PROGRAMMES FOR THE GIFTED CHILD

A critical analysis of existing programmes with some suggestions for the development of programmes for the gifted child in India

by

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INTRODUCTION

> Intellect is the great binder of mind with itself and of minds with one another. In art it is intellect, implicit or explicit, that raises the work from fineness or virtuosity to what posterity calls depth or greatness. In society it is the conversions of intellect that permit debate instead of battle; reciprocity instead of childish self will and tradition instead of perpetual recommendation.[1]

The thoughts expressed above, besides telling about the aim of the pursuit of excellence, draw our attention to how much needs to be done. Progress has been slow, though now one sees changes come with dramatic rapidity, and changes in attitudes towards the intellectuals and their education are initiated. Plato expressed his deep inner conviction that the ideal state would be brought into being if the golden men were chosen, trained in correct dialectic and then given a free hand to remould society. "It only remains," he says, ". . . to draw up a scheme showing how and to whom these studies are to be allotted . . . they must be eager students and learn with ease because the mind is more apt to shrink from severe study."[2] We have here a faith in the innate inherited

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[1] J. Barzun, The House of Intellect (New York: Harper and Brothers, 1959), p. 173.

[2] G. F. Bereday and J. A. Lauwerys (eds.), Concepts of Excellence in Education. The Yearbook of Education 1961 (New York: Harcourt, Brace & World, Inc., 1961), p. 5.

powers as well as the need of a proper nurture of mind through education.

There is a general agreement and conviction that education can develop the best - but what kind of education? To whom should it be given? How should it be given? What method should be followed? These questions are still undecided and in the experimental stage. Plato's "Republic" may justify an elite system of education and although, until recently, the educational opportunities have been restricted to a few, many thinkers have urged that it ought to be extended to all. The ideal of the equality of educational opportunity has been accepted as a guide in many countries though the debate is mixed up with controversies revolving around class hierarchies, social organization, political doctrine and economic policy. In the pages that follow, an attempt will be made to examine the recent developments and trends in this direction of developing "in each individual all the perfections latent in him."

In many countries education is regarded as a means to an end rather than an end in itself, and with it the question of examinations has been debated. The true tests of superior education are considered subtle character, ability to think logically, wisdom, reasoning and creative imagination. Excellence as revealed in the tests applies not to scores but to qualities developed because of it.

In many countries still, scholarship is the chief and only way through which a boy of poor background can rise to position and influence. An educated man in many societies is given prestige and honour and the educated man signifies the excellent man.

The cement that holds the elements that make up an excellent person are many. According to Plato the major factor was possession of knowledge, a belief which is still held in many countries. The possession of knowledge contributes to the discharge of one's responsibilities. In Europe a test of knowledge has been used as a way of assessing a person's ability to function in society when a person is given moral, social, economic and educational tasks to perform. Nowadays the reasons given to explain high performance are largely psychological. The members of the elite are thought to possess qualities which enable them to perform in a superior manner in all the difficult tasks, and for this the right kind of education is the provision of means by which the innate abilities of the gifted individuals can be developed. With this idea comes the selective system of education, as only a few can attain the highest knowledge possible; hence knowledge becomes a symbol and proof of excellence, and this leads to an accepted method of promoting excellence by providing access to education. Many schools have grown up as a result of theories that recognize the possibilities of

inborn and innate abilities and this has led, in turn, to attempts to provide for the child with average and below average abilities. Though French lycees, German gymnasien and English Public Schools have different reasons to exist, despite controversy, it is doubtful if their place will ever be taken by any other system of education since the products of these institutions have shown what they can accomplish.

It would be a hopeful sign and a happy day when man is judged not by a social criterion alone but judged on the basis of the criteria of excellence. We know that democracy has proved its vitality and durability. One needs to remember, however, that those who are concerned with excellence must understand the complexities of the subject. This will require competence on the part of individuals at every level of our society. The importance of competence as a condition of freedom has been widely ignored. Excellence, besides implying competence, implies a striving for the highest standards in every phase of life. Individual excellence is needed in all its forms in every kind of creative endeavour, in political life, in education and in industry.

Sometimes democracy may be lost because of regression towards mediocrity. Democracy means insistence upon excellence which demands that free men are capable of the highest standards of performance. Free men set their

own goals. They must cherish what Whitehead called "the habitual vision of greatness," which places great responsibility on each individual. At present, all levels of education seem to be newly aware of and to be coping with this problem. The greatest enrichment of the personalities of pupils can come from models of excellence among their peers.

The Rockefeller Brothers Report on Education underlines this concept about excellence:

> It has not always been easy for Americans to think clearly about excellence. . . . It is crucial to understand this tug-of-war between equality and excellence in a democracy. . . . Every democracy must encourage high individual performance. If it does not, it closes itself off from the main springs of its dynamism and talent and imagination and the traditional democratic invitation to the individual to realize his full potentialities become meaningless. . . . What Ralph Barton Perry has called, 'An express insistence upon quality and distinction' must be maintained.[3]

It is encouraging that the report has drawn our attention to several considerations. We must not make the mistake of adopting too narrow or constricting a view of excellence,

> . . . our conception of excellence must embrace many kinds of achievement at many levels. There is excellence in abstract intellectual activity, in art, in music, in managerial activities, in craftsmanship, in human relations, in technical work. Second we must not assume that native

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[3]Rockefeller Brothers Fund, The Pursuit of Excellence - Education and the Future of America (New York: Doubleday & Co., Inc., 1958), pp. 15-16.

> capacity is the sole ingredient in superior performance. Excellence is the product of ability and motivation and character. Finally we must recognize that judgments of differences in talent are not judgments of human worth.[4]

The objection that one sometimes hears is that attention to the gifted young men and women is undemocratic. Those who object seem to equate equality of opportunity with mediocrity and educational attention to excellence as a retrogression to eighteenth-century English aristocracy. John Gardener,[5] in his book, Excellence - Can We Be Excellent and Equal Too? provides a lucid analysis of the assumptions. He points out that America has always prided itself on the ability to make the most effective use of her national resources, but until recently Americans have been hesitant to include intellectual resources as one of the national resources. The fear of differing from the majority has kept them away from developing the intellectual and creative talent. The development of excellence, on the other hand, has a leavening influence on students and teachers in all schools and colleges. Dean K. Ronald Bergethon of Brown University wrote that the gifted must be conceived as the crest and spray of a pyramidal wave rather than as the apex of a cone built in layers, and what is done for the gifted must also be done for a fairly large group below and around them.

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[4] Ibid., p. 16.

[5] J. Gardener, Excellence - Can We Be Excellent and Equal Too? (New York: Harper Bros., 1961).

In any democracy the maximum welfare for the country is attained where each member contributes as much as possible and hence the gifted carry a larger obligation than those with average capacities. A parallel consideration is that every individual, whatever his potential, deserves the fullest opportunities for self-realization. Therefore, a democratic country has an obligation to provide opportunities for individuals who will best utilize their abilities and those who demonstrate competence and merit the chances to make use of these opportunities.

Provision of equal opportunities does not mean that identical experience need be provided. To impose the same experience on individuals of differing interests and abilities is not only unfair, but discriminates against individuals. On the other hand, it prevents the maximum advancement of the general welfare.

The democratic ideal can best be attained when every individual has the opportunity for educational experiences, commensurate with his abilities and for commensurate vocational responsibilities. Therefore, access to education should not be governed by differences in socio-economic status. There exists a tendency in the United States, Canada and India, to move in the direction of a stratified, closed society, though the U.S.A. claims that, albeit imperfectly, they have attained the ideal of

an open society. This may have been due to free public education. One still finds in England, Canada, India and the U.S.A. that positions of influence go to those who have the highest education, and not necessarily to those who have the greatest potential ability. Such positions go to those who have money to acquire education. This has led to the following harmful effects:

1. Social status tends to be perpetuated from generation to generation irrespective of ability.
2. Many positions of influence are held by individuals who lack the highest levels of ability but who attain their position by reason of favourable family background.
3. Many highly able individuals who could, with suitable education, fill these positions, are deprived of such positions because of the lack of economic resources.[6]

To eliminate this pattern of socio-economic conditions governing access to higher education, it is necessary that existing economic barriers to education be lowered so that education may become the effective means of equipping the ablest.

It seems that educational opportunities are the core of the matter as they will lead to fullest conservation and utilization of human talent and at the same time retain the social mobility which is very necessary for any democracy.

The causes for the waste of talent are multiple

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[6]Educational Policies Commission, Education of the Gifted (Washington, D.C., 1950), p. 6.

and complex, but they can be roughly classified into four major categories - Economic, Social, Psychological and Educational.

Economic causes - Education costs money. Few families have ample resources to send their children through college and thousands equally able, drop out of school when the cost is too heavy to bear. On the other hand, low economic conditions lead to lack of incentive which in turn leads to low achievement.

Social causes - A student from a poor home may win personal satisfaction by academic achievement, but social status is rarely awarded on the basis of school achievement. He may be socially rejected, which may shape his attitudes towards intellectual and aesthetic values.

Psychological causes - Gifted individuals are well endowed with intellectual equipment, but this will not function fully if their social and emotional aspects are not fully developed. Many studies have shown that there is a positive correlation between mental health and intelligence, and if the proper balance is not established there is a gross waste of talent.

Educational Causes - It is true that social, economic and psychological factors may be the main causes of non-achievement, but educational neglect or deprivation is far too often a contributory cause. Even though a child may be in school, the educational programme may fail

to provide the educational experience that develops the talents of gifted students. The most frequent type of inadequacy may be the failure to challenge the gifted students to achieve the highest possible level. Schools with narrow curricula fail to provide for the student whose gifts are highly specialized. There is a great need for the operation of educational programmes that will provide educational opportunities and experiences that raise the gifted child to as high a level of competence as his ability permits.

Having discussed in general terms the position of the gifted or talented individual in a democracy, it will be appropriate to look more closely at the concept of giftedness as seen by different observers.

> The study of giftedness has developed through a number of distinct phases beginning with the impressionalistic and anecdoted methods used by Nordeau and Lombroso, to the deductive methods used by Galton and Ellis, to the biographical methods used by Cattell, and finally to the present phase, the study of gifted begun on such an extensive scale by Terman.[7]

However, little attention has been given to those children who score at the highest levels on the Stanford-Binet Intelligence Scales. Most of the studies, with the exception of Hollingworth and Terman, have been confined

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[7]W. B. Barbe, <u>One in a Thousand</u>, A comparative study of moderately and highly gifted elementary school children, prepared by the State Board of Education, Division of Special Education (Columbus, Ohio: Heer Printing Company, 1964), p. 1.

to the lower level of giftedness, usually between I.Q. 120 and 140.

The terms "gifted" and "academically talented" are used synonymously. Historically the term "gifted" was used for the mentally superior. Today it is synonymous with "high achievers," or even with those who are highly intelligent and highly successful in achievement. In current literature the word "gifted" is applied to a person with a high I.Q. The I.Q. is a measure of a child's learning potential, but it is not a complete measure of all the potentials.

A review of literature describing the gifted shows it to be confusing for the definitions are varied. The terms "gifted" and "talented" are also used as though they are interchangeable. "Talented" is used to refer to those who excel in one or more of a wide variety of special abilities, whereas "gifted" is used for those of high intellectual endowment. In this thesis "gifted" is used to describe the "academically talented" individual who has a high general intelligence.

DeHaan and Havinghurst have made a distinction between the extremely gifted child and the superior child. Accepting the thesis of the existence of more than one kind of ability, they describe children in the upper one-tenth of one per cent as extremely gifted. The remaining children in the upper ten per cent in a given ability are

called "second order" gifted children. DeHaan and Havinghurst define the gifted as "one who is superior in some ability that can make him an outstanding contributor to the welfare of and quality of living in society."[8]

Paul Witty has described the gifted child as one whose performance in a potentially valuable line of human endeavor is consistently superior. The N.E.A. of the United States urges the following point of view: "The academically talented child has consistent and superior ability in realms of academic pursuit, in obtaining and using ideas constructively and creatively, and in dealing with abstract concepts, symbols, and ideas."[9]

Numerous studies have been conducted to answer the questions about the gifted. Galton's studies of Hereditary Genius (1869) and English Men of Science (1874) were best known. William James' Great Men, Great Thoughts and Environment (1880) and Lombroso's The Man of Genius (1891) came later. In the twentieth century Cattell's A Statistical Study of Eminent Men (1903) was published. All these revealed the characteristics of the gifted.

During the past ten years, estimates of the

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[8]R. F. DeHaan and R. J. Havinghurst, Educating Gifted Children (Chicago: University of Chicago Press, 1957), p. 1.

[9]N.E.A., Elementary Education and the Academically Talented Pupil (Washington 6, D.C.: N.E.A., 1961), p. 22.

characteristics of the potentially gifted have expanded. Thus Fliegler and Bish state that,

> For purposes of this review the term gifted encompasses those children who possess a superior intellectual potential and functional ability to achieve academically in the top 15 to 20 per cent of the school population; and/or talent of a high order in such special areas as mathematics, mechanics, science, expressive arts, creative writing, music and social leadership; and a unique creative ability to deal with their environment.[10]

Ruth Strang describes the nature of giftedness.[11] She writes that giftedness is one feature of the total development of the child. It is related to all the other aspects of his growth. Giftedness is many-sided, many-patterned and includes many kinds of talent - scientific, artistic, musical, leadership ability, etc. The gifted children are far from being a homogeneous group. Giftedness exists in different degrees ranging from a small talent to the highest level of genius. Dunn used a definition emphasizing intellect rather than creativity.

> The gifted are those students whose potential intellectual powers are at such a high ideational level in both productive and evaluative thinking that it can be reasonably assumed they could be the future problem solvers, innovators, and evaluators of the culture if adequate educational experiences are provided.[12]

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[10]L. A. Fliegler and C. E. Bish, "The Gifted and Talented," Review of Educational Research, XXIX (Dec., 1959), 409.

[11]R. Strang, "The Nature of Giftedness," Education for the Gifted, Fifty-seventh Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1958), p. 64.

[12]L. M. Dunn (ed.), Exceptional Children in the Schools (New York: Holt, Rinehart and Winston, Inc., 1963), p. 184.

Since Binet's development of the intelligence test, the concept of intelligence has changed and while there is controversy about the existence of a general capacity, there is a distinction from special capacities. Thorndike laid out three dimensions of intellect: (1) the level of problems which the growing person could solve; (2) the rate at which the problems are solved; and (3) the number of problems at a given level which could be solved.[13]

The intellectual interest of the gifted differentiates them from others. They learn more, and more rapidly and, therefore, their educational experiences ought not to be identical with the experiences of other students; they should be different in kind, quantity and level of work. Educators realize this and schools and institutions of higher learning have started procedures and practices for the gifted which differ from class to class and from school to school. Several different plans of making special provision for gifted students are now in use in schools and colleges. They exist in the form of (1) acceleration, (2) grouping, (3) enrichment, or (4) a combination of these.

There are differences of opinion concerning the desirability of these plans. No one method among the four, even under the most favourable circumstances can provide

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[13]E. P. Torrance (ed.), Talent and Education (Minneapolis: The University of Minnesota Press, 1960), p. 14.

fully the total educational programme that the gifted need. The establishment of special classes or programmes for the gifted are also justified on the basis of their effect upon the gifted. In the gifted class the student learns that in order to be superior he must exert his best effort, and, even more important, he learns that there are areas in which he must realize his limitations. This is different from experience in regular classrooms where with comparative ease he becomes top in everything.

The justification of special programmes, on the basis of the learning in depth and breadth that can take place, is important and shows the need for such special programmes. It has been stated that each school will need to adopt its own programmes. Attempting to "sell" programmes in their entirety on the assumption that a programme can work everywhere has not been practical. Because of this, different schools have tried to evolve and adapt plans. Many times it seems that there has been a "band wagon" type of approach. Sometimes lip service is paid to many progressive plans and in some places there is a genuine concern to develop sound permanent programmes.

In this thesis an attempt will be made to survey the programmes and provisions in elementary, high school and college under the headings of (1) Acceleration, (2) Ability grouping, and (3) Enrichment in three countries - England, U.S.A. and Canada.

England has been chosen as a representative of the European community with a long history in providing education for a minority with the conscious intent of producing an educated elite. The U.S.A. is chosen because it has been the pioneer and probably the most progressive in this field and most of the programmes originated there and have developed well. The U.S.A. has vacillated in its attitudes to higher education and in particular in its desire to provide such education without the creation of an elite, since in general, their ideas of democracy run counter to the creation of an elite. The third country, Canada, is or has been subject to influence from the two other countries. Whilst not completely hostile to the idea of an educated elite, it is more inclined to the American idea of a democracy without an entrenched social elite.

Since it may be best to concentrate here on intellectual giftedness as being basic to academic talent, which is useful and important in a democratic society, the terms gifted, bright, intellectually superior or academically talented are used interchangeably.

There have been other definitions and much has been written of the concept of giftedness, as our review of the relevant literature will reveal. For the purpose of this thesis, however, the foregoing definition of the gifted or academically talented sets the framework within

which further work is considered. No consideration will be given to those gifted in one sphere only, nor to those who excel in creativity, as currently defined.

The author had a chance to talk to many teachers of the enrichment classes in Canada and the U.S.A., principals of some schools under whom the programmes were working, with the consultants and superintendents of special education programmes and the co-ordinators who organize the teaching provisions. Some information was gathered through letters of enquiry addressed to heads of institutions, or State Departments of Education, in England, Canada and the U.S.A. The major portion of the material has been collected from the published material and personal visits to schools in Canada and the U.S.A.

Though the quantity of data collected is ample, it has been patchy in the sense that it has not been possible to collect information statewise or countrywise, as nowhere in this field does a central body function that collects and collates information. Therefore, the material collected has been pooled together. To put it together so that a complete picture of any state of a country may be formed has not been possible. Moreover, as in most places the gifted are treated under the special education of the exceptional, gifted children have not been given attention comparable to children in other areas of exceptionality, i.e., that of retarded children or the physically handi-

capped. Therefore, an attempt will be made to obtain some insight into current attempts to educate the gifted, rather than attempt a detailed examination of the practices and provisions which obtain in each State or Province of these countries.

CHAPTER I

HISTORY OF THE EDUCATION OF GIFTED CHILDREN

The need for the education of the gifted has been felt throughout history. Plato in his Republic emphasized how the ideal state could be brought into being, through the efforts of men who would be generous and virile characters, with gifts fitting them for the sort of education which he would provide. From them he would demand a good memory and a dogged appetite for hard work of every kind.

In ancient Greece, though the concept of "gifted," "talented," "creative," or "genius" was not clear, Athens shone gloriously, and the Greeks were the creators of all forms of literature and the writers of this literature were held in respect as able men. It was in Greece that several systems of philosophy were thought out. The Greeks developed nearly all the main branches of mathematics, arithmetic, geometry, trigonometry and thought out a theory of proportion, calculus and algebra. They made fine progress in astronomy. Archimedes' discoveries preceded the development of hydro-statics and mechanics.

Perhaps all this could be attributed to their education as education was to train a good mind in a good body for good citizenship.

The Romans were influenced by Plato's ideas and gave training to their superior youths so that they might become leaders in war and government. They left to the world a wonderful example of organization and administration, evolving a detailed system of law which was an outstanding contribution to the intellectual development of man. In spite of this, the fact remains that Roman education served only a small part of the population.

For many of the succeeding years the provision of education of any kind was inadequate and quite unsystematic, intellectual superiority continued to be esteemed throughout the Renaissance, the Reformation and the Industrial Revolution.[1] This must be emphasized even though the concept of superiority was often based on wealth and birth. The counter movement, with emphasis on the equality of all men, in the seventeenth and eighteenth centuries led to the neglect of the gifted child in some countries. Hobbes, Jacotot and Leibniz[2] all stressed the concept of original

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[1]W. M. Kotschniz, "Educating the Elite in Europe," Journal of Educational Sociology, Vol. XIII, Oct., 1939, cited by Paul Witty (ed.), The Gifted Child (Boston: D. C. Heath & Co., 1951), p. 1.

[2]M. R. Sumption and others, "Special Education for the Gifted Child," The Education of the Exceptional Children, Forty-ninth Yearbook of the N.S.S.E., Part II (Chicago: University of Chicago Press, 1950), p. 260.

equality and the production of differences through training. There was no need, therefore, for special education of the gifted.

In the nineteenth century attention to gifted children was stimulated by the publication of Galton's Hereditary Genius, a book which marked the beginning of interest in individual differences. Galton recognized that a gifted person might be handicapped to a certain extent. "A very gifted man will almost always rise, as I believe, to eminence."[3] He stated further,

> It follows that the men who achieve eminence and those who are naturally capable are to a large extent identical. . . . If a man is gifted with vast intellectual ability, eagerness to work and power of working, I can not understand how such a man should be repressed.[4]

In 1869 he published his study showing for the first time quantitative analysis of human ability. This work led to the controversy of nature and nurture which is still not resolved.

The first scientific investigation into the nature of the gifted child began with the studies of Darwin and Mendal concerning the variations in species.

In 1891 the idea that nature balances off high mental endowment with some kind of affliction was given

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[3]F. Galton, Hereditary Genius (London: MacMillan & Co., 1925), p. 320.

[4]Ibid., p. 34.

scientific support when Lombroso[5] and Nisbet[6] published the results of their study of famous men in history, large proportions of whom were regarded as deranged. Galton and William James had denied any correlation between genius and mental abnormality. It was for Terman and his associates who dismissed the idea that intellectual precocity is pathological.[7]

It was as a result of Binet's work with Simon that his intelligence test was published in 1905 which helped to investigate the special mental qualities of gifted children. This led to such extensive psychometric work that by 1933 a comprehensive bibliography consisting of intelligence, aptitude, personality and achievement tests and scales numbered 3500 titles.[8] The work of Lewis Terman and his associates appeared in The Genetic Studies of Genius in 1925. He demonstrated that intelligence can be measured at an early age and the results can be used to predict achievement in adults. Mental Measurement Yearbooks

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[5]C. Lombroso, The Men of Genius (London: Robert Scott, 1891).

[6]J. F. Nisbet, The Insanity of Genius (London: Kegan Paul, 1891).

[7]L. M. Terman and others, Preface to "Mental and Physical Traits of a Thousand Gifted Children," Genetic Studies of Genius, Vol. I (California: Stanford University Press, 1925).

[8]G. H. Hildreth, A Bibliography of Mental Tests and Rating Scales (New York: Psychological Corporation, 1933).

were also published in 1938, 1940, 1949, 1953 and 1959.[9] The two early yearbooks - the Nineteenth and the Twenty-third Yearbooks of the National Society for the Study of Education, contained lengthy bibliographies, most of which dealt with the problem of locating and providing programmes for gifted children.

U.S.A.

Somewhat earlier than these writings the concern for the education of the gifted children was shown in the U.S.A. through various administrative provisions. As early as 1866, some areas provided programmes based on the multiple track system, as, for example, the one in New Jersey which permitted the bright and the gifted pupils to advance more rapidly than the average pupil. In 1867 a flexible grading and promotional system was introduced in the St. Louis schools.[10] Later the best known flexible promotion system developed by 1891 was the "Cambridge Double Track Plan" where the bright students were allowed to complete six years work in four years and special teachers were appointed to coach the bright pupils in the programme. The earlier "Cambridge Plan" was adopted with modifications by various school systems. Thus the "LeMars

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[9]O. K. Buros (ed.), Mental Measurement Yearbooks (Highland Park, New Jersey: Gryphon Press, 1938, 1940, 1949, 1953, 1959).

[10]P. Witty (ed.) The Gifted Child (Boston: Heath & Co., 1951), p. 8.

Plan" and the "Odebolt Plan" and the "Portland, Oregon, Plan" may be regarded as the modifications of the original "Cambridge Plan."[11]

In 1894, in the schools of Woburn, Massachusetts, a unique system of promotion called the "Double Tillage Plan" was introduced which remained in vogue until 1903, in which the work of each school grade was covered in the first half year and then worked over again in greater detail in the second half. As early as 1895, Mr. J. Van Sickle developed a plan in Denver, Colorado, which we now call the "Enrichment Plan" where the brighter students were given opportunity to do more extended and intensive work than the rest of the class.[12]

About the end of the century accounts of several interesting plans were mentioned, as for example, the "Santa Barbara Concentric Plan," where each grade was divided into the sections A, B, C, and B pupils were supposed to work more extensively than C, and A pupils were to work more extensively than B. The trend was towards enrichment of the course rather than acceleration. There were many more plans introduced - many now discontinued for one reason or another, but which indicated a

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[11]G. M. Whipple (ed.), "Historical and Introductory," Report of the Society's Committee on the Education of the Gifted Children, Twenty-third Yearbook of the N.S.S.E., Part I (Bloomington: Public School Publishing Company, 1924), p. 9.

[12]Ibid., p. 10.

growing interest in these children. About this period there also appeared in Chicago, New York and other large cities a plan referred to as the "Large School Plan" or the "Constant Group System" where division was made on the basis of the ability of the pupils. The general aim of this system was to advance rapidly bright students in those subjects in which they were competent.[13]

During the early years of this century a variety of plans had been instituted. Special promotion appears to have become common. Many cities reported the formation of special segregated groups. There was also special sectioning within classes in the elementary schools, and some cities provided definitely segregated classes for gifted pupils. "Special Advanced Classes" were in operation in Detroit in the higher grades. One could find acceleration common in the elementary grades and enrichment in the higher grades. Interest in the organized special classes in selected elementary schools was largely a result of Hollingworth's writing, especially in New York City.[14]

The 1920's was a period when the schools substituted grouping for acceleration and in the 1930's enrichment in special classes gave way to enrichment in

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[13] Ibid., p. 11.

[14] A. J. Tannenbaum, "History of Interest in the Gifted," Fifty-seventh Yearbook of the N.S.S.E., p. 32.

the regular classrooms.[15] The data, however, is not available to show that ability grouping was practiced. Though there were provisions for acceleration or enrichment between 1920 and 1930, the attention given was infrequent. It was estimated by the White House Conference Report on Child Health and Protection that "there were one and one half million pupils of superior intelligence and that they required special education."[16]

In 1941 the National Education Association reported on the nature of special provisions for the gifted in several hundred schools throughout the country, but during the years 1942-45 professional writing about the gifted was not forthcoming. The Educational Politics Commission issued a pamphlet in which powerful recognition was given to the education of the mentally superior.[17]

The last twenty years have seen a renewed interest in the gifted. There has been a concerted effort to offer to the gifted children more adequate educational opportunities. A number of books and pamphlets have been written on curriculum adjustment for gifted children. Martens[18] and her collaborators discuss and illustrate

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[15] Ibid., p. 33.

[16] P. Witty, The Gifted Child, p. 8.

[17] A. J. Tannenbaum, op. cit., p. 34.

[18] E. H. Martens, Curriculum Adjustment for Gifted Children, Bulletin No. 1 of the United States Office of Education (Washington, D.C., 1946).

types of organization for making curriculum adjustment to care for the gifted in a rural community. Another bulletin entitled "High School Methods with Superior Students"[19] reports a study which revealed the actual practices of junior and senior high schools with respect to the education of superior students. Two widely quoted books are Three Hundred Gifted Children by Merle Sumption[20] which describes the major work classes of Cleveland, Ohio, and includes a follow-up study of three hundred graduates of these classes, and Educating Superior Students, which reports pioneer studies in New York City which aided in bringing about a greater desire to care for the gifted pupils in the high school.[21] Later, Hollingworth's[22] book Children Above 180 I.Q. describes the nature and need of extraordinary able pupils. It has had a profound effect on educational practices and theory. The Gifted Child Grows Up, by Terman and Oden[23] describes the development

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[19]National Educational Association Research Bulletin, High School Methods with Superior Students, Vol. XIX, No. 4 (Washington, D.C.: N.E.A., 1941).

[20]M. R. Sumption, Three Hundred Gifted Children (New York: World Book Co., 1941).

[21]H. L. Cohen and others, Educating Superior Students (New York: American Book Co., 1935).

[22]L. Hollingworth, Children Above 180 I.Q. (New York: World Book Co., 1942).

[23]L. M. Terman and M. H. Oden, The Gifted Child Grows Up, Genetic Studies of Genius, Vol. IV (Stanford: Stanford University Press, 1947).

of 1528 children between the ages of 10 years and 35 years. It is emphasized here that the gifted child has educational knowledge far in excess of the average student. Both Hollingworth and Terman studied the extremely gifted - the upper one per cent of the population and broadened the concept of their remarkable ability and attainment during childhood and youth, but it was Paul Witty who broadened the concept of educating them and proposed that no one type of educational programme for the gifted is suitable but that schools should go about the matter in their own ways. His book, The Gifted Child, emphasized the nature and the need of gifted children with recommendations for their education.[24]

After 1950 there was and has been a great interest in avoiding the wastage of talent. The need to educate the gifted was felt to be due to two reasons:

> (1) The great need of the society for trained manpower in a variety of walks of life . . .
> (2) That gifted children are not sufficiently stimulated or challenged in America's program of mass education.[25]

A nationwide survey of secondary schools was carried on in 1954 which revealed that schools were showing greater interest. This may have been the result of the writing of

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[24] P. Witty, The Gifted Child.

[25] R. J. Havighurst, "The importance of Education for the Gifted," Fifty-seventh Yearbook of the N.S.S.E., p. 9.

social analysts like Kandel[26] and Mead[27] who charged that society was fostering a cult of mediocrity. This period was marked by much experimentation in various provisions and procedures for the education of the gifted child. During this period the school-college plan sponsored by the Ford Foundation involving Andover, Lawrenceville, Harvard, Yale and Princeton, was developed to avoid the duplication of courses and another project by the same sponsors led to the "Early Admission to College" in 1951, when grants were made in its support. Another programme planned and encouraged by the Ford Foundation involves the provision of college level work in high school. This experimental programme sponsored by the College Entrance Examination Board helps high schools with the description of college courses in twelve fields and prepares examinations in them. Besides this, two well known programmes though started decades ago, make special provision for the gifted - Cleveland Major Work Classes and New York City Hunter College - Elementary School and High School which carry on much experimentation within their area.

This period also saw increased interest in providing adequately for the gifted in the regular classes.

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[26]I. L. Kandel, "Some Unresolved Issues in American Education," Educational Forum, XXII (March, 1956), 266-278.

[27]M. Mead, "The Gifted Child in the American Culture of Today," Journal of Teacher Education, V (Sept., 1954), 211-214.

A valuable aid for the teachers, Teacher Guidance Handbook, contains many suggestions about ways to offer better experience to the gifted child.[28]

The launching of Sputnik and the three 1958 Nobel Prizes in Physics produced an endless discussion and proposals concerning the importance of scientific education to American life and safety. This led to the need for providing more and better facilities for the selection of talented and gifted.[29] The new education in America was greatly criticized. Bestor attacked the anti-intellectual influences of the educationists, and the elective system of American High Schools which permitted only one year of science to those who planned to attend college. He called attention to very few students who chose to study science and mathematics.[30] Vice Admiral H. G. Rickover in Education and Freedom is determined to change the attitude of indifference towards disciplined intelligence. He stressed that only "the massive upgrading of the scholastic standards of American schools will guarantee the future prosperity and freedom of the Republic."[31] Creative

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[28]J. Kough and R. DeHaan, Teachers' Guidance Handbook, Parts I and II, Elementary edition (Chicago: Science Research Associates, 1951).

[29]J. S. Roucek, "The American Background to the Quest for Excellence," Concepts of Excellence in Education, 1961 Yearbook of Education (London: Evans Bros., 1961), p.166.

[30]Ibid., p. 167.

[31]Ibid., p. 168.

education, neglected in favour of "life adjustment education," needs greater concern.

Since 1957 there has been a growing concern. The National Defense Education Act of 1958 offered assistance to improve American Education. The Rockefeller Brothers Fund[32] which published The Pursuit of Excellence, emphasized quality as well as quantity. James Conant, after three years study of comprehensive high schools of the U.S.A. emphasized that the average schools can become good schools, and that good schools can become excellent schools. About the elective programmes for the academically talented boys he suggested, "four years of mathematics, four years of foreign language, three years of science in addition to the required four years of English and three years of social studies."[33] His devotion to rigorous intellectual training is clear in his book and he repeatedly emphasizes the need of the adherence to higher standards. He referred to 15 to 20 per cent of an age group as academically talented, those who have the ability to study advanced mathematics, foreign languages, physics and chemistry. Conant, in the short period of fifteen years rotated through almost 180 degrees from the time of condemning the European methods as being exclusively college preparatory

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[32]Rockefeller Brothers Fund, op. cit.

[33]J. Conant, The American High School Today (New York: McGraw Hill Book Co., 1959), p. 57.

to his advocacy of rigor, and continuity of subjects for the academically talented, while still trying to preserve some semblance of equality in the high school as a whole.

The result of the current interest in the gifted is shown by the increased number of scholarships available for the gifted children. The National Merit Scholarship Corporation awards hundreds of four-year college scholarships each year to superior students.

Among the present organizations that have shown widespread interest in the gifted, the work of the American Association for Gifted Children is outstanding. The organization has sponsored and distributed articles and pamphlets dealing with the gifted child and his needs. This association stimulates research and provides guidance and aids to the gifted pupils. The Joe Berg Foundation, Chicago; The Education Testing Service, Princeton, New Jersey; The Inter-university Committee on the Superior Student, Boulder, Colorado; the National Association for Gifted Children, Ohio; the National Education Association Project on the Academically Talented Student, Washington; have all devoted their efforts towards this field of education in publishing material, organizing conferences, providing financial support and providing for capable students. The periodicals published by these organizations are solely devoted to the gifted. Besides this, many articles appear scattered in educational and psychological literature.

The most recent law, Public Law 88-164[34] came about as the result of the pressure of many organizations and welfare agencies and it shows that the federal laws passed by the Eighty-eighth Congress will greatly enhance all types of programmes for the handicapped children but significantly the legislation has omitted the area of the gifted. This law, passed by the Senate and signed by President Kennedy on October 31, 1963, incorporates a bill on setting up research centers and facilities for the mentally retarded, but the federal law seems indifferent to the education of the gifted children.

So within the last ten years there has been a tremendous increase of literature, organizations, schools, provisions and educational programmes. Many programmes seem to be poorly conceptualized and there are many piecemeal school programmes. Few schools benefit by such improvement as new research results become available, but more may do so as the idea of special provision for gifted children gains wider acceptance by the community. It seems that more research findings are in the literature than are found in the educational practices, but there is a significant effort and the U.S.A. is the leader, showing the way to other nations in this field.

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[34]W. C. Greer, "Recent Federal Legislation Provisions and Implications for Special Education," Exceptional Children, XXX (May, 1964), 411-420.

England

In England there had been different types of schools for different types of children. According to Vaizey, it was thought that "children came in layers" - some were clever and were able to study classics, mathematics and other difficult subjects.[35] Although there has always been a recognition of the "poor scholar" in English education, this has been overlain by the concept of social class. Only the exceptional child of poor parents was able to receive an adequate education before the advent of compulsory education. However, since the reform of the Universities in the nineteenth century, and the establishment of competitive entrance examinations for the Civil Service in 1854, the needs of the abler student have dominated much of her educational thinking. A few Public Schools (Public in the English sense) have always been very selective, with difficult entrance examinations, either intellectually or socially, and these schools have been concerned with the education of some of the very ablest children. Within the State system of education, since the setting up of Local Education Authorities, given power to provide Secondary Education, academic selection was always explicit.

During the 19th century the bias of slowly

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[35]J. Vaizey, Britain in the Sixties - Education for Tomorrow, A Penguin Special (London: Penguin Books, 1962), p. 43.

developing post-elementary education had been towards the scientific and technical side. By 1904 there were great changes and there was an increased emphasis on the literary side and on the need for a balanced curriculum. Premature specialization was discouraged. It was in fact made clear that the secondary education was to aim at the culture of public schools and older grammar schools rather than the scientific and technical education associated with the Higher Grade Schools of school boards.[36]

It was Morant whose plans for the development of Secondary Schools were successful, but it was in the section of the Act of 1902 dealing with Elementary Education that he performed the formidable task of giving to these schools an explicit aim. It marked a complete break from the practice of "payment by results," which, though abandoned earlier, was still having disastrous effects upon elementary education. The aim was expressed as follows:

> The purpose of the Public Elementary School is to form and strengthen the character and to develop the intelligence of the children entrusted to it and to make the best use of the school years available in assisting both girls and boys, according to their different needs, to fit themselves, practically as well as intellectually for the work of life. It will be an important though subsidiary object of the school to discover individual children who show promise of exceptional capacity and to develop their special gifts so that they may be qualified to pass at the proper

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[36]E. Eaglesham, "Implementing the Education Act of 1902," British Journal of Educational Studies, X (May, 1962), p. 153.

> age into secondary schools, and be able to derive the maximum of benefit from the education there offered them.[37]

It was also the Act of 1902 which, by creating Local Education Authorities, co-ordinated elementary and higher education and provided "the ladder from the elementary school to the university" because it made possible the award of scholarships for promising pupils from the elementary school.[38] All through the 19th century secondary education had been regarded as different from elementary education. The scholarship system led to the abolition of the idea that secondary education should be restricted to a certain class in the community. As early as 1904 one of the general aims of the elementary schools in Britain was "to discover individual children who show promise of exceptional capacity and to develop their special gifts so that they may be qualified to pass at the proper age into secondary schools."[39] This shows that a selected group was prepared for high school and the universities.

Sidney Webb, who was associated with the Bill of 1902 and is considered the ancestor of many of its achievements and failures, was also associated with the abolition

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[37] Ibid., p. 161.

[38] S. J. Curtis, History of Education in Great Britain (London: University Tutorial Press, Ltd., 1957), p.319.

[39] Board of Education, Handbook of Suggestions (London: Her Majesty's Stationery Office, 1927), p. 9.

of destitution. He wrote, "The care and education of children must cease to have the shadow of connection with pauperism."[40] One is further impressed by his repeated pleasefor compulsion in further education. Webb was interested in what "exposure to the learning process did to a citizen, how it affected social outlook and status, how it created reciprocal obligations between individual and community."[41] Webb from the beginning believed in the value of knowledge.

In the early 1920's when group intelligence tests became widespread, it was admitted that if pupils could be put into groups which were homogeneous with respect to intelligence, each group could progress at its own rate. To a large extent this advice given by psychologists was put into practice in England. Age grouping gave way to ability grouping though it was soon realized that too wide an age range of bright youngsters and old dullards in a single class is socially unhealthy. The usual practice came to be the classification of children within an age grade in any large school into three or more streams or tracks on the basis of intelligence, previous achievement, or both.[42]

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[40]A. V. Judges, "The Educational Influence of the Webbs," British Journal of Educational Studies, X (Nov., 1961), 34-48.

[41]Ibid., p. 48.

[42]P. E. Vernon, "Education and Individual Differences," Harvard Education Review, XXVIII (1958), 93.

Sir Godfrey Thomson had great influence on the discovery and fostering of its resources of intelligence. In the early twentieth century he emphasized that the important aim of an education system must be to sift out the various intellectual levels and provide them with the training they are capable of absorbing. He suggested that the brightest ten per cent should not be thought of as a superior elite but that each child should be provided with an education, that no child who is capable be barred from the chance to an academic education.[43] He deprecated education through segregation though set on the production of efficient means of grading children by ability and guiding them into courses for which they were suited.

Some information is available about the special classes for the gifted in England in the early part of this century. By 1910 in Manchester there had been in use a very effective combination of flexible grading and special classes for bright children. The brightest children from the kindergarten were placed in a special class known as Special Class II to do grades 1 and 2 in one year, and some finished grades 3 and 4 together. In this school in Manchester, four methods of promotion were used:

1. Promotion at the end of the school year through the special class to work through two grades in one year.

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[43]P. E. Vernon, "The Contribution to Education of Sir Godfrey Thomson," British Journal of Educational Studies, X, No. 2 (May, 1962), 126-128.

2. Promotion at the end of the year by skipping a grade.
3. Promotion after the term examinations.
4. Promotion at any time.
(This pattern may also be an example of streaming.)

The question of selection according to age, ability and attainment was raised in the Handbook of Suggestions[44] (1937). With the disappearance of the classroom examination of teachers in England a century ago, teachers found it possible to take individual ability into account for promotion, hence the bright children were pushed ahead as they mastered their lessons, "so that they might work with the highest classes while they were still eligible by age to enter for competetive examination of the Junior Scholarship type."[45] The concept of mental age which had become familiar during the previous few years reinforced the idea of promotion according to ability. The suggestion for streaming came in 1937 from the Board of Education, though many schools had practised it for many years. Though Britain has its critics of streaming, it is still practised and it is almost universal at the elementary level. At the secondary level, segregation into separate schools is combined with streaming within the school.

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[44]Board of Education, Handbook of Suggestions, (London: Her Majesty's Stationery Office, 1937), p. 32.

[45]Ibid., p. 34.

A recent survey in Britain by Daniels found a remarkable unanimity among the teachers concerning the idea of streaming by ability.[46] It can be noted that British universities are not in favour of streaming.[47] Instead of grouping by general intelligence and all-round achievement, there seems to be a multi-dimensional, as opposed to the uni-dimensional, approach. The British, following Spearman, stress the importance of general ability and so believe that children who are above average in one school subject are likely to be above average in all others.[48] There is some evidence to point to the desirability of some form of grouping such that exists in many American schools.[49]

The present practice seems to be that the bright children go to the grammar school and the just above average children to technical schools. Apart from this, there is the Public School taking perhaps four or five per cent of the children leading to many of the best jobs. Now the idea is gradually dawning that children cannot be divided into types. Since 1944 segregation based largely

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[46]J. C. Daniels, "The Effect of Streaming in Primary Schools," British Journal of Educational Psychology, XXXI (June, 1961), 119-127.

[47]P. E. Vernon, "Education and Psychology of Individual Differences," Harvard Education Review, XXVIII (1958), 98-99.

[48]Ibid., p. 100.

[49]Ibid., p. 101.

on ability has been under controversy and at what age selection should be based is an issue of ideology and practicability. At the primary school level selection is done by geographical zoning. In Independent Schools it is done by the purse and in Grammar Schools it is done by I.Q. and for Universities by attainment. What is the best method to select and segregate is a matter of great doubt in England.

The present system is based on the presence of different classes in different schools for children of differing abilities. When Americans are doubting the present tradition and are in favour of special schools for special category of children, the educators in England are advocating comprehensive schools. One objection to the existing grammar school is to its examination system at the age of 11. This consists of intelligence tests, an arithmetic paper, and an English test. The disadvantages of this system are faced by the child, because, until recently, only the child from the Grammar School and the Technical School could acquire the General Certificate of Education. When the modern schools leave the examination to the discretion of students, certain professions become closed to the children of the modern schools who do not possess the G.C.E. Many in England feel that Grammar Schools are the cause of inequality in British society, but Grammar Schools have defended themselves by saying

that they bridge the gap between the classes. Teachers favour such schools on the grounds that children gain much if taught with those who resemble them in age and ability.

The report of the Central Advisory Council for Education (1959), the Crowther Report, points out that the comprehensive schools allow children to move on from their primary school without individual discrimination. It also claims the advantage that it aims at fitting the curriculum to the pupils as they develop instead of attempting to fit them to a curriculum. In short the superior child has an opportunity to develop in this type of school.

Since in England there is a highly developed system of Private and Grammar Schools able students are not neglected but, on the whole, education for gifted children has been under attack because of the segregation of students with its class divisive properties.

Canada

The history of special education for the gifted in Canada is limited in time. As Canada has no definite philosophy of education, different from, say, the U.S.A., and whatever is done in the form of special classes is on the pattern of the U.S.A., it is difficult to trace its history according to time and place. Moreover, no data as such exist on the type of education given to the gifted children all over the country.

Fifty years ago Canada was committed to a single

track system. In the last quarter of the nineteenth century the elementary schools prepared pupils for high schools and the high school curriculum was designed chiefly to prepare for the university and so the examination eliminated those who could not make the grade. By 1900 it was accepted that each stage of education should prepare pupils for the next higher stage. In Canada, too, it has not been easy to get public support for purely intellectual work and for academic personnel.[50]

One can count on the fingers the scattered efforts made in educating the gifted throughout Canada. Special classes for gifted children in the top one, three or five per cent of ability have been organized in several Canadian cities. There has been some effort since as early as 1927 when special classes called the "Advancement Classes" for the gifted were started in London, Ontario, and in Saskatoon, Saskatchewan in 1931. The plan still continues today. Later, classes were started in Ottawa, Winnipeg, Etobicoke, East York, Halifax, Brantford and North Vancouver.[51] Segregated classes were initiated in Oshawa but later were discontinued due to financial reasons. There were segregated classes started in Etobicoke Township,

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[50]C. E. Phillips, Public Secondary Schools in Canada (Toronto: W. J. Gage and Co., 1956), p. 62.

[51]S. R. Laycock, "Trend in the Education of the Gifted in Canada," The Gifted Child, 1962 Yearbook of Education (London: Evans Bros., 1962), p. 231.

Ontario in 1955, and in Windsor, pupils were brought together for periods of enrichment in 1956.[52] Many classes at present are modelled on the pattern of the Cleveland Major Work Class.

At present there is a serious effort towards the education of the gifted. During the last few years there has been a wide variety of attempts on the part of teachers and school authorities to improve the education of the gifted. Many attempts are being made on an experimental basis and there is still a need to know on a more scientific basis under what conditions and with what techniques and methods various types of gifted children can best be educated. Many Canadian School Boards that are interested in the special programmes for the gifted provide some extra fund for these services but funds are not adequate.

A few surveys and studies have been made on special educational opportunities in Canada,[53] for the First Canadian Conference on Children in 1960, and a follow-up study by Laycock in 1962 confirmed that acceleration is widely used in Canada. It also revealed that

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[52]K. Carson, "Evaluation of the Objectives and Achievement of Special Classes for Gifted Children in Kingston Public School," Ontario Journal of Education Research, VI (Autumn, 1963), 23.

[53]S. R. Laycock, Special Educational Opportuhities in Canada, A Survey made for the First Canadian Conference on Children (Toronto: First Canadian Conference on Children, 1960).

"the methods of acceleration used in Canadian schools reveal a great variety of practice."[54] The first work done in this field was by Samuel Laycock who, as early as 1932, organized special classes for the gifted in the Saskatoon public schools and his book, Gifted Children, was the first Canadian work in this special subject.

A follow-up study of the "Advancement Classes" in London, Ontario, has been conducted and it was concluded that the London Advancement classes have produced adults who are in positions of intellectual leadership and responsibility.[55] The whole of the Fourteenth Yearbook of the Ontario School Inspectors' Association in 1958[56] was devoted to a survey of educational practices in Ontario. R. W. B. Jackson suggests that "for Canada as a whole, four of the academically gifted stay away from university for every one that enters,"[57] and the Atkinson Study revealed that of the group investigated, 90 per cent of the students with I.Q.'s of over 140, 60 per cent with I.Q.'s between 130 and 140, and 40 per cent with I.Q.'s

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[54]S. R. Laycock, Special Education in Canada (Toronto: W. J. Gage Limited, 1963), p. 112.

[55]R. K. Vogan, "A follow up study of the Graduates of London Advancement Classes," Unpublished Private Study cited in Education of the Gifted, Fourteenth Yearbook of the Ontario School Inspectors' Association (Toronto: Copp Clark Publishing Co., Ltd., 1958), p. 19.

[56]Ontario School Inspectors' Association. Education of the Gifted, The Fourteenth Yearbook of the Ontario School Inspectors' Association (Toronto: Copp Clark Publishing Co., Ltd., 1958).

[57]Ibid., p. 98.

between 120 and 130 are not continuing in school even to Grade Thirteen graduation.[58]

Literature now abounds with the description of various practices and provisions for the gifted children and some programmes seem to have challenging aspects. Programmes vary from School Board to School Board. In a few Canadian cities science experiments and discussions are organized by the Joe Berg Foundation or by the university extension departments with the co-operation of the school boards. However, such work does not carry academic credit. Funds for research in the education of gifted are not forthcoming but there is at present closer and more intelligent relationship between the teachers and the parents of the gifted students.

Though there may appear no unanimity regarding these practices, there is sufficient evidence to warrant that gifted children are receiving some attention in Canada.

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[58] Ibid.

CHAPTER II

REVIEW OF LITERATURE

General

Literature abounds on the different phases of education of the gifted child. The contributions of Lewis Terman and Lata Hollingworth are probably the most noteworthy. Both worked in quantitative terms and used objective instruments of measurement and recorded their data exactly. Both made a rich contribution to the literature of differential psychology. Terman[1] collected and analyzed data for a group of nearly one thousand gifted subjects. The major purpose of the study was to determine in what respects the typical gifted child differs from the typical child of normal mentality. Hollingworth[2] did not apply the word genius to children of about 140 I.Q. as did Terman. Instead she used the term only for those children who tested at 180 I.Q. or above.

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[1]M. L. Terman and others, Mental and Physical Traits of a Thousand Gifted Children, Genetic Studies of Genius, I (Stanford, California: Stanford University Press, 1925), vi.

[2]L. Hollingworth, Children Above 180 I.Q. (New York: World Book Co., 1942).

She worked with two separate groups and observed them almost every day. She concluded that, "It is the significant contribution of psychology to education in this century that we are enabled to know the mental calibre of a human in his early years."[3] She also considered homogeneous grouping as the most effective type of education.

The contributions of Lewis Terman need special mention. The Gifted Child Grows Up is the monumental record of genetic studies of genius by Terman and Oden, first studied in 1921 and reported in their volume 25 years later. Few, if any, longitudinal studies covering such a long period of time and with such a large number of subjects, have been made in this field. The author says, "The investigation is now only at its half-way point," also, "Our gifted group, because of the detailed case histories available for the individual subject is probably capable of throwing more light on this problem than any other group in the world."[4] The general plan of the book gives first a brief historical account of the beginning of the study of 1528 children from a school population in California who fell within the upper one per cent of mental ability. Terman's study contributed richly to the

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[3]L. Hollingworth, "Problems of Relationship between Elementary and Secondary Schools in the Case of Highly Intelligent Pupils," cited by P. Witty (ed.), The Gifted Child, p. 50.

[4]L. Terman and M. Oden, The Gifted Child Grows Up, IV (1947) 379-380.

knowledge of administrators, teachers and those interested in this field. The authors say, "Once the physical and mental characteristics and the developmental tendencies of intellectually superior children have been definitely established then and then only is it possible to plan intelligently for their education."[5]

One of the early books drawing the attention to the process of education of "the gifted" is by Paul Witty[6] who elaborated on the nature and extent of educational provision. He also wrote a booklet to help parents and teachers to understand the "gifted" better.[7] Brandwein[8] devoted his writing to the problems of gifted children who ought to become scientists and he has elaborated in detail the programmes for the student of outstanding ability in science with proposals and suggestions for action on the local, state and national level. The proposals to organize Science Departments are sketched in the last pages of his book. Although the plans and proposals are naive, the author feels that a workable organization can be set up with the help of suggestions such as his.

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[5]L. Terman and M. Oden, Ibid., pp. 3-4.

[6]P. Witty (ed.), The Gifted Child.

[7]P. Witty, Helping the Gifted Child (Chicago: Science Research Associates, 1953).

[8]P. Brandwein, The Gifted Student as the Future Scientist (New York: Harcourt Brace and Company, 1955).

Several other books have been written in general terms describing more or less all the phases of education for the gifted. For example, such books have described the history, the programmes and provisions available, and methods of working with parents and teachers. Hall[9] and Hildreth[10] described in detail the two examples of special institutions - the Cleveland Major Work College and the Hunter College Elementary School with the problems, issues and the practice in these places.

A very informative book consisting of essays by twenty different authors is the Fifty-seventh Yearbook of the National Society for the Study of Education.[11] It has a good description of the theories of "giftedness," a brief history of interest in "the gifted," a summary of research of gifted children and a discussion of the characteristics of "the gifted." The articles provide useful information for teachers and administrators.

In the area of curriculum and administrative

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[9]T. Hall, Gifted Children - The Cleveland Story (New York: World Publishing Co., 1956).

[10]G. Hildreth, Educating Gifted Children (New York: Harper and Brothers, 1952).

[11]N. B. Henry (ed.), Education for the Gifted, Fifty-seventh Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1958).

suggestions, Frampton and Gall,[12] Cutts and Moseley,[13] French[14] and Cruickshank[15] as editors, have compiles such information. Many more books have been written on exceptional children with only a part of each book devoted to the education of gifted children.

The reviews of Goldberg,[16] Tyler,[17] and recently of Fliegler and Bish[18] and Carter[19] are comprehensive and worth noting.

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[12]M. E. Frampton and E. D. Gall (eds.), Special Education for the Exceptional, Vol. III (Boston: Porter Sargent, 1956).

[13]M. E. Cutts and N. Moseley, Teaching the Bright and Gifted (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1957).

[14]J. French (ed.), Educating the Gifted. A Book of Readings (New York: Henry Holt & Co., 1959).

[15]W. M. Cruickshank, Education of Exceptional Children and Youth (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1960).

[16]M. Goldberg and A. H. Passow, "Recent Research on the Talented," Teacher College Record, LX (Dec., 1958), 150-163.

[17]L. Tyler, "Studies of Motivation and Identification of Gifted Pupils," Review of Educational Research, XXVII (Oct., 1957), 391-399.

[18]L. A. Fliegler and C. E. Bish, "The Gifted and Talented," Review of Educational Research, XXIX (Dec., 1959), 408-450.

[19]H. D. Carter, "Gifted Children," Encyclopedia of Educational Research, ed. Chester Harris (New York: Macmillan Co., 1960), pp. 583-593.

The Rockefeller Report[20] draws attention to quantity as well as quality in education and warns that society has given too little attention to the individual or to unusual talent or potentialities.

Conant,[21] after a three-year study of the American high schools, indicated in some twenty-two recommendations the methods by which American high school education may be brought to a proper level in the world today.

Fliegler's work contains a detailed account of curriculum planning and implementation with administrative provisions.[22]

Laycock[23] does great service by presenting a clear picture of the current Canadian scene in respect to special education. It points out the deficiencies in the overall provision of adequate facilities for exceptional children. The author points out also the progress made in certain fields.

The research done by Getzels and Jackson[24] in creativity and intelligence is an important one in

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[20]Rockefeller Brothers Fund, The Pursuit of Excellence - Education and the Future of America.

[21]J. B. Conant, The American High School Today.

[22]L. A. Fliegler, Curriculum Planning for the Gifted (Englewood Cliffs: Prentice Hall, Inc., 1961).

[23]S. R. Laycock, Special Education in Canada.

[24]J. Getzels and P. Jackson, Creativity and Intelligence - Exploration with Gifted Students (New York: John Wiley and Sons, 1962).

educational history. The chapter on the highly moral and the highly adjusted adolescent is very valuable. It is recognized that the highly intelligent student is not always highly creative and that the highly adjusted student is not always highly moral. Since data here centers around one single school with a large number of gifted students, their study does not discuss the conditions under which similar results could be expected elsewhere.

The two Yearbooks of Education, 1961[25] and 1962,[26] entitled The Pursuit of Excellence and The Gifted Child, have a collection of articles devoted to the education of the gifted in the various parts of the world. As one would expect, there is repetition from chapter to chapter, but the two books make a valuable contribution. The books endeavour to collate the literature on the subject as a guide to further reading and research, and are very useful to teachers and students who wish to supplement their knowledge. The two areas have been widely surveyed in these books. Two further books have been published recently on the education of exceptional children. Kirk[27]

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[25]G. F. Bereday and J. A. Lauwerys (eds.), Concepts of Excellence in Education, The Yearbook of Education, 1961 (New York: Harcourt Brace & World, Inc., 1961).

[26]G. F. Bereday and J. A. Lauwerys (eds.), The Gifted Child, The Yearbook of Education, 1962 (New York: Harcourt Brace & World, Inc., 1962).

[27]S. A. Kirk, Educating Exceptional Children (Boston: Houghton Mifflin Co., 1962).

and Dunn[28] broadly survey special education with reference to classrooms for the use of undergraduates, graduates and teachers. Kirk is influenced by Olson though the figures and research findings are up to date. An attempt has been made in each chapter to offer a balanced coverage of psychological and educational problems.

An up-to-date summary of research on organization, administration and the supervision of special education for all types of exceptional children is given in a small review booklet.[29] The chapter on gifted children is an extensive review of the literature and is very valuable. In yet another book, Torrance[30] draws our attention to the various kinds of high ability which exist and to the problems of selection of such children in a democratic country. The relative merits of special classes and enrichment are well debated, with the author inclining towards enrichment.

In recent years creativity has become the main consideration in our society and there has been greater

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[28]L. M. Dunn (ed.), Exceptional Children in the Schools (New York: Holt Rinehart and Winston, Inc., 1963).

[29]American Education Research Association, "Education of Exceptional Children," Review of Educational Research, XXX (1963), 83-98.

[30]E. P. Torrance (ed.), Talent and Education (London: Oxford University Press, 1960).

search for creativity. Torrance,[31] in his latest book, makes an attempt to encourage opportunities for the individual's creative power and the book supplies much information about aspects of creativity. It is probable that, in this area, the work of Guilford may be pursued and that his paper on The Structure of Intellect will be recognized as a significant milestone in our understanding of the abilities of the gifted child.[32]

The work of Gallagher[33] has drawn greatly upon a background of psychological research, upon curriculum studies and upon more general educational research. It is, however, written mainly for teachers and emphasized instructional processes. Elsewhere he has commented on the outstanding cognitive strengths of gifted children. These he believes to be:

1. The association and interrelationship of concepts.
2. The critical evaluation of facts and arguments.
3. The creation of new ideas and the originating of new lines of thought.
4. The ability to reason complex problems through to a conclusion.[34]

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[31]E. P. Torrance, Education and the Creative Potential (Minneapolis: University of Minnesota Press, 1963).

[32]J. P. Guilford, The Structure of Intellect, Psychological Bulletin 53 (1956), 267-293.

[33]J. J. Gallagher, Teaching the Gifted Child (Boston: Allyn and Bacon, Inc., 1964).

[34]C. E. Bish, "The Academically Talented," Educating the Academically Able (Washington 6, D.C.: National Education Association, 1961).

Personality Characteristics

In addition to their intellectual superiority gifted children seem to have certain personality characteristics which set them apart as a group. Terman, in his earlier studies, had found that his superior groups continued to be better than the general school population in practically every personality trait. Further research has also shown that the gifted have a more positive character integration. Terman, in the course of the four volumes of Genetic Studies of Genius, reported that the developmental histories of the highly gifted group were not significantly different from those of the gifted group as a whole with regards to age of talking, walking and pubescence. However, they read markedly earlier. Forty-two per cent of the boys and 25 per cent of the girls were reading before five years of age; 13 per cent of the boys and 14 per cent of the girls learned to read between the ages of two and four.[35]

Terman recognized that these highly gifted children had acute problems of social adjustment. "The inevitable result is that the child of 180 I.Q. has one of the most difficult jobs of social adjustment that any human being is called upon to meet." He also gave the reason that,

> . . . if the I.Q. is 180, the intellectual level at six is almost on a par with that of the average eleven-year-old, and at ten or eleven

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[35]L. Terman and M. Oden, The Gifted Child Grows Up, IV (1947), 283.

> is not far from that of the average high school graduate. Physical development, on the other hand, is not likely to be accelerated more than ten per cent, and social development probably not more than 20 or 30 per cent.[36]

Terman's generalizations concerning highly gifted children are remarkably consistent with those of Hollingworth. They both agree that the highly gifted children spring from predominantly upper middle class status.

Besides Terman's and Hollingworth's studies, the array of studies between the period 1940-1954 was characterized by research findings related to a growing curiosity as to what giftedness is.

Burns,[37] in his study, reported neurosis to be more common among boys and behaviour problems among girls. He concluded that there was present in the boys a special syndrome showing phobia of school as a common underlying personality characteristic. Roe,[38] working within a promising area, studied 20 eminent American-born and trained biologists, by means of Rorschach and T.A.T. tests. The main characteristic of the group was a great devotion to their area of interest. Clinically they appeared

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[36] Ibid., pp. 264-265.

[37] C. L. Burns, "Maladjusted Children of High Intelligence," The British Journal of Educational Psychology, XXIX (June, 1949), 137-141.

[38] A. Roe, "A Psychological Study of Eminent Physical Scientists," Genetic Psychological Monographs 43, May 1951, quoted in Review of Educational Research, XXIII (Dec., 1953), 422.

stubborn, persistent and little interested in interpersonal relation. Lightfoot,[39] by means of home visits, interviews with children, psychological tests, rating scale, projective test situations and case study material, compared 48 superior with 56 mentally retarded children. Traits observed, particularly in the bright ones, were autonomy, creativity, dominance, protectiveness, play participation and achievement, while the retarded were found to be dependent, seclusive, rejected and with placid and defence behaviour.

Terman has shown that, in general, highly intelligent children, in addition to being larger and healthier, are also better adjusted socially than average children. The gifted group studied by him consisted of those who had been accelerated in school and carried the advantages into adult life. More recently the Ford Foundation Fund for the Advancement of Education found that the group of gifted children coming to colleges earlier was equally as well adjusted, socially and emotionally, to college work as their classmates.[40]

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[39] G. Lightfoot, "Personality Characteristics of Bright and Dull Children," Contribution to Education No. 969 (Teachers College, Columbia University, 1951), quoted in Review of Educational Research, XXIII (Dec., 1953), 423.

[40] Fund for the Advancement of Education, They Went to College Early, Evaluation Report No. 2 (New York, The Fund, 1957).

Strang[41] suggested that able students show more positive character traits, are more scholarly, more extraverted and more inclined toward scientific pursuits; they also take more part in extracurricular activities than the average adolescent. Liddle[42] investigated whether gifted children are more subjected to severe maladjustment than other children. In a study with 1015 public school children the following characteristics were measured: aggressiveness, maladjustment, withdrawal, social leadership ability, artistic talent and intellectual ability. The results showed that children who were talented in one area were quite likely to be talented in others, but also unlikely to be seen as highly maladjusted. Sheldon,[43] however, found isolation in highly gifted children. More than half of his group over 170 I.Q. were unpopular with classmates. Gallagher, in a paper referred to above, notes that in the field of social relations gifted children are characterized by an ability to understand others situations, other times and other people, and to be less bound by one's own peculiar environmental setting. He

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[41]R. Strang, "Gifted Adolescents' View of Growing Up," Exceptional Children, XXIII (Oct., 1956), 10-15.

[42]G. Liddle, "Overlap Among Desirable and Undesirable Characteristics in Gifted Children," Journal of Educational Psychology, XLIX (Aug., 1958), 219-223.

[43]P. M. Sheldon, "Isolation as a Characteristic of Highly Gifted Children," Journal of Educational Sociology, XXXII (Jan., 1959), 215-221.

suggests that if we are to teach bright youngsters we must teach them with such cognitive and social strengths in mind.

Tracey[44] investigated the data concerning the characteristics of the intellectually gifted high school students on Long Island, New York. The Normative Survey Method of research was employed. Analysis of data revealed that the gifted subjects were rated by the guidance counsellors as possessing above average intellectual characteristics, including concentration, intellectual organization, motivation for learning and superior study habits. Physically, the gifted subjects were not immune against their share of childhood diseases, but had good physical vigor. They were not prone to nervous and emotional disorders. In addition to academic honours, they also received awards in music, art, creative writing and sports. They also revealed more readily future vocational goals.

Smith[45] contributes research evidence that mentally superior adolescents are quite well adjusted. The controversy between the good adjustment and poor adjustment

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[44]R. E. Tracey, "A Survey of the Characteristics of the Intellectually Gifted Child and the Educational Facilities for the Gifted Students in Several High Schools of Long Island," Dissertation Abstracts, XXIV (Aug., 1963), 635.

[45]D. Smith, Personal and Social Adjustment of Gifted Adolescents, Research Monograph No. 4 (Washington: National Education Association, 1962).

as shown by mentally superior students is now less serious. Smith concluded that generalizations about the personal and social characteristics of the gifted are hazardous and that no inevitable associations between high I.Q. and other characteristics have been demonstrated.

Few studies have considered the way in which the adolescent develops attitudes towards the possession of high ability in himself or in others, or the way in which such attitudes, if formed, affect the learning climate of the classroom. Here is a much needed area of research. In fact, the whole area of personality factors which assist or are detrimental to the progress of the student of high ability needs to be explored in greater detail if educators are to be able to stimulate and encourage such students to come to the full fruition of their abilities.

Under-Achievement

Many studies have emphasized the fact that the level of achievement is not commensurate with intelligence level and that bright pupils even fail. Many reasons have been given for such failures or for serious under-achievement. An analysis of Terman's study suggests that through his method of selecting his 1000 gifted children, a minimum number of low achievers with high test scores were chosen. Terman and Oden's study, a twenty-five year follow-up of the original group, shows that there is clear evidence that gifted children form a major pool from which outstanding

adults are produced. However, the longitudinal studies have failed thus far to give a clear picture of why some highly intellectual students do not reach their highest potential. Terman's side study of 150 achieving and 150 non-achieving gifted males shows that the difference may be due to family background, and to the character structure of the individual.[46]

Articles written on under-achievement appear in various educational periodicals and a number of studies have been conducted. Gowan[47] noted good use of time and money by gifted students and later found dominance, self-confidence and character integration interpretations for under-achievement.

It has been felt that young people whose scholastic performance lags far behind their intellectual ability, represent a serious loss to society in terms of their potential contributions. It leads to depreciation of self, accompanied by unhappiness and frustration. The schools have felt that they must do something about it. A most useful study of school procedures to solve the problem of underachievement was the De-Witt-Clinton High School Study

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[46]American Educational Research Association, Research on the Academically Talented Student (Washington: National Education Association, 1961), p. 36.

[47]J. C. Gowan, "The Underachieving Gifted Child. A Problem for Everyone," Exceptional Children, XXI (April, 1955), 247-249.

in New York City. In this study, Goldberg and Passow[48] reported that the underachieving students who began to improve, identified with a teacher who was interested in them and thus were able to receive assistance in mastering the basic learning skills which they had failed to acquire in the lower grades.

Recent studies on underachievement and low achievement have revealed the importance of personality factors in achievement at all levels of schooling. Great concern was shown by Wedemeyer[49] who investigated students among the top decile in intelligence. He found that some thirty per cent of this group failed to show significant achievement in scholarship because of emotional, educational, personal, financial or other problems. Gowan[50] suggested that where the percentage of under-achievers runs much higher than fifteen, there may be problems of moral and social trends, with other factors, in the school which should receive special attention.

Kurtz and Swensen[51] in 1951, on the basis of five

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[48]M. Goldberg and A. Passow, "A study of the Underachieving Gifted," Educational Leadership, XVI (Nov., 1958), 121-125.

[49]C. A. Wedemeyer, "Gifted Achievers and Non-achievers," Journal of Higher Education, XXIV (Jan., 1953), 25-30.

[50]J. C. Gowan, op. cit.

[51]J. J. Kurtz and E. Swensen, "Factors related to Overachievement and Underachievement in School," School Review (Nov., 1951), pp. 472-480.

types of achievers, reported some factors causing over and underachievement in schools. (1) The home conditions of high achievers appear to be favourable and those of underachievers unfavourable; (2) The good achievers are considered bright and underachievers are less happy in the school situation; (3) Over achievers are academically inclined while the other group shows disinclination for academic activity; (4) Comparatively high educational and vocational aims are characteristics of plus achievers, and minus achievers have limited educational and vocational aims.

Academic accomplishment depends upon complex interrelationships of intelligence, personality, identification with social class values, peer relationships, and home environment. Many studies have dealt with these psychological and educational factors involved in underachievement.

Wilson[52] discussed the importance of motivation and how motivation is related to unique qualities of giftedness. Bishton[53] investigated the relative importance of social and psychological factors that might account for differences in achievement. Berrett[54] reported an

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[52]F. T. Wilson, "Working with the Motives of Gifted Children," Elementary School Journal, LVII (Feb., 1957), 247-252.

[53]R. C. Bishton, "A Study of Some Factors related to Achievement of Intellectually Superior Eighth Grade Children," Journal of Educational Research, LI (Nov., 1957), 203-207.

[54]H. O. Barrett, "An Intensive Study of Thirty-two Gifted Children," Personal Guidance Journal, XXXVI (Nov., 1957), 192-194.

intensive investigation of the underachievement of 32 superior high school students. His data concluded that underachievers can be recognized by the time they reach Grade V; they are less capable of numerical and abstract reasoning; have over-solicitous parents; are lacking in co-operative spirit, and are negative in attitude towards school. Gowan's[55] later study on underachievement stressed factors like lack of academic and occupational choice, misuse of time and money; weak ego control, withdrawal and self-sufficiency; psychotic and neurotic tendencies; dominant autocratic or "laissez-faire" parents; lack of maturity, responsibility and seriousness of interest; disinterest in others; lack of dominance, persuasiveness and self-confidence.

The more recent studies have been quite extensive. Norman and others[56] compared two groups of achievers and non-achievers - 215 children, after sorting them from 5000 school children. It was found that achievers were younger than non-achievers. The achievers had a significantly higher language I.Q. Sex differences on relative achievement occurred - the gifted boys being more variable

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[55]J. C. Gowan, "Dynamics of the Underachievement of Gifted Students," Exceptional Children, XXIV (Nov., 1957), 98-101.

[56]R. D. Norman, B. Clark, and D. W. Bessemer, "Age, Sex I.Q. and Achievement Patterns in Achieving and Non-achieving Gifted Children," Exceptional Children, XXIX (Nov., 1962), 116-124.

in several measures and not conforming to the usual superiority of males in arithmetic achievement; whereas the gifted girls showed the expected superiority of females in verbal achievement. Spelling was lowest among non-achievers.

Another extensive study by Edward[57] was designed to find the solution for the students who, though of similar high intellectual ability, perform very differently academically. This study mainly determined the possible causes for the differences in their academic performances. The study led to the following conclusion: the good achievers were superior to underachievers in mathematical and verbal aptitudes; the interests of the achievers were greater in mathematics and science, whereas the under-achievers were interested in mechanical and artistic areas. It was not surprising to find that the underachievers showed negative attitudes towards school, and in general were less conforming and less happy at school. The achievers assumed positions of leadership and responsibility.

Another study recently completed by Karnes and others[58] was concerned with raising the achievement level

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[57]F. Edward, "A Comparative Study of Achieving and Underachieving High School Boys of High Intellectual Ability," Journal of Educational Research, LIII (Jan., 1960), 172-180.

[58]M. B. Karnes, G. McCoy and others, "The Efficiency of Two Organizational Plans for Underachieving Intellectually Gifted Children," Exceptional Children, XXIX (May, 1963), 438-446.

of underachieving gifted children. The study, continued for two to three years, arrived at the conclusion that intellectually gifted pupils, enrolled in homogeneous classes, made greater gains, relative to academic expectancy than underachieving intellectually gifted pupils enrolled in heterogeneous classes. It was also accepted that underachieving intellectually gifted pupils placed in homogeneous classes, manifested greater gains in perceived acceptance and intrinsic valuation by their parents, than would underachieving intellectually gifted pupils placed in heterogeneous classes. The study showed the need of discerning the underachievers early, and suggests that by placing these underachievers with others of similar intellectual achievement will foster improvement.

Provisions and Programmes for the Gifted

Though there has been some debate on the achievement and the characteristics of gifted children, more furious debate centres on the provisions which are made for their education and the kinds of programmes which are available. These programmes have taken many forms and have been called by various names, but the great variety of techniques can be categorized as involving acceleration, enrichment, or ability grouping, with consequent changes in the curriculum offered.

Whilst Hollingworth[59] had indicated the need for a

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[59]L. Hollingworth, Children Above 180 I.Q.

special educational programme for the very bright, particularly for the beginners in school, Terman defended acceleration as an administrative device for dealing with these children. He says, "Our conclusion from the evidence . . . is that the influence of school acceleration in causing social maladjustment has been greatly exaggerated."[60] Data showing comparative educational achievement in terms of the number graduating from college, age at college graduation, grade point average, years of graduate work, indicated records by accelerated individuals as good or better than those of the non-accelerated. Terman and Oden concluded from their extensive studies that acceleration by one year or two had intellectual advantages and that children did not suffer, either emotionally or socially.

Acceleration has been used because of certain advantages though many criticisms have been hurled against it. The work of Hollingworth[61] points out the need for research in this field. Hollingworth mentioned the negative effect on social and physical development of children. Wilson[62] noted that the effect of acceleration

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[60] L. M. Terman and M. Oden, The Gifted Child Grows Up, IV (1947), 275.

[61] L. Hollingworth, Gifted Children, Their Nature and Nurture (Macmillan & Co., 1926).

[62] F. T. Wilson, "The Evidence about Acceleration of Gifted Youth," School and Society, LXXIII (1951), 409-410.

must depend upon the timing and the amount of acceleration and the nature of acceleration attempted.

One of the earlier surveys undertaken by Keys[63] revealed that the acceleration of the bright is actually advantageous to their social development and that the alleged bad social effects of acceleration are untrue and that a moderate amount of acceleration is associated with better personal and social adjustment and better achievement. Keys, therefore, emphasized a moderate amount of acceleration.

Though special education of gifted children at the college level was slow till 1951, there has been a trend in recent years to advance such students during high school to make it possible for them to enter college at an earlier level. Attention to the problem of expense has been given by the Ford Foundation and the programmes are getting great impetus from those universities whose names have always been associated with high academic standards.

This may perhaps be due to the increased interest shown in the gifted child as mentioned by Paul Witty.[64] However, as early as 1941, Weglein[65] had argued that the

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[63] N. Keys, "The Underage Student in High School and College," quoted in Encyclopedia of Educational Research, ed. C. W. Harris (1960), p. 587.

[64] P. Witty (ed.), The Gifted Child.

[65] D. Weglein, "Administrative Problems in the Education of the Gifted," Teacher College Record, XLII (1941), 428-431.

gifted should have some freedom of choice among these programmes. Some favoured acceleration over other methods of promotion, whilst Wilson,[66] from a questionnaire study, found that half of the respondents favoured acceleration to the same extent that Terman does. The real significance of this research is that nearly 50 per cent of all the respondents favoured some acceleration. Birch[67] found that gifted children admitted to first grade before the age of six were superior later, as rated by teachers and the administrators. In this study a school system experimented and followed up the adjustment and progress of forty-three mentally advanced children who were accelerated one full year in school age-grade placement by admitting them early to first grade.

A summary of studies in this field was prepared by Worcester,[68] who greatly stressed the value of acceleration. One value is the avoidance of duplication in courses. Goodlad and Anderson[69] describe effective ways

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[66]F. T. Wilson, "Educators Opinion about Acceleration of Gifted Students," School and Society, LXXX (Oct., 1954), 120-122.

[67]J. Birch, "Early School Admission for Mentally Advanced Children," Exceptional Children, XXI (Dec., 1954), 84-87.

[68]D. A. Worcester, The Education of Children of Above Average Mentality (Lincoln: University of Nebraska Press, 1955).

[69]J. J. Goodlad and R. H. Anderson, The Non-graded Elementary School (New York: Harcourt Brace & Company, 1959).

of organizing the elementary school for instructional purposes and emphasize that the task of the school is to facilitate the continuous development of the child by a proper curriculum.

An alternative practice is known as "ability grouping" or homogeneous grouping. As defined in the Dictionary of Education, homogeneous grouping is "the classification of pupils for the purpose of forming instructional groups, having a relatively high degree of similarity in regard to certain factors that affect learning." Homogeneous grouping includes all efforts to improve the teaching and learning environment through refined classification of the pupils, hence ability grouping results in homogeneous grouping.

In the U.S.A. the practice of grouping dates back, at least, to 1867 where it is believed to have originated in St. Louis. Since then many different schemes and a wide variety of programmes and practices have emerged, involving some kind of selection of students to improve the teaching. Harap[70] reported in 1936 that ability grouping was the "most common method of adjusting learning to individual differences." Turney[71] pointed out the

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[70]H. Harap, "Differentiation of curriculum practices and Instruction in Elementary Schools," The Grouping of Pupils, Thirty-fifth Yearbook of the N.S.S.E, Part I (Bloomington: Public School Publishing Co., 1936), pp. 161-172.

[71]H. A. Turney, "The Psychological Basis of Grouping," via Ibid., pp. 81-116.

purpose of ability grouping and discussed the bases of grouping under such headings as physical development, intelligence, achievement, motivation, social maturity and special abilities and interest.

The question of the relative advantages and disadvantages of ability grouping have been raised many times in the last forty years; the results are inconclusive. The discussion about grouping began as early as the 1920's and reached its climax in the 1930's. The National Society for the Study of Education[72] devoted a part of the 1936 Yearbook to a comprehensive discussion of the practical and experimental nature of ability grouping. The topic is still controversial. The studies by Miller and Otto[73] in 1930 concluded that unless adaptation of methods and materials, a necessary correlate to ability grouping, had taken place, then ability grouping was not effective and that there was no clear-cut evidence that homogeneous grouping was advantageous or disadvantageous.

Goodlad[74] commented that the most controversial

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[72]G. M. Whipple (ed.), The Grouping of Pupils, Thirty-fifth Yearbook of the N.S.S.E., Part I (Bloomington: Public School Publishing Co., 1936).

[73]W. S. Miller and H. J. Otto, "Analysis of Experimental Studies in Homogeneous Grouping," Journal of Educational Research, cited by A. H. Passow, "The Maze of the Research on Ability Grouping," The Educational Forum, XXVI (March, 1962), 284.

[74]J. I. Goodlad, "Classroom Organization," Encyclopedia of Educational Research, ed. C. W. Harris (1960), pp. 223-225.

issue of classroom organization in recent years is whether students should be grouped together for instructional purposes. He further observed that studies made since the 1930's have not added to the clarification of the problem.

One of the reasons for this is that studies have differed widely in quality, purpose and significance and that studies raise more issues than they settle. The difficulties in generalizing from the research findings have been due to a variety of reasons, some of which have been stated by Passow.[75] The studies have varied considerably in scope, in aim and purpose. They also differed in their organization, size of the samples and techniques. They ranged from a few months to more than a year. Some were based on methods and some on curricula. Many questions based on homogeneous groupings still remain unanswered. Passow observed that comparative studies of gifted students in regular and special classes on all educational levels tend to be more uniform in denoting beneficial effects of the special class on academic, personal and social growth. In another article,[76] he quotes Billet who reviewed some one hundred and forty articles and found that some studies were favourable to

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[75]H. A. Passow, "Enrichment of Education for the Gifted," Education for the Gifted, Fifty-seventh Yearbook of the N.S.S.E., pp. 193-221.

[76]H. A. Passow, "The Maze of the Research on Ability Grouping," The Educational Forum, XXVI (March, 1962), 283.

grouping, some unfavourable and some doubtful. Billet's own conclusion, apparently, was that homogeneous grouping did not in practice produce homogeneity but only reduced the heterogeneity.

One of the criteria used for grouping is I.Q. but it often seems that the group selected by I.Q. is not initially high achievers, but it may be possible that their being together will increase their achievement. Goldberg,[77] in her study of three thousand fifth grade children in 45 schools of New York, concluded that classes including a wide range of abilities showed the largest increase in academic achievement. That is, the lower ability children scored higher if gifted children were in the room than children without gifted children in the classrooms. The gifted showed no significant difference due to grouping. She also showed that gifted children prefer to be in special classes. Daniels[78] concluded after testing 400 children for four years, that non-streaming significantly increases the average I.Q., also the mean score on reading and on an English test, and increases the level of arithmetic attainment. He indicated that slower members of the class gained most by non-streaming.

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[77]M. L. Goldberg, "Recent Research on the Talented," Teacher College Record, LX (Dec., 1958), 150-163.

[78]J. C. Daniels, "The Effect of Streaming in the Primary School," British Journal of Educational Psychology, XXXI (1961), 69-78.

The evidence of the effects of streaming on emotional adjustment are inconclusive. There is some British evidence that a thorough system of streaming causes anxiety and maladjustment but in the American studies partial segregation of the gifted seems to have had no harmful effects.[79]

Bernstein[80] surveyed elementary and junior high schools and found acceleration and rapid advancement or grade skipping very common. Enrichment in regular classes was the most frequently mentioned procedure but there was increased interest in special classes.

Conant[81] surveyed comprehensive high schools in 26 states. He found that the main objectives were fulfilled only by eight schools. He listed the aims as a general education for all future citizens, adequate electives for those who wish to use their acquired skills immediately on graduation. He found that the academically talented did not perform to the limit of their ability and the programmes did not provide enough scope for them. He made many suggestions with respect to the gifted

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[79]I. Sarnoff, F. F. Lightfall and K. S. Davidson, "Test anxiety and the Eleven Plus Examination," British Journal of Educational Psychology, XXIX (1959), 9-16.

[80]D. Bernstein, "The Nature and Extent of Educational Provisions for the Gifted in Selected Elementary and Junior High Schools," (Unpublished Ph.D. Thesis, Northwestern University, Evanston, 1957).

[81]J. B. Conant, The American High School Today.

children, but only his ninth and tenth recommendations are directly related to them. He proposed that a programme of 18 courses be taken in the four years of high school. It would include four years of mathematics, four years of one foreign language, three years of science, four years of English, and three years of social studies.

In his next book Conant[82] raises the question of the ablest students in the public schools. He suggests that the comprehensive high school can deal with the whole spectrum of abilities and interests commonly found in the community and that a comprehensive school with all varieties of interests can provide a real intellectual challenge for the able.

Advanced Placement programmes related to college preparation in the final years of high school study have recently gained attention. They are probably unique to the U.S.A. Specifically, Early Admission and Advanced Placement were investigated intensively. It has been said that the programme helps in improving the high school curriculum and establishes a closer and better articulation between high school and college. The Fund for the Advancement of Education[83] evaluated its programme of Early Admission to College based on high school programmes,

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[82]J. B. Conant, The Child, the Parent and the State (Cambridge: Harvard University Press, 1959).

[83]Fund for the Advancement of Education, They Went to College Early.

scholastic tests, achievement tests, social and emotional maturity tests. The scholars were not more than 16, and were from cities or suburbs, public schools and from a middle socio-economic level. The comparison group had completed high school and were two years older but were equal to the scholars on various scholastic aptitude test scores. The Fund came to the following conclusions:

1. The programme was considered successful and the parents and principals spoke in favour of it.
2. The scholars were found better academically, as compared with the comparison group.
3. The scholars encountered greater adjustment problems but resolved them sooner.
4. More of the students of the first group went to college than from the comparison group.

This plan, encouraged by the Ford Foundation, is sponsored by the College Entrance Examination Board which provides high schools with description of college courses in twelve fields and prepares examinations in them.[84]

An early study of the outcome of the Advanced Placement programmes was made by Breinan,[85] who worked

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[84]Fund for the Advancement of Education, Research Division, Bridging the Gap Between School and College, Evaluation Report No. 1 (New York: The Fund, 1953).

[85]A. Breinan, "The School and College Programs of Admission with Advanced Standing," High Point, XXXVIII (Dec., 1956), 13-23.

with students from the Bronx High School of Science. In their first year of college they revealed academic advantages from their high school courses, as well as better social adjustment to college, but found problems in the curtailment of extracurricular activities, and showed some neglect of their other high school courses. Further studies are likely to be made by the College Entrance Examination Board, and The Ford Fund is expected to produce a report covering the working of such a plan during its first ten years.

CHAPTER III

PROVISIONS AND PRACTICES FOR THE EDUCATION OF THE GIFTED IN GENERAL

During the 1950's the concern for the education of the gifted intensified. The recent public interest in the special education of the gifted child in the United States is due to a number of national and international situations. Schools have tried to incorporate many kinds of programmes and have tried to identify their abler students. There are many schools with no provision for this group and there are many which do the same thing but use a different terminology. In the literature one would find much overlap among the practices. The following terms appear frequently: Acceleration, Grade skipping, Grouping, Segregation, Early Admission, Total Ability Grouping, Partial Ability Grouping, Talent Sectioning, Honours Classes, Advanced Placement Programs, etc.; but on the whole provisions can be listed under the three main headings - (1) Acceleration, (2) Enrichment, and (3) Ability Grouping. Practices and provisions will be discussed under these three headings, and with respect to the United States, to Canada, and to England.

Acceleration

Acceleration is defined as "modification of a regular program if it enables the students to progress more rapidly and to complete a program in less time or at an earlier age than is normal."[1] Acceleration methods include combining two years' work into one, three into two, eight into seven, either according to subject or to grade, skipping a course or a grade, taking extra courses for additional credit, attending summer sessions to save time, giving college credit for work done in the high schools, permitting college credit by examination or allowing early admission to a more advanced college level. Acceleration is a process commonly encountered during the traditional twelve year sequence of elementary grades, junior and senior high school and in the four years of college.

The literature is replete with the pros and cons of acceleration as an administrative device. It assumes certain advantages such as that the rapid advancement prepares them for their career more fully, through allowing them to finish education early, so that they have more years ahead for creative work and leadership. It assumes that if students are not accelerated it may not motivate them sufficiently, leading to useless delay in their professional training.

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[1]H. A. Passow, "Enrichment of Education for the Gifted," Education for the Gifted, Fifty-seventh Yearbook of the N.S.S.E., 1958, p. 212.

Passow has listed among the advantages that it allows students to meet educational requirements in the shortest time; it allows them to enter productive careers earlier than would otherwise be possible; it avoids emotional maladjustment by providing challenges for their potential ability; it makes learning possible in other areas of interest. It saves time in schooling, so it will lead to lowered cost and significant saving for students, parents, schools and communities.[2] One authority has estimated that in the U.S.A. every year there remain in the secondary schools around 300,000 students whom a reasonable programme of acceleration would have graduated. Such a reduction in enrolment would involve substantial savings, which might more than provide for the suggested special counselors for the gifted.[3]

Ability Grouping

Ability Grouping gained acceptance in the 1920's but was not actively encouraged. Many times its use is not clearly understood. For a long time the Cleveland Major Work Program of special classes was the only example of special grouping. Where we find streaming we find grouping - a practice common in England and Canada too.

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[2]H. A. Passow, Ibid.

[3]S. Pressey, "Concerning the Nature and Nurture of Genius," Educating the Gifted, J. L. French (ed.) (New York: Henry Holt & Co., 1959), p. 18.

Sometimes grouping is established purely as an administrative convenience. Barbe[4] reminds us that grouping is not just for gifted children. Other children are also grouped into average and slow learners. Many times it is an administrative plan, and may not assure the gifted child a better education. The function of grouping in elementary schools may not be the same as in high school. The idea behind grouping is that it decreases the range of abilities of the students and therefore makes it easier to enrich the content.

Grouping on the basis of I.Q. is well known, and ability grouping which includes the concepts of special classes or partial or complete segregation may need little attention. Some schools believe that the ablest students should learn with other classmates for a part of the day, so they have inaugurated programmes which place gifted children in segregated classes for academic subjects while assigning them to heterogeneous groups for non-academic subjects. This helps them to live with others from whom they may differ widely. Some schools have utilized subject matter grouping on the principle that even gifted students do not excel equally in all subjects. Often subject matter grouping is merely a result of offering elective subjects, or as a device to overcome certain difficulties with the school time-table.

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[4]W. B. Barbe, "Patterns of Grouping for the Gifted Child," The Education Forum, XXXVI (May, 1962), 464.

Enrichment

The basic assumption in educational adaptation for any special group is that the differentiating learning characteristics of the group should be respected. The learning characteristics of the gifted were early defined by Terman and others as ability to handle abstract concepts with unusual facility, with a steady progression from simple or first order concepts to second order concepts.

> A learning program for gifted students should stress forming abstractions or generalizations and the relationship among generalizations teaching should therefore be based largely on psychological principles derived from studies of meaningful organization, logical learning, problem solving. These principles should be used both in the selection of focal points, for content and as guides for the interaction of teacher and student.[5]

So enrichment can be defined as, "a process of systematically organizing, relating and generalizing a given subject matter around selected concepts often interdisciplinary, yielding maximum subject matter clarification, transfer and general knowledge integration potential."[6]

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[5] L. M. Lessinger, M. Seagoe, "The Nature of Enrichment for Gifted Students," The Journal of Educational Research, LVII (Nov., 1963), 142.

[6] Ibid.

1. U.S.A.

Acceleration - Elementary Schools

Whereas fifty years ago educators were trying to keep young people in school for longer periods, nowadays much effort is being directed to accelerating the brighter children through the grades. One promising practice is by means of the ungraded, or nongraded school. Children enter at the usual age, not to grades but to programmes which are fitted to their abilities. In such a school children of different age groups are found in the same programme. The work of the primary section may well be completed in three years. The Milwaukee (Wisconsin) system has probably the best known ungraded system but Appleton, Wisconsin; University City, Missouri; Park Forest, Illinois; La Junta, Colorado; and Marysville, California; also use the above system in their schools.[7]

In schools that use the graded system of administrative organization, various plans are used to allow students to study subjects at a more rapid pace. There may be sub-groups in the same class with each group working at its own level. This is more common in arithmetic. A start is made in the Vth Grade, and the normal eight-year programme is finished in seven years. The practice is common in the public schools of Portland, Oregon.

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[7] C. Williams, "Acceleration, Some Considerations," Educating the Academically Able, L. Crow and A. Crow (eds.), p. 93.

Another type of acceleration requires the co-operation of teachers in two adjacent grades. The work of one grade is finished in two-thirds of the school term and the work of the next grade is started during the remainder of the period. When they are promoted to the next grade the second teacher starts where the pupils left off, instead of beginning the second grade. In this manner, three years of work are accomplished in two, and no gaps are left in the educational background of students.

One of the common practices has been admission at an early age without shortening the length of formal schooling. In many communities early admission has been studied, as in Brookline, Massachusetts. Hobson recommended that children be admitted to kindergarten at age four years, nine months, and to Grade I at five years, nine months. Children should be admitted to kindergarten on trial at the age of four years, three months, and to Grade I at five years, three months, but all trial admission should be subject to the approval of a physician.[8]

Programmes for early entrance to kindergarten on the basis of intellectual ability have been used successfully in Massachusetts, Pennsylvania and Nebraska. In Hunter College Elementary School, gifted children are

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[8] J. Hobson, "Mental Age as a Workable Criterion for School Admission," Elementary School Journal, XLVIII (Feb., 1948) 312-321, cited in Elementary Education, N.E.A. publication, Washington, 1961, p. 83.

admitted to the kindergarten between ages four and five.

In other classes of Hunter College Elementary School, two modifications of acceleration are used: (1) acceleration through skipping grades; and (2) acceleration through sequential but rapidly paced learning. The first practice involves putting a mentally gifted child ahead of his age level and the second type of acceleration results in moving gifted children ahead at an accelerated pace throughout the school years. It is recognized that both systems have some advantages and disadvantages.

It is interesting to note here that in the Major Work Classes in Cleveland, no acceleration is used as it is believed that a child may be advanced educationally whilst physically, emotionally and socially he is still immature.

Acceleration - High School

Acceleration has not been a common practice in the high schools of the U.S.A. It has been a highly controversial issue. Where it has been adopted it appears to be confined to mathematics and to reading. In the former two general plans have emerged. In one of these VIIth and VIIIth Grades arithmetic are taken in one year to allow the more able student to take algebra in Grade VIII, an advance of one year. This advantage is then maintained throughout the remainder of his high school course in mathematics.

In some cases acceleration takes place in Grades X and XI. In both plans the superior students complete the conventional high school mathematics programme at the end of Grade XI. This permits the students to take college level mathematics and so college credit and Advanced Placement is possible.[9]

In the area of reading, advanced work is permitted to gain speed and increase comprehension. The programme is designed to make better readers out of good readers. Plans on an elaborate scale have been in operation at South Side Junior High School in Sheboygan, Wisconsin; St. Paul, Minnesota; and Central High School in Chattanooga, Tennessee.

Enrichment - Elementary School

Of the three methods mentioned earlier, classroom enrichment seems to be the most widely applied in the U.S.A. The method can be used in any school. It is felt by many that classroom enrichment will lead to the best adjustment socially and emotionally. It will also lead to stimulating other children in the class and may lead to individualized instruction. It is certainly true that individual enrichment is relative to the child's ability, to his achievement and experience.

As early as 1868 St. Louis had adopted enriched

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[9] L. A. Fliegler, op. cit., pp. 89-92.

programmes, under the control of the teachers but within the syllabus set by the School Board. Here, the standard curriculum is still supplemented for children who are academically superior. In the last two years of the elementary school the children are placed in what are called Informal Groups.

In San Diego City schools since 1949, a number of elementary schools are designed as Instructional Study Centers, and with the help of consultants, enrichment takes many forms. In Portland the talented pupils receive enrichment in the seven areas of art, creative dance, creative drama, creative writing, music, mechanical talent and social leadership. This may take place in a Homeroom Enrichment Program or in Special Interest Classes.

In special classes where the selection of children is usually on much the same basis as in special schools, children are grouped together for the subjects according to their intellectual ability, but remain with their age group in music, art and physical education. The special class is the result of partial or complete segregation of the children. Often it is found to be at the level of Grade VII or Grade VIII, and often it offers instruction in a foreign language. Cities such as Indianapolis (Indiana), Portland (Oregon), Pittsburg (Kansas), and Scarsdale (New York) have such an arrangement. A world language class at the Hudde Junior High School in Brooklyn,

New York gives gifted seventh grade pupils an orientation in five foreign languages. An Honour English Class at Halsey Junior High School in Forest Hill, New York spends most of the time in creative writing.[10] Special enrichment classes for those talented in science or mathematics are not found in junior high schools as much as those in languages.

Several schools have outstanding programmes that provide exploratory experiences for all pupils and the gifted are encouraged to sample a variety of extra class activities. The exploratory hour is a part of the daily programme at the Junior High School in Cedar City, Utah, where the pupils select a different extra activity each semester.[11] Allentown Public Schools, Pennsylvania; Cleveland Public Schools, Cleveland; Palo Alto Unified School District, California; also provide all-round enrichment in their schools.[12]

Enrichment - High School

In high schools the approaches to enrichment have been varied, taking the form of special assignments, projects (either individual or group, often in scientific

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[10]E. M. McWilliams, "Enrichment Practices for Gifted Junior High School Pupils," Educating the Gifted, J. L. French, ed., p. 176.

[11]Ibid., p. 183.

[12]National Education Association, Elementary Education and the Academically Talented Pupils, p. 43.

subjects), free choice activity, through the provision of more books or laboratory equipment, extra depth assignments and through participation in summer schools.[13]

When a large high school offers an enriched curriculum, it contains elective and honours courses. For example, the New Trier Township High School at Winnetka, Illinois, offers fourth year English courses in world literature, advanced dramatics, debating and public speaking. An outstanding science programme is provided by the North Phoenix High School, Arizona, which offers enriched opportunities in the regular science classes and the "advanced" classes for those who want it.[14]

Some high schools operate a combination of ability grouping and enrichment.[15] Des Moines has a three track plan with basic, general and advanced tracks. Each track has its own textbooks and instructional material. In California in San Mateo High School a new introductory physics course has been developed by three Harvard University professors, suitable for most bright students including the gifted students.

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[13]M. Freehill, Gifted Children: Their Psychology and Education (New York: Macmillan Co., 1961), p. 218.

[14]R. DeHaan, and R. J. Havighurst, Educating Gifted Children, p. 106.

[15]The Inter University Committee on the Superior Student, "Programs for Superior Student in High Schools," The Superior Student, VI (Nov.-Dec., 1963), 50.

Indiana University offers superior high school students a ten-week seminar session abroad in foreign language training for French, German and Spanish. It is conducted by the University but is exclusively for students from secondary schools. All students must have been studying the foreign language concerned for three years before they apply.

In San Diego City schools there are three experimental programmes for "first order gifted" children with a minimum intelligence quotient of 160 in elementary, junior and secondary high schools. The consultants and the co-ordinators work directly with teachers and administrators, and with the curriculum service division in planning the general instructional programmes for gifted. The gifted children in secondary schools are placed in advanced courses, which lead in the Grade XII to honours courses.

New York offers honours or advanced sections in public high school. Such sections may function in one of three ways: (a) usual academic subjects, but extended to encompass more material, or offer (b) unusual academic subjects as psychology, economics and computer mathematics, (c) seminar groups, where students are expected to read, think and discuss on the college level and work independently between seminar meetings.

Honours programmes are also common where the students may get credit for advanced work and early

admission to college. Such programmes are practiced in Kansas, New Jersey, New York, North Dakota and Oregon. In Colorado honours classes for students are available in English, history, science and mathematics. In Denver honour programmes for high school students are in five areas - mathematical analysis, a science seminar, theoretical and applied chemistry, humanities and senior English. Such a practice is common in Arkansas also.

In most schools of these kinds the educators attempt to meet the needs of pre-college honours students. Some programmes are established with the help of the universities, but most of them are administered by the schools themselves - the State Department providing the structures. Many are in the form of Advanced Placement Programs or Summer Courses.

Ability Grouping - Elementary School

The United States office of Education Survey of the practices and policies of elementary school administration and organization published in 1960 noted that the methods of grouping and assigning pupils for instructional purposes represents another area of timely interest and one on which there is a great deal of public and professional discussion. The survey indicated that in elementary schools only 16.9 per cent had a basic policy of homogeneous grouping in Grades I to VI; 34.4 per cent

grouped homogeneously in Grades VII and VIII.[16] Among those who now group heterogeneously 40 per cent say they will move towards homogeneous grouping, whereas about 8 per cent who now group homogeneously suggest a change towards heterogeneous grouping.[17]

In the elementary schools there may be found the practice of separating the gifted children partially or completely. In one case they may be taken out of the regular classes and given enrichment in areas which are not part of their regular course. In some cases they are partially segregated, being grouped into separate sections for academic type studies but remaining in regular classrooms for non-academic studies. In the Colfax Plan in Pittsburgh, half of the day is spent in the segregated academic setting and the other half day with the regular class.

The special classes for gifted children in Cleveland have been in progress for the last thirty years. The important characteristic of this plan is the Major Work Program which is based on enrichment and is in operation in twenty different elementary schools plus

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[16]Passow, "The Maze of the Research on Ability Grouping," The Educational Forum, p. 282.

[17]D. Stuart, "Elementary School Organization and Administration," Bulletin No. 11 of the U.S. Office of Education, Washington, 1960, via Ibid.

three junior high schools and three senior high schools.[18] Each elementary school Major Work Class includes three grades and the usual combination is Grades II, III and IV or Grades IV, V and VI. At the high school level, there is only one grade in each class. There is no acceleration or double promotion in Cleveland schools. The children take part in all the school activities; there is vertical fluidity and give and take among different ages. Within the classes the work is not generally different from that in other classes, for the purpose is to provide a situation in which the children actively participate in every learning situation to the limit of their ability.[19]

Selection for Major Work Class is based on a group test of intelligence given to every child in the Cleveland public schools. Possible students are given Stanford-Binet individual intelligence test, and a student with I.Q. of 125 or above is recommended for the Major Work Program.

The Colfax Plan is based on the belief that grouping for learning is advantageous for all children. The mentally superior children are grouped together for a part of each day to read, to discuss, to work, to plan,

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[18] W. Barb, and D. Davis, "Special Classes for Gifted Children in Cleveland," Educating the Gifted, J. French, ed., p. 221.

[19] Hall, Gifted Children - The Cleveland Story, p. 226.

and to execute together at any pace. Half the day is devoted to the workshop. The children spend the other half in the regular classes. Workshops are usually four periods a day. The term "workshop" designates the room to which these children go and is used to avoid the impression of being something better than the rest of the school might have. It is not a method of teaching.[20] Standards are developed by each workshop group and vary with the ability of the individual group. The Colfax Plan operates in Grades I through VI, with over 1000 children. The workshops are organized into the schedule and the enrichment teacher is the academic teacher of the group.

The courses of study are specially adapted for use in workshop classes. Both individual and group projects of creative and research experience are used. Training children in the techniques of research is an essential aim of the workshop programme. The Colfax Plan, through its workshop, provides mentally superior children with three essential experiences: (1) group activities, (2) individual activities and (3) projects and drill in mental skills.

In some schools the gifted students may be segregated completely in a special class under the supervision of one teacher, for the entire day. Even in Cleveland the gifted group works by itself. Other large cities such as

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[20]D. E. Morris, "Programs in Elementary Schools," Education for the Gifted, Fifty-seventh Yearbook of the N.S.S.E., p. 241.

Chicago, Los Angeles, New York, have special classes.[21] It is felt that such arrangements facilitate adjustment in the curriculum and reduce the range of mental abilities in the class.

The most elaborate provision is the special school where students of high intelligence are admitted. These schools usually are private rather than public and they are connected with the college for research or demonstration purposes, e.g., Hunter College in New York. The children here come from families of many varied national origins and racial divisions within the specified attendance area. There are as many as 45 ethnic groups - but most of the children are born in New York City.

A school may set up an accelerated programme for all its students, e.g., the University of Chicago Laboratory Schools, which cover the usual eight years' work of elementary school in seven years and so students graduate a year earlier from high school. The programme is one of acceleration and enrichment combined.

Baltimore has two junior high schools in which bright pupils do the work of three years in two years. New York City has a number of high schools such as Stuyvesant, Brooklyn Technical, Bronx High School of Science and the High School of Music and Art.

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[21] L. Lucito, "Gifted Children" Exceptional Children in the Schools, L. M. Dunn (ed.), p. 217.

Ability Grouping Through Enrichment - High School

The practice most commonly encountered in the U.S.A. is one of enrichment of all the subjects or a few subjects, though most of the programmes are in the experimental stage. The enriched curriculum is provided with the aim of increasing the range of knowledge and skills of the students, developing power to judge, developing increased ability to share in undertakings and to develop leadership. "Enrichment is now strictly speaking a technique, rather it is the whole key to the effective handling of gifted children," and "so the major purpose of enriching the school program for highly intelligent children is to stimulate and foster optimum development commensurate with their abilities and compatible with their interests and needs."[22] This often leads to separate groupings.

Enrichment has been provided in two ways: (1) enrichment in depth, which means enabling the students to delve more deeply into certain curricular areas; (intensive or vertical enrichment) and (2) enrichment in breadth, enabling children to pursue areas not touched upon by the average student in the regular classes, and often given in the form of elective subjects (extensive

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[22]National Education Association, Administration for the Academically Talented Students in the Secondary School (Washington 6, D.C.: National Education Association, 1960), p. 83.

lateral or horizontal enrichment).

Some schools do not have rigid programming and though a student is regularly enrolled in a course, he is permitted to be absent from the classroom during a specified number of periods each week in order to carry on an approved individual programme of independent research. Often the research or special project is directly related to the course from which the student is periodically absent.

Some communities supplement the regular school programmes with summer courses for selected students. The work offered includes advanced courses in physics and chemistry, mathematics and advanced social studies. Besides this the programmes have ranged from homogeneous grouping to more feasible three-track and even four-track systems, such as those in San Angelo (Texas) and Washington (D.C.). At San Angelo where each subject is taught on three or four different levels, or tracks, the student is placed according to his special accomplishment. Under this plan a student gifted in mathematics will be on the "top rail" in the subject while on the "average rail" in another subject in which his achievement is average.[23]

Just as there is the Hunter College Elementary School, there is also the Hunter College High School,

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[23]The Inter University Committee on the Superior Student, "Ideas and Superior Student," The Superior Student, I (Jan., 1959), 2-3.

mainly for gifted girls with an average I.Q. of 150 or above, or the top one per cent of the population. Besides this there are nearly a dozen or more such schools in New York City, including the Bronx High School of Science, Brooklyn Technical High School, and James Madison School. The students for these special schools are selected on a procedure developed by each of the special schools. The test devised by Irving Lorge of Columbia University is continuously refined and improved over the years for selection purposes. In high schools there may be recognition of high ability without segregated classes, except that there is restricted admission to honours programmes, often held outside the school - or on Saturday in the school. Most of these form part of an Advanced Placement Program. For example, Arkansas offers two college courses taken concurrently with high school work. In California there are a number of interesting Advanced Placement Programs. Indiana, Iowa, Kansas, Louisiana, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Vermont, Washington, Wisconsin, all have some kind of honours or Advanced Placement Program.[24]

Many states provide for academic grouping to facilitate honours programmes. In Colorado, ability

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[24]The Inter University Committee on the Superior Student, "Programs for the Superior Student in High Schools," The Superior Student, VI (Nov.-Dec., 1963), 32-71.

grouping in academic subjects starts in the VIIth Grade and continues through senior high school. Honours classes for students with scores at the 95 percentile are available in English, history, science and mathematics.

On the whole the U.S.A. has the greatest number of state and administrative units maintaining special education programmes for gifted children (Appendix A).

Advanced Placement Program - College and University

The U.S.A. has experimented and provided for its gifted students in colleges and universities in a variety of ways; current interest focuses around "The Advanced Placement Program."

In 1951 a study was organized by Gordon K. Chalmers of Kenyon College regarding the possible revision of requirements for the Bachelor's degree in order to encourage able students to pursue a liberal arts course at a pace appropriate to the student's ability and so a Committee on "Admission with Advanced Standing" was formed among twelve colleges.

The study was founded on three basic assumptions about American education:

1. That for the able students the American system wastes time.
2. That the best place for a school-age boy or girl is in school.

3. That the best teachers for adolescents are to be found in secondary schools.

The Committee agreed that Acceleration of able students into College after two or three years of high school is generally less desirable than Enrichment of teaching in the high school followed by admission to college with advanced standing at the normal age. Acting on this belief the study has planned the teaching in high schools of courses that are usually taught at the college freshman level. In 1953 those students who had received intensive instruction at the high school level and who had met the standard of the advanced examinations to be given in May 1954 were admitted to various colleges. The study contracted with the Educational Testing Service to administer the examinations in the experimental schools.

This led the College Entrance Examination Board to administer in 1956 its first Series of Advanced Placement Examinations in 12 subjects. By 1957 there were nearly 2500 students for Advanced Placement Examinations. Seventy-five colleges received Advanced Placement students in the fall of 1956. By 1963, 218,000 secondary school students sought advanced standing or credit for admission to the college of their choice. This is the ninth year that able secondary school students have taken college-level work in school and are seeking recognition of their

achievement by the colleges where they are admitted.[25]

So far, 13 examinations in 13 popular subjects are offered and the examinations are prepared by an independent committee of college and school teachers. All grades on the examinations are made by a committee of five teachers - three from the colleges and two from secondary schools. The examinations are reported on a five-point college level scale.

Part of the philosophy of the Advanced Placement Program is that a student should not repeat work which he has already covered adequately, so the committee has described courses that are likely to correspond with introductory courses at most colleges. These courses aim at maturity of approach and depth of coverage. It is also assumed that most Advanced Placement students to date have taken college level courses in school in only one or two subjects, and thus these students have <u>enriched</u> rather than <u>accelerated</u> educational programmes in both school and college.

Thus the Advanced Placement Program begins in a school where college level courses are given to able students. There is no formal membership but the school needs to have proper staffing and courses, and provisions

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[25]College Entrance Examination Board, <u>Advanced Placement Examination, Grade Report</u>, Education Testing Service, Princeton, New Jersey, May, 1963.

for selecting the students. This important implication of Advanced Placement has been noted by James B. Conant who wrote that this programme should be adopted "not only because of the benefits which accrue to the students involved but because it may well have a good influence on students of somewhat less ability by raising the tone of the whole academic program."[26]

In a more indirect way the programme has rendered a service to the schools by demonstrating the need for revision of courses. Subjects like mathematics and languages previously only taught in high school now receive attention and preparation in the junior high school. Conant, too independently has recommended that "standards in advanced courses should be such that those who enroll in such courses should demonstrate the ability required to handle these courses."[27] Reports[28] from colleges indicate that Advanced Placement students have done very well academically. These students have also maintained an above-average level of extracurricular activities in school and college. The Fund for the Advancement of Education still provides help in extending the area of

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[26]J. B. Conant, quoted in College Entrance Examination Board, A Guide to the Advanced Placement Program, Princeton, New Jersey, 1963-64, p. 16.

[27]J. B. Conant, The American High School Today, p.65.

[28]College Entrance Examination Board, A Guide to the Advanced Placement Program, p. 8.

these programmes, in Ohio, in Pittsburgh and the neighbouring rural areas, and in Oregon. Prestige universities like Harvard have incorporated into their admission procedures admission with advanced standing for students who have participated successfully in the Advanced Placement Programs.

It is not easy to summarize college policies toward the Advanced Placement Program because not only do colleges within the universities differ, but even the departments within the colleges vary. In the summer of 1963, Advanced Placement Examinations results were sent to 765 colleges. The largest group of candidates registered at Harvard and of this group more than 155 were eligible for sophomore standing.[29]

The following table shows the growing number of schools, students and colleges participating in the programme over the last eight years.[30]

Table I.

Year	Schools	Students Taking Examinations	Examinations Taken	Colleges
1955-56	104	1,229	2,199	130
1956-57	212	2,068	3,772	201
1957-58	355	3,715	6,800	279
1958-59	560	5,862	8,265	391
1959-60	890	10,531	14,158	567
1960-61	1,126	13,283	17,603	617
1961-62	1,358	16,255	21,451	683
1962-63	1,681	21,769	28,762	765

[29] Ibid., p. 19.

[30] Ibid., p. 8.

Honours Programs in Colleges

Besides the Advanced Placement Program there are many other kinds of programmes which the Fund for the Advancement of Education has helped. Within colleges, special provision for able students has usually taken the form of honours work - with many of the features of individual tutorial programmes. Formerly the honours programmes have been designed for students in the upper classes often only in the senior years, but now the honours programmes are intended to encourage extensive study during the four year period rather than to accelerate the progress of gifted students through the college course. In January, 1960, the Ford Foundation made a grant to Brooklyn College to assist in the development of a special academic programme for selected gifted students. Two per cent to three per cent of the entering freshman class each year will be freed from all formal course requirements to pursue a programme of studies especially tailored to the individual student. It is anticipated that many of these students will be able to complete the equivalent of four year college programme in three years.[31]

A new Honors Humanities Program at Seattle University will cover the first two college years with emphasis on an integrated study of four disciplines -

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[31]E. Paschal, Encouraging the Excellent (New York: The Fund for the Advancement of Education, 1960), p. 60.

Thought, Literature, Science and History. The University plans to concentrate on the development of the student's ability to read, write, listen, question, and speak with discrimination. The students, besides being of high academic ability and good student's record, will require a reading knowledge of a modern language and medieval Latin.[32]

Several programmes have been started in science and mathematics with support from the Fund for the Advancement of Education, from National Science Foundation and from state agencies. Some start from summer programmes. For example in Texas students carefully chosen for academic ability and interest in science and mathematics attended the college of their choice during the summer session, took courses from college professors and used laboratory and library facilities at college level. These courses were not taken for credit, but the students were able to pass Advanced Placement Examinations.

At Thayer Academy (Massachusetts) talented eleventh grade students participate in a 10-week summer programme and after an orientation session students work in the university and industrial laboratories for the next eight weeks under the supervision of the cooperating scientists. Chemistry, physics, biology and mathematics are the major field of research.[33]

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[32] Ibid., pp. 34-35.

[33] Ibid., p. 54.

The "School and College Study of General Education" established in 1951 attempts to integrate certain portions of basic academic work of the last two years of high school and the first two of college. The teachers in Harvard, Princeton, Yale and Andover, Exeter and Lawrenceville joined forces and worked out integrated course plans covering a four-year period in standard subject fields and the six institutions were enabled to identify students with superior competence and achievement in special fields and to provide for their acceleration and the enrichment of their studies.

The Portland Reed College programme is another example of school-college co-operation between the public schools of Portland, Oregon and the faculty of Reed College, to enrich the study opportunity of the exceptionally gifted.[34] This project includes not only the intellectually gifted and academically skillful, but those with talent in art, music, dramatics, dancing, creative writing, mechanical skills and comprehension.

It was revealed at a panel at Louisiana State University[35] that honours programmes in universities show wide variation. The Universities of North Carolina and

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[34]M. MacLean and R. Carlson, "College and University Programs for the Gifted," Education for the Gifted, Fifty-seventh Yearbook of the N.S.S.E., p. 325.

[35]The Inter University Committee on the Superior Student, "Honors Programs and their Rationale," The Superior Student, I (Jan., 1959), 8-9.

Virginia are well established though they need improvement. The Arkansas programme is in the fifth year. The University of Mississippi is without a traditional honours programme but it institutes upper division work for its talented students during their freshman and sophomore years. The Carnegie Corporation supports work at North Carolina and at Arkansas. The University of Virginia has a strong upper division honours programme especially in the form of an interdepartmental seminar that is open to carefully selected freshmen and sophomores. Texas pursues a policy of recruiting distinguished professors from other universities at retirement to conduct special seminars for such students.

Another programme in contrast to "Advanced Standing," the project on "Early Admission to College," is focused upon the acceleration of academically gifted students. Following the pattern long established at the University of Chicago, and adopted also by Yale, Columbia and Wisconsin, it admits students of sixteen and a half, normally in the junior or sophomore year of high school. This enables them to complete two years of college study before becoming eligible for military training. In the space of four years 1350 students, known as "Fund Scholars," were admitted. Their results have been reported in the bulletin, They Went to College Early.[36]

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[36]The Fund for the Advancement of Education, They Went to College Early.

The characteristics of honours programmes are that they are made flexible by establishing special courses, ability sections, honours seminars, with provision also for independent study. Advanced placement and acceleration serve in a contributory role. They provide standards and models of excellence for all students. There is an increased independent study, research and summer projects.[37]

Identification of the Gifted

Just as there is a multiformity of definitions of what constitutes giftedness so there is a multiformity of procedures for discovering and selecting the gifted child.

The Portland, Oregon, public schools adopted the broadest definition of gifted by including eight categories of giftedness. As a result those children are included who have intellectual talent, special aptitude in art, in music, creative writing, creative dramatics, creative dance, mechanical talent or social leadership ability.[38]

There is also a great diversity among school systems in the matter of quality of giftedness. Some include the top one per cent, some two per cent, some ten per cent and some twenty per cent. San Diego, California, for example, includes the top one per cent of the students

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[37]The Inter University Committee on the Superior Student, "Major Features of a Full Honors Program," The Superior Student, IV (Feb., 1961), 23.

[38]R. F. DeHaan, "Detection of Ability in America," The Gifted Child, The Yearbook of Education, 1962., p. 217.

of the total population.[39]

Nevertheless there are two main ways used in most schools for identification: (1) the standardized, objective psychological test; and (2) observations of teachers and parents.

A good screening programme needs a wide variety of tests to discover different talents and abilities. The simplest procedure is to establish a minimum cut-off point for each test. Some schools place the point at an I.Q. of 120, others at 130 or even at 140. Other schools use percentiles whilst some others use standard scores.

Some schools use group intelligence tests and some use the individual tests. Some use the Pintner-Cunningham Primary Test; others use the Kuhlmann-Anderson Intelligence test. These are used in elementary and intermediate grades. At the secondary school level tests specially designed for high school students are used, such as the Ohio State University Psychological Test. These tests measure general scholastic aptitudes. Recently intelligence tests called Multiple Aptitude Tests have been developed to measure some of the primary mental abilities as verbal comprehension, word fluency, numerical ability, associative memory, perceptual speed and reasoning. For this the Science Research Associates Primary Mental Ability Tests, the Differential Aptitude Tests, the

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[39] Ibid.

Guilford-Zimmerman Aptitude Survey and Terman-McNemar Test of Mental Ability, and the California Mental Maturity Test are widely used. It is not uncommon to find that, after having given a series of group tests, some schools still administer an individual intelligence test - either the Stanford Binet or the Wechsler Intelligence Scale for Children.[40]

According to DeHaan and Havinghurst[41] the good screening programme should have the criteria of being inclusive, systematic, efficient and flexible.

The following chart of screening practices will give the idea of the variety of procedures followed in identification as of 1959. The actual numbers will now be much greater.

Table II. Summary of Screening Practices in the U.S.A. in 40 School Systems.[42]

Kind of Instrument Used	Number of schools reporting use	Percentage of schools reporting use
Group intelligence tests	32	80
Individual intelligence test	12	30
Special aptitude test	3	7.5
Achievement test	21	52
Recommendations by teachers, principals or counselor	26	65
Previous school record	19	47
Records of health, physical condition	3	7.5

[40]R. F. DeHaan and R. J. Havinghurst, Educating Gifted Children, pp. 46-50.

[41]Ibid., p. 57.

[42]Ibid., p. 66

Group intelligence tests, recommendations by teachers, counselors and administrators and academic achievement tests are the most widely used screening instruments according to this survey.

Schools regularly use many achievement tests such as Metropolitan Achievement Tests, the Iowa Tests of Educational Development, the SRA Achievement Series, Co-operative General Achievement Tests and specialized tests in reading, arithmetic, language, arts, etc. These tests are very useful in personal guidance.[43] At this level also personality tests are used, of which the more popular are the SRA Junior Inventory Form S, the SRA Youth Inventory and the Kuder Preference Record - Vocational.

Different associations of administrators may each have their preferred method of selecting the talented.[44] The North Central Association, for example, recommends three techniques or procedures to identify gifted students. Standardized tests of ability, achievement and aptitude are to be used, past performance of students in schools are to be evaluated and teachers' observations and nominations are also required. On the other hand, the National Merit Scholarship Program, which finances the able high school students in college, gives a qualifying test of its own, and leaves the final selection to a panel of academic experts.

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[43] Ibid., pp. 46-57.

[44] Ibid., pp. 218-222.

The National Talent Inventory launched in 1959 gives a two-day series of tests to students of Grades IX and X. The tests include a broad range of aptitude tests, ability tests, measures of educational achievement in mathematics, English and other areas, measures of interest and personal characteristics.

At the college level, entrance may be determined by scores on the College Entrance Examinations. Internally, further selection may be on the basis of aptitude test scores.

Training the Teachers of the Gifted

Whilst many of the teacher training institutions in the United States offer courses for teachers of exceptional children very few of these courses are directed to the teachers of the gifted. Even where such courses exist very little is known about the quality of the courses offered.[45] Only two centres in the U.S.A. offer a course which lasts for a whole academic year, Hunter College and Pennsylvania State University. However, many institutions report some kind of training courses of shorter duration. A demonstration centre in three Southern California districts to demonstrate, teach and consult with teachers and administrators from other districts is functioning. In

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[45]U.S. Department of Health, Education and Welfare, College and University Programs for the Preparation of Teachers of Exceptional Children (Washington: United States Gov't. Printing Office, 1962), p. 11.

Evanston Township the demonstration centre involves a three-fold programme involving a demonstration, research and conferences.

Hunter College offers six years college preparatory course to girls under the general sponsorship of the Hunter College Department of Education. The Board of Higher Education has described this branch of the system as a laboratory school for the gifted. Student teachers electing to teach gifted children gain valuable experience in the Faculty of Education at Hunter College.

Little is known about the distinctive competencies needed by teachers of the gifted.[46] It is not surprising that special education personnel reported relatively few requests for teachers of superior students as the data collected by the U.S. Department of Education shows. The availability of teaching personnel was reported and availability of teachers for the gifted was seventh in the rank order.[47] It is felt that there is a need to study the specialized preparation needed by personnel who are to work in the teacher training programme.

The frequency of requests for qualified teachers in ten areas in their rank order in the U.S.A. is listed below in descending order of frequency of requests.[48]

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[46] Ibid., p. 35.

[47] Ibid., p. 6.

[48] Ibid.

1. Mentally retarded (most requested)
2. Speech handicapped
3. Deaf
4. Hard of hearing
5. Crippled
6. Socially maladjusted
7. Blind
7. Partially seeing
9. Special health problems
10. Gifted (least requested)

The availability of trained teaching personnel as reported by the U.S.A. Department of Education is given in descending order of difficulty in securing teachers.[49]

1. Deaf
2. Blind
3. Socially maladjusted
4. Mentally retarded
5. Hard of hearing
6. Partially seeing
7. Gifted
8. Crippled
9. Special health problems
10. Speech correction

These figures provide their own comment both upon the pressures of society's recognition of exceptionality and upon the way in which it fails to provide the means necessary for dealing with exceptionality as it arises.

Besides the provisions mentioned, many states have published materials, sponsored workshops and provided consultation services to provide for teacher training to teachers on a full time or a part time basis.[50] Kansas State Department of Education in 1955 initiated liaison

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[49] Ibid., p. 7.

[50] R. A. Martinson, "State Level Provision for the Gifted in the U.S.A.," Concepts of Excellence in Education, Yearbook of Education, 1961, pp. 348-350.

among local schools, the Department of Education, colleges and universities. Plans included seminar workshops, consultant sources and publication of materials.

In the State of Washington, the State Department of Education works co-operatively with colleges and universities to provide consultant services and in-service education for teachers of the gifted. There are training workshops. An advisory service is also provided to the schools. Consultation services are provided by the Education Departments in New York, Minnesota and Georgia where the consultants work in schools and plan special courses in the colleges and universities for the teachers of the gifted.

Ohio organized summer workshops extensively. The contents ranged from simple demonstration to consideration of problems of programme organization. Hawaii has a most comprehensive programme of teacher education. There is assistance in the form of workshops, resource help, demonstration teaching, seminars and publications. The director and the consultants work closely with school personnel in all grade levels, and hence Hawaii has evolved a varied and flexible programme.

By 1962, twenty-three states had assigned State Department staff members to begin educational planning for the gifted. Some states give full-time responsibility in this area while in other states teachers have heavy

assignments in other phases of education as well.[51]

Besides the teachers' programme many states conduct studies or provide subsidies for local studies or conduct studies in the school systems, so that the information may lead to a greater insight into ways of improving educational planning for gifted students. For example, State Department of Education in Ohio is directing many projects and field studies in its search for new information on identification, educational planning and teacher education. These range from evaluation of tests to evaluation of accelerated programmes and studies of family and personal dynamics associated with high and low achievements. Illinois, too, has many projects underway and some receive a State subsidy. The projects include such diverse topics as the effects of special grouping factors associated with underachievement and overachievement of gifted children, effectiveness of consultant activities and parent attitudes towards programmes. In the State of California the State Department of Education set up an extensive state-wide study in 1957 to survey the need for special programmes for intellectually gifted students, to determine the costs of such programmes and to analyze special benefits or problems arising from programmes.[52] On the basis of study results the advisory

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[51] Ibid., p. 348.

[52] Ibid., p. 349.

committee formulated recommendations to the legislature that funds be provided to educate the gifted more adequately.

2. Canada

It would be highly desirable that the same descriptive pattern should be used for Canada as for the U.S.A. but there is no simple one to one comparison between the two systems. However, the general division between elementary, high school and college will be followed.

In some respects Canada may claim that it has always recognized individual differences to the extent that its high schools, at least, have defined courses for the more able students, as many high schools have tended to become preoccupied with able students and measured ability in terms of marks in Latin and mathematics. In Ontario the establishment of collegiate schools has excluded the less able children from access to higher education. In Quebec a collège-classique has offered opportunities to a limited number of French speaking students who have been encouraged to see their vocation in the Church, in Law and in Medicine. The English speaking high schools in the province of Quebec have also stressed more academic courses and in many instances have become increasingly college preparatory high schools.

In recent years attempts have been made to include technical and vocational courses. There is no national plan in education. The key to the whole situation in Canada has stemmed from the concept of high school. The collegiate system has its effect on elementary schools and the whole pattern is wedded to the idea of promotion by grades. The above average reach the end of Grade XIII (Grade XII in Quebec).

In Canada much of the policy is the outgrowth of what school boards do and it is rivalry between the school boards that often produces change. The result is that what the larger school boards have done, smaller school boards will follow. Since this is so, it is in the larger school boards and the richest school boards that there are special provisions for the gifted. One would not find uniformity between school boards nor from province to province. Examples of such provisions are not many but attention will be directed to some of them.

Acceleration - Elementary School

Acceleration is very common in Canada in the elementary schools. It is an administrative arrangement that implies grade skipping or progress through sequential but rapidly paced learning. The system found most frequently is the "unit system" or "ungraded school system," where the school programmes are designed to implement a theory of continuous pupil progress. The unit system of

promotion has been common in Hamilton, Alberta, and especially in Edmonton. Effort is also being made in Montreal.

On the whole the following types of procedures have been tried in Canada in elementary schools.[53]

(a) The work of elementary grades is divided into levels or units and the pupils progress through them at varying rates according to their ability. The plan is limited to varying parts of elementary grades.

(b) Three different age groups remain in one class, and for about three years pupils remain with the same teacher.

(c) Pupils are allowed to work at different rates but the work is not divided into units.

Saskatchewan is the first Canadian Province to introduce a non-graded system in all schools under the province's jurisdiction.

The Edmonton Continuous Progress Plan began in 1957 and by 1960 it spread to many schools until all the elementary schools of the system are operating under the continuous progress plan[54] (Appendix B). The report indicates that the continuous progress plan is a simple

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[53]Public School Board, Edmonton, The Edmonton Continuous Progress Plan - A Modified System of Elementary School Organization, Teachers and Principals Manual, Third Draft, 1962, p. 2.

[54]Ibid., p. 1.

administrative method of classroom organization and promotion from which all students can expect to profit.

The work of six elementary grades is divided into 18 units as shown in Table III, or three units per grade. The unit division applies mainly to the skill subjects, reading, arithmetic and spelling.[55] There are no differences in the way the other subjects are handled.

TableIII. Showing the 6 elementary grades divided into 18 units.

Grade	I	II	III	IV	V	VI
Unit	1, 2, 3	4, 5, 6	7, 8, 9	10,11,12	13,14,15	16,17,18

On the whole the superior group completes 4 units (10-15 per cent of pupils). The average group completes three units (70-80 per cent) and the slower group will complete two plus units (10-15 per cent). Thus the six years work can be done in five years without skipping. The four units of progress of the superior pupil are restricted to the second, third and fourth years in school. There is a great deal of flexibility of the plan from one room to another.

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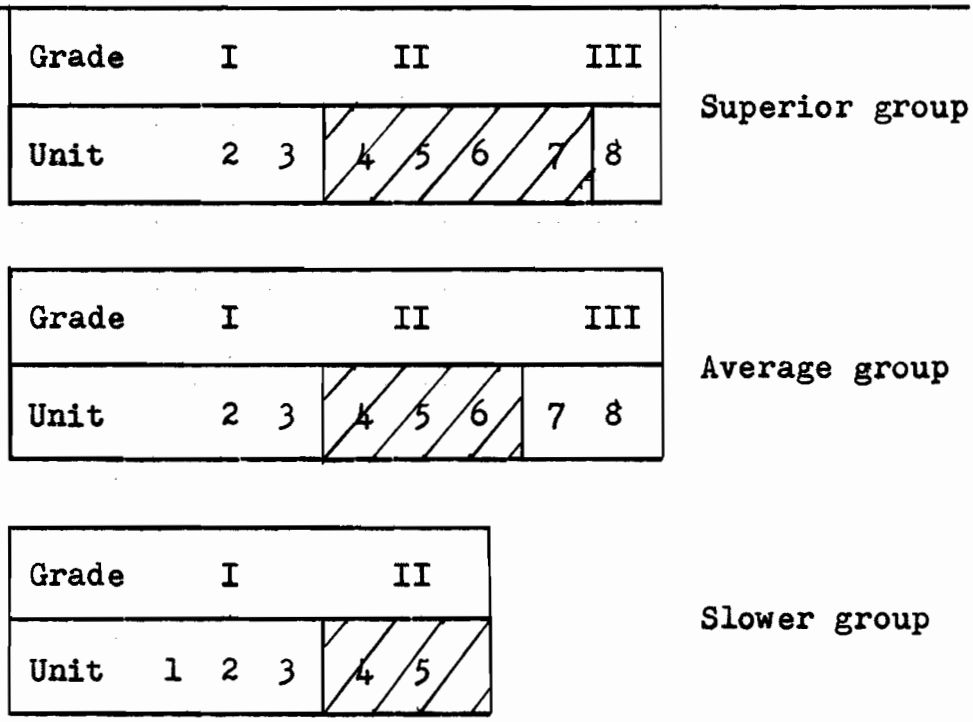
[55] Ibid., p. 4.

Table IV. Showing the achievement of the three groups in one year.[56]



The unit system of promotion is also used in Hamilton schools.[57] The plan is nearly the same as that of Edmonton. The work of the first six grades in the subjects of reading, spelling and arithmetic is divided into 18 units. A bright child covers 12 units of work in 3 years. The unit division of work is set up by a committee of competent teachers. It is felt that it allows for better opportunities of pupil placement, acceleration and enrichment.

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[56] Ibid., p. 5.

[57] J. W. VanLoon, "The Unit System of promotion as developed in Hamilton Schools," Canadian Education, XIII, (Sept., 1958), 46-51.

In Windsor the unit system of organization accelerates 15 per cent of its pupils in the elementary division and for this a very flexible type of timetable is followed.

The policy of the Toronto Board of Education with respect to acceleration is explained in one of its reports:

> All Toronto Schools practice acceleration for gifted children in some form . . . more gradual acceleration is desirable . . . seldom if ever is the gifted child accelerated more than one year in the elementary school. Acceleration by skipping is rarely practiced and then only as an expedient.[58]

The North York Board of Education accelerates approximately five per cent of students by letting them complete Grades VI, VII and VIII in two years.

Acceleration through early entrance to schools is not common, rigid regulations preventing early entrance to school. Skipping is universally condemned in Canada. There are a few places where acceleration is practiced subject-wise but in many other places the administrative difficulties restrict the practice.

In Saskatchewan acceleration is confined to Grades IV to VII where a student may complete the work of three grades in two years. To assist in this arrangement, a departmental committee engaged in the preparation of an enrichment guide was set up. There is a move towards the

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[58]Board of Education, Toronto, A Study of Education for the Gifted Child in Public School, Report of the Committee of the Toronto Board, 1954, p. 15.

establishment of special schools for gifted children in Canada, though no such school has yet been established.

In the case of Ottawa, courses of study have been prepared by Ottawa teacher committees in English, mathematics and in special subjects, making special provision for rapid learners. In some schools having several parallel grades, the brightest children of the grades have been placed in one class and given work according to their ability. In four schools one teacher was responsible for taking the same children through Grades I, II and III, and these bright children can complete the work of four years in three years without skipping any grades.

The plan as a whole was evaluated in 1956[59] in order to see what practices should be deleted, extended or added, and many suggestions were made. It is presumed that some of these have been implemented.

Acceleration - High School

The accelerated programme in secondary schools is not as common as ability grouping or enrichment. However, there are a few schools in Toronto that use this as a promotion device. This requires the completion of the five-year secondary school programme in a four-year period. The principals of eleven Toronto secondary schools instituted acceleration programmes at the Grade IX level in

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[59]Public School Board, City of Ottawa, Study of Our Gifted Children, March, 1956, p. 8.

September 1958. The schools involved were generally of an academic type, though one was a commercial and another was a technical high school.

The pupils chosen were to be 13 plus, intelligence above 125 I.Q., with a satisfactory achievement record and the class was to have 35 students. A total of 431 students was admitted in this acceleration programme. In 1960, two years after the programme was launched, a control group was selected to test whether accelerated students profit or not. There was not sufficient ground to reject acceleration as a suitable procedure.[60]

The result of the study showed that about 60 per cent of the accelerated pupils were doing excellent or above average work in Grade VIII. The study warranted the conclusions that, if wisely chosen, pupils profit from acceleration and that doing the work of three grades in two years or four grades in three years is the most favoured method of acceleration in junior level.[61] In addition, the parents revealed themselves generally in favour of acceleration.

As there is no standard accelerated programme for

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[60]M. J. Adler, L. E. Pass, and E. N. Wright, "A Study of the Effects of an Acceleration Program in Toronto Secondary Schools," Ontario Journal of Educational Research, VI (Autumn 1963), 3.

[61]The Board of Education, Toronto, Education for the Gifted, Section 4, p. 8.

these eleven schools, the character of teaching varied from school to school. The acceleration took place between Grades IX and XII, with Grade XIII following the regular pattern.

In West Vancouver, British Columbia, for nine years there has been an accelerated programme for the top 16 per cent of the student population, where the last four years of high school are completed in three years. The courses have been adapted, repetition removed, and teaching in depth encouraged. There is a plan in future in West Vancouver to change the accelerated programme for the gifted student, completing Grades VIII, IX and X in two years instead of three, instead of doing Grades IX, X, XI and XII in three years. Several years ago experiments in acceleration at the secondary school level were carried out in the Penticton and West Vancouver School Districts. These were partially sponsored by the Department of Education as pilot projects for the Province. Some are still continued today.

Enrichment - Elementary School

One of the most ambitious studies being carried on by a whole school system is in the Township of Etobicoke in Metropolitan Toronto.[62] The work started in 1955 when

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[62]Board of Education for the Township of Etobicoke, Public School Programme for the Township of Etobicoke, 1963, p. 6.

a committee was formed to conduct a workshop on gifted children to encourage enrichment classes, and to institute some system of identification of these children. A special service consisting of advancement services and special education services was set up. In advancement services the specialized programmes for very bright children are organized and classes are maintained for children who have indicated high intellectual potential, have consistently maintained high academic achievement and also have motivational drive to measure up to an educational challenge. In Etobicoke there are ten such classes, two for each grade, four to eight, with pupils, drawn from all public schools in the township, selected by an administrative board. These classes serve as laboratory classrooms in which material and methods are developed. Provisions are made for reading and language, creative writing and study of a second language.

The enrichment classes are an outgrowth of the advancement class programme but are separate from them. They are organized by the principal in consultation with the area superintendent. The organization may include the whole class or groups within a class. As to the nature of their instructional programme they are similar in scope to the advancement classes. Enrichment is by subjects. To add enrichment to the study of language an advanced reading programme is conducted. On the basis of pupil interest,

one or more groups of children with above average reading ability in a class may be organized to study with considerable care a book of juvenile fiction.

Toronto public schools reported 91 highlight programmes in 1958, but only 22 reported programmes exclusively for the gifted. The enrichment classes organized by the schools seem to be well organized. The teaching aid center works closely with teachers to offer special enrichment. The Hodgson plan with mixed grade enrichment classes has worked well. Most of the public schools in Toronto have special subject area enrichment.[63] The groups work under activities named weathermen, newsmen, authors, discussants, artists, scientists - each activity having a research project.[64]

In September, 1954, three special classes for gifted children, called Major Work Classes, were organized within the Winnipeg Public School System. By 1962 there were 25 classes at the elementary level and 23 classes at the junior high school level with a total enrolment of approximately 1100 pupils.[65] The Major Work Classes are

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[63]Ontario School Inspectors' Association, Education of the Gifted, Fourteenth Yearbook of the Ontario School Inspectors' Association, p. 62.

[64]Board of Education, Toronto, Education for the Gifted, Section V.

[65]N. Chidley, "The Program for the Gifted Children in the Winnipeg School Division," Canadian Education and Research Digest, II (March, 1962), 46.

drawn from several schools and through enrichment students are trained "to go deeper, range more widely and accomplish more than the average child in intellectual, social and cultural experience."[66] There is no single way or method of class teaching but the emphasis is given to socialized method. The work is planned in large units. The projects and research programmes are the same in elementary and junior schools. Winnipeg has kept a record of all the students of major work programmes. In 1958-59 an attempt was made to evaluate the programme and the findings supported the fact that these children were superior and scored better.

In Halifax a study of gifted children was conducted from October 1957 to March 1958. It was found that each centre was practicing what it considered best for the gifted children. As a result of the recommendation in 1959 the Halifax programme for gifted was inaugurated with two special classes offering an enriched programme to selected Grade VII pupils. A similar study conducted by the Protestant School Board of Greater Montreal indicated that enrichment was the common practice.[67]

In London, Ontario, advancement classes are common and the chief opportunities for enrichment come from the

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[66] Ibid., p. 49.

[67] F. P. Legrew, Canadian Programmes for the Gifted Children - A Comparative Study. Unpublished Masters Thesis, St. Mary's University, Halifax, 1960.

basic studies. Teaching methods do not differ significantly but teachers reported group and individual projects and assignments, oral reading and group discussions. The London advancement classes have been studied more extensively than any other Canadian programme. In May 1957, enrichment classes were provided in the Township of North York, Ontario, in addition to accelerated classes.

In the Province of Quebec, special classes combining the sixth and seventh under one teacher are found. The teacher is responsible for enrichment and both classes are taught by the same teacher. The pupils for these classes are brought from the surrounding areas, and are selected on the basis of an Intelligence test, Reading test and Arithmetic test.

As enrichment is provided in conjunction with acceleration ability grouping and special classes no data exists where its extent can be calculated. On the whole the tendency in each school is to act according to the policies of the school board and in the absence of state control, every school has its own philosophy in conducting enrichment classes in its area and by the method it considers to be the best. So far Canadian schools have not been as active as many American schools in promoting special giftedness in art, music, leadership, etc.[68]

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[68] S. R. Laycock, Special Education in Canada, p. 119.

Enrichment - High School

For a great number of years Forest Hill Collegiate in Toronto, Ontario has been interested in honours classes for students who have high academic ability. Such students are chosen in Grade IX on the basis of general learning ability, academic achievement, emotional stability and personal health. They receive advanced instruction in all subjects. The students, about 15 per cent of all students in the collegiate, are retained together and receive an enriched programme of studies from senior staff members.

High achievement is shown generally in two major areas (1) mathematics and science and (2) language. Enrichment is provided by extra seminars and projects. The classes are also allowed to write their Grade XIII botany and geometry examinations at the end of Grade XII. In the language option there is enrichment and acceleration in Latin and French classes. There is an honours class in instrumental music too. To offer more opportunity for a student in one honour field to participate in any other honour area an individual time table system on the pattern of Evanston and New Frier High Schools near Chicago, U.S.A. was evolved.

Because of the higher standards set by the staff for honours class students, and because of the acceleration and enrichment, the students are required to write different sets of examinations from those written by the average

and below average students.[69] The individual time table is planned in Grades XI, XII and XIII, and Grade XII works on the block system because of the Department's inflexibility in the number of periods for each subject. The plan so far has worked satisfactorily with 40 per cent of the student body in the honours class and some students taking as many as five subjects at the honour level.[70]

Calgary has planned an experimental matriculation honours programme for the top two to four per cent of pupils covering Grades VII to XII. This will be an enriched programme contributing to a broad liberal education. It is hoped that students after Grade XII will be able to write the examination set by the College Entrance Examination Board in the United States and will enter universities with advanced standing.[71]

There are provisions also for enrichment in certain subjects in certain schools. In British Columbia and Ontario, especially Toronto and Etibocoke, there are experimental courses in certain subjects as for example in West Vancouver where an experimental course in mathematics has been running for about six years, students studying

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[69]G. S. Blackford, "Honours Classes and Individual Time Table," Canadian Education and Research Digest, IV (March, 1964), 22.

[70]Ibid., p. 24.

[71]S. R. Laycock, Special Education in Canada, p.117.

additional mathematics as a class in Grades X to XII.

The practice of admitting gifted high school students to university with advanced standing has made no progress in Canada even though very common in the U.S.A.[72]

On the whole there is an increased trend towards enriched courses both in depth and breadth. Canadian teachers are making use of American material for enrichment, especially those put out by the project for the "Academically Talented" of the National Education Association. Within the last three years the school boards of several Canadian cities have issued mimeographed books of suggestions for enrichment in the different subjects of different grades such as Toronto, Ottawa, Etobicoke, Edmonton, Regina, etc.

Ability Grouping - Elementary School

As in the U.S.A., so also in Canada ability grouping brings together the brightest pupils for part or for all of their time. This may take the form of special schools, special classes, or ability groups within the regular classroom which form a homogeneous grouping for enrichment. The most popular special grouping is "streaming" on a classroom basis and "homogeneous grouping" on a school basis. In such cases mainly three streamings are

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[72] S. R. Laycock, Trends in the Education of the Gifted in Canada," The Gifted Child, 1962 Yearbook of Education, p. 230.

practiced. The common practice is to take the top two per cent or five per cent of the students and make a special class of twenty-five in each grade. Ability grouping is often followed with the aim of enrichment. One would expect such a group to be homogeneous.

British Columbia, in 1958, had nearly 178 schools with ability grouping. Winnipeg Major Work Class is in reality grouping according to ability. Since 1956 homogeneous grouping has been established in New Brunswick. Several schools in Ontario have attempted part time or full time grouping. In Ottawa, by 1958, there were two special classes in Grade V, composed of pupils from various parts of the city. In Upper Canada College superior pupils who finish Grade VIII at a younger age are admitted in a special Grade IX or in a special group doing Grade X work. In Toronto there are interest groups of students of Grades V and VI who meet for one hour every week. Since 1928, London has had special classes beginning at Grade V to give enrichment to pupils of high I.Q. who did their elementary school work in three years. In Saskatoon special classes were organized in 1932 by the efforts of Dr. Laycock. In 1956 a special class at the fifth grade level was started under the same teacher till Grade VIII and some students finish four grades in three years.[73]

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[73]L. G. Hall, "A Review of Enrichment Procedure for Gifted Pupils," Alberta Journal of Educational Research, IV (June, 1958), 122-123.

Among the larger school boards, Saskatoon, London and Winnipeg were first to operate special classes. The classes in the elementary schools have been based on the Cleveland Major Work Classes.

The use of streaming is steadily increasing in schools. Streaming in Canada is recognized also as an enrichment technique. It is also called Multiple Track System, and is the oldest programme practiced in Canada. A broader curriculum is given to the faster academic group. They participate more in extracurricular activities, projects, art projects, etc. Many schools start streaming programmes in kindergarten in the same school (Appendix C).

Most of the school boards reported homogeneous grouping and streaming in 1956. It is fairly characteristic of British Columbia schools. Vancouver elementary schools from Grades I to VIII are organized on the basis of homogeneous grouping.[74]

The Major Work Class may be drawn from several schools, and is segregated but in no way isolated from the rest of the school. They participate in other school activities and are an integral part of the school. Enrichment is the core of the programme for educating gifted children.[75]

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[74]S. R. Laycock, Special Education in Canada, p.114.

[75]N. Chidley, "Development and Growth of the Program for Gifted Children in the Winnipeg School Division," The Winnipeg School Div., No. 1, p. 4.

One good point in Winnipeg Division is that the educational programme for the gifted children is considered under "Special Education," and this in return has its values because the work is logically planned and carried on. It co-ordinates and standardizes the involved process of identification and selection.

Ability Grouping - High School

Facilities appear more in the elementary school for special classes than in the high school, but there are a few examples where a group is partially segregated in order to be treated differently. In Edmonton, Grade IX is included to make a special class of twenty-five. It is also reported that two high schools in Edmonton have homogeneous grouping in Grade X. Grouping is also established for high achievers in the secondary schools for some special subjects. In London, too, such a special class is organized.[76]

As a result of a survey done in 1963 in Toronto by the inspectoral group on streaming, it was revealed that there was a very complex city-wide picture in regard to streaming and "although very few schools have streaming throughout the grades, no school exists without at least

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[76] L. G. Hall, "A Review of Enrichment Procedure for Gifted Pupils," Alberta Journal of Educational Research, pp.122-123.

some form of streaming in one or more grades."[77] The staff opinions mostly ranged from "mixed feeling" to "in favour" of streaming. When the Director of Research was asked for comments with regard to the research on streaming, he summed up the finding, "Clearly the problem is one of saying how can the school create increased flexibility in grouping practices, rather than saying, is homogeneous grouping more effective than heterogeneous."[78] It was, however, revealed that in Toronto, grouping within the classroom is considered the most productive.

In Winnipeg, where Major Work Classes run successfully in elementary schools, it was decided not to continue in the senior high school with Major Work Classes as programmes for wider study and additional options are offered in any case.[79]

Homogeneous grouping is used in large schools where there are sufficient pupils for the organization of classes. There are endless variations of the practices of selection and the degree of enrichment of the curriculum but ability grouping in some form or another is common in Canadian schools. Sometimes the term used is the "three

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[77]Board of Education, Toronto, Education for the Gifted, Report to the Superintendent of Public Schools, March, 1963, p. 2.

[78]Ibid., p. 8.

[79]N. Chidley, "The Programme for the Gifted Children in the Winnipeg School Division," Canadian Education and Research Digest, II (March, 1962), 46.

track plan" which is in practice in high schools where pupils are classified according to their enrolment in university preparatory, general, industrial, commercial or home economics course, but the plan as a whole failed in Canada because of the high prestige of the university preparatory course so this course often includes high average and low average students.[80]

In many provinces such as British Columbia, Ontario, Quebec, most of the classes are homogeneously grouped into "very good, good, average and weak classes" and the teachers are encouraged to adapt and add or subtract from the core course to suit the particular needs and abilities of the particular group.

Some have expressed the view that composite high schools provide education for the gifted. A composite high school is one offering three arbitrary courses to pupils on a matriculation, commercial or technical pattern. In Alberta, the composite high schools make use of grouping in terms of ability and this is determined by the course pattern choices of the pupils, and they fulfil the aim of developing the heterogeneous capacities. A survey[81] was carried on in 1957-58 in Alberta to seek out

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[80] S. R. Laycock, "Trends in Education of the Gifted in Canada," The Gifted Child, 1962 Yearbook of Education, p. 232.

[81] E. J. Housego, and G. L. Mowat, "Alberta Composite High Schools and Gifted Youth," Alberta Journal of Educational Research, V (March, 1959), 25.

and to evaluate current administrative practices in these schools. Eight composite schools were chosen. The research findings concluded that composite schools are not enriching adequately the curriculum of the gifted. It was also felt that the supervisory programme must include evaluation of teachers and facilities. "This requires constant examination of a school's total approach to the education of its gifted students."[82]

It is felt that the composite schools as major centers of secondary education with favourable resources and curriculum have a latent responsibility for the education of the gifted.[83] The argument in their favour is controversial. In the province of Quebec the classical course branches into sections, i.e., Latin-Greek and Latin-Sciences. The students with Latin-Sciences course can enter into the second year in the faculties of Science or Engineering because of its more advanced science and mathematics programme. In the Quebec Protestant System there were arguments in favour of the comprehensive high school and the basic problem faced is the necessity to speed the clever, develop the average, encourage the slow.[84]

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[82] Ibid., p. 29.

[83] Ibid., p. 30.

[84] University of Alberta Monographs in Education, No. 1, Composite High Schools in Canada, Faculty of Education, University of Alberta, 1959, p. 35.

The comprehensive schools have not reopened as yet, though Montreal plans to do so, and it seems that the composite high school may reconcile the functions specified above.

The credit given to the composite high school resides in the rich extra class life which it frequently provides. "The broad range of ability among its 'clientele' and the presence of less theoretical courses in its curriculum are modifying somewhat the tradition of selectivity."[85]

Most of the provinces in Canada have composite high schools but the usual difficulties exist of challenging the bright, though much depends on the teachers' own initiative. The committee on Educational Research in Alberta felt that the composite schools, with their characteristic latitude in elective subjects, do very little service to Canadians if a pupil selects the wrong subject.[86] At the same time some have raised questions regarding the composite schools' ability to provide the best in academic education.[87]

In the Province of Quebec in the course of studies for the English Catholic High School there is no special course for the brighter pupils. However, by streaming, beginning at the Grade VIII level, the above average child begins to follow a selective academic programme. There are three courses available to the secondary school pupil,

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[85] Ibid., p. 74.

[86] Ibid., p. 90.

[87] Ibid., p. 95.

the College Preparatory (Arts and Science), the General, and the Commercial courses. The pupils of high ability will be placed in the College Preparatory Course. This is usually determined by their final marks in the examinations and by the recommendation of the elementary school principal.

Identification of the Gifted

Because educators and laymen differ so widely in their conceptions of the intellectual, personal and social characteristics of gifted children, an adequate means of identifying children differs from province to province and in Canada there has been no set standard of identification.

The following group intelligence tests, suitable for use in the intermediate grade level, have been used in many Saskatchewan schools: Dominion Group Test of Learning Capacity; Henmon-Nelson Test of Mental Capacity; Laycock Mental Ability Test; and Otis Quick Scoring Mental Ability Test.

In Ottawa, on the Dominion Group Test results which run high, an I.Q. of 145 has been taken as the lower limit for the highly selected gifted and then all pupils are checked at or above this level with individual Binet (Terman L or M) Tests.[88] The School Board,[89] in its report

[88]Public School Board, City of Ottawa, Study of Our Gifted Children, March, 1956, p. 6.

[89]Ibid., p. 25.

published that, besides I.Q., other definite criteria will be established such as good health, social maturity, superior academic achievement, reading proficiency, teachers' ratings. In Ottawa, group intelligence tests are given to all pupils in Grades I, III, IV and VI. The cumulative record cards are studied in September to select all pupils of high I.Q. The mental age, interests, hobbies, work habits, special abilities and disabilities and personality are studied too.[90]

In the Winnipeg School Division the emphasis is given to such criteria as intelligence, school achievement, teachers' judgment and social and emotional maturity. A complete survey of Grade III and a partial survey of Grades IV, V and VI are conducted each year, so that any child who might have been missed in previous years may be located. An I.Q. of 120 is taken as suitable. After the psychologists from the Child Guidance Clinic have screened them a final test is given at the examination centre. The results of the Primary Mental Abilities Tests are carefully examined and children with I.Q.'s of 130 or above enter the final selection.[91]

Ontario has a comprehensive identification system. This includes an early intelligence testing and the O.S.R.

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[90] Ibid., p. 7.

[91] N. Chidley, "Development and Growth of the Program for Gifted Children in the Winnipeg School Division," The Winnipeg School Div., No. 1, pp. 1-2.

cards for the scholastic records of those with intelligence rating of 131 and above on the group intelligence test scores for Grades II, V and VII. Besides this, the individual records of those coming from outside areas are checked for signs of superior ability.[92]

In the Saskatchewan schools pupils for enrichment programmes are selected on the basis of intelligence tests, a standardized reading test and a standardized arithmetic test. To qualify a pupil would have an I.Q. above 120, and be at the 75th percentile on both the reading and arithmetic tests.

Training the Teachers of the Gifted

The role of the Colleges of Education in preparing students to teach gifted children has been played through such subjects as child study, mental health and general methodology. The students in many practicing schools come across streamed classes and by teaching these classes gain some little insight into the nature of these children. There are a few places where an effort is made by the Boards of Education to orient and to hold refresher courses for those teachers who are engaged in teaching gifted classes. The description of a few will give an idea of the nature of the work carried on.

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[92]The Board of Education, Toronto, Education for the Gifted, p. 3.

The Ontario College of Education holds seminars each week for Type A students where special help is given in the teaching of the subject at the highest level of secondary levels. The majority of these students will teach the children in Collegiate schools and so in a very indirect way O.C.E. prepares teachers for the more gifted segment of the population. However, it does not offer regular courses specially recognized as being for teachers of the gifted. The University of Toronto School which is a secondary school for boys and is a part of college organization, is a special school for gifted boys and serves as a laboratory school.

At present there is no course given in Canada which is solely related to the education of the gifted. There are offerings in methods, supervision and psychology in which attention is focused on the bright child. The major contribution of the Ontario College of Education consists of attracting students who have superior intellectual ability and backgrounds of some academic excellence, into the teaching profession to teach the gifted pupils in Grades XII and XIII, and the provision of observation and demonstration lessons.[93] Besides this, the Department of Education, Ontario, offers summer courses in the education of gifted children. Teachers planning to qualify in this

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[93]Ontario School Inspectors' Association, Education of the Gifted, p. 144.

specialized area in Ontario are required to take the course.[94]

The inservice training of teachers in Etobicoke Township is carried on with the help of the area superintendent and the consultant teachers. The consultants work with teachers at the request of the teacher, the principal and the area superintendent. The consultant teachers are expected to help teachers who teach the advanced classes, especially of the advanced reading programme. They discuss teaching procedures and methods in an effort to improve and refine them. Besides this the consultants prepare for inservice courses. In return the consultants are helped by workshops and seminars. Additional personnel and materials to serve total township needs are available through the Instructional Service Division. Under the direction of the central administrative group, the coordinator initiates and plans various types of services in consultation with area superintendents, principals and teachers.

There are a number of school systems which report special courses given by local institutions for teachers who are interested in preparing themselves to teach the gifted, and college and university personnel are drawn into these programmes. Many school systems have prepared guides and reports and other publications for teachers.

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[94]Department of Education, Ontario, Handbook - Summer Courses, 1964, p. 14.

Workshops, conferences and summer courses to orient the interested teachers in this field are provided.

The foregoing has been a descriptive rather than a statistical evaluation of the trends in the education of the gifted in Canada. Nevertheless, it is evident that there is an increased interest in this topic, and that experimentation is being carried on by various Departments of Education, by Local School Boards and by teachers, all of which will undoubtedly lead to progress in the future.

3. England

It proved difficult enough to use the headings applicable to the U.S.A. when studying the provisions made in Canada; to use them in the case of England has proved impossible, though the study has been conducted within the framework of primary education, high schools, universities, identification of the gifted and facilities for the training of teachers for the gifted.

The shape of the English schools has been fashioned by political, social, economic and religious history. The various reports of the twentieth century have greatly affected education. The Hadow Report of 1926 proposed a clear-cut break between primary and post-primary education at the age of eleven. The new stage was to be differentiated for different kinds of students and to be given in

separate institutions. Grammar schools were to offer a predominantly literary or scientific curriculum for five years and modern schools were to offer a minimum programme of four years. There was provision for transfer between modern and grammar schools.

The Spens Report of 1938 proposed in addition to grammar and modern schools, a third form of secondary education which ought to be regarded as an alternative to that of a grammar school. The report says that it is necessary "to evolve a type of school analogous to, and yet distinct from, the grammar school, and providing an education designed to fit boys and girls to enter the various branches of industry, commerce, agriculture at the age of 15."[95]

The report accordingly recommended that "those junior technical schools which are accorded equality of status with secondary schools of the grammar school type having an age of recruitment of 11 plus and providing a five-year course, shall be known as technical high schools."[96]

At the time of the Spens Report, since the existing technical schools did not admit pupils before the age of 13 plus, the grammar schools secured the majority

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[95]Board of Education, Report of the Consultative Committee on Secondary Education (London: Her Majesty's Stationery Office, 1938), p. 268.

[96]Ibid., p. 272.

of the more gifted pupils from primary school. Since there was little transfer at 13 plus, into or out of the grammar schools, the students tended to remain in the grammar school which led to a "disproportion in the distribution of brain power as between what may be broadly termed the professional and industrial world."[97]

The tripartite scheme as proposed by the Spens Report was accepted by the Norwood Committee. This Committee classified the three kinds of minds. The report, however, was against trying to classify children into "types" at an early stage, so it further recommended a review of the achievement of all pupils after two years of secondary schooling. The Norwood Report was not in favour of multilateral schools. Briefly it can be stated that the three reports try to come to a general agreement on a clear-cut break between primary and post-primary education, selection at 11 plus, differential secondary schools and equal status for such schools.

Later the Act of 1944 provided "for all pupils opportunities for education offering such variety of instruction and training as may be desirable in view of their different ages, abilities and aptitudes."[98]

With regards to the organization of secondary education the White Paper which preceded the Act stated:

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[97] Ibid., p. 274.

[98] Education Act, 1944, Sec. 8.

> No matter how secondary education is organized there must remain a substantial element of selection, in the broadest sense of the word, if we are to do justice to the different needs of individual children, for children do differ considerably in their mental powers, in their special gifts, in vigour, in industry and in their ability to concentrate. By one means or another, they must be grouped into courses which are suited to their particular capacities. But this does not mean that a child's performance at the age of eleven should determine the remainder of his school career once for all.99

So as a result of the Hadow Report, 1926; Spens Report, 1938; Norwood Report of 1943; and the Education Act of 1944; the three schools, grammar, technical and modern, evolved. Besides these three there are comprehensive schools. With the raising of the school leaving age, additional courses and the general spread of education the secondary schools have made provisions for the abler older children. It has been felt, however, that in England little is done for the abler children under the age of 11 years.

Streaming and Ability Grouping - Primary School

During the 1950's there was a revival of discussion on the effects of streaming children in the primary schools and the procedures used for streaming in English schools. The study, carried on by means of a questionnaire and answered by the teachers, has had some impact. In England

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99Education Act, 1944, Sec. 8, quoted in The New Law of Education, M. Wells and P. Taylor (London: Butterworth, 1961), p. 102.

streaming in the primary schools has been commended by the Minister of Education. "Streaming has become so deeply integrated into English educational theory and practice that to question its advisability is almost to commit lèse majesté."[100] It has been emphasized also that the streaming preceded and made possible selection at 11 plus.

The investigation concerned itself with the discovering of opinions of practicing primary school teachers on how to stream classes and on the effects of the streaming procedure practiced. The teachers held different opinions about the effect streaming has upon the spread of attainment. There were 17.4 per cent who thought that the method of class allocation chosen by them would reduce the dispersion of attainment.[101]

On the whole the results of the study showed that streaming was believed to be educationally sound and that streaming should be carried on, on the basis of "ability" or of scholastic attainment or a combination of both. It was also found that a large majority of English primary school teachers believe that dull and backward children make the best progress scholastically when taught in classes made up of children with similar ability and attainment to themselves and that streaming also helps the

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[100]J. C. Daniels, "The Effects of Streaming in the Primary School. I," British Journal of Educational Psychology, XXXI (Feb., 1961), 69.

[101]Ibid., pp. 69-77.

bright children to make the best possible scholastic progress.[102] A further study[103] revealed evidence that non-streaming signified an increase in the average I.Q. of children in the junior school by about 3 points of I.Q., and that non-streaming significantly increases the mean scores in reading and on English tests. These effects may be reduced as children progress through the junior schools. Non-streaming also increases the level of arithmetic attainment of junior school pupils. In spite of this study, streaming is likely to persist in the primary schools.

Enrichment - High School

The grammar schools are the basic institutions of English secondary education. As they get the best students via the 11 plus examinations they have a fairly homogeneous group as the range of I.Q. is narrow. "The curriculum of the secondary grammar school tapers from a broad base to a comparatively narrow platform where the work is closely related to requirements for university entrance."[104] The first year programme of grammar schools

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[102] Ibid., p. 77.

[103] J. C. Daniels, "The Effects of Streaming in the Primary School. II," The British Journal of Educational Psychology, Part II, XXXI (June, 1961) 119-127.

[104] British Information Service, Primary and Secondary Schools in Britain (Swindon: Swindon Press Ltd., Victoria Rd., 1960), p. 4.

includes as many as ten or eleven subjects. Latin, if not started in the first year, is commonly added in the second year for the abler students. The promising linguists add a third foreign language to their programme. The future specialists embark on a separate study of physics, chemistry and biology - but drop certain other subjects. By the fifth year there are seven or eight subjects, but the ablest students reach this stage in some subjects after four years.

The students of each year are classified by general ability into two or three "streams" for work in literary, scientific, cultural and practical subjects. Within these streams are the "forms" for administrative purposes. The promotion from stream to stream takes place in accordance with the students' performance. Syllabuses are prepared according to the streams. For mathematics and languages there may be "sets."

The method of sets allows children to stay with their chronological age for most of the day but for mathematics and English the whole school or the whole age group is divided into ability grouping. Each set has a separate teacher; the problem of organizing sets became one of providing as many teachers of the subject as there are sets - since all sets in the subject at one age level are taught that subject at the same time.

The Sixth Form has the group who are wishing to

enter universities, training colleges for teachers, or advanced technical colleges and so the curriculum is specialized in character, students specializing in three subjects with a bias towards either the science side or the arts side.

The comprehensive schools which are coming into existence provide for students of above and below average ability. They offer a wide range of courses. In the comprehensive schools too the students are classified by ability within the school and the curriculum for each student is similar to what it would be were he in the modern or grammar schools. The comprehensive schools attempt to discover the children's actual level of attainment in the various subjects by a test or examination and children are grouped in homogeneous groups. There is great differentiation of courses and classes and the streams provide for the chances of progress at their best pace. The students are again distributed into sets for some subjects as in grammar schools. Since the range of subjects from which children can choose their studies far exceeds that available in most grammar schools, the comprehensive schools are getting popular. It has been proved that there are "cases of children who would not have qualified or did not qualify for a grammar school place, yet who have made good in academic subjects."[105]

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[105] R. Pedley, Comprehensive Schools Today - An Interim Survey (London: Council of Education Press Ltd., Queen Anne St., 1954), p. 5.

Among other provisions for the gifted are the Royal Ballet School which admits children at the age of nine years, and in Brighton where there are special art classes.

The public schools, such as Eton, Winchester, Harrow, have their own kind of selection examination at the age of 13 in Latin, French and advanced mathematics. As a result a large number of preparatory schools have been founded which prepare children largely for public school entrance examination (called Common Entrance), though some prepare children for the "eleven plus" examination as well. Since the academic requirement for admission is severe, they have high standards of teaching and study and not more than three per cent of children go to such schools, they are accessible to the superior and wealthy child.[106] The same statements are not necessarily true of all Public Schools - and may be quite untrue of the so-called Minor Public Schools.

It might be appropriate at this point to refer to two schools which have become, or might have become, noted for their methods of handling gifted children. The first of these is Manchester Grammar School, a Direct Grant Grammar School, that is, receiving a direct subsidy from the State as a condition that the school offers one quarter

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[106]E. J. King, Other Schools and Ours (New York: Rinehart & Co., Inc., 1960), pp. 94-95.

of its accommodation to local children without payment of any fees. It draws its students from a wide area, some travelling as far as 100 miles daily to attend, though most live within fifteen or twenty miles. Many people believe that this school attracts the top three per cent of the population, though the High Master believes it to be the top eight or nine per cent.[107]

The school accommodates nearly 1500 boys, which is large for an English school, of whom 570 are in the Sixth Form - surely the largest such form to be found in England. Over 70 per cent of the children who leave go on to university, and 95 per cent enter some form of higher education. The school offers a basic course of four years duration with Latin and French started in the first year, and either Greek or German at the end of two years. Boys are allowed to offer only sufficient subjects at "O" level to gain the necessary matriculation requirement - but no one takes English literature and no one takes science at this stage. Mathematics is taught in sets throughout the school.

In the Sixth Form there is very rigorous specialist work, but yet one-third of the total time is devoted to general education. Some 45 per cent of the boys take arts subjects and the remaining 55 per cent take mathematics and

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[107]Personal communication from the High Master, The Manchester Grammar School, Manchester, June 10, 1964, p. 1.

natural sciences. The High Master sums up by saying,

> We are lucky to have an extremely well qualified staff who respond to the challenge of teaching clever boys who are willing to learn. . . . We believe that study in depth for the intelligent is also the best sort of general education in the hands of a first class teacher.

The second school is Arnold High School, Nottingham, a Local Education Authority Secondary School. It was designed by the Ministry of Education in conjunction with the Local Education Authority to provide grammar and technical education for boys and girls of an industrial area. In addition to a building designed for tutorial and seminar work with groups not exceeding 20, it moved away from the traditional approach of Latin and Greek, and provided six grouped courses of study:

> 1. A general academic course for those whose interests would appear to be leading them towards the learned professions.
> 2. General practical courses for those who are likely to be interested in such professions as nursing, dietetics and physiotherapy.
> 3. An academic science course for those whose interests lead them towards professions in scientific research, engineering, technology, medicine.
> 4. Practical science courses for those who seem likely to continue their education and training through student and trade apprenticeship.
> 5. An academic commercial course for those who might be thinking of careers in business administration, banking and the social sciences.
> 6. A practical commercial course for secretaries, retail buyers, salesmen and saleswomen.[108]

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[108] Times Educational Supplement (London: Times Publishing Co., May 16, 1958), p. 811.

The Times Educational Supplement described it in these terms:

> Arnold High School will be a highly selective school but only if parents and pupils understand and appreciate the opportunities it offers and voluntarily select it as their first choice. Here, in fact, there is not only a new conception of education, and not only a new plan in building and design, but a new venture in local authority and parental co-operation and understanding.[109]

Unfortunately the local political situation turned against the idea of such a highly selective school, and by building other new schools in adjacent areas, reduced its selectivity, so that it became merely another comprehensive school, but one with a high reputation in social sciences and in work for world understanding. It is conceivable that had it functioned in the way it was designed it may have become as famous as a mixed (boys and girls) school as Manchester had become as a boys' school.

On the whole it may be said that through the grammar schools the student is prepared for university. A grammar school sets a high standard of personal and civic responsibility before its pupils. With plenty of games, athletics, concerts, debates, dramatic art, many clubs and organizations are common. Though every student takes the same subjects at first, there is increasing specialization as he advances. Early specialization distinguishes British schools and it is adopted for the

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[109] Ibid.

sake of higher standards. The end is the general Certificate of Education which will lead them to British Universities. British Universities are highly specialized places preparing for the highest grades in a few professions.[110]

So, though one would not hear of the type of practices common in the U.S.A. or Canada under the name of Special Education for the Gifted, it is obvious that through its selection, examination, specialization and exclusive nature of the British universities only gifted reach the top of the ladder, though other gifted students may be "lost" on the way.

Identification of the Gifted

The selection and streaming in Britain have been administrative devices rather than psychological. Cyril Burt has noted that "any scheme for the allocation of pupils should be based on the widest possible foundation, and should be regarded as an experiment in educational psychology and educational administration."[111] The Norwood Report and the White Paper are plainly doubtful of the value of such tests. Burt[112] had suggested that if

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[110]E. J. King, op. cit., pp. 90-91.

[111]C. Burt, "Symposium on the Selection of Pupils for Different Types of Secondary Schools," The British Journal of Educational Psychology, XVII (June, 1947), 57.

[112]Ibid.

children were to be classified at 11 plus, there were three ways which could be used: (1) an examination similar to those for scholarships to the old type of secondary school and to trade school; (2) standardized tests; and (3) teachers' assessment. W. Alexander[113] crossed swords with Burt over the potentialities of tests of group abilities as a means of selection from administrative points of view. Some think that the wishes of parents were possibly the best guide in the selection process. It is generally admitted that at the age of eleven plus, some tendency towards either an academic or a technical bias is discernible and so general intelligence and educational attainments can be assessed with adequate accuracy by standardized tests. On the other hand it is much criticized too. The eleven plus examination consists of one or more intelligence tests, an arithmetic paper, an English test and a composition. Teachers' opinions and parents' wishes are considered. On the average, for the whole country, only twenty per cent are admitted to grammar schools,[114] though it is estimated that fifty per cent of parents

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[113] W. P. Alexander, "Symposium on the Selection of Pupils for Different Types of Secondary Schools," The British Journal of Educational Psychology, XVII (Nov., 1947), 123-130.

[114] M. J. Tyerman, "England's Special Schools for the Gifted," School and Society, LXXXVII (April, 1959), 168.

would desire such an education for their children.[115] Many believe that selection is unfair.[116] There is much evidence to support this. Research by the National Foundation for Educational Research indicates that about 10 per cent are wrongly placed. Children's aptitudes and standards of work vary so greatly between the ages of 11 and 16 that it is impossible to make a forecast and at least 25 per cent of the children going to the grammar schools do not deserve their place. Certain areas send as many as 60 per cent of their children to grammar school while some admit only 9 per cent.[117] Thus the child's educational future depends more on where he lives rather than on his academic ability.

Training the Teachers of the Gifted

The professional training of teachers in Britain is different from the regular American teacher's training. The teachers who wish to teach in academic or grammar schools or technical schools normally go to the university and get a degree and take a one-year professional course in the education department of a university. It leads to a teacher's diploma or post-graduate certificate. A distinction is made between the teachers in grammar

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[115]H. S. Baker, "Secondary Education in England," The Alberta Journal of Educational Research, IV (Dec., 1958), 196.

[116]Ibid., p. 197.

[117]M. J. Tyerman, op. cit.

schools who take a longer and more difficult professional course and the teachers of the modern schools. The Ministry of Education, the universities and local education authorities all provide courses. Many pamphlets by the Ministry of Education are issued and they encourage critical and independent analysis of current problems.[118] So teachers are competent through their own academic standard and superior training to teach the grammar school superior body of students or the students of "A" streams.

The British system of education has been heavily criticized by educationists, but Britain does find and educate enough bright children and adolescents to fill the places in the grammar schools and the universities, few though these may be. On the other hand, very little is known of the negative selection that goes on and about the proportion and kinds of children who are eliminated at various stages. Errors in selection, though small, can accumulate. The problem of identification has still not been touched, and then there is the problem of the constructive education of the ablest group which is not done as it is done in a progressive country like the U.S.A.

It is true that most English grammar schools attain extremely high academic standards and to deprive bright children of early recognition and early opportunity

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[118] E. J. King, op. cit., pp. 102-103.

would be unwise. However, many observers are becoming increasingly critical of the high social cost involved in a society divided by academic attainment.[119]

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[119] M. Young, The Rise of the Meritocracy (London: Thames & Hudson, 1958).

CHAPTER IV

INDIA

1. General Background

Modern India has had three parallel systems of education which are the result of ancient India, medieval India and the impact of British rule. Ancient Indian education was academic, literary and largely traditional and it developed an authoritarian temper as only a minority had access to higher education. Society thus developed a bipolarity where the minority was concentrated in wisdom and knowledge, and the majority remained in ignorance. Such a society became dogmatic and inelastic.[1] The same trend continued in medieval Indian education, which was developed by Moslem rulers through the medium of Arabic and Persian. The English added a third system of education, although this emphasized scientific and experimental studies. There was, however, no attempt to combine these three systems.

There is statewide uniformity in education, and

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[1]United Nations Educational, Scientific and Cultural Organization, The Teaching of the Social Sciences in India (Paris: UNESCO, 1956), p. 15.

one state does not differ much from another. Five years of Primary School and three years of Middle School, with four years of Upper Secondary School lead to University education.

The Lageshmanaswami Commission[2] suggested that there should be a higher secondary stage of four years after elementary education, but of these four years, the first year should be explanatory and aim at finding out the pupil's aptitude and interest. For the majority the division would take place at the age of 13 or 14 and only a small minority would be selected for the secondary course. The Commission's decision reflects the consideration it intends to give to the academically superior child, but how he should be educated and what provisions should be made are not planned as yet.

At present the most important problems in the field of education are connected with secondary education and diversified courses. Before and after independence the high schools taught only the academic subjects, and everyone received the same kind of education. With the adoption of the three Five-year Plans for the rapid economic development of the establishment of many industries, a need for diversified courses was felt in the high schools; many multi-purpose schools, teaching technical

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[2]H. Kabir, Education in New India (New York: Harper & Bros., 1955), p. 68.

and vocational subjects with academic subjects, were reopened. This brought about the need for vocational guidance programmes and the need for administering the Intelligence Tests through the Psychological Bureaux which are located statewise and the emphasis has been on the courses given according to vocational aptitudes.

The uniformity of the curriculum in all the provinces of India did not have any serious consequences as long as only a few superior children came to the secondary schools, but the enrolment in schools is now increasing tremendously. The enrolment shows that there are large variations in ability and interest, but they are all compelled to study the same syllabus, to take the same tests, and to attain the same minimum standard for passing. This involves considerable waste of time, money and energy that failures produce.

In most of the schools under the present administrative system, all grades are combined into one class without any consideration of differences in ability, age or intelligence. The content and method of teaching is not adjusted to individual differences among the pupils; hence the efficacy of the instruction is affected. In the end, at matriculation (tenth and eleventh classes), all the students are examined by the same question papers, methods and modes of examination.

While conducting his studies on factors involved

in achievement in mathematics, Ramchandra Gokhale[3] basing his findings on Matriculation examination results, concluded that among the students each year, there are three distinct groups and hence three courses of study in mathematics should be prepared for them. He further suggested that the achievement in any of the branches of mathematics in particular, or mathematics in general, will depend upon the intelligence of the individual studying the course, and that intelligence can safely be taken as the basic principle for differentiation of the present syllabus in mathematics.

An attempt has been made in India to differentiate the curricula and a few independent schools have shown a little effort. Suggestions made have been that the differentiated curricula will help India towards homogeneous grouping - a tendency which is growing in the educational system in India. The differentiation of courses will help the teachers to adopt a sensible method of teaching in the classroom. This will require a change in the examinations; as everyone will be examined according to the curricula he studies. This is not difficult to plan if the state makes provision for this with the Board of Examination.

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[3]R. V. Gokhale, "Differentiated Curricula in Secondary School Mathematics on the Basis of Intelligence Level," Educational Studies and Investigations, I, Kaul, Gavade, Gokhale, Thakore (Bombay: Asia Publishing House, 1951), 150, 152.

The public schools in India have maintained their special features and quality. As the fees are high the schools are accessible only to a higher socio-economic group of India and not accessible to the majority of the people. The effort on the part of the government has been to inculcate the idea in public schools that the role of education is the equalization of opportunity within a community, and as there must be differences in aptitude, taste and ability among different individuals, it is the function of the state to ensure the equalization of opportunity by providing education suited to each child's needs.

The Central Advisory Board of Education in 1955 passed the resolution that the secondary education reached at 17 plus should be of a standard which would enable the students to participate with profit in the three-year degree course. This aim has not been fulfilled as there are many admitted to the universities who need to choose other than academic courses. The purpose of higher education to prepare the vast majority for life and a small minority for higher education, cannot be fulfilled as the majority is not prepared for life at the high school stage. Hence, they seek preparation through university education. Universities, therefore, instead of catering to a small minority which deserves to be there, are lowering their standards due to many problems arising from over-crowding.

This leads to the problem that universities are catering to the mediocre, and the superior students are either lost or become underachievers.

In the realm of higher education the Dispatch of 1854[4] set forth a scheme of education which was wider and more comprehensive than any previous one. It proclaimed the aim of education to be the diffusion of the arts, science, philosophy and literature of Europe. It was emphasized that the study of Indian languages should be encouraged, but that the English language should be taught wherever there was a demand for it. And then in 1857, the three Universities of Calcutta, Bombay and Madras were instituted, each based on the model of London University with a chancellor, vice-chancellor and senate. At the first entrance examination of the three universities, 219 candidates were successful. But now there are thousands who seek entrance to the university.[5] Since then, India has passed through many phases of university education. One must consider the University Education Commission in 1949 under the chairmanship of Dr. S. Radhakrishnan, which examined the aims and objects of university education and research in India with emphasis on maintaining the highest standards of teaching and examining in the universities and

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[4]A. L. Mudaliar, Education in India (New Delhi: Asia Publishing House, 1960), p. 23.

[5]Ibid., p. 24.

colleges under their control.[6] This resulted in the planning of many National Laboratories and many Technical Institutes under the All India Council for Technical Education. When in 1956 the University Grant Commission came into existence, a great deal of support was given to engineering and technological studies, and many new colleges were opened with the assistance given by this Commission. It is highly desirable that universities do not confine themselves in their academic pursuits to the requirements of the State. Their aim is not to prepare finished products which can be utilized immediately, but to give a comprehensive, wide and liberal education which may be utilized and applied according to the prevailing need.

There has been a lowering of standards due to overcrowding, to lack of personal contact of teachers with students, to lack of practical training in many so-called practical subjects, and lack of scholars who used to be attracted to this profession in an earlier generation.

These facts indicate the need for the training of more scholars, the provision of diversified courses according to the ability and intelligence of young people and the raising of standards so that the universities may cater to those of high ability. To date nothing has been done to segregate the students according to their aptitude

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[6] Ibid., p. 40.

and intelligence. Many are neglected and lost due to their inability to cope with the expenses of these institutions. The need is to make provision for and to encourage all bright students to achieve good academic standards in high school.

Education in general, and higher education in particular, must play a vital role in modern India. India wants to improve its standard of living, which in turn requires an increase in the material wealth of the country. Such increase demands a proper use of its human and other resources, and the universities through proper selection, must educate their superior youth. This does not mean that higher education should be restricted to a small selected group giving rise to an intellectual elite, but an education which will take care of average groups as well as superior groups. Contemporary India is seeking to accomplish much through industrialization, which naturally leads to expansion of higher education, and a demand for more trained individuals at all levels.

As a matter of historical fact, the Indian universities have exercised a profound influence on national life and thought. They have supplied intelligent and efficient persons for a complex society. The Indian universities have nurtured and trained not only clerks and subordinate officials, but also members of the Indian Civil Service, economic experts, eminent men of science

and philosophy. The Indian universities have also assisted the economic life of the country indirectly by fostering the whole intellectual life of the nation, and providing scope for the higher quality of intellectual activity and research.[7] The present endeavour in India has been to reach a higher standard as a whole, giving hope for the future.

2. Suggestions for Programmes in India

India has evolved a programme for educational and vocational studies well-adapted to local conditions which is working well on a state level. But as education of children in India is expensive for parents, it affects a very small proportion of the populace and the best potential talent is not utilized, although intelligence tests and Vocational Guidance Schemes discover many cases every year in the schools. Hence, India's difficulty lies mainly in discovering ability, training it and using it to the best advantage.

India is a country which is underdeveloped from many points of view, mainly socio-economically, and so the problem of organization will have to be considered first, but as India believes that human beings are her most

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[7]Ministry of Education, India, The Report of the University Education Commission (Delhi: Government of India Press, 1951) II, 69.

important resource, she will do something about her economic development. It is true that in all three Five Year Plans India has not given priority to education because economic crises have led her to improve her technical, social and agricultural systems first, due to the need for economic growth. Here, perhaps, is where India has failed to develop further her human resources. In India, the problem of the shortage of schools is not as acute as the problem of lack of counsellors to advise children regarding courses best suited to their abilities. Many varieties of schools exist and the better schools are filled with students from families of the upper strata. On the other hand, some are so poor that there is no real comparison between them and the former. The lack of equipment, resources and materials also underlines the great difference between the rural and urban schools. In such schools there is very little chance that a potentially talented child will develop his ability in any sphere outside the very limited one which the school can offer.

This means that there is much waste of ability and the human resources needed for administration, technical, scientific and cultural advancement are drawn from a small reserve. As a result, family income influences education, competition, promotion and appointment. Added to this problem is the highly stratified society of India where there is little mobility due to humble occupations which

are considered hereditary. Everyone does not have a chance to rise above his humble level due to lack of opportunity for education.

More recently the idea has grown in India that position and promotion should depend on aptitude and ability and that there is a need for ability to be discovered and channeled through the vocational guidance programmes. It has been found in one of the research studies carried out in a region of Madhya Pradish that there is a general over-estimation of intellectual level. This explains why there is a craze for more advanced courses and careers. There is a general tendency on the part of pupils and parents to follow their own judgment regarding intellectual level instead of the judgment of the school authorities. Also, very few parents and pupils attach importance to scholastic achievement in correlating it with future success in the pupils' careers.[8] On the whole in India the concept of intelligence as a major determinant in education is not well understood.

In the educational institutions and Vocational and Psychological Bureaux, the testing programme is carried on fairly successfully. There are individual Intelligence Tests and group tests suited to the Indian languages and Indian cultural backgrounds, administered through a uniform

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[8]Vocational Guidance Bureau, Guidance Bulletin, V (Jabalpur, India; Prantiya Shikshan Mahavidyalaya, April, 1962), 23.

system of examination in Grade IV and in certain regions in Grade VIII. It is suggested that the services of the Psychological Bureaux can reach every school in every state.

Through programmes of community development, social change has come about in people's thinking. These programmes have created a condition by which people can be reached. It also opens a situation in which talent can be developed. Through the community development projects educational organization can find the talented pupil.

The problem of commencing a programme for the education of the gifted will face three major obstacles:

(1) Finance

(2) Selection of the talented students

(3) Provisions and programmes for the talented.

These will be dealt with separately.

The question of finance and expenditure in a poor country like India demands an efficient and coherent administration. India has done well on the whole in planning the different aspects of education. Besides this, she may learn from what Lewis says about planning:

> The first objective of planners must be to create an administrative machine that can do the work of planning, to train young men academically and in the tasks of administration, and to weed out mercilessly the incompetent and the corrupt. And secondly, in the meantime no administration should be loaded with tasks more numerous or more

> delicate than it can handle; the quantity and forms of planning should be strictly within the capacity of the machine.9

In a country like India, the mobilization of talented manpower cannot be carried out unless there is a supply of personnel sufficiently well-trained to know what they are doing, how to set about it, and who are committed to bringing about the benefits which result from planning. Perhaps the Federal and State Departments of Education with endowments will be able to start programmes in a few selected places.

3. Administrative and Instructional Provisions

Acceleration

It is argued that no definite pattern of education for gifted children will fit all communities or schools; hence, there is no blueprint to fit everyone. As mentioned before, the great economic, personnel, administrative and practical problems lead one to the conclusion that the variety of plans and provisions carried on in the U.S.A. and Canada cannot be incorporated in India.

As we have seen, there are three main ways of educating the gifted in other countries - Acceleration, Enrichment and Ability grouping either partial grouping or complete segregation.

9W. A. Lewis, "The Principles of Economic Planning," p. 122, quoted in The Gifted Child, Yearbook of Education, 1962, p. 538.

Acceleration has been practiced in many Indian schools, but it has depended on the judgment of the individual principals. Acceleration often failed because it was not carried out on the basis of psychological testing but on the basis of subject attainment. "Acceleration offers opportunities for a gifted pupil to move at a pace appropriate to his ability and maturity and to complete an educational program in less than the ordinary amount of time."[10] In India acceleration is practiced as grade-skipping which does not require the work of the grade skipped. This kind of grade promotion leads to gaps in the child's knowledge. The curriculum is not enriched for him later and such skipping does not provide a challenge for the child. Since in India one single class cannot work on non-graded type of system nor on unit system of promotion, grade-skipping seems to be of little value to a bright child unless special provision is made for him later.

The only type of acceleration suited to India would be an accelerated programme for all its students as at the University of Chicago Laboratory School. This programme covers the usual eight years' work of elementary school in seven years, and thus graduates its students from high school a year earlier. Thus acceleration and

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[10]R. F. DeHaan, and R. J. Havinghurst, Educating Gifted Children, p. 122.

enrichment are provided. The second type of provision could follow the pattern of the non-graded elementary school programme in which there is continuous pupil progress. Among the procedures adopted in different parts of Canada the following may be noted as worthy of adoption by India.

The work of the elementary grades is divided into levels or units and the pupils progress through them at their individual pace. The teacher modifies methods and curriculum content to meet the special needs and abilities of her pupils as required. This plan, as practiced in Edmonton Public School, Edmonton, Canada, benefits the slow, the average and the bright. Since the Continuous Progress Plan is not complicated and it is a modification of the conventional grade system, it can be adapted to Indian conditions and situations. In this system the brighter pupils will move a little faster, and the slower will take a little longer to progress. The average pupils, 70 to 80 per cent of the total enrolment, will proceed much in the average way, and the teacher will continue to teach them in the regular manner.

The details of the plan are given briefly. The work of the primary or junior middle school can be divided into convenient intervals on the average of three units per grade. The curriculum can prescribe the content and limit of each unit. The children are screened and studied

the first year to determine their abilities and what rates of progress will be best for them in succeeding years. The teacher's decisions are supported by the intelligence and attainment tests.

The pupils are then divided into three groups - a faster moving group, an average group and a slower moving group. It is likely that (1) the superior group will complete four units, (2) the average group will complete three units, and (3) the slower group will complete two units or more. And so the superior pupils will complete eight years work in six years without "skipping." The average group will take the regular eight years and the slower group will take nine years but they will not have to fail or repeat a year. For the superior students enrichment will be provided as they cover each unit. Diagrammatically the provision may be explained as follows. For the average, the syllabus will be divided into 24 units from Class I to Class VIII.

Table No. V. Showing the suggested division of syllabus into units from Class I to Class VIII.

Class	I	II	III	IV	V	VI	VII	VIII
Units	1	4	7	10	13	16	19	22
	2	5	8	11	14	17	20	23
	3	6	9	12	15	18	21	24

The average group will take eight years to complete the 24 units, but the superior group will complete four units

in any school year, hence it will complete the eight years' syllabus in six years. In the first year there will be the usual three units covered by all as this year will be used for screening and identification, but in the second year the rate of progress would be as indicated below. The pooled result will show the superior student finishing the work of eight classes in six years.

Table No. VI. Showing the attainment of the Superior, Average, and Slow Groups in one year.

The Superior Group

Class	I	II	III
Units	1 2 3	4 5 6 7	8 9

The Average Group

Class	I	II	III
Units	1 2 3	4 5 6	7 8 9

The Slow Group

Class	I	II	III
Units	1 2 3	4 5	6 7 8 9

Enrichment

For the gifted children, enrichment implies learning situations which will meet their needs and "stretch" their abilities. It implies a curriculum that is expanded and "deepened" to fit their patterns and levels of abilities rather than one that is geared far below their needs and abilities.[11] Enrichment is considered a special plan. Enrichment may be for variety and exploration or precision and intensive work, and it is preferred for academic pruposes. In the regular classroom an enrichment programme permits each child to work at his own speed but with the use of more reference books, material, exploration and research, special assignment papers and free choice activity. This procedure can be employed for a special class or for a single individual. When intellectually gifted children are left alone in an average school setting they often provide their own enrichment but in India, due to meagre supplies of material and books, this is not possible. Simple classroom enrichment is possible but it will depend on the initiative and originality of the teacher. With nearly 50 children in a class and much clerical work in the hands of the teacher, one cannot rely on this kind of provision. Enrichment is only successful when there are supporting administrative measures. In India, with thousands of

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[11] Ibid., p. 96.

classes in hundreds of schools within a province, this is not possible. Enrichment often leads to individualized instruction and this is impossible under present conditions, due to lack of facilities and lack of efficient teachers. It also means that classes should be small so that individualized instruction may be given. Enrichment depends on a child's activity, achievement and experience and with the lack of properly trained teachers, enrichment may be deceptive. So the opinion is advanced that enrichment in every school, pertaining either to classes or subjects, is not practical. It is carried on in most accredited schools for average children through experiments, projects, creative writing, clubs and excursions, but it is part of the normal routine in which the average child is entitled to participate. For gifted children, enrichment in the regular or partially segregated classes is not possible at this stage when many children scarcely enjoy the privileges of good teaching.

Ability Grouping

Ability grouping in the form of special classes for the gifted may be used, but again it is not possible to conduct special classes in every school and in every subject, for the selected children of the area or town. The grouping may take the highly developed form of placing gifted children in a special school as at Hunter College Elementary and High School in New York, or it may be that

of bringing together gifted children from several schools in a single special group. The most practical approach would be a special school for the gifted. In India it is simple to organize because many children can easily be brought to one school, and the administration, control, financing, equipping and teaching personnel can be placed under one administration within a region or within each state, or for schools administered by the Central Government. These children will receive free education and will be retained in schools and colleges till they complete their education. Better teaching methods and better curricula planning will be possible under one administration, thus it will be easier to determine the quality of an educational experience. In a special school there will be provision for a unified and continuous experience which is not possible in scattered special classes or enrichment classes in separate schools.

Within a special school a limited acceleration on the basis of ability will be possible. At the same time grouping for specialized tastes can be arranged with opportunities for thorough learning of basic concepts and fundamental skills. Thus grouping and size of classes can be controlled.

Identification of the Gifted

The question of selection should not be difficult as the children will be tested by the Psychological Bureaux.

The Intelligence Tests and school records are easily available. Since, in India, many children leave school after the primary school, early identification is important. It is true that every child in every corner of India cannot be tested, but a good cross section of schools both in rural and urban areas can be tested and the gifted children identified. Since the attitude regarding the meaning of I.Q. scores is changing, the task of the educator may well be made easier in certain respects. The fact that intelligence is now accepted as "multidimensional" means that one cannot give only one intelligence test. On the other hand, the fact that I.Q. scores may vary with development and experience[12] may give hope to all children of rural areas (all children are capable of learning granted that adequate facilities are provided).

As mentioned before, the factors which will need to be included in the concept of giftedness will have to be decided. The word "gifted" has been used throughout with the same connotation as that of Conant, i.e., "Academically talented," and with the same definition used by Paul Witty. He defined the gifted as "children whose performance, in a potentially valuable line of human activity, is consistently remarkable."[13] Therefore, it is

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[12]J. J. Gallagher, Teaching the Gifted Child, p.6.

[13]P. Witty, "Who are the Gifted," Education for the Gifted, Fifty-seventh Yearbook of the N.S.S.E., p. 62.

who are deprived of cultural and educational background and are penalized by the present measure of identification. Davis, writing about conditions in the U.S.A., particularly of the negro child, says that:

> . . . half the ability in this country goes down the drain because of the failure of intelligence tests to measure the real mental ability of the children from the lower socio-economic groups, and because of the failure to recognize and train this ability. . . . Recent research indicates that many slum children who do poorly in school, and on present intelligence tests, have higher real or native intelligence than many children from higher income families whose home training enabled them to do well on school types of learning.[14]

Very often it is assumed that the low socio-economic group has few gifted children. This is not true. Jones says:

> Although the proportion of high I.Q. children is larger in the higher socio-economic levels, the great bulk of superior children is to be found in the much larger total membership of groups lower in the social scale.[15]

In India there may be difficulty in recognizing academic talent from low socio-economic level. Unfavourable home conditions or neighbourhood environment may obscure potential ability, which may not be disclosed by conventional tests and observation. This may even apply to religious and ethnic minorities. As indicated above,

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[14]A. Davis, "Poor People Have Brains Too," Phi Delta Kappan, XXX, 294, quoted in Curriculum Planning for the Gifted, L. Fliegler, p. 17.

[15]H. E. Jones, "The Environment and Mental Development," Manual of Child Psychology, p. 650, quoted in Curriculum Planning for the Gifted, L. Fliegler, p. 17.

suggested that first the academically talented be selected as they constitute the main potential for the country.

Since the problem of identification of giftedness is very complex, the Indian educator will need to have a general concept of the problem as related to his particular philosophy and the specific talent of the child. Most of the educators in other parts of the world limit their definition of giftedness to high ability to handle abstract and theoretical academic materials. Indian educators might well observe the same definition.

Next is the problem of setting the criteria for identification. The various Intelligence Tests standardized in India make possible the measurement of such traits. To these may be added records of past achievement including judgments of others who have dealt with the child. It is admitted that in India a very elaborate plan of psychological testing cannot be used because of shortage of such personnel, lack of testing material and lack of money, but on the whole the gifted children can be identified.

India has a uniform system of education with each state divided into regions and districts from an administrative point of view and has established Regional Psychological Bureaux in most of the provinces. Therefore, a start can be made by the Department of Education in collaboration with the Psychological Bureaux. One main problem in India would be the identification of children

who are deprived of cultural and educational background and are penalized by the present measure of identification. Davis, writing about conditions in the U.S.A., particularly of the negro child, says that,

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[15]H. E. Jones, "The Environment and Mental Development," Manual of Child Psychology, p. 650, quoted in Curriculum Planning for the Gifted, L. Fliegler, p. 17.

many factors must be considered in the discovery and evaluation of the academically talented. The most accurate appraisal can be made by a systematic and continuous approach and follow-up. Many persons including the teacher, working together, can produce good results. However, one person, generally the counsellor from the Psychological Bureaux, working above, can initiate the identification programme. By study of the individual cumulative record it will be possible to identify the gifted student. It is hoped that with better administrative procedure, identification will be carried on, and as India gains experience, the process of identification will improve.

Provision for Teachers

In countries like the U.S.A. and Canada, no special requirements are demanded by the State for teachers of special classes for the gifted. However, in most places there is a good in-service training for teachers who are advised to plan for specialization. Most teachers gain experience as they teach, and through class observation. In many places, supervised practice is carried on and there are workshops on educating the gifted. Most teachers in most areas are selected on the basis of experience in addition to other requirements, and personal visits disclosed that teachers were selected who were energetic and enthusiastic enough to take charge of special classes.

In India, a start can be made by recruiting teachers who are academically superior and are able to teach effectively. These teachers will have part-time training provided by in-service programmes, seminars and summer sessions. A few good teachers could be sent to the U.S.A. to take training. Since in India trained teachers are employed in the schools, the teachers will soon get a closer understanding of these children. If such a special school will co-operate in the teacher training programme, the problem of teachers for the gifted will be solved. This can be facilitated if the training colleges will allow student-teachers to observe a class of gifted children or a gifted child. The student will anticipate working with these children during practice teaching.

The teachers recruited should have a sound academic background. They should understand the psychology of the gifted and their special learning problems. They will be expected to have a breadth of interest, a variety of competencies, familiarity with various areas of knowledge so that they can keep abreast of the inquiring minds of gifted scholars. They will need to be acquainted with the principles of curriculum design and have had experience in programme making, for in a feasible programme the responsibility for developing the curriculum will be in the hands of the teachers. In short, the teacher of the

gifted should be a gifted individual.[16]

There should be continuous in-service training for teachers of the gifted, including visits to other schools so that they can become familiar with new educational practices and new techniques.

The opinion is advanced that, through the joint effort of the Federal and State Governments and Departments of Education, keeping in mind the tremendous responsibilities and challenges in the field of education for the world today, the education of the gifted should be the prime concern in present-day India.

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[16]G. Hildreth, Educating Gifted Children at Hunter College Elementary School, pp. 211-213.

CHAPTER V

CONCLUSION - AN OVERALL PICTURE

As one reviews the practices and provisions in the U.S.A., Canada and England, one finds similarities and differences. Because in these countries there is much freedom to organize the education as each state deems fit, there is variety in provincial systems. There are differences in philosophy and different emphasis placed on the classics, science and mathematics from State to State and country to country. With such variety, the needs of the gifted are met in different ways and a direct comparison of the countries involved is not possible. However, an overall picture might nevertheless be presented.

Much has been accomplished by direct provision in the schools in the U.S.A. and Canada to cater to the gifted. Interested schools have modified their programmes though there is much difference in the principles employed or the provisions made. Many still argue that separating the gifted child from the others is undemocratic. Some think that there are equally great differences among intelligent students when placed in the same class. There is now a trend towards more systematic grouping and an

increase in the possibility of acceleration by classes and by subjects. Much less deliberate provision for the gifted is made in England. Their problem is more one of extending the concept of giftedness, or of academic ability, to provide more opportunities for a wider range of ability - a problem highlighted by the recent report, Half Our Future.[1]

Early admission was not common in any school in Canada or the U.S.A. Most of the states have rigid admission requirements. Skipping grades is losing ground as a grade unit system of promotion is more favoured. There is much evidence to show "that younger bright children upon completing the elementary school do as well or better in junior or senior high schools and have no greater problems of adjustment."[2] In England, on the other hand, admission already takes place at the age of 5, and in many cases has been earlier. Skipping classes is not very frequent in the primary school here since admission to secondary school cannot take place before the age of 10 years, 6 months, nor later than 12 years, 5 months.

Many administrators and boards are studying the programmes of the Major Work Classes in Cleveland or the

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[1]Ministry of Education, England, Half Our Future, A Report of the Central Advisory Council for Education (London, Her Majesty's Stationery Office, 1963).

[2]F.Brumbaugh, "Special Grouping," Talent and Education, E. P. Torrance (ed.), p. 101.

partially segregated classes in the Colfax School in Pittsburgh and at Hunter College Elementary School in New York, to determine if their programmes can be adapted. Many schools in Canada and the U.S.A. are using the ideas practiced in these schools.

The early admission of bright children to kindergarten or first grade exists in the U.S.A., but not in England or Canada. Physical, emotional and social maturity are also usually considered and the reason cited in its favour is that it does not involve "skipping" any curricular content. However, plans which provide for more continuity in curricular ordering such as combination grades or rapid advancement classes are preferred to grade skipping.

Enrichment and Ability Grouping

One practice common to all three countries is enrichment. The definition of enrichment emphasizes the quantity of learning as well as quality of the experience provided. Enrichment is not adding more of the same content. In the three countries, since the breadth and the depth of the content depends upon the individual teacher, who in many cases is not specially qualified to teach the gifted classes, it is difficult to judge how much lip service is given to it. Moreover enrichment requires specializing in a given area, which is possible only if a specialist in a subject takes charge of such a class.

This, however, is not practiced in most junior high schools where only one teacher teaches the enrichment class, which comprises two different grades. Moreover, enrichment is provided through some kind of activity which is difficult to evaluate. Three types of enrichment, through acceleration, grouping or streaming and enrichment within regular school programmes are provided in Canada and the U.S.A. and England. It is felt that acceleration fails in many cases to provide for breadth of experience. The difference is that teachers in Britain agree that it is in a child's best interest to be taught with those who most closely resemble him in age, ability and aptitude, whereas the belief widely held in America that dull children are stimulated by the bright without holding them back, is rejected.

The practice of segregating children into a class by themselves has strong proponents and active opponents. Grouping is accepted on the ground that it reduces individual differences within the classroom. However, Ruth Strang points out that gifted children are far from being a homogeneous group, that there are wide individual differences among children designated as gifted; so it is felt that provisions for enrichment on an individualized basis are needed.

Many schools provide an enriched programme within the regular classroom and within the extra curricular

programme of the school. This practice is a common one in the three countries. But the shortcomings of this method are many as any extracurricular activity of any kind is taken for enrichment as well as regular classroom work, with few additional exercises, is mistaken for richer experience. There seem to be many supporters of enrichment within the regular classroom but there is very little research evidence supporting this method. There is a need for additional research to resolve the relative merits of enrichment in the regular classroom as compared with other methods. However, enrichment in the regular classroom, depending on the initiative of the class teacher, seems to be the most popular method. This is evident from the large number of guides developed for the use of teachers in providing enrichment in the regular classroom. These guides include publications by the University of Texas, the Metropolitan School Study Council, and the Public Schools of Long Beach, Portland, San Diego, and Columbus, in the U.S.A., and by the Departments of Education of Saskatchewan and Ontario in Canada, in addition to those prepared by the individual local school boards.

It is agreed, however, that expert teachers must be secured in order to provide effective enrichment and that teachers should be trained specially. It is argued that the best teachers should be selected to work with the gifted. The scarcity of Teacher Training Centres for

teachers of the gifted has led to a mode of selection which depends upon the best teacher who is enthusiastic and inspirational rather than especially trained or academically superior. In many schools in Canada and the U.S.A. teachers are not specially trained nor have they attended any in-service programme.

There is no literature available to prove to what extent teaching must be effective in order to provide enrichment. Interviews with different teachers showed that the individual teacher selects an appropriate method to accomplish the purpose for the enrichment programme on her own initiative. In some places in the U.S.A. and Canada help is provided by principals or consultants but even consultants are not specially trained in this field. Two subjects - reading and arithmetic are receiving much attention. Reading material in most schools is amply supplied as texts, library books, newspapers, magazines, pamphlets, encyclopedias and other reference material.

The class should be small if the teacher is to provide effective enrichment. Though there is little research evidence to indicate the optimum size of a class Ross and McKenna have summarized research findings on class size. Many favour small classes.[3] In the U.S.A. the class size varies from 20 to 30. In Canada the minimum

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[3]A. J. Lewis, "Enrichment of School Curricula," Talent and Education, E. P. Torrance (ed.), p. 92.

number required is about 25. In England, classes in secondary schools of all kinds are not to exceed 30, but in fact many classes do. Strangely enough this occurs more frequently in the secondary grammar schools provided by the Local Education Authorities than in secondary modern schools. In certain school boards the practice was to bring in the high average group to make up the appropriate size approved by the school board. The practice of determining the size by grade level is common in all three countries whether it is accomplished through streaming or through ability grouping.

All the special programmes aim at enrichment. Every school and every teacher concentrates on this goal. The need, however, is that the enrichment programmes be appraised. Enrichment facilitates better teaching methods, and better curricula, but as so much is left to the discretion of the teacher or individual school or principal, there is a need to appraise the quality of an educational experience. It is true that one administrative plan cannot be adapted in all schools and for all grades, but there is a need for greater exchange of ideas so that the programmes are appraised and the successful plans may be adopted by other schools. It is still felt that individual programmes fail to use the general data available from studies of the gifted. Each programme seems to have its own direction and seems to concentrate on one aspect of

education, usually the academic, and other programmes have been developed piecemeal with little continuity from grade to grade or from school to school.[4]

In Canada where education of the gifted is on the basis of enrichment, the advanced or enrichment classes are in the sixth and the seventh grades, both combined and taught by one teacher. There is no doubt that to a certain extent enrichment is provided, but how far it is practical to expect enrichment by one teacher in all the major subjects with two classes combined, raises some doubt. School principals often pointed out that the best teachers were teaching these classes but it was also stated that in one area the teachers of different schools have not met so far, nor have they met with teachers teaching average students, to estimate the limit of enrichment. Moreover, the fact that children were not catered for in Grade VIII or IX, nor was there any follow-up study of these, leads one to think that more effort must be made, otherwise the labour is lost. On the whole the classes were well equipped for enrichment in all schools where provisions were made. Special grouping is favoured so children can enjoy the impact of one keen mind upon the other. Subgrouping is common within the classroom.

With respect to methods of teaching, enrichment for the bright may be given lip service as the "teaching"

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[4]M. T. Freehill, op. cit., p. 192.

takes the form of long assignments in the same content or the projects may include much reference work without understanding. The variety of experiences advocated for the bright children may be limited, or may be of the same nature as the average students receive in some good schools under good teachers.

Acceleration

The rapid advancement classes in junior high schools have become common in recent years. These programmes allow selected students to complete two years of study in one, or three years of study in two. They have much to recommend them.

Altogether, there seems to be greater articulation of secondary school and college programmes especially in the U.S.A. The Advanced Placement Program supported by the Fund from 1952 to 1955 and then taken over by the College Entrance Examination Board is making great progress. It has encouraged the development of courses in high schools of first year college level. Another facet of the programme involves the administration by Educational Testing Services, of Advanced Placement Examinations in the several fields. This phase of examination has grown rapidly over the years. A majority of the colleges co-operating in the programme allow both Advanced Placement and academic credit for outstanding students, and thus the

programme encourages acceleration. Many states are enthusiastic about the programme. Though one does not find this practice in Canada, one senses the awareness among Canadian institutions regarding more co-operation between universities and high schools (for example, McGill has recently set up, under the chairmanship of its Registrar, such a committee).

Advanced placement does not accord well with English University practices. The statutes of an English university require three years of residence as a condition for the award of a degree, and admission is restricted to students of eighteen years of age. Little or no variation of courses is permitted. The only step forward in this area has been the abolition of the Intermediate Examination in certain universities to students who have made good marks in three "A" level subjects. Such students may proceed directly to a three-year honours programme, with only the final examination compulsory.

However, on the whole, the special programming for gifted children has been confined to metropolitan areas and very little has been done in semi-urban and rural areas in all the countries, and in many places no attempt has been made at all.

Identification of the Gifted

Educational opinion on testing proposes the need of total evaluation of the child before he is identified as a gifted child, but this cannot be achieved by intelligence tests alone. The tendency to depend on several criteria is common. A report from the U.S. Office of Education summarized practices in twelve hundred secondary schools for the 1951-52 school year. Only in large schools (over one thousand students) was the group intelligence test first among techniques used in identifying the gifted.[5] Larger schools use quantifiable information. Various school boards in Canada use various group and individual intelligence tests and solely depend on I.Q. though scholastic aptitude and achievement tests are also administered. Colleges in the U.S.A. use the Educational Testing Service instrument formerly known as the A.C.E. Psychological Test. In Canada and the U.S.A. the Stanford-Binet or one of the several Wechsler scales are mostly used. There is a tendency in most schools to prefer evaluation by careful observation by the teachers and parents. One finds, however, the gifted class containing children with as low an I.Q. as 110. Most of the enrichment classes have students who have an I.Q. of 110-120, but who do good work. At special schools like the Bronx High School of Science and Hunter College, the gifted

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[5]Freehill, op. cit., p. 74.

group is mostly within 130-150 I.Q. though a few students have a much higher I.Q. than 150. The average I.Q. in Major Work Classes in Cleveland is 125. In the special reading classes the I.Q. was above 110 in most schools visited. It is felt, however, that it is desirable to discover ability, both functioning and latent, and that testing plays a vital role.

In England the "A" streams are usually selected on the competitive basis of attainment in all the usual school subjects. In the primary grades, the selection tends to be on the basis of reading ability alone. The use of a group test of intelligence is a part of the selection process at 11 plus. Individual tests of intelligence are given only to borderline candidates in that process or to children attending child guidance clinics, or to those thought to be educationally sub-normal.

In selection processes, general mental ability has usually been a primary consideration because it has been demonstrable that school achievement is highly correlated to mental age than to chronological age. However, there is great diversity in using the different individual and group intelligence tests. One finds, however, that many other personnel are employed in identification. In Canada the school or the school board may do it. In the U.S.A. the City Board of Education or the school psychologist may do it. Early identification is favoured in most places, as

it has been shown by Burke and Hobson that there are no gross discontinuities in the academic progress of bright children. The advantages they show over other children in academic achievement are evident in the early grades and continue to be so later. The emphasis is somewhat toward the British point of view as shown by Burt, Thomson and Vernon, to the effect that a general factor, measured by Stanford-Binet and Wechsler tests, and a limited number of group factors, account for most of the school achievement measures.[6]

Ideally an identification programme in the U.S.A. and Canada makes use of all appropriate and available methods and persons in the school, the home and the community. Intelligence and achievement tests are usually the means of screening for above-average ability, but some schools make use of school grades and observation of teachers, parents and the children. The more complete the information the less chance there is of a very able child being overlooked.

The highly gifted child frequently differs as much from the moderately gifted as the moderately gifted differs from the average and yet there is no indication on the whole that in Canada or in the U.S.A. or England much is being done to differentiate programmes, materials or

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[6]M. C. Reynolds, "Acceleration," Talent and Education, E. P. Torrance (ed.), pp. 110-111.

methods of teaching. It is felt in Ohio that there should be established a state registry of highly gifted children.[7] It will be equally worthwhile if such an attempt is made in all the states and provinces of the U.S.A. and Canada. This is especially needed so that they may not be lost as they move from grade to grade or from school to school.

Teacher Training

The success of any school programme depends on the quality of its teachers. The questions of qualifications, traits, special preparation or in-service experience are to be considered in the training and selection of teaching personnel for work with the gifted. The teacher should not only be a scholar with academic background, but well-trained professionally in this area from the point of view of both method and curriculum. Besides this there should be continuous in-service training for the teachers including visits to other schools.

As mentioned before, there are only two places where full-time courses are given for teacher training of the gifted - Hunter College, New York, and the University of Pennsylvania. Most of the teachers are academically prepared but not trained specifically in the field of the gifted children with regards to curriculum design, their psychology and methodology of teaching. Most teachers are chosen on the merit of their being very good teachers with

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[7] W. B. Barbe (ed.), One in a Thousand, p. 78.

the average students. In the U.S.A. teachers do attend the summer schools and have contacts with the other teachers of other schools but in Canada the local school boards seem to work in a self-contained unit evolving their own curriculum and methodology. There is little proof to show that they have regular in-service programmes or contacts with other teachers. In certain areas in-service programmes through the consultants were working well as in Toronto and Etobicoke, but in other places the teachers seem to be on their own. As the facilities for training teachers of the gifted do not exist in Canada it is difficult for teachers to be trained specially unless they go to the U.S.A. The schools on the whole depend upon the resourcefulness of individual classroom teachers in finding ways of stimulating the learning of their pupils. Rarely can conditions be achieved, but it is reasonable to expect special competencies, as for example, the use of selective methods to teach a special curriculum for children who show fundamental learning differences. The view held is that there are no special methods for teaching the gifted, and that it only requires adaptation in methods and contents. One important characteristic is ability to use laboratory and workshop methods and have effective teaching technique. Both phases require special training as they require highly developed skills. It was seen that teachers have not been trained or prepared

specially in the above-mentioned techniques in any of the countries now being studied. There are efforts on the part of the U.S.A. and an awareness of this need is felt in Canada. However, much remains to be done to make every teacher pedagogically competent. Lack of teacher preparation in all the countries is due to scarcity of programmes for training and certification, in part due to the lack of enrichment classes which can be used as a part of a regular training programme and also due to the lack of agreement on desirable qualifications for teachers.

Training opportunities are being expanded but very few programmes are as complete and orderly as those offered for the teachers of the retarded. There are scattered programmes in courses in methods for the mentally advanced, through summer school courses and some are offered as electives in other general certification programmes, but the programmes need to be well established so that every teacher is trained in her special field.

As one reviews the literature and the practices, it is evident that there are definite trends in education of the gifted as a whole whether in the U.S.A., Canada or England. One can list them easily.

1. That the provisions for the gifted continue to increase. There are new programmes commencing everywhere and there is a continuing proliferation of enrichment material.
2. Enrichment brings new disciplines into the curriculum

as there are courses now offered in electronics, mathematics, science, opera production, structural linguistics, integration of the arts.

3. Courses of study are being telescoped and stiffened. High school students take electives and receive college credit or register for advanced work in college without the need of freshman pre-requisite.
4. Most gifted youth plan to enter fields of science with increasing emphasis on science and technology.
5. More schools, research organizations and school boards are planning research on the gifted.[8]

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[8]A. J. Tannenbaum, "Recent trends in the Education of the Gifted," The Educational Forum, XXVI (March, 1962), 333-343.

CHAPTER VI

RECOMMENDATIONS AND SUGGESTIONS FOR RESEARCH

The past decade has seen a growing interest and a resurgence of research in this area of exceptionality. There is much research going on in schools or special organizations and this puts a tremendous responsibility on and presents challenges to education. However, there is a great need for better articulation and co-ordination among various countries statewise and schoolwise. There is a great need for increased interest in participation on the part of school personnel and increased and multiple co-operation and interaction between the public, school personnel and research agencies in all the three countries studied in this thesis.

The research studies on separate fields are too few to be convincing. Ekstrom observed that the studies differ widely in quality, purpose and significance.[1]

In the area of identification of the group of academically talented, there is disagreement on the criteria used. This is due to the divergent opinions

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[1]R. B. Ekstrom, "Experimental Studies of Homogeneous Grouping," A Critical Review, The School Review, LXIX (Summer, 1961), 222.

concerning the education of the academically talented. Study is needed for educators and psychologists to state precisely the criteria they use for identifying the gifted so as to make possible a clearer interpretation of the findings of research.

Concerning the programmes for the academically talented, the development of instructional programmes, work methods and changes in behaviour require the objectives to be clearly delineated. Considerable disagreement exists among classroom teachers and principals as to what should be done for the academically talented with regard to required subjects, number of students per class, etc. The question regarding curriculum and instruction must be settled in order that the academically talented receive effective education. There is need for inter-state seminars or in-service programmes and seminars on an all-nation basis so that research may ascertain better results. There is no doubt that excellent educational provisions exist in some schools but very few people know about them. There is little sharing and exchange of ideas and so more interaction among schools is needed, especially when many untrained personnel in this field want to start a new programme. There is great need for persons involved in the research process or responsible for the programme to be well grounded in academic fields, and in the application of research methods in this field.

Schools claim to have managed the problems of grouping, acceleration and grade placement, but the major question of educating talented youngsters still remains unanswered. How should the actual course content and teaching method be made different for these students from the methods used with the average students? The extent of provisions for enrichment of the curriculum remains undetermined. Whether it means not so much an embellishment of existing course content but new and different content, or whether it means accelerated coverage of a standard course followed by advanced content or digging more deeply and extensively in selected areas is not defined. There seems to be a plethora of practices. Experimentation is under way in areas of mathematics and science. New teaching methods such as those at the University of Illinois Campus School are being explored,[2] but the question of enrichment remains unanswered. There is a need to adapt curriculum with the help of curriculum research. Curriculum experts on the state level need to join forces with those who are interested in the education of the gifted.

The academically talented learn in ways quite similar to those of average children, yet the able child makes use of unusual learning processes, hence study is

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[2]National Education Association, Research on the Academically Talented Student, p. 65.

needed concerning the specific characteristic of the learning process of the academically talented in areas such as concepts, problem solving, creativity. Along with this the specific teaching procedures require study, as does the question of relatively flexible programmes compared with rigid ones, or the effect of richly valued materials, equipment and resources on gifted children.

The major needs seem to be to include a comprehensive study of the materials and methods to be employed when working with gifted children. This brings in the great need of teacher training with completely specialized training in the area of the gifted. Promotion of summer workshops directed towards the education of highly gifted children needs more co-ordinated efforts. Follow-up of the gifted children should be started and the kinds of educational programmes which appear to benefit them in particular should be studied with the help of trained teachers. Research has scarcely touched fundamental problems of teacher preparation necessary to serve the needs of the able children. Studies are required in every aspect of the teacher's training.[3] Perhaps a prime one is a survey of the U.S.A., Canada and England to see what is being done to train students to teach academically talented children. Questions such as these should be investigated: (1) How do the role requirements of the teacher of the

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[3] Ibid., p. 73.

academically talented compare with the special qualifications of the teacher of other pupils? (2) Do different types of provisions as to enrichment, acceleration and ability grouping require different kinds of teachers? (3) What type of training is needed to prepare teachers to educate academically talented children?

Very little has been mentioned about the evaluation of the students from a scholastic rank point of view. Many schools which provide enrichment of the curriculum as prescribed by the school boards test their gifted students with the same state conducted examination meant for the average. This is a common practice in England and Canada. There is need for survey and research as to the kind of evaluation that ought to be made of the academic talented to promote them from one grade to the next, especially in high schools. (This will help to evaluate the programmes whether they result in an increased achievement by the gifted or not.) Large school systems may develop their own achievement tests.

It is true that much research is under way and that a beginning has been made to compile evidence concerning the many facets of the talented. It is a new, growing field and the need is that educators and everyone concerned should be sensitive to the importance of the education of the gifted. There is need that the research specialists arrange to work with teachers or school

psychologists and administrators. There is a need for arrangements that provide the possibility of securing information. A lot of information is available in individual schools but in the majority of places state-wise information is sadly lacking and there is no central authority to put the information or data together, especially in Canada and England. A start has been made in the U.S.A. by the U.S. Office of Education, Health and Welfare. This might lead to better articulated programmes from nursery school through college and university.

The concept of excellence, the principles of equalitarianism and competent performance fall into the same category. Though we are still confused about our emphasis on individual performance and equalitarianism and hereditary stratification it is gratifying to note that these are considered together and it is hoped that a better understanding will enable us to reach satisfactory conclusions. It is worth remembering too that talent is not enough by itself. The question raised is - talent in the service of what values? Talent in the service of truth or beauty or justice? None of these is complete by itself. The additional requirement is a commitment to the highest values of the society. As mentioned in the Rockefeller Report it is possible for us to cultivate the ideal of excellence while retaining the moral values of equality. A challenge must be recognized before it can be

met. Our society will have passed an important milestone of maturity when those who are the most enthusiastic proponents of a democratic way of life are also the most vigorous proponents of excellence.

There is a growing awareness among others that the development of special programmes for the talented are not only important but crucial within a certain framework. Such programmes should not only be related to the personal, the social, and the intellectual development of the individual student, but should be geared to cope with the immediate and urgent problems of quality and excellence in the face of quantity which confronts the schools and societies today. There is an awakening and an effort to hold these in balance and the extreme emphasis on individual performance and extreme equalitarianism can be avoided through continuous effort and research.

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Appendix A

States and Administrative Units maintaining special education programmes in the area of gifted children, and number of children enrolled, Feb., 1958.[1]

State	Mentally Gifted	
	Elementary	Secondary
Alabama	117	-
Arizona	900	393
Arkansas	-	25
California	3,059	2,093
Colorado	44	181
Connecticut	18	152
Delaware	6	264
Florida	624	120
Georgia	151	1,022
Idaho	-	2
Illinois	453	2,112
Indiana	721	-
Iowa	132	158
Kansas	32	25
Kentucky	0	69
Louisiana	234	131
Maine	0	0
Maryland	10	2,074
Massachusetts	614	553
Michigan	493	584
Minnesota	61	91
Mississippi	0	0
Missouri	1,845	68
Montana	0	0
Nebraska	580	9
Nevada	27	-
New Hampshire	108	55
New Jersey	254	274
New Mexico	0	0
New York	4,633	14,548

[1]U.S. Department of Health, Education and Welfare Office of Education - A Directory - Special Education Enrollment in local public schools, U.S. Government Printing Office, Washington, 1961.

(table continued)

Appendix A (continued)

State	Mentally Gifted	
	Elementary	Secondary
North Carolina	358	0
North Dakota	0	0
Ohio	2,451	1,621
Oklahoma	0	648
Oregon	127	-
Pennsylvania	776	4,227
Rhode Island	-	204
South Carolina	-	75
South Dakota	12	30
Tennessee	0	0
Texas	277	16
Utah	0	0
Vermont	20	-
Virginia	0	0
Washington	591	305
West Virginia	0	0
Wisconsin	80	20
Wyoming	0	0
District of Columbia	0	0

Appendix B

THE CONTINUOUS PROGRESS PLAN

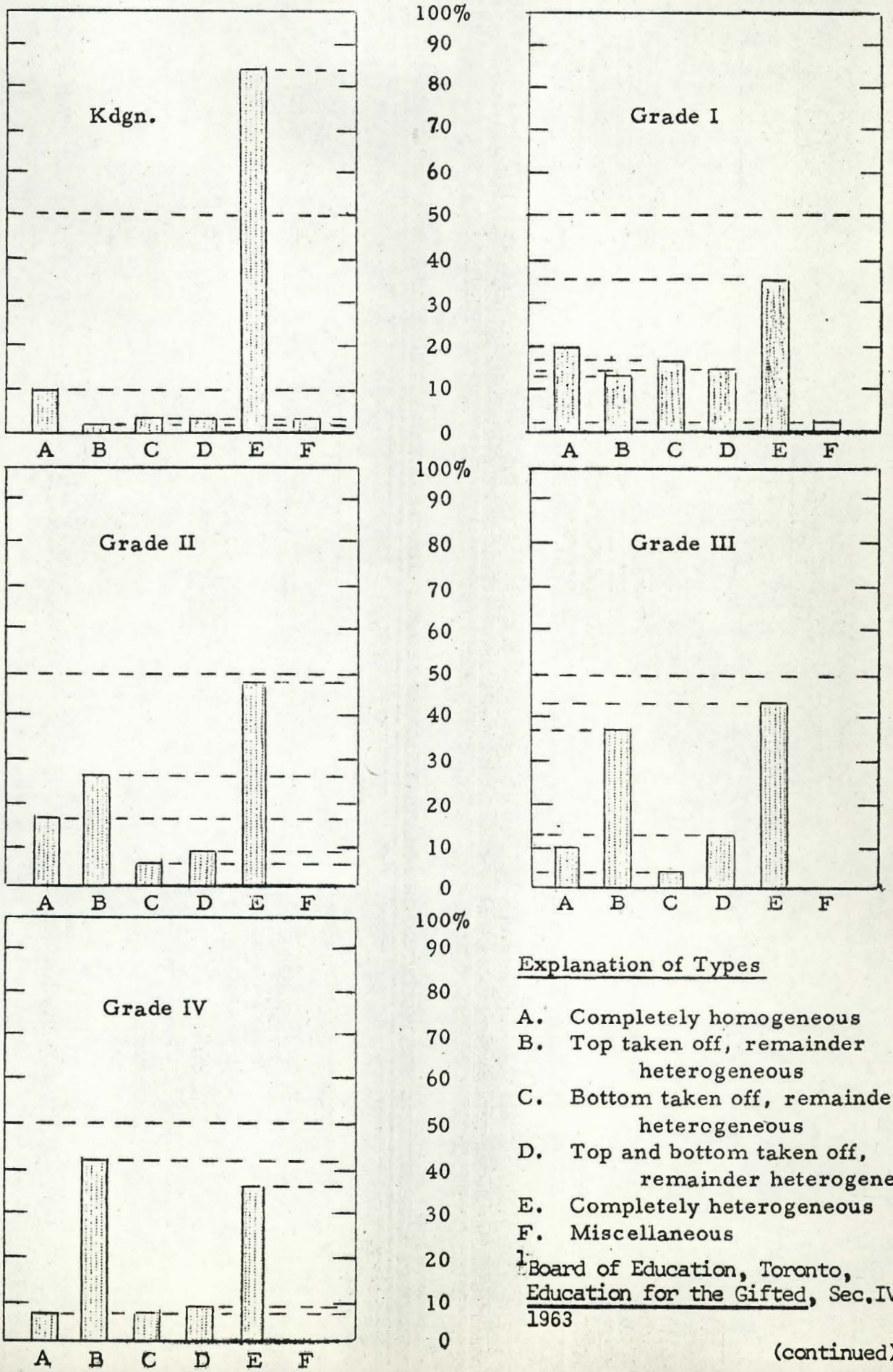
	Observation & Screening Year			Modified Grade Plan starts in Second Year and continues until the end of the Fifth Year except for slower pupils										Regular Program Again
	Grade I			Grade II			Grade III			Grade IV			Grade V			Grade VI
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
The Five Year Superior Achievers Program	Plus Enrich-ment			-- 4 Units --			-- 4 Units --			-- 4 Units --						Plus Enrich-ment
	First Yr.			Second Yr.			Third Yr.			Fourth Yr.						Fifth Yr.
The Six Year Average Achievers Program	Regular progression from year to year as at present															
	First Yr.			Second Yr.			Third Yr.			Fourth Yr.			Fifth Yr.			Sixth Yr.
The Seven Year Slower Learners Program	Objective is about 2 1/2 units per year but subject to variation															
	First Year			Second Year			Third Year			Fourth Year			Fifth Year			Sixth Year	Seventh Year

Source: Edmonton Public School Board, The Continuous Progress Plan, Principals' and Teachers' Manual, Third Draft, 1962.

Appendix C

TYPES OF STREAMING IN TORONTO SCHOOLS 1963[1]

Results of Survey



Explanation of Types

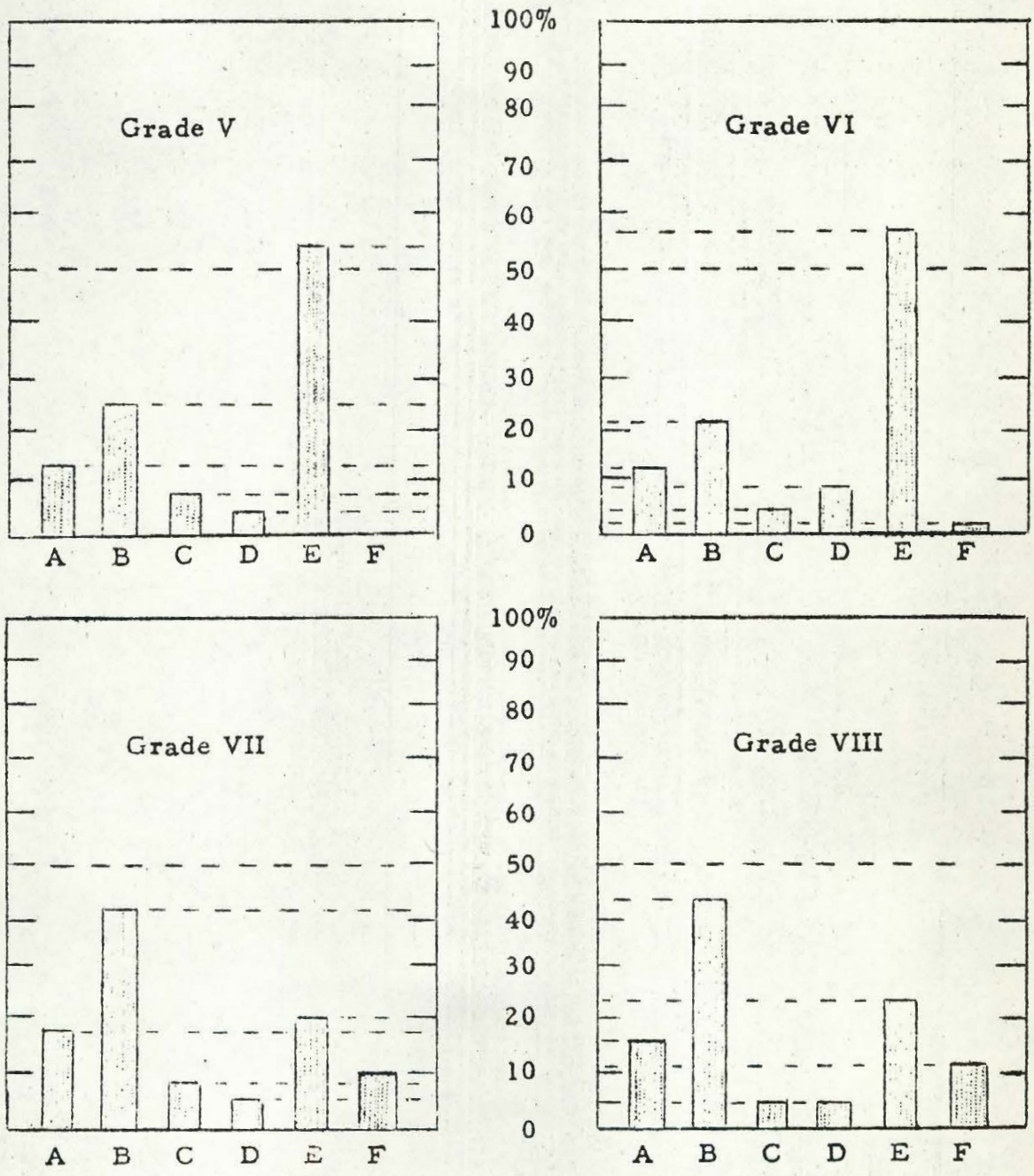
A. Completely homogeneous
B. Top taken off, remainder heterogeneous
C. Bottom taken off, remainder heterogeneous
D. Top and bottom taken off, remainder heterogeneous
E. Completely heterogeneous
F. Miscellaneous

[1] Board of Education, Toronto, Education for the Gifted, Sec.IV, 1963

(continued)

TYPES OF STREAMING IN TORONTO SCHOOLS 1963[1]

Results of Survey



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A. Completely homogeneous
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[1]Board of Education, Toronto, Education for the Gifted, Sec.IV, 1963.