senior High School", (abstract), Teachers College Record, New York: Columbia University, Vol. 40, February, 1939, pp. 442-3.

Bixby, Herbert, "Organizing Classes for Gifted Children", Education Review, Vol. 67, 1924, pp. 196-197.

Bliven, Bruce, "Genius: Its Cause and Care", Readers Digest, Vol. 38, No. 28, April, 1941, pp. 25-29.

Burns, N., "Work Study Plan for Superior Students at the University of Buffalo", School and Society, Vol. 48, July 16, 1938, pp. 85-87.

Bulletin: Secondary Education in Virginia, The Unit Assignment, (Bulletin No. 5), Charlottesville, Virginia: University of Virginia, Vol. XIII, No. 8, February, 1929.

Burr, A. W., "Who's Who in Our Classes?", School and Society, Vol. 28, September 1, 1928, pp. 274-6.

Carr, W. W., "This is not Treason", The Journal of the National Education Association, Vol. 29, No. 8, November, 1940, p. 237.

Carroll, Herbert A., "Intellectually Gifted Children", Teachers College Record, New York: Columbia University, Vol. 42, No. 3, December, 1940, pp. 212-27.

Cebrat, Anna Elizabeth, "Experience - A Gateway to Learning", Virginia Journal of Education, Vol. XXXV, September, 1941, p. 20.

Cleveland, F., "Some Features of the Education of Gifted Children - Detroit", School and Society, September, 1920, Vol. XII, pp. 179-193.

Newspaper: "10 Year-Old Boy Dazzles Teachers with Ability", The Richmond Times Dispatch, Vol. 91, No. 348, December 14, 1941, p. 30.

Conklin, Agnes M., "Families of Intellectually Gifted Children", Family, Vol. 11, June, 1930, pp. 99-106.

Connor, W. L., "The Education of Gifted and Talented Children", The Phi Delta Kappan, Vol. XXIII, No. 2, October, 1940, pp. 72-76.

Culp, Estella B., "A Plan of Individual Instruction," Western Journal of Education, Vol. 34, March, 1928, pp. 8-9.

Cunningham, Harry A., "Teaching How to Study", School Review, Vol. 33, May, 1925, pp. 355-62.

Danielson, C. L., "Special Classes for Superior Children in a Far Western City", National Elementary Principal, Vol. 19, July, 1940, pp. 388-96.

Davis, Helen, "Personal and Social Characteristics of Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Company, 1924, pp. 123-134.

Detchen, Lily, "College Education Without High School Graduation", School Review, Vol. 47, March, 1939, pp. 182-191.

Dransfield, J. Edgar, "Administration of Enrichment to Superior Children in the Typical Classroom", Teachers College Record, XXXV, January, 1934, pp. 326-7.

Elledge, L. M., "Present Requirements for Teachers of Subnormal and Superior Children", Elementary School Journal, Vol. 29, December, 1928, pp. 303-8.

Engle, T. L., "Achievement of Pupils Who Have Had Double Promotions in Elementary School", Elementary School Journal, Vol. 36, November, 1935, pp. 185-89.

Foster, Richard R., "Are Superior Students Neglected?", Virginia Journal of Education, Vol. XXXV, No. 4, December, 1941, pp. 138-150.

Foster, R. R., "The Superior Student in High School", The Journal of the National Education Association, Vol. 30, No. 7, October, 1941, p. 215.

Fowlkes, John G., "Your Everyday Problems; Adjusting the Curriculum to the Needs of Superior Pupils", Nation's Schools.

Frederick, J. E., "Too Young for College", Parent's Magazine, Vol. 14, August, 1939, pp. 25-52-53.

Garrison, A. L., "A Study of Exceptional Children", The Virginia Journal of Education, Vol. XXXV, September, 1941, p. 12.

Garner, F. M., "Curriculum Reorganization According to the Philadelphia School Survey", Elementary School Journal, Vol. 39, December, 1938, pp. 257-63, or Education Digest, Vol. 4, February, 1939, pp. 19-21.

Gaetsh, Helen B., "Inequality of College Opportunity", National Education Association Journal, Vol. 28, December, 1939, p. 271.

Giddings, T. P., "Smart Pupils", Etude, Vol. 47, September, 1929, p. 658.

Greenberg, B. B., "Education of the Intellectually Gifted", National Education Proceedings, 1938, pp. 95-96, or Education Digest, Vol. 4, November, 1938, pp. 8-9.

Hahn, J. L., "Hobby Clubs for Children With Special Gifts", Educational Method, Vol. 18, October, 1938.

Hamilton, R. L., "Undeveloped Resources", School and Society, Vol. 16, June, 1922, pp. 416-422.

Harap, Henry, "Differentiation of Curricula Practices and Instruction in the Elementary School", Thirty-fifth Yearbook, National Society for the Study of Education, 1936, pp. 161-172.

"High I.Q. Conference on Education for the Gifted", Time, Vol. 36, December 23, 1940, p. 36.

Hobson, C. S., "Genetic Studies of Genius", (a review), School Review, Vol. XXXV, April, 1927, pp. 316-18.

Hollingworth, Leta S., "What We Know About the Early Selection and Training of Leaders", Education Digest, Vol. 5, September, 1939, pp. 22-24, or Teachers College Record, Vol. 40, April, 1939, pp. 575-92.

Holmes, H. W., "Intelligence Tests and Individual Progress in School Work", Twenty-first Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Co., Part II, 1922, pp. 117-122.

Holmes, H. W., "The General Philosophy of Grading and Promotions in Relation to Intelligence Testing", School and Society, Vol. 15, April 29, 1922, pp. 457-461.

Holt, Lucy Mason, "Size of the Class from the Teachers Stand Point", National Education Association Proceedings, Vol. 70, 1932, pp. 145-46.

Holzinger, H. J., "Genetic Studies of Genius", Elementary School Journal, XXVI, January, 1926, pp. 387-90.

Hoke, K. J., "The Healthy Intellectually Superior Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Company, 1924, p. 239.

Horne, Ernest, "The Curriculum for Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Illinois: Public School Publishing Company, 1924, pp. 73-89.

Heubener, T., "Foreign Language in the Elementary School", French Review, Vol. 12, March, 1939, pp. 374-5.

Hughes, Charlotte, "If Your Child Is Exceptional", Parents' Magazine, Vol. 13, December, 1938, pp. 28-29.

Irwin, E., "Youngest Intellectuals", New Republic, Vol. 48, November, 1926, pp. 339-41.

Jones, Alice, "An Analytic Study of 120 Superior Children", Psychological Clinic, 1925, Vol. 16, pp. 19-76.

Johnson, O. J., "Teachers Judgment of Qualities as Related to Classroom Activities", School and Society, Vol. 17, 1923, pp. 466-468.

Kerr, Adelaid, "Bright Pupil Forgotten Child of Education", The Richmond News Leader, September 10, 1941, p. 24.

Kugelmas, I. N. and Shultz, G. D., "Superior Children Don't Just Happen", Better Homes and Gardens, Vol. 14, July, 1936, p. 49.

Kugelmas, I. N. (M.D.), "Superior Children", Time, Vol. 26, October 21, 1935, pp. 56-57.

Lazar, May, "Reading Interests, Activities and Opportunity of Bright, Average and Dull Children", Contributions to Education, No. 707, New York: Teachers College, Columbia University, 1937, p. 127.

Lincoln, Edward A., "The Stanford-Binet I.Q. Changes of Superior Children", School and Society, Vol. 41, April 13, 1935, pp. 519-20.

Mallor, Wilfred M., "Problems of a College Dean", The University Administration Quarterly, Vol. 1, No. 1, October, 1941, pp. 22-26.

Martens, Elsie H., "Teachers' Problems With Exceptional Children", II, Gifted Children, Washington, D. C.: U. S. Office of Education, Pamphlet No. 41, 1940.

Martens, Elsie H., Opportunities for the Preparation of Teachers of Exceptional Children, Washington, D. C.: Office of Education, Bulletin No. 17, 1937.

Martens, Elsie H.,"Parents' Problems With Exceptional Children", Washington, D. C.: Department of the Interior, Bulletin No. 14, 1932.

Mayer-Oaks, G. H., "The Dalton Plan in a Small High School", Education, Vol. 57, December, 1936, pp. 244-48.

McGehee, William, and Lewis W. Drayton, "Parental Attitudes of Mentally Superior, and Retarded Children", School and Society, Vol. 51, April 27, 1940, pp. 556-59.

McGovney, Margarita, "Spelling Deficiency in Children of Superior General Ability", Elementary English Review, Vol. 7, June, 1930, pp. 146-48.

Merry, F. K., "Summer Classes for Gifted Children", Educational Method, Vol. XIV, April, 1935, pp. 388-90.

Monroe, Walter, and Mohlman, Dora, "How Bright Children Study", Training in the Technique of Study, Urbanna, Illinois: University of Illinois, 1924, pp. 47-52, Bulletin No. 20,
or
School and Society, Vol. 33, February, 1925, pp. 89-91.

Murill, Maude, "The Significance of I.Q.'s on the Revised Stanford-Binet Scales", Journal of Educational Psychology, Vol. 29, December, 1938, pp. 641-51.

"Miseries of a Child Genius' Life Bared by Twenty of Them Now Adults", New York Times, December 14, 1940,

Norris, D. E., "Special Classes for Superior Children in An Eastern City", National Elementary Principal, Vol. 19, July, 1940, pp. 397-406.

Obenchain, I. R., "Providing for Superior Children in a Southern City", National Elementary Principal, Vol. 19, July, 1940, pp. 407-15.

Odell, Charles W., Provisions for Mentally Atypical Pupils, Bulletin of the College of Education, Urbanna, Illinois: University of Illinois, No. 59, 1931, p. 33.

Parker, S. C., "Adapting Instruction to Differences in Capacity", Elementary School Journal, Vol. 25, September, 1924, pp. 20-30.

Patri, Angelo, "Angelo Patri on the I.Q.", The Journal of the National Education Association, Vol. 29, No. 8, November, 1940, p. 236.

Patri, Angelo, "Responsibility Good Training for Children", The Roanoke World News, Vol. 78, No. 154, December 27, 1941, p. 4.

Peters, Edith C., "The Gifted Child In Cleveland", The Journal of Exceptional Children, Vol. 7, No. 8, May, 1941, pp. 300-307.

Raubicheck, C. W., "Readings of Superior High School Pupils", English Journal, Vol. 29, September, 1940, pp. 542-50.

Report - "Classes for Gifted and Retarded Pupils in New York State", School and Society, Vol. 41, June 8, 1935, pp. 779-80.

Report - "Ability Grouping at Reading, Massachusetts", School and Society, Vol. 21, May 31, 1930, No. 805, pp. 746-749.

Review - "The Mentally Gifted", Review of Educational Research, National Education Association of the United States, Vol. XI, No. 3, Chapter III, December, 1941, pp. 277-287.

Rickard, G. E., "Superior Pupil Takes Charge of the School's Affairs", National Elementary Principal, Vol. 19, July, 1940, pp. 416-21.

Roosevelt, F. D., International Program - Address, National Educational Association Proceedings, 1938, pp. 101-103.

Rigg, M. G., "Follow-up Study of 16 Superior Students", School and Society, Vol. 48, September 24, 1938, pp. 411-12.

Rugg, Harold, "The Curriculum for Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, Part I, pp. 91-121.

Shultz, Gladys Denny, "Do Things With Your Children", Better Homes and Gardens, Vol. 20, March, 1942, pp. 44-108-109.

Slocum, F., "Intellectual Curiosity", School and Society, Vol. 48, August 6, 1938, pp. 157-63.

Smith, Leon O., "Some Phases of the Administration of the Education of Gifted Children", Twenty-third Yearbook, Bloomington, Ill.: Public School Publishing Company, 1924, pp. 65-72.

Snedden, David, "Toward More Efficient Elementary School Educators", Teachers College Record, February, 1939, pp. 400-405.

Speight, H. E. B., "Who is the Superior Student?", School and Society, Vol. 48, October 29, 1938, pp. 545-9.

Stephens, S. D., "Individual Instruction - Some Blind Alleys", English Journal, February, 1929, pp. 243-5.

Terman, L. M., "The Gifted Student and His Academic Environment", School and Society, Vol. 49, January 29, 1939, pp. 65-67.

Terman, L. M., "Intelligence in a Changing Universe", School and Society, Vol. 51, No. 1320, pp. 465-470.

Terman, L. M., "Physical and Mental Traits of Gifted Children", Twenty-third Yearbook, National Society for the Study of Education, Part I, 1924, pp. 156-170.

Terwilliger, A. Janet, A Study of Negro Children of I.Q. Above 135, Master's Thesis, New York: Teachers College, Columbia University, 1934, 51 p.

Tilford, W. R., "The Phenomena of the Wonder Child", Etude, Vol. 45, May, 1927, pp. 345-6.

Thon, F. H. A., "French for Bright Young Pupils in New York Public Schools", French Review, Vol. 13, February and March, 1940, pp. 303-13-90 and 406.

"10 Year Old Boy in University Dazzles Teachers with Ability", The Richmond Times Dispatch, Vol. 91, No. 348, December 14, 1941.

"Old Myth Blasted - Low Brows Are Found No Bar to Genius", The Richmond Times Dispatch, January 24, 1941, p. 16.

Townsend, H. G., "Discovery and Education of the Gifted", School and Society, Vol. 23, January 30, 1926, pp. 132-6.

Washburne, C. W., "The Individual System in Winnetka", Elementary School Journal, Vol. 21, September, 1920, pp. 52-68.

Washburne, C. W., "The Attainments of Gifted Children Under Individual Instruction", Twenty-third Yearbook, National Society for the Study of Education, 1924, pp. 247-261.

White, Robert, Jr., "A Sectioning Program Using Large Classes", School Review, Vol. 48, May, 1940, pp. 355-62.

Wiggam, A. E., "Do Brains and Character Go Together?", The Reader's Digest, Vol. 39, No. 235, November, 1941, pp. 109-111.

Wiggam, A. E., "Have You A Child Genius in Your Home?", Better Homes and Gardens, June, 1941, pp. 19-98-99-102 and 103, Vol. 19.

Wiggam, A. E., "How Smart Are Your Children?", American Magazine, Vol. 102, October, 1926, pp. 7-9.

Wiggam, A. E., "Your Mind Never Grows Old", The Reader's Digest, Vol. 29, August, 1936, pp. 67-72.

Wilkins, Walter L., "High School Achievement of Accelerated Pupils", School Review, Vol. 44, April, 1936, pp. 268-73.

Wilkins, W. L., "The Social Adjustment of Accelerated Pupils", School Review, Vol. 44, June, 1936, pp. 445-55.

Wilson, F. T., "Learning of Bright and Dull Children", Teachers College Record, Contributions to Education, No. 292, 1928, p. 56.

Winsor, Fred, "Educating the Gifted Boy", Atlantic Monthly, Vol. 159, May, 1937, pp. 570-8.

Witty, P. A., "Genetic Study of Fifty Gifted Children", Thirty-ninth Yearbook, National Society for the Study of Education, Bloomington, Ill.: Public School Publishing Company, 1940, pp. 401-409, Part II.

Witty, P. A., "Contributions to the I.Q. Controversy from the Study of Superior Deviates", School and Society, Vol. 51, April 20, 1940, pp. 503-508.

Witty, P. A., "A Study of 100 Gifted Children", Bulletin, University of Kansas, Vol. II, No. 7, 1930.

Witty, P. A., "Enriching the Life Experiences of Exceptional Children", School and Society, Vol. 39, January 27, 1934, pp. 102-8.

Witty, P. A., "The Play Activities of Gifted Children", (Bulletin), Evanston, Ill.: Northwestern University, 1933.

Witty, P. A., "Some Considerations in the Education of Gifted Children", Reprint from Education Administration and Supervision, October, 1940, pp. 401-409.

Woolfolk, Algar, "The Case of Him That Hath Ten Talents", Virginia Journal of Education, September, 1917, pp. 18-22.

Youngert, Eugene, "Is It Desirable to Organize Special Classes for Gifted Children?", Teachers College Record, Vol. 39, No. 5, February, 1938, pp. 375-88.