THE UNIVERSITY OF MANITOBA

THE NATURE OF GIFTED CHILDREN AND ADMINISTRATIVE PRACTICES IN THEIR EDUCATION WITH PARTICULAR REFERENCE TO ACCELERATION

BEING A THESIS SUBMITTED TO THE COMMITTEE ON POST-GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

BY

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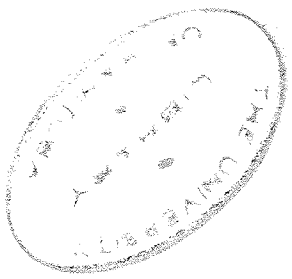

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THE NATURE OF GIFTED CHILDREN AND ADMINISTRATIVE PRACTICES IN THEIR EDUCATION WITH PARTICULAR REFERENCE TO ACCELERATION

by

V. S. Dotten

M. Ed. Thesis Abstract

Purpose of the Study:

It has been administrative policy in Winnipeg schools since 1952, to provide for the acceleration of bright children one year during their elementary school career. In actual practice the number of children being accelerated in Winnipeg schools is very limited.

It is the purpose of this study to review the whole problem of educating bright children, and to present evidence of the wisdom of the policy of acceleration. It is hoped that its findings will encourage more school administrators to adopt this procedure.

Method:

The nature of the gifted, their identification, the history of education of the gifted, and modern practices to meet their needs, are described. While attention is directed to the merits and demerits of segregation, and enrichment in the regular classroom, most of the material deals with success achieved elsewhere in the practice of acceleration. Its early acceptance, its later fall into disrepute,

and its rise again to respectability, are covered in some detail.

The author also made a four-year case study of twenty-four accelerated children, who were matched with non-accelerated controls. These two groups were studied through to the end of their first year of Junior High School. The treatise gives a full report of their academic achievement, and describes various sociometric devices which were used to assess their emotional and social adjustment.

Main Recommendations:

1. All bright, mature, children should be given the opportunity to accelerated one year in elementary school if administratively possible.
2. At least two group intelligence tests, or better an individual test, should be used as a measure of mental ability for accelerates.
3. An I.Q. of 120 should be considered the minimum for accelerates in most cases.
4. Parents, teachers, and any other personnel, having contact with the child, should help decide if a student's social and emotional maturity are adequate for acceleration.
5. Parents' consent and co-operation should be solicited, before embarking on an accelerated program.
6. Careful watch should be exercised at all times, to decide if a student should continue in the accelerated program.

7. Accelerates should move forward in a teaching group, if possible, and not singly.
8. Chronological age should be weighed very carefully in deciding upon the wisdom of acceleration.
9. Candidates for acceleration should have a reading grade at least six months in advance of their present grade placement.
10. The teacher of accelerates should be a superior teacher, who is in favor of the procedure, and preferably should continue through the acceleration period.
11. Extra emphasis should be placed on English in the program of instruction for accelerated students.
12. Enrichment of the curriculum in other subjects should accompany acceleration.

TABLE OF CONTENTS

CHAPTER I

Introduction

At a regular meeting of the Winnipeg Elementary Council, held on Wednesday, April 9, 1952, the following resolution[1] was adopted - "That a reading readiness program be undertaken in the spring of the Kindergarten year. This program is to be the first step in the establishment of a flexible accelerated, normal, and retarded program", and further, "that there may be provision, by means of flexible, homogeneous groupings for pupils to move through Grades IV - VI in from two to four years, as in the primary grades. On the other hand we do not favor retardation out of the child's physical and social maturity level, neither do we favor acceleration out of this level." This confirmed what had really been accepted policy since September 1951.

The Superintendent of Winnipeg Schools reported on December 30, 1954 that, "The flexible primary program introduced three years ago has now completely justified itself. As a result of experience, a better choice is now made of those selected for acceleration. It is found generally that by the end of Grade III, these accelerated pupils achieve as well as or superior to those who have taken the normal program."[2]

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1. Minutes of the Elementary Council, Wednesday, April 9, 1952, p.2.

2. School District of Winnipeg No.I - Annual Report for the year 1954, p.5.

In that year, however, the Assistant Superintendent[3] reported 44 boys and 34 girls accelerated in Winnipeg schools out of a total elementary school population of 24,963. It is apparent from these statistics that the policy of acceleration in the primary grades in Winnipeg schools has had a very limited effect in practice. It may be that many administrators in the schools are not convinced of the wisdom of accelerating their students.

Purpose of Thesis

It is the purpose of this thesis to review the whole problem of education for the gifted, in order to try to justify this policy of acceleration. Evidence will be given of success achieved elsewhere in the United States and Canada by accelerating the more mature, brighter, students. A five year case study of twenty-four accelerated students in a Winnipeg school will be described. The academic achievement of these children will be followed in detail through their elementary grades, and in their first year of Junior High School. A detailed study of both their social and academic adjustment will be made. The performance of these children will be compared with a large grade sample of non-accelerated students. Of greater significance will be their performance compared with a control group of twenty-four children, matched in sex, mental ability, school experience, and socio-economic background.

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3. Thomson, A.D. The Continuous Program in the Primary Grades - A Report, January 10, 1956.

It is hoped that by this presentation, the policy of acceleration in the elementary grades in Winnipeg Schools may gain wider practice. Another advantage of the study might be the avoidance in future, of undesirable results of acceleration which can accrue by insufficient care in the selection of students.

The whole problem of acceleration is only a part of the larger area of the education of gifted children. To understand adequately this relationship it would appear necessary to survey this larger field, before attention is focused on acceleration in particular. This involves the important problem of identification of the gifted, the nature of the gifted, their importance to society, the history of education for the gifted, and modern provisions for their special needs. The remainder of this chapter, and the next, will be devoted to these topics.

Identifying Gifted Children

Many interpretations of the word "gifted" have appeared in educational literature. Most often it is referred to as possessing a high general intelligence. The two outstanding studies of gifted children conducted by Terman of Stanford University and Hollingworth of Columbia University, used superior mental ability as the primary criterion for the selection of candidates for their experimental classes.

According to Witty[4] "the use of the intelligence test will not lead to the identification of all children who are gifted, for studies show relatively low or negligible relationships between test-intelligence and measures and estimates of ability in music, art, and other areas."

"The use of the I.Q. as a criterion of giftedness brings about the identification of children who possess, in high degree, abstract or verbal intelligence. However if children are reared in impoverished environments, or in areas very different from the typical community, the verbal use of intelligence has limited value in assaying their ability", Witty states.

Hollingworth, however, puts great faith in the intelligence test. She stated "Nothing so readily and accurately identifies a gifted child as a good mental test given individually. By means at present available, identification is more reliable with older than younger children."[5]

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5. Hollingworth, Leta S. "Gifted Children - Their Nature and Nurture" - The MacMillan Company, 1926, p.75.

Baker[6] suggests there are many approaches to a satisfactory definition of the gifted. Even the term "gifted" is undesirable in some respects since it suggests special privilege, which is not the real philosophy behind their education. In Cleveland a more satisfactory term "major-work" classes has been adopted to indicate that they are capable of comprehensive assignments and of more responsibility. There are various bases of selection which should be taken into account. One of them is rating on intelligence tests. Most of the classifications set as a lower limit an I.Q. of either 130 or 140 with only about 1 percent falling into this rigid classification. Such a strict classification might easily exclude types of special abilities such as music, art, and allied subjects who potentialities are not measured directly by intelligence tests.

Baker further states that in Detroit ten items were rated in selecting candidates for their Major-Work classes:

1. General Behavior
2. Effort as related to ability
3. Group intelligence rating
4. Rating of age for grade
5. Height ratio for age
6. Weight ratio for age
7. Rating for comprehension in reading

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6. Baker, Harry J. "Introduction to Exceptional Children" - Macmillan, 1944, pp.282-3.

8. Rating on recent scholastic marks

9. Rating on number of permanently erupted teeth

10. Rating for participation in school activities

All the pupils were rated on this 10-item scale on a five-point scale. The upper 5 percent were chosen. In general all-round abilities were represented in this process of selection.

The workshop[7] on education of gifted children held in San Francisco State College in 1951 came to the following conclusion:

"1. Giftedness is defined as outstanding creative ability in any one or more of a number of different areas of human achievement.

2. Giftedness may find expression in the realm of ideas, things, arts, human relations, and other areas.

3. We do not know all the elements that make up the concept of giftedness."

"No one I.Q. was accepted as an arbitrary line of demarcation to determine where abstract giftedness begins, although it was realized that for all practical purposes, an approximate intelligence quotient of 130 or more on an individual test, would point to a high degree of intellectual capacity demanding appropriate adjustment in the school program."

The Educational Policies Commission[8] of the National Education Association, and the American Association

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7. Report of Workshop on Education of Gifted Children - San Francisco State College, Summer Session, 1951, pp.7 & 8.

8. Education Policies Commission "Education of the Gifted". National Education Association, Washington, D.C. 1950, pp.39-44.

of School Administration,believes that in formulating policy to guide the education of the intellectually gifted, it seems desirable to distinguish between the highly gifted and the moderately gifted. "The term 'highly gifted' is used to designate those who are in the top 1 percent of the total population with respect to intellectual capacity (that is roughly individuals with an I.Q. above 137). Similarly, the term "moderately gifted" will apply to individuals who fall within the top 10 percent,but below the top 1 percent (that is between 120 and 137 I.Q.)." The Commission while believing that musical, artistic,and mechanical abilities,are also often associated with giftedness, yet none is closely related to intelligence. But the essence of the giftedness of musicians, artists and inventors appears to be creative imagination and our best aptitude tests do not discriminate between creative ability and deft manipulation. It believes,furthermore,that "ability to score on an intelligence test is related to success in school and college, and individuals who make high scores on intelligence tests in youth, are much more likely than others to attain distinction in adult life. We recommend the use of intelligence tests in identifying gifted children and youth." When test scores are used as the only criterion of giftedness, there is not likely to be serious errors within the group identified as gifted; but it might not include within that group, as many individuals as it should. Teachers judgments, cumulative records of test scores, school marks, anecdotal reports, should all be supplemented, the Commission believes.

Bristow, Craig, et al,[9] acknowledge giftedness may be measured by traditional tests, but it may be characterized by special abilities of a high order not necessarily associated with a high intelligence quotient. These abilities lie in such areas as the arts, mechanics, science, social relationships, leadership, and organization. A variety of influences may either help or hinder the full expression of the gifted childs abilities, the foremost of these being the drive to accomplish, the urge or motivation to use exceptional abilities, which not all gifted people have. Great unhappiness and sometimes serious maladjustments develop when a gifted child's mental tasks are too easy, or when he is denied adequate means of expression, or lack of understanding on the part of adults.

According to these authorities the discovery of giftedness in children is the responsibility of parents, teachers, school administrators, physicians, guidance counselors, and all others who live and work with children. While some gifted children are recognized in their early years, others may not show giftedness until adolescence or even maturity. Practically all studies of giftedness have revealed great waste due to failure to identify and encourage children, who might have made significant contributions to society, if they have been provided with means to develop and use these gifts.

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9 American Association for Gifted Children - The Gifted Child - Edited by Paul Witty - Boston: D.C. Heath and Company, 1951, pp.10-18.

They believe the following factors should be taken into account, physical, emotional, and social characteristics, and patterns of behavior day by day. Anecdotal records, photographs, and even self-evaluation are helpful in studying the child's potentialities and needs. While the current tests of general intelligence will not pick out all the gifted children in any group they are "probably the most effective single instrument now available for selecting such children." This test score itself, however, gives only the barest clue to initiative, creativeness, and intellectual curiosity. Aptitude tests are useful but to an increased degree depend on the background and training of those who interpret them. While parents are likely to be biased in estimating the intelligence of their children, their reports are of value. (Terman and Oden[10] found that traits most commonly noted by parents are quick understanding, insatiable curiosity, extensive information, retentive memory, large vocabulary, and unusual interest in such things as number relations, atlases, and encyclopedias). Early walking and talking, and learning to read during the pre-school period, also point up giftedness to parents. Since gifted children are likely to have superior parents the identification of these children by their parents is more likely. Some parents, however, do not recognize superior ability because they have no standard with

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10. Terman, Lewis M. and Oden, Melita H. - Genetic Studies of Genius -, Vol.IV - The Gifted Child Grows Up - Stanford University Press, 1947, p.25.

which to compare their children.

Those authorities further believe that this handicap does not apply where teachers are concerned, but even they sometimes fail to identify gifted pupils. Only 15.7 percent of the children nominated by 6000 teachers, each as the most intelligent in his class, were found to be qualified as gifted. Teachers are too prone to evaluate a child in terms of school achievement, but in many cases due to boredom with school tasks which furnish no challenge to their ability, poor habits of work and thinking, and a lack of interest in school,develop, resulting in low achievement. By overlooking the factor of chronological age, or by lacking standards of child development by which to judge, as well as being sometimes annoyed by, or jealous of, the gifted child, the teacher often fails to realize a childs mental superiority. However, an increasing emphasis is being placed on teachers' observations, as the ability to detect giftedness becomes an important part of teacher training. Terman and Oden[11] believe that while the man-in-the-street equates school marks with ability, teachers' estimates of school achievement are often inaccurate. They found that when school marks were compared with scores on reliable and valid achievement tests, large discrepancies were found. In every school grade there were gifted children whose achievement in one or more subjects was rated as average

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11. Ibid, pp.26 and 27.

or below for the grade, but whose achievement test scores showed them to be two years above their grade norms. Discussing the 1922 test of gifted children by standard achievement tests, they found the average achievement quotient was 144 showing the average gifted child's educational age was 44 percent higher than his chronological age. These same children had a school grade progress quotient of only 114. They concluded that standard tests pick out gifted children very much better than school marks, and therefore have a real place in identifying gifted children.

Hollingworth[12] defined the gifted as children who are in the top 1 percent of the juvenile population in general intelligence. Defining intelligence as "the power to achieve literary and to deal with its abstract knowledge and symbols" she was convinced that with this power of general intelligence nearly all mental abilities are positively correlated, and upon it success in scholastic work primarily depends.

Professor Hollingworth believed her choosing of the top centile was quite arbitrary and could just as easily been the top two percent. This is reflected in New York City now where children in this category are eligible for placement in the special classes providing they meet other qualifications. She emphasized the importance of identifying a

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12. Pritchard, Marion C. - Contribution of Leta S. Hollingworth The Gifted Child - op.cit., pp.49-51.

gifted child as early in life as possible. She contended "the problems of the gifted pertain chiefly to the period before twelve years of age, for the problems of the gifted person tend to be less numerous as he grows older and can use his intelligence independently in gaining control of his own life. The need for a supplement to the standard curriculum is greatest at the primary and elementary school level." While Professor Hollingworth regarded an individual intelligence scale in the hands of a competent psychologist as the most important single tool for identification of the gifted, she did not mean that it would reveal knowledge of the "whole child". In her selection of pupils for experimental classes she paid particular attention to physical and emotional maturity. She placed a great deal of weight on the recommendation of teacher and principal, and on personal interviews with children and parents. Thus social adaptability, emotional maturity, and qualities of physical fitness, were also taken into account. Pupils who repeatedly showed themselves to be inadequate in these were tranferred back to a regular school situation.

But Hollingworth[13] believed that a mind must be judged by its product, and the measurement of performance offers the only approach there is, or probably ever will be, the measurement of the mind. She felt that Terman's[14] measures by the Binet scale of 905 school children largely un-

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13. Hollingworth, Leta S. op.cit., p.26

14. Ibid., pp.28 and 43.

selected in the western United States in 1916 was a fairly accurate sample-survey of the school population. The percentage distribution of the children selected by Terman were as follows:-

The lowest	1%	go to	70	or below;	the highest	1%	go to	130	or above				
"	"	2%	"	" 73	"	"	; "	"	2%	"	"	128	" "
"	"	3%	"	" 76	"	"	; "	"	3%	"	"	125	" "
"	"	5%	"	" 78	"	"	; "	"	5%	"	"	122	" "
"	"	10%	"	" 85	"	"	; "	"	10%	"	"	116	" "
"	"	15%	"	" 88	"	"	; "	"	15%	"	"	113	" "
"	"	20%	"	" 91	"	"	; "	"	20%	"	"	110	" "
"	"	25%	"	" 92	"	"	; "	"	25%	"	"	108	" "
"	"	33%	"	" 95	"	"	; "	"	33%	"	"	106	" "

The best one per cent of the children who test approximately at or above 130, are most often chosen arbitrarily as the gifted, according to Hollingworth, who believed that the average college student succeeding in a first rate college probably has an I.Q. near 130.

Scheifele[15] states the most widely used individual intelligence test is the Stanford-Binet. It is used in selecting students for the Major-Work classes in Cleveland, (cut-off at 125) and has been employed in a number of other situations. However the relatively new Wechsler Intelligence Scale for Children, commonly called the Wisc, is another effective

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15. Scheifele, Marian - The Gifted Child in the Regular Classroom - Bureau of Publications, Teachers' College, Columbia University, 1953, p.18
2. Ibid., pp.2 and 3
3. Ibid., p.3

individual test, regarded by some psychologists as superior to the Stanford-Binet in identifying gifted children. Its merit lies in the fact that it provides a qualitative, as well as a quantitative index, of mental ability. The scale consists of six verbal and six performance tests, with an I.Q. for each of the two factors, and a total or Full Scale I.Q.

Scheifele believes the emphasis on intellectual superiority is largely due to the influence of the studies made by Terman and Hollingworth but "in view of the current broad concept of giftedness, it is evident that the gifted child cannot be identified by his high intelligence alone. Social and emotional maturity, physical health, and intellectual ability are all involved in every child's achievement of optimum development."[16]

She lists[17] the following as the kind of information needed, obtained from tests, rating scales, and inventories administered by specialists and teachers in the school; from the observations and reports of teachers, parents, and other adults who have been associated with the child; from conferences among school and community personnel; and from interviews with the parent and the child:-

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16. Ibid, pp. 2 and 3

17. Ibid, p.3

Personal data (birth age etc.)

Physical health (physical examination

Intellectual ability

Social - personal development

Emotional muturity

Social history (home, community)

Preschool growth and development

School history

Achievement in major subject-matter areas and special areas

Interests and hobbies

Special abilities (talents)

Out-of-school activities

The excellent report of the study of the education of gifted children, made in Toronto recently, sums up the whole problem of identification very aptly as follows:-

> "Current thinking among educators has become more liberal in the interpretation of giftedness. The American Association for Gifted Children has increasingly adoped the point of view of Paul Witty who states, "Perhaps it is desirable to broaden our definition and to consider any gifted child whose performance in a potentially valuable line of human activity is consistently remarkable."

With the inclusion of the words "consistently remarkable", this point of view implies the development of such qualities as drive, determination, and perseverance. Dr. John Long of the Ontario College of Education, uses the term "gifted" for those children whose ability makes it difficult to give them a challenging program of studies in regular classes conducted in the routine fashion. Thus the gifted child should not be thought of in terms of a single talent or high mental ability alone, but in terms of a generally

superior all-round development, as indicated in school records of his physical, social, emotional, and mental characteristics and fortified by parental observation and teachers' estimates."[18]

Nature of the Gifted

According to the Toronto study there are many current misconceptions regarding the characteristics of the gifted child. The most common are:

1. Physically, he is thought to be poorly developed, and non-athletically inclined.
2. Intellectually, he is considered to be a bookworm.
3. Socially and emotionally, he is thought to be a social misfit, and to be emotionally unstable.[19]

However, Bristow, Craig, et al, point out that "if opportunities for the expression and development of his gifts have been provided, and his physical, social, and emotional needs have been met, the gifted child has an attractive, well-balanced personality, with superior physical development and wide interests. The queerness, snobbishness, or antisocial behavior sometimes associated with superior intelligence is not a hallmark of giftedness, but rather a sign of the antagonism aroused by social rejection or ridicule."[20]

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18 Toronto Board of Education - A Study of Education for the Gifted Child in Public School, Toronto, 1954, pp.2-3

19 Ibid., p.3.

20 Bristow, Craig, Hallock and Laycock - Identifying Gifted Children - The Gifted Child - op.cit., p.13.

Physical Characteristics

More than sixty years ago, Sir Francis Galton noted that while there were exceptions as a group, men of great intellectual achievement were "a feast to my eye; being as they are such massive, vigorous, capable-looking animals."[21]

Hollingworth[22] says that educators have to guard against the illusion that the gifted child is small. He is usually small for his grade but is usually large for his age. Measurements show that ten-year-olds who are five years beyond the norms in mental age (150 I.Q.) are able to perform the intellectual work of fifteen-year-olds. But they are on the average only as large as unselected children of eleven and one half years, and are only as strong and as swift as eleven-and-one-half-year olds. As for physical development,[23] puberty is attained at earlier than the average age by the majority of gifted children. At birth they are about a pound heavier, and they are larger, stronger, and swifter as a group, than unselected children, at every age at which comparative groups have been measured.

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21. Galton, F. - Hereditary Genius - D. Appleton Century Company, Inc., New York, 1891, pp.331 and 332.

22. Hollingworth, Leta S. op.cit., p.112

23. Ibid, p.166.

Terman[24] cites the following figures in his monumental study of gifted children concerning the process of physiological maturation. Of the twelve-year-old gifted boys studied in California, 44.4 percent were pubescent, as compared with 15.5 percent found by Crampton for unselected boys in New York. For gifted thirteen-year-old boys the proportion of pubescents was 71.4 percent as compared with 27 percent of Crampton's cases. For girls, Terman obtained data showing that about 16 percent of those who test above 140 I.Q. have menstruated before their twelfth birthday as compared with 7 percent of unselected girls, and about 50 percent of the gifted have menstruated before the thirteenth birthday, as compared with 25 percent of unselected girls. This is a very great difference in favor of early maturation for the gifted.

On the annual Science Talent Search sponsored by the Westinghouse Electric Corporation, Garrison[25], states the findings substantiate those of Terman, Hollingworth and others relative to the physical status of gifted individuals. In the first search 3,175 high school students out of a total of 14,000 for whom entrance materials were requested, submitted complete entries. The male students of the 300 who were either winners or received honorable mention were compared with the others and with army inductees. The comparison

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24. Ibid, p.98

25. Garrison, Karl C. - The Psychology of Exceptional Children - Ronald Press Co., 1950, p.206.

for heights and weights show the following results:

	Average Height (Inches)	Average Weight (Pounds)
Highest S T S students	70.31	153.05
Other S T S "	70.01	153.85
Army inductees	68.14	144.76

In 1916 Hollander wrote "precocity is a morbid psychic condition, and those manifesting it often lack vitality and resisting power."[26] This statement was typical of popular opinion forty years ago in regard to the physical characteristics of the gifted, or as he was then called, the "precocious" child. The cartoonists conception of a mental prodigy, Garrison goes on to say, as a wizened, bespectacled youngster with hollow chest, is extravagantly wrong. Gifted children are stronger, larger, and healthier, than those of average mental powers.

Intellectual Characteristics

Terman and Oden[27] present the following highly condensed summary of the salient facts, obtained in 1921-23. Educationally the average gifted child is accelerated in grade placement about 14 percent of his age, but showed in mastery of school curriculum he is accelerated about 44 percent of his age. The net result is the average gifted child

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26. Ibid., p.203.

27. Terman, Lewis M. and Oden, Melita H. - Composite Portrait of the Gifted Child - The Gifted Child - op.cit., pp.22-25.

is held back two or three full grades below the level which he has already attained in school subjects.

The superiority of gifted over unselected children was greatest in reading, language usage, arithmetical reasoning, and in science, literature and the arts. In arithmetical computation, spelling and factual information about history and civics, the superiority of the gifted was less marked. Contrary to tradition the amount of uneveness in the subject-matter profiles of gifted children does not differ significantly from that shown in the profiles of unselected children.

The interests of gifted children are many sided and spontaneous, they found. They learn to read easily, and more and better books than the average child. They make numerous collections, cultivate many hobbies, and acquire far more knowledge of plays and games. They reveal a degree of interest maturity in play preference two or three years beyond the age norm. The typical gifted child of nine years has more play information than the average child of twelve.

There are two facts which stand out clearly in this composite portrait according to these authorities, (1) The deviation of the gifted from the average is in the upward direction for nearly all traits. There is no law of compensation whereby the intellectual superiority of the gifted tends to be offset by inferiorities along nonintellectual lines, (2) The amount of upward deviation is not the same in all traits. It is greatest in those aspects of behavior, intellectual interests, and ability to score high in achieve-

ment tests. In school work the gifted are best in the "thought" subjects, whereas the average children are at their best in subjects that make the least demands upon conceptual thinking.

Garrison[28] outlines the following characteristics of the superior child. He is characterized by quick reaction time and by superior ease of assimilation. He can absorb the same body of knowledge in a fraction of the time required by the average learner. As a general rule they read more rapidly and with greater comprehension.

He has greater powers of concentration and sustained attention. Given reasonable degree of interest, the bright pupil can concentrate on an intellectual task for considerable time without apparent fatigue. He also tends to be superior in originality, initiative and intellectual curiosity. He is comparatively self-directing when given a chance.

The bright pupil tends to have superior powers of generalization. He is much quicker to see underlying principles and to relate similar elements in a situation. He is surprisingly alert often suggesting generalizations which even the teacher has missed. Likewise he is superior in his ability to deal with abstractions. He has superior reasoning ability.

Gifted pupils also tend to have superior powers of self-criticism - to know when they do not know. Finally the

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28. Garrison, Karl C. op.cit., p.208.

fast learner tends to have greater versatility of interests, wider range of interests, and greater special talents.

Bristow, Craig, et al,[29] say the performance of the gifted child is consistently superior in the areas of his special interests. The amount of information he has collected in some subject that has caught his fancy or fired his inagination may seem "simply uncanny". The gifted child often shows the capacity to create and to develop, activities which are exceptional in the light of what is normally expected of his age and cultural background.

They caution however that it is important that he has a "right to be a child" - to grow up unhampered by fears and unhurt by pressures intellectual and otherwise. He should not be exploited because of his ability, but rather helped to develop as a normal participating and functioning member of society to which he has so much to contribute.

Baker[30] contends that the rapid learner or near-gifted differs from the average in quantitative intelligence and qualitative intelligence. In each six months of chronological age there is a growth of seven months in mental age. This increase starts immediately from birth so that by the age of six, he is seven years old mentally, and by twelve years of age he has attained a mental age of fourteen. So by the time the bright child is ready for the first grade

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29. Bristow, Craig, Hallock and Laycock, op.cit., pp.10-13.

30. Baker, Harry J. Introduction to Exceptional Children - Macmillan Co., 1944, pp.273-278.

he is already accelerated up to seven years mentally. This gives him a tremendous advantage over the average. There is great danger that the rapid learning child may not work up to his expected mental capacity if he competes only with the average.

Qualitatively, Baker continues, the rapid learner is capable of greater abstract reasoning and the ability to emphasize abstract rather than concrete learning. He is more interested in learning how problems are to be solved than in their actual solution. There is always the danger that the rapid-learner will deteriorate into abstract thinking only. They are also characterized by versatility in the use of mental processes. When one mental process does not secure the desired result another is substituted. They take greater interest in school and in learning generally. They prefer long-time units of work. They easily plan for some project which involves several different school subjects. Such planning challenges their superior powers and motivates their school work in desirable and fruitful ways.

Social and Emotional Characteristics

Baker[31] believes gifted children have better qualities of a social nature and therefore get along more agreeably with their classmates and teachers. The secret of this advantage lies in their genuine interest in the affairs of other people. They do not live selfish and self-centred lives.

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31. Ibid, p.278

In the main they come from homes of better than average social standing, and the culture from such backgrounds strengthens the other advantages they have. As a group, gifted children excel average children in practically all personality and social characteristics. Terman[32] found 70 percent of the boys and 72 percent of the girls exceeding in all traits combined. They seem to realize that they will promote more progress and good will by pleasant rather than unpleasant ways. This trait makes them popular with others.

The evidence is very strong that the majority of gifted children come from homes where the father earns his living by some type of mental work. In Terman's[33] study 31.4 percent had fathers in the professional group, and in Cattell's study of eminent men 43.1 percent of fathers were from this group. Half of Terman's group were from semi-professional and business occupations, 11.8 percent from skilled labor, 6.6 percent semiskilled, and only .13 percent were from common labor. It is evident that heredity plays a very important role in gifted children and adults. Sir Frances Galton[34] found that 977 eminent men had 535 relatives of equal eminence, whereas an equal number of average men would have only four such eminent relatives. Hollingworth says, "To find most easily and quickly a group of gifted children, one should go to a private school or to a public school in an excellent residen-

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32. Ibid, p.285
33. Terman, L.M. Genetic Studies of Genius, Vol.1, Stanford University Press, 1925, p.64.
34. Baker, Harry J. op.cit., p.287

tial section of a city, and ask for children who are young for their classes, and whose fathers are professional men."[35]

These homes provide not only a favorable heredity, Hollingworth believed, but an equally favorable environment in which the children may flourish. The challenge to the gifted is that they live up to what heredity and environment offers them, and in turn contribute to the welfare and advancement of society in leadership, invention and general advancement.

Hollingworth further states that the proportion of gifted among boys and girls according to the most reliable figures then known, is 111 boys to 100 girls testing above 140 I.Q. As regards race we have few facts. American children of English, Scotch, and Jewish descent seem especially frequent among the very gifted.

Terman and Oden's[36] battery of seven character tests showed gifted children above average in all of them. They are less inclined to boast or to overstate their knowledge; they are more trustworthy when under temptation to cheat; their character preferences and social attitudes are more wholesome; and they score higher in a test of emotional stability. On total score of the character tests, the typical gifted child of nine years tested as high as the average child of 12 or 13. On the Wyman interest test the proportion of gifted subjects exceeding the mean of unselected children

35. Baker, Harry J. - op. cit. P. 287
36. Terman, Lewis M. and Oden, Melita H. op.cit.,p.24.

was 90 percent for intellectual interests and 84 percent for social interests. In activity interests the means for the two groups were almost identical.

Importance of the Gifted - Educational Neglect

On an attractive little pamphlet[37] printed recently by The University of the State of New York, is expressed the great need for gifted children. It claims that at no other time in our history has there been such a demand for able people who have developed their abilities to the utmost. Great occupational areas are dangerously short of highly skilled men and women. They are needed for national security, for a country with superior brain-power, interested in the common welfare - one which makes maximum utilization of all its human resources - is best able to defend itself. The country which makes the best use of its human resources maintains the highest standard of living.

In the hands of the gifted is placed the responsibility for carrying onward the accumulated knowledge and skills of the human race, this pamphlet states. They create the advances, for among them are the creators - the philosophers, writers, scientists, inventors, producers in the fine arts, and the originators of valuable ideas in a wide range of human endeavour. Some of them must become the master teachers who will spur onward future generations, and prepare them for higher levels of attainment.

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37. The University of the State of New York - Bright Kids: We Need Them, pp. 2 and 3.

The Educational Policies Commission points out that "men and women of exceptional talent, whose abilities have been well nurtured by education, and who have achieved successful adjustment to themselves, and to their fellow men, are today making contributions of exceptional value to American life. Some are creating music or drama or the visual arts that enrich our enjoyment. Some are prolonging human life and relieving suffering as physicians, public health officials, and research workers in medical science. Some are helping men to understand themselves through the study of psychology and human development and through the practice of psychiatry and counseling. Some are leaders of business and industry who have come to their managerial positions through their skill and understanding of finance, economics, human relations, or technology. Some are contributing to the improvement of human welfare as labor leaders and social workers. Some are improving our culture as historians or contemporary critics. Some are clergymen, teachers or journalists. Some are serving the public at large as executive officials of national, state or local government, as judges, or as members of legislative bodies."[38]

Scheifele[39] believes that gifted children will in future years, make outstanding contributions to the progress and human welfare of the nation. Possibly the survival of the democratic way of life may lie in their hands. Many of them

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38. Educational Policies Commission, op.cit., p.1
39. Scheifele, Marian, op.cit.,p.vii.

will serve as leaders in government, industry, labor, and crafts; some will be the inventors, engineers, and scientists, the artists, composers, and writers, the leading doctors, educators, and farmers of their times.

Despite our attempts to bring the greatest good to the greatest number, Scheifele feels that gifted children constitute a neglected group.

The report[40] of the Toronto Board of Education on gifted children, published in 1954, stated that there seems to be a deep belief that gifted children are capable of looking after themselves; that they should not be given special education because it is not democratic. However there is nothing undemocratic in utilizing all social resources for the betterment of society. It is most important that children of superior abilities be prepared to fulfil successfully their promise to society. In a true democracy, each citizen contributes to the common welfare to the extent of his ability. To enable every person to make his greatest contribution, suitable educational opportunities should be provided to obtain the maximum development of each child, according to his unique nature and needs. There are children who by virtue of high intellectual ability and leadership qualities, may become leaders in society. There are also children, who, possessed of certain talents not easily measured, should be expected to make a distinct contribution to society. Neglect of these highly endowed groups is not only an injustice to them but it creates a waste that our country can

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40. Toronto Board of Education, op.cit., pp. 1 and 2.

ill-afford. From their ranks will come the greatest number of our future leaders in industry, science, and the arts. But how can we expect to secure this leadership unless we educate these children so that their latent talents may be fully developed?

Witty[41] agrees that the gifted have been neglected as a group. He cites the findings of the White House Conference report on Child Health and Protection in 1930 where it was estimated there were one and one half million pupils of superior intelligence in need of special education. However, only forty cities in twenty-three states had classes for such pupils and in all, only 4000 were enroled. Also in the volume "Special Education - The Handicapped and the Gifted", more than 515 pages were devoted to the handicapped, while only thirteen pages were given over to the gifted pupil. This, Witty claims, is indicative of the small amount of attention to the gifted found in educational publications. To conserve ability and talent, however, educators working with citizens must find ways to identify and offer education opportunity for gifted children to acquire an education commensurate with their ability. A major part of the educator's responsibility will be to work with parents in the development of a clearer understanding of the gifted child and his needs.

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41. American Association for Gifted Children - The Gifted Child - Ed. by Paul Witty - Boston: D.C. Health & Co., 1951, pp.3 - 7.

In a survey[42] made by the Ohio Department of Education in 1950, out of 258 schools that replied to a questionnaire sent to 288 Ohio school districts, only 3 percent reported special classes for the gifted and 9 percent reported enriched programs. The remaining 89 percent report no special provisions for the exceptionally able child.

Witty believes the public schools have a heavy responsibility, as well as a unique opportunity, for developing leaders. They should seek to lessen handicaps and obstacles which many gifted children encounter. In addition they should strive to provide the opportunity and incentive gifted children and youth require, in order to develop in accordance with their potentiality and promise.

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42. Passow, Goldberg, et al, - Planning for Talented Youth - Bureau of Publications, Teachers' College Columbia University, 1955, p.5.

CHAPTER II

The History of Education for the Gifted

"Where there is no vision, the people perish".[1]

Throughout history, attempts have been made to provide appropriate education for the gifted; for the need for special education for the gifted is as old as mankind.

Historical Provisions for the Education of the Gifted

"When Nebuchadnezzar,[2] King of Babylon captured Jerusalem, he spake unto Ashpenaz, the master of his eunuchs, that he should bring certain of the children of Israel, and of the king's seed, and of the princes, children in whom was no blemish, but well favoured, and skilful in all wisdom, and cunning in knowledge, and understanding science, and such as had ability in them, to stand in the king's palace, and whom they might teach the learning and tongue of the Chaldeans." At the end of three years, the experiment was a success for Verse 20 states "In all matters of wisdom and understanding, that the king required of them, he found them ten times better than all the magicians and astrologers that were in all his realm."

Plato in "The Republic" dwells on means of identifying the intellectualy gifted in order to educate them for leaders in his Utopian state. He concluded that some method must be devised for identifying them while they are still children. The following, uttered about 400 B.C., foreshadows the intelligence test which followed more than two thousand

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1. Proverbs, Chapter 30, Verse 18.
2. Book of Daniel, Chapter 1, Verses 3 and 4.

years later, "We must watch them from their youth upward and make them perform actions in which they are most likely to forget or be deceived, and he who remembers and is not deceived is to be selected, and he who fails in the trial is to be rejected. That will be the way."[3] These were to be educated in science, philosophy, and metaphysics so as to become future leaders of the state. He believed that Greece could continue only as long as such a course were followed.

The education of a gifted child according to Highet,[4] having proabably the most far-reaching effects in history, was Aristotle's tutoring of Alexander the Great, to fit him to be king and conqueror. By implanting in his famous pupil the knowledge and love of Greek culture, Aristotle did much to preserve and enlarge Greek civilization through Alexander's widespread conquests. For wherever Alexander went he founded cities on the Greek model and spread the knowledge of Greek arts, sciences, language, literature, manners and trade, as the best way to establish a world-wide civilization.

From an educational point of view, the selection of gifted individuals has attracted the attention of great leaders according to Baker.[5] The most marked example of selecting gifted and superior individuals for government positions,

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3. Hollingworth, Leta S. - Gifted Children, Their Nature and Nurture, Macmillan 1926, p.23.
4. Highet, Gilbert - The Art of Teaching - Alfred A. Knopf: 1950, pp.187-189.
5. Baker, Harry J. - Introduction to Exception Children - The Macmillan Company, 1944, pp.288 and 289.

was by Suleiman, the Magnificent, ruler of the Ottoman empire in the sixteenth century. At regular intervals, he sent emissaries throughout all parts of the empire, not only among the Turks, but among conquered peoples as well, and selecting the most promising youths. They were trained in the Mohammedan faith, and were developed as leaders in war, religion, art, and science. During the reign of Suleiman, he threatened to conquer all of the world, and for centuries afterward his empire continued as a great power.

In preparation for World War II, Baker continues, Hitler followed this practice, with mentally superior young Germans who specialized on every phase of life in all countries of the world, both by study from books and by travel, so that military conquest might more easily be achieved. The deadly effectiveness of such information was amply proved in the early years of the war.

Witty[6] points out that different concepts of superiority based on factors such as birth, power and material wealth, were dominant during various historical periods. Intellectual superiority came to be highly esteemed as a type of leadership during the Renaissance, the Reformation, and the Industrial Revolution. Little attention, however, was given to the education of gifted children from the seventeenth throughout most of the nineteenth century. This era was charaeterized by a politcal philosophy which held that all men are

6. American Association for Gifted Children - The Gifted Child Ed. by Paul Witty - Boston: D.C. Health and Co., 1951, pp.1-4.

created equal. Accordingly school curricula were designed to offer all children equality of opportunity. The early leaders of the American Republic generally endorsed this philosophy. America they declared should be the land of the common man and sounded the theme of anti-intellectualism which has pervaded all U. S. history.

In colonial days, some teachers in American schools, Witty continues, observed that all children did not respond favorably to "equal opportunities." Pupils who were slow in learning were sometimes punished; they were usually held back in school, repeating grade after grade. Problems associated with the education of the slow-learning pupil became acute when compulsory attendance laws brought more and more children into schools for longer periods of time. Because the deviation of the extremely slow child was so obsious and his adjustment so difficult, he was first among the exceptional children to attract the attention of educators. Since the bright child usually conformed to school routine, he was generally permitted to drift through school with his superior abilities unrecognized and unchallenged.

Hollingworth[7] also states that when children, regardless of inclination, or ability, were compelled to go to school on the theory that all were born equal, educators found among them many who did not approximate the rate of

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7. Hollingworth, Leta, S. op.cit., pp.23-25.

learning expected by all. These children gave some trouble and tried so often to escape, that there arose a pressing need of scientific information regarding their mental condition. This lead to the French psychologist, Binet, with his collaborator Simon, experimenting for more than fifteen years and finally in 1904 their achievement was crowned by the annoucement of a series of mental tests, by means of which they had been able to separate incompetent children from those of average ability.

Although this test, with modifications, later became of immense value in identifying gifted children, it was not used for this purpose till long after. Children who learned easily and loved learning, gave no trouble, so that no pressing need was felt to know more about them. It was what the teacher had a "right" to expect. It was supposed at first by educators that once the incompetent were identified and segregated, some form of educational treatment would "bring them up to normal." This idea gradually disappeared with the passing of two decades, and finally psychologists interested in superior children,were able to obtain a hearing and a considerable body of knowledge accumulated, concerning those who test as far above the average intellect as the feebleminded test below. Hollingworth believed the greatest contribution of the intelligence test was its ability to achieve the early identification of gifted children.

Terman[8] lists four factors which operated to limit research on the gifted during the nineteenth century.

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

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

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

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

Terman believed that attention to gifted children was stimulated in 1869 by Galton's "Hereditary Genius" and that this book marked the beginning of an era of strong interest in individual differences.

More Recent Provisions for the Gifted

The mid-nineteenth century saw the beginnings of a formal effort by American schools to plan special programs for the academically gifted. Schools were forced to take action by a phenomenal increase in student population, which resulted in large classes of children with a wide range of

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8. Terman, Lewis M. and others - Genetic Studies of Genius; Vol.I, Mental and Physical Traits of a Thousand Gifted Children - Stanford University, 1925 - preface.

ability, Passow, Goldberg, et al[9] contend. Educators realized that a uniform program designed to provide adequately for the greatest number of students, could not be of much value in educating those on the highest(and lowest) ability levels. They became aware of the increasing difficulty of making flexible provisions in classrooms where children were grouped merely according to age.

They claim the first large-scale program for academically outstanding students, designed to provide for more frequent promotions, was reported in St. Louis in 1868. Similar adminstrative procedures adapted to the learning rates of bright and dull pupils were soon established in other school systems across the United States, notably in Elizabeth, New Jersey; Cambridge, Massachusetts; and Santa Barbara, California. These attempts, although isolated and lacking in popularity, represented early significant departures from the theory that equal educational opportunity for school children means identical opportunity. At the turn of the century there was increased interest in the education of rapid learners. In 1901, Worcester, Massachusetts, organized what was probably the first American public school for gifted children, and other cities followed suit. These schools tried to enrich their programs with more advanced subject matter for purposes of acceleration of their pupils. Rapid advancement became the most widely used method of meeting the needs of exception-

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9. Passow, Goldberg, Tennenbaum and French - Planning for Talented Youth - Bureau of Publications, Teachers' College, Columbia University, 1955, pp.2 - 4.

ally able students. Motivated by a strong concern for the emotional and social development of school children, which grew out of psychological and social research, educators in the 1920's and 1930's tended to veer away from acceleration and to favor enrichment for the gifted. The predominant feeling was that the healthiest school environment for the child would be created if he remained with his age peers.

Special classes for the gifted were formed in Los Angeles, California, Cleveland, Ohio, and Rochester, New York, in 1920. The work of these classes was widely acclaimed, as offering enriched opportunities and suitable challenge for the most capable pupils. Witty[10] states, "From 1920 to 1930 the gifted were provided for in some schools by acceleration, or by enrichment, or by a combination of these practices. Within the regular classes too, the good teacher sometimes enriched the offering for the gifted."

Special Studies of Gifted Children

Witty claims that these efforts were infrequent and educational provision for gifted children have been conspicuously inadequate during the past thirty years. One notable contribution has been made, however, to the solution of the problem of the gifted. Extensive scientific studies yielded a vast amount of information concerning the nature and needs of this group.

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10. American Association for Gifted Children - op.cit., pp.3 and 4.

Two monumental studies of such a nature were those of Dr. Louis Terman and his associates at Stanford University in California, and Professor Leta Hollingworth, in New York City. These two are deserving of a more detailed description.

The Terman Study

In 1923, the Commonweath Fund[11] gave large sums to support the monumental work of Dr. Terman in California; and this was matched by Stanford University for the same purpose. These grants made possible the greatest research project on gifted children that has ever been attempted. Terman and Oden[12] point out that until early in the present century the literature on gifted children consisted chiefly of magazine articles and treatises written by doctors and educational theorists who almost invariably depicted the "precocious" child as abnormal, neurotic, sickly, one sided, and prone to intellectual deterioration or early death. The belief was often expressed that many of the great geniuses of history were dunces in childhood. It was only after intelligence tests were developed by Binet and his successors, that the psychological study of gifted children was widely undertaken. By 1920, numerous studies had been reported which were based on results obtained with a single subject or with very small groups, but these proved nothing.

The large scale Stanford study which began in 1921 and has continued to the present, was designed according to

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11. Hollingworth, Leta S. op.cit.,p.viii.
12. Terman, Lewis M. and Oden, Melita H., The Stanford Studies of the Gifted - The Gifted Child - American Association for Gifted Children, Health and Company, 1951, p.20.

Terman and Oden,[13] to discover what physical, mental, and personality traits are characteristic of gifted children as a class, and what sort of person the typical gifted child becomes.

First, the plan required a large unbiased sampling. Second it was regarded as essential that the procedures used should be as objective as possible. Third, it was planned that the subject should be followed as far as possible into adult life in order to throw light on the constancy of childhood traits, and on the factors that influence later achievement. The investigation was not a direct attack upon the pedagogy of gifted children; it was instead a search for the basic facts necessary for future progress in this field of special training.

The search for subjects which was carried out by field assistants in 1921-22, included all of the larger and many smaller urban areas of California. Close to 90 percent of the children in the schools surveyed who could have earned an I. Q. of 140 or above on the 1916 Stanford-Binet test were identified. This figure was high enough to ensure that the group studied was sufficiently representative to afford a reasonably sound basis for generalization, and would include the highest 1 percent in general intelligence as measured by the test.

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13. Ibid, p.21

At the end of 1922 the group numbered 1470[14] subjects selcted from a school population of about a quarter million. The addition later of 58 siblings, brought the number to 1528 (857 boys and 671 girls) approximately 70 percent of the group were pre-high school level, with a mean age of 9.7 years. The remaining 30 percent were of high school level with a mean age of 15.2 years.

The data obtained for all subjects included extensive descriptive and case history material supplied by parents and teachers, and ratings on twenty-five carefully defined traits and many other achievement tests and physical measurements. Comparable data were obtained from unselected children of all these items.

In 1923, 1924 and 1925,[15] the subjects were followed up by means of information blanks sent to parents and teachers. In 1927-28, field workers visited the homes of nearly all still living in California, retested them for intelligence, administered a variety of achievement tests and brought their case histories up to date. The next follow-up of the entire group was in 1937-37 and that also was carried out by information blanks sent to subjects and their parents. The field study of 1939-40 was conducted by Dr. Ellen Sullivan, Dr. Nancy Bayley, and Dr. Helen Marshall, all of whom spent 10

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14. Ibid, p.22
15. Ibid, pp.25 and 26.

months in giving a variety of tests to the subjects, their spouses, and children, and in conferences with subjects and their parents.

By the end of 1940 they had succeeded in locating 97.7 percent of the 1467 subjects who were still living. At the time of the mail follow-up in 1945, 97.5 percent of the group were located.

By 1940 the mean age of the living subjects was approximately 30 years and by 1945,35 years. A field follow-up similar to that of 1940 was done in 1950-51, involving re-tests of the subjects and their spouses, Binet tests of their offspring, and the collection of extensive case-history data.

No other sizable group of any kind, bright, average, or dull, has ever been followed from childhood far into adult life,Terman and Oden contend.

The Hollingworth Study

While Professor Lewis M. Terman on the Pacific Coast was turning the first furrows in the field of genetic study of mentally superior children, according to Pritchard,[16] Professor Leta S. Hollingworth on the Atlantic coast was preparing to cultivate the field from the other direction. The work of both of these pioneers exemplified the highest standards of educational research. Both were driven by a thirst for facts. They both placed great reliance upon quantitative and objective instruments of measurement and insisted upon sy-

16. Pritchard, Marion C. - Contributions of Leta S. Hollingworth - The Gifted Child - American Association for Gifted Children - Heath and Company, 1951, pp.47 and 48.

-stematic and exact recording of data. Both planned and carried through to completion, extensive studies of their subjects.

The procedures they followed, Pritchard continues, in the conduct of their studies, differed considerably. Professor Terman's major purpose was "to determine in what respect the typical gifted child differs from the typical child of normal mentality." The unique character of Professor Hollingworth's work lay in the highly organized educational experiments which she herself conceived, planned, and supervised in every detail up to the time of her death in 1939. Her main concern was to determine what constitutes "proper" educational provisions for them. She worked intensively with two separate groups of gifted children in two schools in New York City. The total number in both groups somewhat exceeded one hundred. During the course of each of her experiments she observed the children almost every school day. She maintained contact with the children in her first experimental group for the remaining years of herlife.

This intensive study was financed by a grant made in 1922 by the Carnegie Corporation, through Teachers' College. It is to this, and the grant financing Terman's study, that we owe most of our present knowledge of gifted children as organisms.

In December 1940 Teachers' College Record was published in honor of Professor Hollingworth. On December 13 and 14, 1940, a conference on Education for the Gifted was held under the auspices of Teachers' College, Columbia University, in

honor of Leta S. Hollingworth. Dean William F. Russell, Honorary Chairman says of it -

> "This Conference on Education for the Gifted is held in honor of Leta S. Hollingworth, Professor of Education in Teachers' College, whose untimely death last year, brought to a close a brilliant career. Our discussions are designed to promote increased activity in the discovery and education of the gifted - the task to which she so earnestly devoted herself and which she considered of paramount importance in our national life.
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> In planning this conference, we felt that we might most appropriately honor Professor Hollingworth by contributing to the solution of problems in which she was most interested:
>
> (1) Promoting a wider understanding of the importance of improving ways of discovering and nurturing leadership.
>
> (2) Appraising present accomplishments in the discovery of education of the gifted.
>
> (3) Identifying the issues.
>
> (4) Furthering next-steps in research, instruction, guidance, and other procedures, which will lead to sounder methods of finding and making use of the abilities of the gifted." 17

Renewed Interest in the Gifted

Lamson designates the following stages in the development of knowledge concerning gifted children:

(1) Devising a scientific measure that would locate and describe gifted children.

(2) Applying the new instrument in order to locate and describe gifted children, for example the work of Terman, Hollingworth, and others.

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17. Teachers' College Record, Vo.42, 1940-41 - February 1941, p.375.

(3) Experimenting with special classes and other methods designed to offer suitable opportunities for the gifted.

(4) Making follow-up studies, including experimental studies in curriculum development at the high school and college level.[18]

Witty[19] believes that perhaps we are now entering a fifth stage in the field of the gifted - the stage of rapid dissemination of knowledge about gifted children and a concerted effort to offer gifted and talented children more adequate educational opportunities. In fact says Witty, the widespread influence of a number of pamphlets and books published during the past ten years, suggest that we have already entered this stage.

A number of professional books in education and psychology have been influential in calling attention to the educational needs of the gifted, Witty claims. Like the work of Terman and his associates, Hollingworth's pioneer studies have had a profound and far-reaching effect upon school people. Witty believes that the most significant volume in awakening general interest in this field is Terman and Oden's, "The Gifted Child Grows Up", describing the development of 1528 gifted children from an average age of ten to an average age of thirty-five. In this book, as in others dealing with the gifted, an important finding recurs. As early as ten, the gifted child has educational knowledge far in excess of the

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18. Lamson, Edna E. - A Study of Young Gifted Children in Senior High School - Bureau of Publications, Teachers' College, Columbia University, 1930, pp.7 - 9.
19. Witty, Paul - The Gifted Child - American Association for Gifted Children, Health and Company, 1951, pp. 5 - 7.

average for his grade. They state "It is a conservative estimate that more than half of the children with I. Q's of 135 or above had already mastered the school curriculum to a point two full grades beyond the one in which they were enrolled, and some of them as much as three or four grades beyond."[20].

Among the organizations which are attempting to stimulate a more widespread intered in the gifted, the work of the American Association for Gifted Children is outstanding in Witty's opinion. Miss Pauline Williamson, the secretary of this organization, states that when the Association was organized in 1946, interest in the gifted was at a low point. The founders of the Association were met with discouraging attitudes among leading educators, business men, bankers and philanthropists. The amazing growth of the A.A.G.C. since its beginning is due, in the main, to the outstanding team work of its members, and the excellent co-operation of such organizations as the National Association for Mental Health, the United States Office of Education, the Educational Policies Commission, the American Association of School Administrators, and the International Council for Exceptional Children.

Members of the Association are active in the education of the gifted in Canada and in many states. They are leaders in conducting conferences with parents, teachers and the children themselves; clinics; courses for teachers; and workshops.

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20. Terman, L.M. and Oden, Melita, H. Genetic Studies of Genius; Vol.IV - The Gifted Child Grows Up - Stanford University Press, 1947, p.28

They believe that the appalling waste of our human resources today demands coordination of the contributions of organizations and individuals, Miss Williamson points out. In a democracy with freedom of choice, they feel it is the responsibility of voluntary organizations of leaders to undertake such coordination. The headquarters of the A.A.G.C. are at 15 Gramercy Park, New York 3, New York. The membership includes distinguished men and women, both lay and professional, who through their abilities or experience, are able to make a contribution toward the discovery and development of the gifted child. Applications for membership must be approved by the Board of Directors.

The publication of the A.A.G.A. which has had the greatest effect in stimulating interest in education for gifted children, is the book entitled "The Gifted Child" published in 1951. Witty in the introduction to this book describes how is originated - "At one meeting of the Association discussion centered on the most effective ways to foster a better understanding of gifted children and youth, and to improve educational opportunities. It was suggested that a book be designed to awaken interest and effort among teachers, supervisors, and administrators in conserving and utilizing human talents and resources. The association was successful in securing the enthusiastic and generous co-operation of a number of outstanding educators, who prepared chapters. Thus originated "The Gifted Child".

Another organization which recently has had much to do with crystalizing thinking and procedures concerning gifted children is the Educational Policies Commission, a commission of the National Education Association of the United States, and the American Association of School administrators. Acquaintance with present educational practices had convinced the commission that the gifted members of the total school population constitute a minority which is too largely neglected. The Commission in October 1949 authorized the preparation of a statement of policy on Education for the Gifted. That statement was published in March 1950 in a widely circulated booklet entitled "Education of the Gifted" which can be procured for fifty cents from the Education Policies Commission, 1201 Sixteenth Street, Northwest, Washington 6, D.C.

Another notable contribution to the recent interest in education of gifted children is the Talented Youth Project of the Horace Mann-Lincoln Institute of School Experimentation, designed to study various aspects of talent and to assess modifications schools may make in organization, and in curriculum, and teaching, in order to improve their educational provisions for the talented. Their first pamphlet entitled "Planning for Talented Youth" which summarizes theory and research, has had quite wide circulation since its publication in 1955. It may be procured for $1.00 from Teachers' College, Columbia University. A special merit of this pamphlet is that it contains a very extensive bibliography of literature on the subject of gifted children.

Renewed interest in this topic as reflected in the aforementioned research publications, in the United States, has had its parallel in Canada. Various Canadian School systems and organizations have carried out investigations of their own. The members of the Board of Education in Toronto initiated an enquiry into the progress being made to meet the special needs of gifted children in Toronto public and secondary schools in 1954. The resulting report was published in September of that year. It has had quite wide distribution across Canada and is an excellent document. Calgary School Board also in 1954 appointed a committee to report on practices in other school systems. The report of this committee published in the same year also contains much valuable information of the subject. The writings of Dr. Samuel Laycock, formerly of the Faculty of Education, University of Saskatchewan, have been read by many across the Dominion. One of his many interests has been the education of the gifted children. It was due to his initiative that a Major Work class was started in Saskatoon in 1932. London, Ontario, organized its Opportunity Classes in 1928 and Winnipeg its Major Work classes in 1954. Hamilton's Unit Promotion Plan adopted in 1949, designed to allow pupils to proceed at their best speed, has been watched closely of late, by other Canadian school systems. The publication of Mr. E. Brock Rideout of the Department of Educational Research, Ontario College of Education and Dr. S. W. Steinson, Principal of Saskatoon Teachers' College have done much to acquaint Canadian educators

of research findings concerning the education of gifted children. An indication that laymen as well as educators are becoming interested in this problem is shown by the very extensive investigation of the University Women's Club of Ontario in 1955. Their excellent report entitled "The Education of the Intellectual and Gifted Child" was made public in 1955. It makes comprehensive survey of provisions made in the large urban centres of Ontario to meet the educational needs of talented children. It sets down very specific recommendations for their improvement.

Thus all across the continent to-day, renewed interest in the education of gifted children is making itself manifest. The next decade might well see great advances in providing suitable educational programs to realize the potential in leadership from our very bright boys and girls. Then truly, "the greatest good to the greatest number" will be closer to fulfillment.

CHAPTER III

The Practice of Acceleration

Through the years in educational literature, acceleration frequently has been synonomous with grade-skipping. But grade-skipping is only one of several methods of acceleration, and probably the worst since it involves disjunctions in school programs and social contacts. At the outset, therefore, acceleration as considered in this treatise should be carefully defined.

Definition of Acceleration

Throughout this study the following definition of Pressey's will prevail:- Acceleration is "progress through an educational program at rates faster or ages younger than conventional."[1] "Acceleration means the moving of a child from one level of instruction to another, but only after he has mastered the work of the level from which he is moving."[2]

Decline in the Practice of Acceleration

Pressey states that, "discussion bearing on the subject of acceleration goes back at least eighty years; systematic investigation of it began more than thirty years ago. The early interest in the subject resulted in a substantial amount of research bearing upon it - now largely forgotten. Twice in recent educational history, effort to vary rates of progress through educational programs according to ability have been aborted by an inadequacy of method, plus a handicapping circumstance. In the twenties there was much interest in ways of

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1. Pressey, Sidney L., Educational Acceleration, Ohio State University Studies, Bureau of Educational Research Monograph No.31, 1949, p.2.
2. Krueger, Allen, et al., Administrative Problems in Educating Gifted Children, The Gifted Child, Heath and Co.,1951,p.259.

adjusting progress to ability, and in the gifted child. However, social maladjustment was not adequately guarded against and became unduly feared, and the depression made the early graduation into employment seem futile. The second world war brought about sweeping practical experiments in acceleration at the college level. However, the burdensomeness of the lengthened school year as a method, plus the apparent unwisdom of accelerating young persons straight from high school into vocational competition with the great number of older returning veterans, brought a reaction against rapid progress. Instead, the tendency has been to lengthen professional programs and to emphasize the value of maturity because of the admirable record of the veteran in college."[3]

An indication of how widespread is this reaction against acceleration is shown by a survey[4] made by the National Education Association in the United States in 1941, of 1062 junior and senior high school principals. A large proportion subscribed to the following statements:- (a) superior students whether placed in separate classes or in regular classes with average students, should be given enriched programs of work; (b) students of superior ability, should have more courses in that field than the average student; (c) students of superior general ability should not be permitted to complete the school

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3. Pressey, Sidney L., op.cit.,p.140.

4. American Educational Research Association - Encyclopedia of Educational Research - Edited by Walter S. Monroe - Revised Edition, 1951, p.1242.

curriculum in less time than the average student. It is not clear on what basis the overwhelming devision against acceleration is based. This overwhelming approval of enrichment and disapproval of acceleration is in marked contrast to the common philosophy of fifteen or twenty years ago when rapid advancement was the usual method of adjustment.

In addition to Pressey's reasons stated above, there is evidence to show that this reaction is in part, due to the conception of acceleration as grade-skipping which has been prevalent. In citing some of the handicaps of acceleration, Professor Hollingworth says, "Another handicap resulting from acceleration is the child's loss of certain fundamental knowledges and skills as the child "skips" through the grades. In his subsequent education he may never encounter the basic content he has missed".[5] In a recent paper on acceleration in School and Society, a subhead is titled "Acceleration or Grade Skipping".[6] At the Workshop on Gifted Children, held in the summer of 1951 in San Francisco State College, it was felt necessary in their report to qualify acceleration as follows, "rapid progress insuring no gap in the child's knowledge, is a much safer procedure than skipping."[7] In reporting on their provisions for the education of gifted chil-

5. Pritchard, Marion C. - The Contribution of Leta S. Hollingworth to the Study of Gifted Children - The Gifted Child, Heath and Company, 1951, p.52.

6. Pressey, S.L. - That Most Misunderstood Concept - Acceleration - School and Society, Febrary 20,1954,Vol.79, No.2027, pp.59 and 60.

7. Report of Workshop on Education of Gifted Children at San Francisco State College, Summer Session, 1951, p.22.

dren in 1955, the city of Oshawa authorities stated in their report on acceleration that "the bright students are allowed to skip only one grade in the 8."[8] It would appear, therefore, that the practice and status of acceleration has been affected from this misconception of grade-skipping, which still prevails, apparently in some educational circles.

Rise in Popularity of Other Methods of Dealing with Gifted Children

This reaction against acceleration as an educational practice to meet the needs of gifted children carried in its wake a wide endorsement of an enriched curriculum for gifted children, and in some limited quarters, strong support for segregated classes for the gifted. While educational literature has widely acclaimed such procedures in recent years, in actual practice they have been very limited, and quite inadequate to meet the problem of educating our gifted children. To understand the reasons for this it is necessary to examine each of them more fully and present substantiating evidence.

Segregation of Gifted Children

Despite the fact that the first special classes for gifted children were formed in Los Angeles, Cleveland, and Rochester, New York in 1920, the practice has made little headway during the past thirty years. The U. S. Office of Education[9] reports that in 1948 only 4080 elementary school pupils were enrolled in special classes. Of these 1846 were

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8. University Women's Club of Ontario - The Education of the Intellectual and Gifted Child - A Survey, 1955, p.28.

9. Witty, Paul - Nature and Extent of Educational Provisions for the Gifted Pupil - The Gifted Child - Heath & Co.,1951,p.207.

in New York City, and 750 in Cleveland, Ohio, 650 in Worcester, Massachusetts, and 239 in Los Angeles, California, leaving only 595 for all the rest of the United States. Winnipeg, Saskatoon and London, are the only Canadian School systems having such classes.

The segregation of gifted children is bound up with the larger controversy over ability-grouping which has been argued by educationalists vigorously during the past few decades. Those who argue in favor of ability-grouping maintain the following:[10]

1. When students are in a class together with their intellectual or creative peers, the range of ability is reduced and the teacher can provide a programe of greater depth or breadth than is usually planned for a given grade.

2. Since a relatively homogeneous group of talented young people can cover required material rather quickly, a great deal of time is left for the teacher to guide each youngster into activities of a creative nature.

3. The teacher also has time to enrich the experience of the group through out-of-school activities that might not be suitable for a heterogeneous class.

4. Talented students in a relatively homogeneous group will find it more stimulating and interesting to explore new ideas and media experimentally and critically.

5. A relatively homogeneous group of talented students can help its members develop more realistic self-concepts. Research has shown that the intellectually gifted child tends to select his playmates and, later, his friends from his intellectual peers. It is probable that talented people tend to choose as friends

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10. Passow, Goldberg, Tennenbaum and French - Planning for Talented Youth - Bureau of Publications, Teachers' College Columbia University, 1955, pp.39 and 40.

those whose talents be in the same area. If this is true, the youngster's concept of himself should be related to the kind of people with whom he is going to spend most of his life. Working in a special group gives him a chance to see himself in relation to his peers in ability. In addition to recognizing his strength, he also becomes aware of some of his short-comings; and where possible, he is helped to find ways of overcoming them.

6. Since a talented student in a special ability group does not "succeed" quite as easily as he might in the regular classroom, he recognizes the need for more intensive effort, and a higher output of energy in order to be rated as "successful".

7. There are indications that some superior students who spend their high school years in heterogeneous groups, and who perceive themselves as able students, become discouraged when they find that in college they are no longer outstanding. They might be better prepared to cope with the problem of being in a group of exception ability if they had this experience in high school.

The following arguments[11] against special grouping of talented students are as rigorously maintained:

1. Grouping on the basis of ability is undemocratic because it develops snobbery in the segregated youngsters and a sense of belonging to the elite, of being better than the average individual. Homogeneously grouped boys and girls of great ability lose touch with the needs and problems of the average person and begin to interpret the world too exclusively through the eyes of their equally able colleagues.

2. Segregation prevents adequate training of the talented individual for leadership because only if leaders have constant and close contact with their followers, can mutual communication and understanding result. Students grouped on the basis of their superior intellectual ability, fail to develop respect for the opinions of those less gifted and tend to be impatient with them.

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11. Ibid.,pp.40 and 41.

3. Singling out the talented for special treatment will foster the development of an inflated sense of self-importance. Rather than aiding socially valuable efforts, such students may direct their talents into endeavors not closely related to the needs of society.

4. Segregation of the talented may result in excessive competition, excessive arguments, and overwork, which in turn may result in a lessening of participation in extracurricular activities or worth-while out-of-school pursuits. Increased competition and demands on time may discourage students rather than stimulate them to greater efforts.

5. Ability-grouping results in a loss to the less highly endowed students because boys and girls not in the special group need the stimulation of ideas and products of the abler students. Lack of this stimulation may result in a lowering of their level of aspiration, interest, and effort, and may also adversely affect the quality of group leadership they experience.

6. Since present procedures for the identification of the talented both in academic and in non-academic areas are inadequate, the wrong students are sometimes picked for special groups and others, who are deserving, are overlooked.

The Encyclopedia of Education Research sums up the problem as follows: "Experimental studies of ability grouping have been fraught with such difficulties, relating to many variables to be controlled, and the diffused concepts about grouping, that it can hardly be said that ability grouping has been evaluated experimentally. Each of the many studies that has been made has aided in casting further light on the problem in raising new issues which formerly had received scant attention. In the light of present thinking about the question of ability grouping, many of the experimental studies seem very inadequate. Summaries of the existing studies have set forth the following conclusions:

1. The evidence slightly favors ability grouping as contrasted with heterogeneous grouping, particularly where adaptations of standards, materials, and methods are made.
2. The evidence regarding the attitudes of teachers toward ability grouping is that most teachers prefer to work with "homogeneous" rather than mixed groups.
3. The evidence regarding the relative merits of various types of adaptations of standards, materials, and methods, is inadequate to form a judgment.
4. The evidence indicates greatest relative effectiveness for dull children, next greatest for average children, and least for bright children.
5. The evidence regarding the particular grade levels or subjects in which ability grouping is particularly effective is inadequate to form a judgment.
6. The evidence regarding the effect of ability grouping upon characteristics of pupils, other than knowledges and skills, is highly subjective, and cannot be said to be conclusive although one study shows that the great majority of pupils are happy and satisfied in schools using ability grouping.
7. On the whole where grouping is used parents are favorable to its use; the majority of parents believe the children are at least happy as in other groupings, do better work in school, and are correctly

sectioned according to ability.

8. The indications are that in general, the variability in achievement (which is an index of difficulty of teaching and the need for instructional adjustments) in ability groups in grades which have three groups each, is about 83 percent as great as in unselected groups.

Research in the future should be directed toward the issues involved in the relationships between grouping practices and modern concepts related to the well-rounded development of the whole child."[12]

Other problems which have prevented the wider acceptance of segregated class for the gifted are reported as follows:

1. The plan may create resentment among those who are excluded.[13]

2. Teachers sometimes resent having all the bright children removed for their classes.[14]

3. It may be difficult to transport children to a central place where such classes would have to be held.[15]

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12. American Educational Research Association - op.cit.,pp.377-8.
13. Toronto Board of Education - A Study of Education for the Gifted Child in Public School - Toronto, 1954, p.18.
14. Ibid, p.18.
15. University Women's Club of Ontario - op.cit.,p.30.

4. Many children, especially boys, do not like to be singled out as being gifted.[16]

5. Witty points out that perhaps at least half of our gifted children live in small towns, villages, and rural districts in which the formation of special classes in impracticable or impossible.[17]

6. London, Ontario reports that many parents have been unwilling to send their children to the Opportunity Classes because it separated them during school hours from their neighborhood friends and playmates.[18]

7. Cleveland has found difficulty in securing teachers especially trained and otherwise suitable for teaching gifted children.[19]

Enrichment in the Regular Classroom

The chief problem in the education of the rapid-learning does not centre around the question of segregation, according to Baker[20] who was instrumental in organizing Detroit's Special Classes, but rather around suitable curriculum adaptation, and methods of instruction. Whevever these practices are brought up to most efficient levels,

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16. Ibid., p.30
17. Witty, Paul, op.cit., p.206.
18. University Women's Club of Ontario - op.cit., p.17.
19. Baker, Harry J. - Introduction to Exceptional Children - Macmillan, 1944, p.293.
20. Ibid., p.280.

either with or without segregation, the problem of grouping will become a matter of minor administrative importance.

Kruger, Allen, et al[21] believe the concept of enrichment arises from the fact that the usual educational fare is not satisfying, perhaps too meagre for inquiring minds with a lively interest in living and learning. When there is readiness to learn at a greater speed and at a higher level, the teacher and administrator must search for new content and new activity.

Witty[22] states that recently published articles describe the attempts of regular classroom teachers to enrich the curriculum by providing more diversified materials and richer experiences for gifted pupils. The advantages of such a procedure according to the Toronto study are:

"1. Gifted children learn to work and play with others of varying abilities. This is considered an important factor in wholesome social and emotional development.

2. They get more practice in leadership.

3. They have greater opportunities to develop sepcial interests and abilities.

4. Slower pupils in the class benefit from the stimulation of the activities of the gifted."[23]

However, literature might favor enrichment, practice ignores it, was the finding of the San Francisco Workshop.

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21. Kruger, Allen, Ebeling and Roberts - op.cit.,p.262.
22. Witty, Paul - op.cit., p.204.
23. Toronto Board of Education - op.cit.,p.19.

The members agreed unanimously that "one of the most serious obstacles we put in the way of a gifted child is our failure to give him enough freedom to use his talents.[24] Recent surveys in the United States according to Witty, show that few schools are enriching the curriculum for gifted children in the regular classroom.

In the Calgary survey,[25] out of seventy-one replies to questionnaires sent out, fifty-six replies make specific reference to attempted enrichment of the curriculum for gifted children in regular grades. Only ten indicated that the officials concerned feel that these attemps were successful; the great majority were either "frankly skeptical concerning the effectiveness of enrichment or quite non-committal. Comments like the following were very common:

> "Too often enrichment is doing more of the same"
>
> "I would say that enrichment has not proven effective"
>
> "The majority of teachers are inclined to teach to the average and I sometimes think the enrichment program is not carried out as it should be"

The report states: "It seems fair to conclude that enrichment is deemed effective where the program is well planned and supported by the central administration through the provision of additional books and other equipment, but that it is generally lacking in effectiveness ~~where it be-~~

24. Report of Workshop on Education of Gifted Children, op.cit., p.13.
25. Calgary School Board - Committee on Gifted Children - Final Report on Practices in other School Systems, 1954, p.1.

where it becomes one more responsibility of the individual teacher."[26]

One of the most frequent criticisms of enrichment is that is has been too often just more of the same. Dr. J. A. Long of the Ontario College of Education states "an enrichment program should consist of activities not provided for in the regular course of studies. Simply to give the child more of the same program as is offered to the normal, probably does more harm than good. An enrichment program which consists of more advanced arithmetic, more advanced spelling, and more advanced literature, is indistinguishable from acceleration, and if administered in a haphazard fashion, it may well interfere with the proper organization of his program of studies in the succeeding grades."[27]

Schiefele says in reference to the gifted that "providing more of the samein the way of activities fails to challenge him; the assignment of menial tasks such as running errands, distributing materials, computing five extra arithmetic problems and learning ten additional spelling words, is deadening and wasteful. New and varied content which furnishes more intensive contacts with people, the arts, and the problems demanding creative thought and critical analysis, are the essence of the program suited to his needs and interests. The enriched program for gifted children emphasizes social adjustment and a sense of responsibility, creative effort, intellectual initiative, critical

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26. Ibid., p.2.
27. Toronto Board of Education, op.cit., p.23

thinking, and unselfish qualities of leadership."[28]

Marian Schiefele's book from which the above quotation was taken, is an excellent resource for teachers wishing to improve their provision for the gifted in their classroom. It has been distributed widely throughout the Toronto schools. The Toronto report has also seventy-one fine suggestions[29] for activities to enrich the education of the gifted in the regular classroom. The San Francisco Workshop[30] too, outlines many constructive ways to enrich the program of the gifted, in its report.

Passow, Goldberg, et al, sum up the arguments why enrichment has not been successful in practice as follows:

"1. The educational problems presented by a group of varying ability in the average large class, whether in academic or in non-academic subjects, make it likely that the teacher will devote a minimum of time to the better students, who seem to be getting along well without much help.

2. Because of limited time and materials, enrichment procedures in the regular classroom are often makeshift and fail to stimulate the active intelligence and creative ability of the talented student. Teachers find it very difficult to devise activities that will keep several groups in the classroom moving ahead in various directions, and at different rates.

3. Even when teachers can provide challenging assignments for the talented, they rarely have the time to guide these efforts becaue of the demands made by the less able students.

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28. Schiefele, Marion - The Gifted Child in the Regular Classroom - Bureau of Publications Teachers' College Columbia University, 1953, p.48.
29. Toronto Board of Education - op.cit., pp.20-25.
30. Report of Workshop on Education of Gifted Children - op.cit., pp.13-17.

4. Either because of lack of challenge or lack of guidance in carrying through assignments, talented students often develop improper work and study habits.

5. Because talented students discover that with a minimum of effort they can still head their class, they are not stimulated to greater achievement and may develop a false sense of superiority, believing that they can cope with most problems without much effort." [31]

Renewed Interest In Acceleration

There is abundant evidence to show that acceleration as a practice to meet the educational needs of gifted children, is again becoming accepted and recommended by leading authorities. The Educational Policies Commission states "Acceleration tends to provide the gifted child with educational experiences that challenge his intellectual abilities. Moreover, it spares him the frustration and the inducement to laziness and superficiality that tends to beset the superior student who is held to a pace determined by classmates of much lower ability. While there are other ways to achieve this end, acceleration is probably the easiest method from the standpoint of both administration and instruction. Acceleration also enables the gifted individual to assume many adult responsibilities at an earlier age. Time so saved can be of benefit to society as well as to the individual involved, for it means that his span of productive years is increased and the cost of education is reduced."[32]

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31. Passow, Goldberg, Tennenbaum and French, op.cit., pp.37-8.

32. Educational Policies Commission - Education of the Gifted - National Educational Association, Washington, D.C. 1950, pp.49 and 50.

Terman and his associates indicate that children with an I.Q. of 135 or above should in general be promoted rapidly enough to permit college entrance by the age of sixteen, or at the latest, seventeen.[33]

Scheifele makes this statement: "Many experts, aware of the merits and disadvantages of the three programs, believe that programs combining moderate acceleration and enrichment in the regular classroom will best serve the welfare of gifted youngsters."[34]

Witty states: "We shall have to rely primarily in providing more adequately for the gifted pupil upon acceleration and enrichment in regular classrooms. It is hoped that many more classroom teachers will be encouraged to undertake such provision."[35] "Recently published articles on the gifted pupil stress the use of acceleration and enrichment of the curriculum."[36]

Norris, supervisor of Major Work Classes in Cleveland, in a letter to the writer says, "We have always held to the idea that enrichment, with a moderate amount of acceleration (not more than two years) is the basis of our work in the Major Work Classes in Cleveland."[37]

Gathercole, Superintendent of Public Schools, Saskatoon, makes the following statement: "We are doing some

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33. Passow, Goldberg, Tennenbaum and French - op.cit.,p.49.
34. Scheifele, Marion - op.cit.,p.46.
35. Witty, Paul - Nature and Extent of Educational Provisions for the Gifted Pupil - op.cit.,p.206.
36. Ibid.,p.204.
37. Norris, Dorothy E. - Letter dated April 12, 1956.

very serious thinking at the present time with respect to changing our policy in dealing with gifted children. We are coming to think that enrichment is not enough, and we are trying to devise a means whereby our bright youngsters can save one year in the elementary school."[38]

The San Francisco Workshop members and resource persons endorsed unanimously, the statement that "We can justify an acceleration of one year during the first six years for academically gifted children."[39]

The Royal Commission on Education in Ontario in 1948 showed that 20 percent of Canadian children are gifted or of superior intelligence. In its report the Chairman, Mr. Justice Hope suggested: "Serious consideration should be given to the Commission's proposal of shortening the school program by one year. Such reduction could be made without loss of academic standing. The gain would be tremendous."[40]

The panel discussing the Gifted Child presented at the Thirtieth Annual Convention of the Edmonton City Teachers on February 7, 1956, made the following recommendation: "Two years of acceleration in nine is suggested as a maximum in order to keep the student in his own social group."[41]

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38. Gathercole, F. J. - Classes for Gifted Children in Saskatoon - Saskatoon Public School Board, Mar.56, p.2.
39. Report of Workshop on Education of Gifted Children, op.cit., p.22.
40. University Women's Club of Ontario - op.cit.,p.16
41. Report on Panel Discussion on the Gifted Child - The Bulletin - Ontario Secondary School, Teachers' Federation - Vol.34, No.6, Nov.1954, p.296.

E. Brock Rideout, Department of Educational Research, Ontario College of Education, says of acceleration, "The great advantage that acceleration has over enrichment is its comparative administrative simplicity. It puts no great extra burden on the teacher with an overcrowded classroom and does not require the presence of a sufficient number of gifted children to form a special class."[42]

Hollingworth in speaking of acceleration for the gifted, makes the following statement: "There are weighty reasons why rapid progress through school, by some means, is very advantageous for psychological, physical, and economic adjustments in later adolescence."[43]

Sumption, in a follow-up study of 195 Major Work Classes graduates of Cleveland, says that findings viewed after nearly 15 years have passed do not tend to support the "enrichment without acceleration" which fathered the experiment."[44]

Among reasons for this move back to acceleration, four appear to predominate:

1. Several significant pieces of educational research have led educators in the present decade to reconsider their almost unanimous condemnation of any form of acceleration.[45]

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42. Rideout, E. Brock - The Gifted Child - The Bulletin - Ontario Secondary School Teachers' Federation - Vol.34 No.6, Nov.1954, p.296.
43. Hollingworth, Leta S. - Gifted Children - Their Nature and Nurture - Macmillan, 1926, p.299.
44. Sumption, Merle R. - Three Hundred Gifted Children, World Book Co., 1941, p.235.
45. Rideout, E. Brock - op.cit.,p.295.

2. Recent research in psychology, and also in biology and sociology, would seem to make important new contributions to thinking about the problem.[46]

3. The growing concept that acceleration is not opposed to enrichment but that acceleration autmatically provides enrichment and one can complement the other.[46]

4. The present acute shortage among highly skilled professional, scientific, and technical workers needed in defence and essential civilian activities.[47]

These four will be examined now in greater detail.

Educational Research On Acceleration

The most significant of these research findings is Terman's 25 year follow-up study of over 1500 persons who as children tested at or above 140 I.Q. as published in "The Gifted Child Grows Up" in 1947. Much controversy has gone on about the advantages and disadvantages of acceleration having to do chiefly with the recognition of the social and emotional, as well as the intellectual values of the child's development. In the chapter in this book devoted to acceleration, Terman expresses his opinion as follows: "If the gifted child's intellectual welfare

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46. Rideout, E. Brock - op.cit., p.296.
47. Lorge, Irving - Social Gains in the Special Education of the Gifted - School and Society, Vol.79 - Jan.1954,pp.4-7.

were the sole criterion, then promotion ought to be based primarily on mental age, since it is the factor that chiefly determines the intellectual difficulty of the school tasks one is able to master. The question is, how much risk of maladjustment one can afford to take, in order to keep the gifted child at school tasks difficult enough to command his attention and respect. The data here reviewed indicate that the risk of maladjustment is less than is commonly believed.[48] Rideout in summing up results states: "It was shown that of boys who graduated from high school below the age of 15½ years a significantly higher proportion graduated from college, made an average college grade of "B" or better, took one or more year of graduate work, and earned 15 or more recommending units in high school than of those who graduated at or above the age of 16½. The data also showed that among men "the accelerates more often than the non-accelerates are in the professional and higher business occupations" and less often in the lower occupational groups. Avocational interests of accelerates and non-accelerates were also tested and no significant differences found. It was concluded "that even marked school acceleration had little or no effect upon either the kind or the number of avocational activities, and that it has no narrowing effect upon such interests as the 12 fields mentioned - outdoor

48. Terman, Lewis M. and Oden, Melita H. - Genetic Studies of Genius: Vol.IV - The Gifted Child Grows Up - Stanford University Press, 1947, pp. 279 and 280.

sports, travel, religion, mechanics, social life, literature, music, art, science, politics, domestic arts, and pets.

As to social adjustment, the area in which educators have been most critical of acceleration, Terman and Oden conclude that although maladjustmest does occur in individual cases of school acceleration, it usually consists of a temporary feeling of inferiority, which is later overcome. They state that the effect of acceleration on maladjustment has been on the evidence, greatly exaggerated.

In comparing the physical and mental health of accelerates and non-accelerates, no support was found for the widespread belief that rapid promotion is apt to affect adversely a child's mental or physical health."[49]

Terman and Oden's conclusion is that "No universal law can be laid down governing the amount of acceleration desirable. Some gifted children are less injured by acceleration of three or four years, than others by one or two years. It is our opinion that children of a 135 I.Q. or higher should be promoted sufficiently to permit college entrance by the age of seventeen at the latest, and that a majority in a group would be better off to enter college at sixteen."[50]

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[49] Rideout, E. Brock, op.cit.,p.295

[50] Terman and Oden, op.cit.,p.281

Another research project dealing with acceleration of significance, is the recent experiment at the college level carried out at Ohio State University under the direction of S. L. Pressey. Shortly after Pearl Harbor a special effort was made at this university to study the attempts at wartime acceleration then getting underway. The major purpose was to use this wartime expedient as an experiment to gain understandings which might be useful in the post-war period.[51] In the summer of 1942, first plans were made at a conference supported by the American Council on Education; the work went forward with University support until the spring of 1947. "He found that early college entrants: (a) are more likely to graduate; (b) earn better marks; (c) tend to participate more in extra-curricular activities. In over 80% of cases even from grade skipping, advantage rather than disadvantage seemed to result."[52]

Pressey made a follow-up study[53] ten years later of 145 women graduates who had completed the usual four-year program in three calendar years or less. With these were paired 145 other woman graduates of the same year, who had entered at the same age and tested substantially the same on the test of general ability at entrance, but who took the usual four years for the degree. Question-

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51 Pressey, Sidney L. Educational Acceleration - op.cit., preface.

52 Rideout, E. Brock, op.cit.,p.296.

53 Pressey, Sidney L. - Wartime Accelerates Ten Years After - Journal of Educational Psychology

naires were sent to all of these alumnae. Of the accelerates 81% replied and of the regulars 71%. 79% of the accelerates believe that acceleration had saved desirable time. 24% of the accelerates and 12% of the regulars had earned further degrees. The median age of marriage for the accelerated was 22.3 years and for the regulars 23.2. Only 9% of the accelerates felt that their accelerated program had limited their social life.

Wilkins, of the University of Notre Dame in his introduction to a report on a study of 122 boys and 160 girls who had been accelerated stated: "It has been shown that the bright pupil does not profit so much from time spent in the elementary school as he would from time saved in the lower grades and devoted to advanced studies. The educational achievements of accelerated pupils are in general, superior. The present article attempts to throw some light indirectly on the general problem of whether acceleration is likely to bring with it social maladjustment. With the present group of accelerated pupils the attempt was made to obtain a few data somewhat like those that Terman procured for the gifted children."[54]

In summing up the findings from this experiment Wilkins says: "The activities of accelerated pupils in high school lead to the conclusion that their adjustment is beneficial and healthful. Their own testimony and that of their parents show preferences for intellectual activities

[54] Wilkins, Walter L. - "The Social Adjustment of Accelerated Pupils" - The School Review, Vol.44, 1936, pp.445 and 446.

and for strenuous sports, but these pupils also engage in a wide variety of other activities. They dislike as a group to spend time alone. They prefer companions of their own age or persons a little older, the influence being that they prefer to associate with people of their own mental age. In fact, compared with other children for whom data have been reported, these boys and girls were very sociable. Accelerated pupils themselves are anxious to adapt themselves to the environment of the grade ahead."[55]

Similar successful social adjustments of accelerated pupils have been reported by Lehman and Witty, who say: "the accelerated children engage in approximately the same number of play activities as do children who are making normal progress. Acceleration does not exact its toll in reduction in the number of activities engaged in. The data herin presented seem to show the falsity of the traditional view that the accelerated child demonstrates a conspicuous lack in reference to the number of plays and games in which he participates."[56]

Keys presents data from a very controlled study of forty-six boys and girls in the Oakland schools and reports that: "personality difficulties were not common and shyness and timidity characterized the control group much

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55 Ibid., p.453

56 Lehman, Harvey C. and Witty, Paul A. - Play Activities and School Progress - Journal of Educational Psychology, Vol.18, (May 1927), p.323.

more than the underage. The few cases of serious problem behavior proved to be either bright but non-accelerated controls, or accelerated pupils of only average intelligence."[57]

Engle, as a result of his follow-up study of the adjustment five years after high school graduation of twenty-five pupils accelerated in the elementary school reports: "If any conclusions can be drawn from such a limited number of cases the evidence indicates that some acceleration in the elementary school does not handicap a person educationally, vocationally, or socially."[58]

Tindale made a statistical study of acceleration in the five Grade 8 classes in his school who are following the Hamilton Unit Promotion plan in June 1955. He reports the following findings:[59]

Description	Accelerates %	"Average" %
Pupils who had 75% or better at end of Grade 7	26.8	3.8
Pupils who had 75% or better at end of Grade 8	39.0	7.7
Pupils who failed Grade 8	4.9	9.6

In summing up his results in a personal letter[60]

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57 Keys, N. - Adjustment of Underage Students in High School - Psychological Bulletin, Vol.32 (Oct.1935), p.539.

58 Engle, T.L. - Achievements of Pupils Who Have Had Double Promotion in Elementary School - Elementary School Journal, Vol.36 (Nov.1935), p.189.

59 Tindale, W.A. - Statistical Study re Unit Promotion as Reflected in 5 Grade 8 classes.

60 Letter dated March 15, 1956.

to the writer, Tindale states: "By and large I think the following conclusions are fair:

(1) Accelerated pupils in Grade 7 and 8 did better in general than the "average" students who covered 1 grade per year.

(2) The accelerated pupils measured up even better in Grade 8 than in Grade 7."

The evidence herin presented would tend to support Pressy's opinion expressed as follows: "Not to accelerate superior students - to hold them back with less able fellows simply on the basis of chronological age may cause maladjustment. When accelerated students have been carefully selected as not only intellectually superior but also in good health, and initially well adjusted, and have been given some guidance and help in acceleration, maladjustment has been minimal. When public schools accelerated not simply scattered individuals, but groups moving forward together in rapid progress sections, much less difficulty of adjustment was found. In short, it appears that acceleration has caused much less social maladjustment than has ordinarily been supposed."[61] Wilkins shares this view when he states: "The pupils..... seems to give further evidence that the dangers attributed to acceleration (unless of course practised unwisely) have been largely overestimated."[62]

Psychological, Biological, and Sociological Research

Stephen Leacock, near the end of a long and dis-

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61 Pressey, Sidney L. - Educational Acceleration, op.cit., p.138

62 Wilkins, Walter L. op.cit.,p.454

tinguished educational and literary career said the "education in the narrow sense of school and college attendance, is taking too heavy a toll of the years of life.... education is eating up life."[63]

President Lowell of Harvard University in his annual report for 1908-1909 states: "There is good reason to suppose that boys would be prepared for college younger than they are and that it would be an advantage for them to come younger."[64] His 1913-14 report states in part: "carefully compiled statistics show that the men entering college young are on the average better, both in their studies and their conduct. With the long period of training now required in every profession, there is a universal cry that men are beginning their careers in life too old, and that the period of education is too long. Disease and death are not postponed because a man starts upon the practice of his profession a year or two later than is necessary. His period of active life, his achievements, and his usefulness are simply curtailed to that extent. The advantages indeed would seem to be almost wholly in favor of entering college young. Seventeen is a more appropriate age than eighteen to begin the life of a college. The real pleasures are

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63 Pressey, Sidney L. - Educational Acceleration - op.cit., p.28.

64 Ibid., p.5.

more fully and innocently enjoyed. He is at the period in life when his intellectual powers are growing rapidly. In short, there is a normal time for general education. Much has been said about maturity, but that is the result less of age than of environment and responsibility. Maturity may easily become over-ripe."[65]

Lowell refers to investigation made by the college regarding entrance ages. Pressey[66] reports that a study was made of 5,769 undergraduates over the years 1902-1912 inclusive. The youngest students had the best academic records, proportionally most often graduated with honors, and presented fewer disciplinary problems. A considerable number of somewhat similar studies made since have been in substantial agreement, according to Pressey. Thus of 287 Freshmen entering Columbia in September 1915, the fifteen-year-olds made the highest marks, the sixteen-year-olds next highest, and so on. In 1910 and 1911, students who entered the College of Arts at the University of Minnesota under eighteen years of age were found to do superior work and remain in school longer than those who entered older. The 224 men who over a 20 year period, had entered Dartmouth at sixteen or younger won scholastic honors two and a half times oftener than those of average age.

There seems to be considerable evidence to support

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65 Ibid., p.6.
66 Ibid., p.6.

Leacock and Lowell's view that biologically students can embark on a college career at a younger age with profit, and they are psychologically most fitted when younger.

It is generally recognized that by the age of twenty or twenty-one for men, and a year or two earlier for women, the human physique has essentially finished its growth and reached adulthood. Less generally recognized, in Pressey's opinion,[67] are the additional facts that the individual's peak in strength, skill, and general physical vigor is reached at about this time, and that the period of physical prime is thereafter relatively short. The healthiest years are in the middle twenties. If changes in strength, dexterity, quickness, and perception, show the highest point in the twenties, thereafter a slow and then more rapid decline. Various other measures of physical efficiency, as for instance of visual acuity and accomodation show the same general pattern. A mans most outstanding creative accomplishments more often come early than late in adult life. Worthwhile accomplishment is probably a product not only of ability but also of enthusiasm, interest, and sustained purpose. Studies made of men joining political parties, religious conversions, and evidences of other drives - the peak is at twenty.

The late teens and the twenties, Pressey continues are typically the time of transition from status as a child

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[67] Ibid., pp.28-36.

under parental roof, with such subordinate status economically, socially, and intellectually as may result therefrom, to economic independence and a home of one's own with all that such changes entail as regards both freedom and responsibility in way of life. A most important date in this progress from childhood to adult status presumably is date of marriage. A recent investigation of special value in aiding in analysis of this situation, was in a Baptist college for men in Mississippi. It compared graduates of this school with brothers of these same men who had not gone to college. The median age of 604 graduates of this southern school who had married was 27.0 years; the median age of marriage of 273 married brothers who entered college but did not graduate was 25.5; the 591 brothers who did not enter college married at a median age of 24.0. This study suggests that extension of full time education into the twenties tends to delay marriage.

Data for this Mississippi college also included indications of a differential effect of length of education on the birth rate; married graduates over forty years of age had 3.69 children, but their more prolific brothers who had never entered college had 4.25.

It is well recognized, says Pressey, that "the college bloc" is falling far short of reproducing itself numerically, and is well behind the national average as to size of family, that the percentage of single women grad-

uates is nearly double that for all U. S. women. Furthermore, it is best for the health of both mothers and children,that childbearing come relatively early in adult life. W. F. Ogburn, an eminent sociologist says: "To enter remuneratively into one's profession at twenty-five or thirty years of age is late. An educational program which leads to a postponement of marriage to around thirty years of age for men and several years later than the average of marriage, should at least be challenged...The time in life for setting up a family is a most important consideration. The continuance of professional and graduate work well into young adult life may bring a warped, monastic, and emotionally unhealthy existence."[68]

In 1935 American men of Science obtained their Ph.D. degree at a median age of 29.5 years. In Germany, from which country the American doctorate originally came, similar graduates obtained this advance degree in that year, at an average age of 24.8 years - partly due to earlier completion of general education in the Gymnasium.[69]

In the light of all these facts, educators are beginning to wonder how progress through educational programs can be made more flexible, and earlier completion of programs made feasible. "All too often the eager youngster is reined

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[68] Ibid., p.36.
[69] Ibid., p.56.

back into the lock step with addition of accessory materials of marginal value. Such slowdowns sometimes seem little less than vicious since they hold back brilliant young persons from getting into their life work near the beginning of their prime."[70]

Enrichment From Acceleration

There are two possible benefits which may accrue to the gifted child from special treatment in school, according to Freeman of the University of Chicago. "In the first place, time may be saved by increasing the rate of the pupils progress through school. In the second place, opportunity for doing work at a higher intellectual level may be provided by modifying the character of the work. This is what is usally called enrichment. Enrichment, furthermore, may be of two kinds. It may, through a modification of the method of instruction, provide for greater initiative and originality on the part of the pupil; or it may provide a different content or subject matter from that offered to the child of average capacity."[71]

Freeman contends that when we contrast enrichment with acceleration and hold the pupil in the grade and attempt to add something to the instruction without carrying him through the curriculum at more than ordinary pace, we meet with difficulties. Our assumption has been that these difficulties are simply matters of practical adjustment and that

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70 Ibid.,p.142.

71 Freeman, F.H. - The Treatment of the Gifted Child in the Light of Scientific Evidence - Elem. School Journal, Vol. 24, 1924, p.652.

the application of sufficient intelligence to the problem will secure this kind of enrichment. The fact is, however, that most school systems have largely given up the attempt and have resorted to acceleration.

The modifications in method in current enrichment practices such as socialized recitation, making individual reports, doing project work and so forth, are methods which the progressive teacher uses in her regular teaching. The subject matter used in enrichment Freeman contends in most cases is borrowed from the higher grade - e.g. world history, foreign languages, geology, etc.

In view of the above Freeman makes the following statement: "The main contention that I wish to make is that acceleration actually produces enrichment and that we have been securing the ends which we have sought without being aware of the fact. Acceleration is not merely saving time; it may provide enrichment.[72] "To sum up we have in the past emphasized the distinction between acceleration and enrichment. In so doing we have made a false distinction. We have further assumed that enrichment implies keeping the pupil engaged in the work in which the pupil of average classification at the same age is engaged. This assumption is, I believe, incorrect. Acceleration actually provides enrichment. The work of the advanced grades is intellectually superior because the method which is pursued and the content are superior to those of lower

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[72] Ibid., p.654.

grades. The difficulties of this mode of adjustment are not of an intellectual nature, but of a social nature and may be met by proper forms of organization, and they are being progressively diminished by the very increase in the frequency of acceleration itself...The problem has been in process of solution before our eyes, and we have failed to recognize it. Out task now is to devote our energies to the detailed adjustments which are necessary to make the reorganization completely successful."[73]

Reavis, Pierce, et al[74] say that the schools often use acceleration as a means of caring for the needs of the gifted but no rules can be made governing the amount of acceleration that is desirable. They agree with Freeman when they state: "Enrichment and acceleration are complimentary in the best educational programs for the gifted."[75]

Reinoehl, and Ayer agree that acceleration produces enrichment and suggest ways in which the two may be re-organized as follows: "The advantages of enrichment and of acceleration may both be secured. Acceleration appears well adapted to the basic knowledges and skills in "tool" subjects and enrichment to the informational and thought,-provoking subjects... Enrichment however important,does not solve adjustment problems fully without acceleration..

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73 Ibid.,p.661.

74 Reavis, Pierce, and others - Administering the Elementary School. Macmillan 1953. pp. 403-4.

75 Ibid., p.404.

Courses drawn up for enrichment may keep bright pupils employed without much profit to them. Enrichment is needed in certain areas of experience to provide for high quality of work. Acceleration is needed in others to provide for natural rates of progress."[76]

Thus it appears that acceleration, once at variance with enrichment in the thinking of educationalists, is appearing now as being complementary to it, in the opinion of an increasing number of authorities.

Shortage of Skilled Personnel

Weglein, superintendent of schools in Baltimore, claims that the move from acceleration to enrichment was in the main due to lack of employment for school graduates. He said in 1940: "In recent years our attention has been turned more toward enrichment than acceleration. This change in emphasis is attributable to various causes, particularly to the fact that there is no necessity at the present time for having children complete the work of the school at an earlier age, since there is no opportunity for employment."[77] If this was true in 1940, it would have had a greater effect during the "hungry thirties".

The reverse situation prevails to-day. There is a tremendous demand for persons trained in schools and universities, to meet the needs of rapidly expanding defence and industry, research and large increases in popu-

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76 Reinoehl, Charles M. and Ayer, Fred C - Classroom Administration and Pupil Adjustment - D.Appleton-Century, 1940, p.149.

77 Weglein, David E.- Administrative Problems in the Education of the Gifted - Teachers' College Record, Vol.42 (1940-41), p.430.

lation. The July 9, 1956 issue of Time Magazine reports many industries are cramped by the shortage of scientists, (page 84).

Dr. Lorge[78] states that "Recently the National Manpower Council in its statement of 'A Policy for Scientific and Professional Manpower' emphasized the acute shortages among highly skilled professional, scientific and technical workers needed in defence and essential civilian activities. Such high level personnel is recruited primarily from the intellectually superior.... Saving a year from one percent of the 25,000,000 children in elementary and secondary school, would mean an additional 250,000 man-years of productivity, or an additional 6,500 men for 40 professional years." He believes that academic mastery with the saving of a year not only must be of great value to these young people in getting into their professional careers earlier, but also to the nation as a whole.

It would appear that if economic depression adversely affected the practice of acceleration, it is reasonable to assume that the present period of great economic expansion would have the reverse effect.

Additional Factors Adversely Affecting Acceleration

The widespread belief that acceleration causes social maladjustment; the idea that acceleration is grade skipping; the lack of employment in depression years; and

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78 Lorge, Irving, op.cit., pp.4-7.

the popularity of enrichment have been review here. There are other factors, however, which prevent the wider practice of acceleration.

Amongst the foremost of these, according to Pressey, is the lack of appreciation of the advantage of saving time. He claims that, "on the importance of time saving, almost all current discussions seem blind, never recognizing two related problems of human development. First gifted youngsters usually develop more rapidly than the average. Second, there is complete neglect of the evidence that there is a time of 'the prime' when people should be through with full time school and into their careers, and that this time comes early in life. School enrichment programs so often followed with gifted children, college and professional programs so long continued that adult life does not truly begin until around 30 or later, postpones the adult career so long as possible to enfeeble it, as compared with what might have been, if their careers had begun in the flush of young adulthood.

This last consideration seems always neglected by advocates of enrichment only. It is not enough to show that students have benefited in some fashion from an enrichment program. The question is rather, is it more important for a brilliant youngster to spend three years in junior high or to save a year there and begin his professional career say at 28 instead of 29. The added year in career may be far more important than the year in Grade IX.

These issues appear as important as to need specification and emphasis."[79]

In gauging the monetary loss from not accelerating the bright student at least one year, the loss of one year's salary is usually considered. Not often, however, is the cumulative loss of regular salary increments taken into account. It is interesting to compute how much a twenty-two year old Winnipeg resident would lose over the amount he would have earned, if he had been accelerated one year in public school, and began his career at 21, based on Winnipeg's present salary scale for teachers.[80] If he began teaching on the Winnipeg staff with a B.A., at 21, in September 1956, by September 1972 he would earn $68,400. If he began at 22 in September 1957, he would earn $63,000, by September 1972. Here the difference of $5400 is made up of the extra year's salary of $3150, plus salary increments totalling $2250. It is evident that even with a teacher's modest salary the whole cost of his university training, as well as a down payment on a home, could have been paid from the savings of one year of acceleration in the public school. The cost of the extra year of enrichment in the public school, to this presumably bright youngster, would seem to be excessive. The fact that he contributed a year of teaching to Winnipeg children in his

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79 Pressey, Sidney L. - That Most Misunderstood Concept - Acceleration - School and Society, Vol.79 (Feb.54) pp.59 and 60.

80 School District of Winnipeg No.1 - Teachers' Salary Schedule - Effective Jan.1st, 1956.

twenty-first year, saved the Winnipeg School District approximately $250 in one year's schooling; provided space for one more student for a year in Winnipeg's crowded classrooms, might also be worth considering.

Terman says, "Acceleration.....is expecially desirable for those who plan to complete two or more years of graduate study in preparation for a professional career."[81] Hollingworth claims, "a very troublesome feature of modern civilization is the constant lengthening of the period of preparation for all learned professions. So out of proportion to the life span and to organic needs has the standard of professional life evolved, that it is now scarcely possible for young persons to become self sustaining economically by means of a profession, until nearly thirty years of age, if only the conventional rate of progress is maintained. For the very gifted who are those best fitted by nature for learned professions, it would be entirely feasible to bring the period of preparation within reasonable bounds by means of rapid progress in the elementary and secondary schools."[82]

Pressey sums up,the need for greater consideration of saving time in the education of gifted persons as follows: "It is indeed notable when advances in medicine add years to life. But to add a year or so at the end of life might well be far less of a contribution to both in-

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81 Terman and Oden - op.cit., p.28
82 Hollingworth, Leta S. op.cit.,p.299

dividual total happiness and total social usefulness, than years added to adult living in the very prime of life."[83]

Another factor which has an adverse effect on the practice of acceleration, is the common habit of measuring education by time spent on it. Terman and Oden say of their Stanford studies, "When correlations were computed between length of school attendance and achievement quotients in the various school subjects, not a single correlation was found which differed reliably from zero. In the earlier years at least, length and regularity of attendance have surprisingly little effect upon the gifted child's achievement."[84] Pressey states, "Educators believing as they do in the great worth of their work, have an understandable hesitancy about plans which deliberately seek to reduce the total time the ablest students have to profit from their schooling. Furthermore, the unfortunate custom of expressing amounts of education in terms of time taken, leads to the implication that shortening time inevitably reduces value. Instead educational programs should be thought of in terms of values to be attained, rather than time to be served toward this purpose... Most pervasive and baffling of all handicaps is the tissue of academic conventions in terms of lock-step programs which are not only part of the

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[83] Pressey, Sidney L. - Educational Acceleration, op.cit., p.148.

[84] Terman, Lewis M. and Oden, Melita H. - The Standford Studies of the Gifted - The Gifted Child - Health & Co., 1951, p.24.

usual academic procedure and faculty habits of thinking, but are taken for granted by students and also by the public. It is assumed that a child should enter school at six, should enter college around eighteen, and finish around twenty-two. Earlier somehow seems much too young. In fact the enormous institution of American education with its thirty million young people and million teachers has come so much to move and think in terms of the lock-step, that is is an accepted way of life."[85]

Acceleration has suffered, also, by the idea which is prevalent that it implies hurrying. The term "acceleration" itself unfortunately adds impetus to this opinion as well as the old fashioned grade-skipping with which it is associated. If a bright child is moving on after he has mastered preceeding work, at his own rate of progress, he is not necessarily hurrying. He may be moving along very deliberately. "Acceleration denotes to most people hurrying - with the implication that the traditional rate of progress through an educational program is the normal, natural, desirable rate, and that the usual ages at which different points in a program are reached are the desirable ages. Progress more rapid than this is presumed hasty, and the younger person thought immature."[86]

Hollingworth relates an amusing anecdote to show how wrong such an implication can be. An eleven-year-old boy with an I.Q. of 180 was a candidate for the office of

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85 Pressey, Sidney L. - Educational Acceleration, op.cit., p.141.
86 Ibid, p.2.

class president in the senior high school to which he had been accelerated. His classmates were around sixteen years of age. She says, "During the electioneering, a proponent of a rival candidate arose to speak against the eleven-year-old and he said, "Fellows, we don't want a president in knee pants."

In the midst of the applause following this remark, the eleven-year-old rose, and waving his hand casually in the direction of the full-length portrait of George Washington on the wall he said, "Fellows, try to remember that when George got to be father of our country, he was wearing knee pants."

Our eleven-year-old was elected by a large majority."[87]

The Calgary School Board is careful to emphasize in its accelerated program that, "The accelerated program is not a forcing program. Such a concept should be repugnant to both teachers and parents."[88]

Methods of Acceleration

The problem of methods used in acceleration consists of two divisions, namely: (1) at what age level should a child be accelerated and (2) how will the curricula content be arranged. It is thought by some administrators[89]

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[87] Garrison, Karl C. - The Psychology of Exceptional Children, Ronald Press Co.,1950,p.261.

[88] Calgary School Board - Accelerated Program, Oct.1954,p.5.

[89] Krueger, Allen, et al.,Administrated Problems in Educating Children - The Gifted Child - Heath and Co.,1951,pp. 260-261.

that with early identification of the gifted (at the ages of four and five) that they might be permitted to complete the kindergarten and grade one programs in one year, perhaps before the age of six. The argument given for this practice is that they will be challenged immediately by their first school experience and thus avoid the danger of boredom and careless habits of work. Krueger, Allen, et al,[90] point out that unless there were a number large enough to form a group of such children, the few who are advanced might be out of place.

However, scattered evidence indicates desirable outcomes for judicious beginning of school at earlier than average age for superior children. Milton, Massuchusetts, found the underage for superior entrants successful to a degree somewhat above the average for their school grade, according to Pressey.[91] It is probable that all of the 258 children will finish school and enter their life work a year earlier as a result of this practice, he contends. Another instance of early entrants working out well, was in Winnetka,[92] where 36 children under school age were admitted on the basis of the average of their mental and chronological ages. These more than held their own scholastically and were on a par socially with the older children with whom they associated, as rated by teachers on a social rating scale.

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90 Ibid, p.261
91 Pressey, Sidney - Educational Acceleration - op.cit.,p.14
92 Ibid,, p.14.

More common than the above practice of early entrance, is the method of covering the first three grades in two years. That is the policy adopted for Winnipeg Schools. Calgary[93] has quite an extensive accelerated policy on this plan. Selection is based on data concerning evidence of (1) mental capacity and achievement, (2) emotional and social adjustment, and (3) good physical health. Selection of candidates is begun in March of the grade one year. The Detroit Beginning First Grade Intelligence Test is the first rough screen given at the beginning of the year. The Detroit Advanced First Grade Intelligence Test is given during the first week of February. Dominion Achievement Tests in reading skills are given during the last week of March, also a short test in number fundamentals. Teacher's observation of any necessary emotional or social maladjustments are taken into account. She is aided in this by sociometric tests in December and March. An examination by the school doctor is necessary before the end of March. Meetings with parents are arranged to discuss possible candidates and to secure the parents' consent. Promotion to Grade II is made about May 1st. Dominion Standardized Tests in Vocabulary and Paragraph Work are administered in December following. Those not measuring up to standard are withdrawn from the accelerated program at that time. Successful candidates

are promoted to Grade II on January 1st and it is expected they will be ready for Grade IV in September following, thus covering Grades I, II and III in two years.

Of such early promotion plans Hollingworth believes, "It is the first years of the elementary school that the gifted seem so very much younger than their fellow pupils. Three years of difference at an early period in development is much greater than three years of difference later. This is because of the shape of the curves of growth, which are not uniform in rate of increment when measured against time. As age increases, the importance of a given discrepancy in time diminishes. Thus rapid progress is an especially perplexing problem in the first years of the elementary school. Perhaps segregation with rapid progress during these years would constitute the best adjustment."[94]

More school systems seem to prefer a year of acceleration somewhere in the first six grades, but preferably not at the beginning of the school program.

Hamilton's Unit Promotion Plan[95] in operation since 1949, divides the work in the basic subjects for the six grades is divided into 18 units or 3 units per grade. The objective in such a scheme is to permit all pupils to progress as their abilities indicate. Usually one year's ac-

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94 Hollingworth, Leta S. op.cit.,pp.298-9.

95 Board of Education for the City of Hamilton - The Unit System of Promotion in the Public Schools of Hamilton, July 16, 1954, pp.1-11.

celeration is sufficient except in special cases. Enrichment is then provided rather than further acceleration.

In Toronto[96] many schools do the work of Grades 2, 3 and 4 in two years. At least one Toronto school distributes this acceleration over six grades. Seldom, if ever, is the gifted child accelerated more than one year in the elementary schools.

W. T. MacSkimming, Chief Inspector of Ottawa schools, states in a letter to the author that "In the Ottawa Public Schools all pupils at the Grade 3 level are given the opportunity to complete the work of Grades 3 and 4 in one year - acceleration without skipping a grade. This is accomplished by doing pre-reading, pre-printing, and pre-number work in the Kindergarten-Primary, which enables us to bring some Grade 2 work into Grade 1, and some Grade 3 work into Grade 2. Decisions on those to be promoted are based upon the accomplishment in Grade 3 and on the results of a standardized achievement test."[97]

This system of acceleration seems to be more favored by authorities. Rideout says, in summarizing research findings on acceleration, "Do not allow more than one year of acceleration in each of the elementary and secondary schools.[98] Krueger, Allen, et al believe that, "Perhaps in the middle elementary grade the age differences will not seem so sharp as at the earlier levels,

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96 Toronto Board of Education - op.cit.,p.15.
97 MacSkimming, W.T. - Letter dated Feb.16,1956.
98 Rideout, E. Brock - Educating the Gifted in the Secondary School - Dept. of Educational Research, Feb.3, 1955, p.6.

and here acceleration may not create such problems of difference in outlook and behavior in the group."[99]

Research does not reveal many instances of acceleration practiced in the Junior High School. Pressey however, reports that, "When accelerates have been carefully chosen as intellectually superior, and well adjusted, means provided for facilitating advancement, as by sections arranged for superior students who then move forward together to cover perhaps three years of junior high work in two, results have been found to be distressingly satisfactory."[100] He cites the case of a Missouri school which accelerated superior children by putting them in sections which covered the seventh and eighth grades in one year. This will bring back memories to many who did the same thing several decades ago in Manitoba schools. In the case of the Missouri school, scholarship did not suffer. Over 80 percent replied in the negative to the question, "Do you feel that being accelerated one year in the seventh and eighth grades deprived you of any honors or social advantages later in high school."[101] In a Pennsylvania city, superior pupils for several years were given the opportunity to cover three years of junior high school in two. The 97 accelerates who remained in high school and graduated

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99 Krueger, Allen, et al., op.cit.,p.261

100 Pressey, Sidney L., Educational Acceleration, op.cit., p.143.

101 Ibid.,p.14.

were matched with the pupils taking the usual three years to complete the same curriculum. These, at entrance to junior high school were similar to the accelerates in intelligence quotients, marks on achievement tests, future citizenship ratings, and social ability. "No out standing differences in the achievement of the two groups were found and no outstanding differences in health and attendance were apparent, nor in participation, in social activities and satisfactory social adjustment to their classmates."[102]

Witty[103] reports that in Baltimore a program of acceleration for superior children in which they do the work of the three junior high grades in two and one half years has been in operation for over forty years. At the present time an acceleration program for junior high is being considered in Edmonton.[10]

More frequent, however, is the practice of arranging for some form of acceleration in High School. Norris reports that in connection with acceleration in their Major-Work classes in Cleveland, "This usually takes place in the elementary and senior high schools, almost never in the junior high school."[105] Baltimore has operated for many years a special high school which covers the regular four-year course in three years. University results indicate

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102 Ibid.,p.5.
103 Witty, Paul, op.cit.,p.199.
104 Report on Panel Discussion on the Gifted Child, Teachers' Convention in Edmonton, Feb.7, 1956, p.2.
105 Norris, Dorothy, E. op.cit.

that graduates of the school maintain their high standard through university Rideout reports. He says, "It has been pointed out that acceleration (especially by special classes) automatically achieves enrichment. The Ford Foundation is sponsoring a Program for Early Admission to College in a number of United States Secondary Schools by which students can be admitted to second and even third year university after spending only four years in high School."[106] Freeman would agree with this idea when he states, "The increase in the number of accelerated pupils which have already taken place are even now lowering the average in high school and college, that the young student is isolated to a much less degree than he was formerly, and the young individual has a sufficient number of companions to give his age group respectable standing in the school. The introduction into the high school or college community of a sufficiently large group whose demand for recognition rests more on intellectual attainments than on athletic prowess or the social graces, may serve to bring intellectual achievement to a parity with these other bases of prestige."[107]

Witty sent questionnaires to school administrators in fifty-six towns and cities in the United States in 1949. The names were obtained from a list to whom acknowledgment was made in a special article on provisions for gifted chil-

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106 Rideout, E. Brock - Educating the Gifted in Secondary School, op.cit.,p.4.

107 Freeman, F.N.,op.cit.,p.660.

in high school in a N. E. A. Bulletin. Twenty-nine answers were returned. Of these seven stated that they accelerated superior students.[108]

In discussing the advisability of having bright children accelerate one to two years through their school career Steinson, Principal of Saskatoon Teachers' College states, "Acceleration of bright pupils is now opposed by the majority of administrators. This view is not wholly upheld by the results of quantative studies or by the opinion of writers in the field. Indications are that a high degree of acceleration may have some harmful effects upon social development but that an accumulated acceleration of from one to two years is likely to be beneficial...One thing certain is this: If a school system insists on keeping every pupil in elementary and high schools for a minimum period of twelve years, it is thereby assuming a great responsibility as far as bright pupils are concerned. The course work prescribed for average pupils can be completed by many bright pupils in a mere fraction of the set time, if they are working up to capacity. Something else has to be provided so that profitable use can be made of the extra time."[109] Opinions in some quarters seems to be moving toward keeping superior students in high school the normal

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[108] Witty, Paul - op.cit.,pp.201-2.

[109] Steinson, S.W. - Past, Present and Future School Treatment of Bright Pupils, 1952, p.1.

number of years, but by a system of electives, allow them to take college level courses, and thereby shorten the period of university training. The Calgary[110] study discusses a report of The School and College Study of Admission with Advanced Standing under the chairmanship of Dr. Gordon Chalmers of Kenyon College, Gambier, Ohio. Associated in the study were twelve colleges and twenty-seven secondary schools in the eastern United States. The purpose was to discover some means of enabling the secondary schools concerned to offer college level work to their able students of a standard that would be acceptable to the participating colleges. Their discussions were based on two assumptions: (1) secondary school curricula is not sufficiently intensive to challenge the brightest students and (2) the secondary school is the place where intensive instruction most needs to be done. Students of high ability can and should undertake more intensive and difficult work than the normal high school course. The introduction of honors courses, they believe, in secondary schools may have as wholesome an effect on secondary education as the development of honors work has had in our liberal arts colleges.

An experiment to speed up progress of brilliant students, perhaps putting top students through a four year high school course in three years, being conducted

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110 Calgary School Board - Final Report on Practices in Other School Systems - op.cit.,p.9.

by the British Columbia Department of Education, is reported in The Alberta School Trustee of February 1956 issue. They say that the carefully controlled test is being carried out so quietly in West Vancouver, Oak Bay, and Penticton, that selected students probably were not aware what was happening.

First concern is what effect such a shorter course would have on the top quality students, but there is also an economic factor. Cost of training a student for three years is of course cheaper than for four. Department officials make it clear they are not yet advocating an official change.

Education Minister, Ray Williston, says it is a matter of collecting data. At the end of the current school year enough information may be assessed to determine whether the experiment should be continued.

Commenting on the experiment, A. T. Alsburg, a school principal in Vancouver said, "I'm 100 percent for it. The bright student can handle it in three years. Everything should be done to challenge our able students. Unfortunately, our system is geared to the average or mediocre student."

Most authorities recommend acceleration plus enrichment of the curriculum is a general policy in the education of gifted children in elementary school according to Witty.[111] He quotes Albers and Seagoe on this subject as

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[111] Witty, Paul - op;cit.,p.187.

saying, "The best interest of democracy demand that superior children shall not merely shorten their stay in school but should have a broader experience while there. From a practical point of view it will fall to the regular teacher in the regular class to provide it."[112] Rideout says, "Do not consider that you must choose between acceleration and enrichment. A judicious use of both will probably be best."[113] Weglein[114] believes that in a large school system it is possible to provide for some superior children a program of acceleration, and for other superior children a program of enrichment without acceleration. There is no reason why parents of such children should not have the opportunity to select the type of special treatment for their children. The Toronto report recommends, "Vertical acceleration usually not to exceed one year. Horizontally, let the child branch out into fields of study not possible to the average child."[115] Its findings reveal also that "Many authorities recommend limited acceleration plus an enriched program."[116] The Edmonton panel reports that the Opportunity Classes of London operate on this plan as follows, "London has operated classes for gifted children since 1928. Pupils who have completed the first four grades in three years and test 130 and up-

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112 Ibid.,p.191
113 Rideout, E. Brock - Educating the Gifted in the Secondary School, op.cit.,p.6.
114 Weglein, David E., op.cit.,p.429.
115 Toronto Board of Education, op.cit.,p.7
116 Ibid.,p.19

wards, are admitted to Grade V and continue to Grade VIII with, Conversational French, Typewriting, additional Physical Education, Dramatics, and Public Speaking offered as enrichments.[117] Previously in this chapter the report of Mrs. Norris on the practice of acceleration in connection with the Major Work Classes of Cleveland, has been cited, also the proposed move in this direction with the gifted classes of Saskatoon as reported by F. G. Gathercole, Superintendent of Public Schools for Saskatoon.[118] With increased acceleration of superior children in Winnipeg during the first three grades, more and more accelerates will be found in its Major Work Classes. Freeman suggest that, "in the elementary school, instead of the bright pupils being promoted into higher grades which are made up of largely of average pupils, the brighter pupils may be kept together, and the work of the higher grades may be brought down to them. They may then associate with the other pupils who are of the same age on the playground, in manual work, and in the general social activities of the school."[119] Reinoehl and Ayer conclude in a discussion on this subject that, "Most adjustment problems may find their solution by using in some effective way the desirable features of both plans.[120]

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117 Report on Panel Discussion on the Gifted Child, op. cit.,p.1

118 p. 66

119 Freeman, F.N., op.cit.,p.659.

120 Reinoehl and Ayer, op.cit.,p.149

Current Practice of Acceleration

In setting down principles that might govern the development of a curriculum for gifted children in 1953, Heck states, "Provision must be made for individual instruction along the line of the student's specialty. Such instruction should give the pupil an opportunity to progress at his own rate of speed, and adapted to his ability and interests."[121] This idea of a natural rate is coming very much to the fore in recent years. Trusler recommends acceleration in moderate degree for pupils of I.Q. 125 and above.[122] This says Witty, "seems to be in accord with suggestions repeatedly made during the past decade. Several studies show that acceleration up to two full grades is not associated with undesirable adjustment in the gifted."[123] The San Francisco workshop in 1951 unanimously endorsed the statement that "We can justify an acceleration of one year showing the first six grades for academically gifted children."[124]

In the United States according to surveys the practice of acceleration in elementary school is still quite limited. Mills wrote to thirty-nine city school systems that were recommended to her in 1948 inquiring of their provisions for gifted children. Thirty-three responses

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121 Heck, A.D. - The Education of Exceptional Children, McGraw Hill BookCo.,1953,p.413
122 Trusler, J.W. Pupil Acceleration in the Elementary School - Grade Teacher,Vol.67,Oct.1949,pp.16-17
123 Witty, Paul, op.cit.,p.187
124 San Francisco Workshop Report,op.cit.,p.22
125 Witty, Paul, op.cit.,pp.196-7.

were received. Six reported that provisions for the gifted had been discontinued. Six more reported practicing different forms of acceleration.[125]

In Canada, however, the practice is quite widespread. The University Women's Club of Ontario survey reveals that Brantford accelerates about 20 percent from grades 1 to 4. 98 out of 400 graduates from elementary school in 1954 were accelerates. They believe the percentage should possibly be higher. Etobicoke accelerate, covering grades 3, 4 and 5 in two years with the consent of parents. Candidates must have I.Q's of 120 or more, emotional stability, social adaptation and reading age two years in advance. They believe their program could be expanded. Galt accelerates the brighter third of its students in the lower grades, covering three years in two. In a brief submitted to Kitchener authorities requesting a policy of acceleration be established, the Kitchener University Womens' Club states,"We know that there are arguments both for and against acceleration, but we feel that those in favor far outweigh those against."[126] London accelerates its bright students covering grades 1,2,3 and 4 in three years. Niagara Falls has various amounts of acceleration in different schools but the committee of ladies felt it could be expanded. They say, "Over 75 percent of the parents and the vast majority of educators questioned, favor acceleration. All superior and gifted children should be given the

125 Witty, Paul, op.cit.,pp.196-7.
126 University Womens' Club, op.cit.,pp.2-36.

opportunity to accelerate once in elementary school." Port Credit, reports some acceleration in both public and high school. In Sarnia, a bright pupil may take Grades 3, 4 and 5 in two years provided he is socially, physically, as well as mentally capable. The Director of Education for Sault Ste Marie states, "In the past year considerable research has been done by educators on the results of accelerating pupils in the past. We are quite pleased with the results and set up certain rules for accelerating bright pupils. We do not plan to accelerate more than one year in public school." Windsor accelerates by the unit system in Grades 1 to 4. Belleville accelerates 20 percent of its students.

W. T. MacSkimming,[127] Chief Inspector of Schools for Ottawa reports that 50 percent of all Ottawa students on the average are accelerated one year in public school taking Grades 3 and 4 in one year.

The Edmonton[128] panel discussion revealed that in British Columbia 286 schools reported the practice of acceleration in Grades 1 to 6. In the secondary schools of the province 14 percent of the University program graduates have been accelerated at least one year during their school life. Calgary has the most comprehensive acceleration program whereby bright students complete the work of Grades 1 to 3 in two years. Edmonton has a limited degree of acceleration in the public school. Winnipeg accelerates one year

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127 MacSkimming, W.T. - Letter - op.cit.
128 Edmonton Convention Report - op.cit.

in the primary division or one year in the junior division. In Hamilton, bright pupils are accelerated between Grades 1 and 6 through their Unit Promotion plan operating throughout the whole school system.

All Toronto schools practice acceleration for gifted children, mostly Grades 2,3 and 4 are being done in two years.[129]

From this sampling it is apparent that Winnipeg is not isolated in its acceleration policy, but is in line with general practice throughout Canada. It would seem, however, that it has been unduly cautious in the administration of this policy as already stated, when schools in 1954 report only 78 accelerates in an elementary school population of 24,963.

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[129] Toronto Board of Education, op.cit., p.15.

CHAPTER IV

A Four-Year Case Study of Twenty-Four Accelerated Children

When Winnipeg's acceleration policy was formally adopted in April, 1952, there was a good Grade II class in River Heights School that had completed the Grade II program. There were two choices open: (1) give a program of enrichment for May and June, or (2) move them along to Grade III work. Acceleration was "in the air" at that particular time, and in conference, both teacher and principal decided upon the latter course, providing a testing program, and other considerations justified this procedure. The teacher who was keenly interested, agreed to teach them for the full proposed acceleration period, i.e. through to June 1953, when they might be ready for promotion to Grade V.

In discussing the problem, the teacher and principal both agreed that if the acceleration policy was to succeed the students must be bright, of normal maturity and size for their years, and in good health. Since Winnipeg admitted children to Grade I with November birthdays, and such children would reach a chronological age of 7-7 when they were normally promoted to Grade III, it was felt that 7-7 should be the minimum age for accelerates, to insure that they would not be advanced too far beyond their chronological age group.

Bases of Selection

As a result of the foregoing considerations the

following criteria were adopted as bases of selection for acceleration: (1) a minimum reading grade of 3.0, (2) a minimum chronological age of 7-7, (3) a minimum I.Q. of 115, (4) normal size or larger for chronological age, (5) social maturity, and (6) general good health.

During the latter part of April a Stanford Reading Test was administered to these children. The median reading grade of the thirty-four who, because of physical and mental considerations were potential candidates for acceleration, as measured by this test, was 3.3 with a range of 3.0 to 4.5. All but one in the group had reached or exceeded a chronological age of 7-7, the median age being 8-0, and the range 7-6 to 8-5. Their intelligence quotients as measured by the California Test of Mental Maturity, a group test administered in September 1951, ranged from 105 to 151 with a median I.Q. of 125.

It was apparent that all were ready to begin the accelerated program with the following exceptions:- The girl (No.14 in Table I following) who scored the low 105 in the C.T.M.M. appeared to merit a higher rating, and because of her fine achievement and social maturity, was included. This decision was justified when she later was rated an I.Q. of 120 on the Dominion Test. The one boy who was 7-6 (No.12 in Table I) was included also because of his maturity and achievement. No.17 in Table I was included because ~~of~~ her C.T.M.M., I.Q. was 122.

Academic Achievement in Grade III

They were promoted to Grade III at the beginning of May 1952, without any undue publicity. At the end of June 1952 an explanatory letter was included with their report stating, "Progress was such with the majority of children in this room, that they were able to complete Grade II work by the end of April. These children, therefore, have a good chance of finishing Grade IV by June 1953. They have been following the Grade III program for the past two months, and are now being promoted to Senior III. Miss ..... will continue on with this group so that there will be no loss of time in adjusting to a new teacher."

These children were so enthusiastic about their work, and were so well taught by the teacher who knew them so intimately, that they had completed the full Grade III program by November 1952. By this time, a very bright boy, according to his C.T.M.M. rating, who had tranferred into the school was accelerated with the group (No.1 Table I). One girl and one boy (No's.19 and 23) of the original Grade II class, who had not been included because of marginal I.Q's., social immaturity, and lower reading grade, had now been included in the group because of rapid physical development and a marked improvement in reading, attained possibly by overachievement. Also a girl (No.10) had been added, who originally was excluded because of immaturity and a lower reading grade. It was felt by November that because of her

improvement and high I.Q.(125) that she should be included.

A Stanford Reading Test was administered again to the group at this time. The median reading grade for the group measured, was 4.3 (normal 3.9) with a range of 3.6 to 4.9. The median gain from May 1st was 1.0. This was a fairly reliable indication that they had advanced a year's work during this period and were ready for Grade IV. After dealing successfully with a set of achievement tests on Grade III work, they were promoted to Grade IV on November 1st, 1952.

Controlled Study in Grades IV, V, VI and VII

By the end of June 1953 this accelerated group had completed a full Grade IV program, and passed their regular Grade IV examinations very creditably. It was decided at this time to make the experiment a carefully controlled one. There was another very bright Grade IV class in the school which could be used as a controls group. Consequently a battery of standard tests was administered similarly to the two classes, during the latter part of June, 1953. From the results of these tests the accelerates were matched with the controls from this Grade IV class. They were equated about as closely as possible; in mental ability, in sex, in socio-economic background, and school experience. It was further decided at this time to follow these two groups through grades V and VI, comparing their achievement. An important test of how well the experiment turned out

would come during the first year of Junior High School, when the accelerated would associate with a large number of older children. Accordingly, it was also planned to complete the project by making a thorough study of both their social and academic adjustment during the Grade VII year, and compare it with the control group, and also with a large grade sample.

Academic Achievement in Grades IV, V and VI

These two groups will now be followed through Grades V, VI and VII and their achievement compared. By the completion of their Grade VI year, only twenty-five of the original accelerates were still attending in Winnipeg schools under study. At this time the second brightest accelerated boy, who had made remarkable progress, was held back in Grade VI for another year at the request of his parents. Two of his former teachers rated him as a "born leader" and "a fine type of leader". This incident was regrettable and raises the question as to what extent school administration should be guided by parents' decisions. That left twenty-four to enter River Heights Junior High School in September 1955 for Grade VII. Table I (p.114) shows the standing of these twenty-four along with their controls at the completion of their Grade IV year. I.Q's measured by Dominion Test administered in October 1955 are given. Throughout this treatise the students are listed in random order to protect their identity.

TABLE I

COMPARISON OF THE TWO GROUPS AT END OF GRADE IV - JUNE 30, 1953.

ACCELERATES							CONTROLS						
Student No.	Sex	Chrono-logical Age	I. Q. Dominion Oct. 1955	Stanford Reading Grade	Schonell Spelling Age	Monroe's Scale in Arithmetic	Student No.	Sex	Chrono-logical Age	I. Q. Dominion Oct. 1955	Standford Reading Grade	Schonell Spelling Age	Monroe's Scale in Arithmetic
1	M	9-1	150	7.6	12-4	49	1	M	9-11	158	7.6	12-2	55
2	M	9-0	131	5.2	10-9	45	2	M	9-10	129	8.0	11-9	61.6
3	M	9-4	133	6.8	12-3	61	3	M	10-2	127	6.9	11-6	59
4	F	9-0	124	5.1	-	60	4	F	10-2	125	6.4	11-5	52.5
5	F	9-3	130	5.4	12-2	44	5	F	10-0	128	6.4	12-2	-
6	F	9-2	123	5.7	12-2	49	6	F	9-9	117	5.9	10-8	51.5
7	F	9-2	130	7.1	13-1	76	7	F	9-7	124	4.7	11-3	73.3
8	M	9-5	118	5.9	11-3	29	8	M	9-7	117	4.3	11-0	51.3
9	F	9-4	136	6.5	11-7	49	9	F	10-0	139	7.2	11-7	72.6
10	F	9-3	125	4.2	10-3	32	10	F	9-10	117	4.1	11-6	71.3
11	F	9-0	123	4.9	11-6	49	11	F	10-2	120	6.2	12-1	64.1
12	M	8-8	116	5.1	12-2	42	12	M	10-0	115	4.7	11-2	69.5
13	F	8-9	133	4.5	11-9	41	13	F	9-8	125	8.0	13-9	54.8
14	F	9-3	120	5.2	12-2	41	14	F	9-9	116	5.6	10-9	79
15	F	9-3	121	5.1	-	-	15	F	10-1	114	4.7	9-7	59
16	F	8-9	126	5.1	11-4	32	16	F	10-0	112	4.8	11-1	55.5
17	F	9-1	113	4.8	11-6	35	17	F	10-2	112	5.4	12-4	62.3
18	M	8-11	125	5.0	10-4	20	18	M	9-3	126	4.7	10-4	48.6
19	F	9-5	112	4.1	10-4	39	19	F	10-3	111	4.7	10-9	59.3
20	M	9-4	117	7.1	11-7	32	20	M	10-5	112	5.3	10-1	48.6
21	F	9-1	121	4.6	10-9	44	21	F	9-9	120	6.2	11-4	65.1
22	M	9-4	121	5.1	10-7	31	22	M	9-11	120	6.2	10-7	45.6
23	M	9-0	116	4.1	10-2	44	23	M	10-0	115	5.6	10-9	61
24	M	9-3	120	4.2	11-4	43	24	M	9-6	126	5.4	11-3	-
Medians	10B / 14G →	9-2	123	5.1	11-6	43	Med's	10B / 14G →	9-11	120	5.5	11-3	59.1

The accelerated group were kept together in Grade V and once again had a very successful year. They were taught by a teacher who gave them a fine enriched program. The only standard test administered during this year was the Gates Basic Reading, given April 9, 1954. The normal reading age for a grade five at this time would be 5.7. The median for this accelerated class was 7.6 and the range 5.5 - 11.0. Only one boy (No.23), who had been a marginal case all along, scored below the normal 5.7. This boy, however, had made a reading gain of 1 year 4 months since June 1923. Due to an oversight, this test was not administered to the control group, so no comparable data is available for them.

On the final year-end results for Grade V, the accelerated had 7 A standings on the teacher's classroom tests, 9 B's and 8 C's. The controls had 5 A standings, 14 B's and 5 C's on their classroom tests. The final letter grades for the accelerated group at the end of Grade V, June 1954, are given in Table II. The results of the Gates Reading Test administered in April are shown also on the extreme right. Similar data for the control group was not compiled.

TABLE II

FINAL GRADE V STANDING FOR ACCELERATES - JUNE, 1954

Student No.	Penmanship	Social Studies	Nature Study	Reading	Language	Arithmetic	Spelling	Final Standing	Gates Reading Grd. April 19/54
1	A	A	B	A	A	A	A+	A	11.0
2	C	B	A	A	B	A	B	B	6.7
3	A	A	A	A	B	A	A+	A	9.2
4	A	B	A	B	A	B	A+	A	6.4
5	A	A	B	B	A	A	A	A	8.3
6	A	A	A	B	A	C	A+	A	8.9
7	B	A	B	A	B	B	A	A	10.4
8	C	B	C	B	C	C	B	C	7.2
9	B	A	B	B	A	A	A+	A	8.4
10	B	B	B	B	C	C	C	B	6.5
11	C	C	C	C	B	B	A+	B	6.6
12	C	B	C	C	C	C	A	C	8.3
13	B	C	B	B	B	C	B	B	7.9
14	C	B	C	B	B	C	A+	B	-
15	B	C	B	B	B	C	A+	B	6.7
16	C	C	B	B	C	C	A	C	7.5
17	C	B	A	B	B	A	A	B	6.1
18	C	C	C	B	B	C	C	C	8.4
19	C	C	B	B	C	C	D	C	-
20	C	C	C	B	C	C	A+	C	7.6
21	A	C	C	C	B	C	B	B	6.9
22	C	B	C	C	C	C	B	C	7.3
23	C	B	B	C	C	B	A	B	5.5
24	C	B	C	C	C	B	B	C	5.8

At the end of June 1954, River Heights School was converted into a Junior High School. The elementary student body was tranferred to Robert H. Smith and Montrose Schools, according to the geographic location of their homes. The accelerated group as a consequence was divided. Numbers 1, 2, 3, 4, 5, 6, 7, 8, 12, 13 and 22 were tranferred to Montrose, and the remainder to Robert H. Smith.

In their Grade VI year, they were scattered through three classes and having three class teachers, two in Robert H. Smith and one in Montrose. Once again they were fortunate in having experienced teachers. At the end of May 1955, all Grade VI students, numbering 139, were administered the Stanford Achievement Test, Intermediate Battery Partial. At the time this test was given, the normal grade for Grade VI achievement was 6.9. At the end of June the School Board set papers in Reading, Arithmetic, Language and Spelling. The achievement of the two groups in the Stanford Battery and the School Board tests is shown in Table III. Their achievement is also compared with the total 139 pupils in Grade VI, and the percentile rank given for the accelerates in the Stanford Battery. In the case of the School Board tests, results of examinations with all the Grade VI students in Winnipeg schools are shown.

TABLE III

COMPARISON OF THE TWO GROUPS AT THE END OF GRADE VI - JUNE 30, 1955.

ACCELERATES											CONTROLS									
		STANFORD BATTERY					School Brd.Exam					STANFORD BATTERY					School Brd.Exam			
Student No.	R. R.	Reading	Arithmetic	Language	Spelling	Batt. Med.	Reading	Arithmetic	Language	Spelling	Student No.	Reading	Arithmetic	Language	Spelling	Batt. Med.	Reading	Arithmetic	Language	Spelling
1	99	10.0	10.4	11.2	11.2	10.6	89	98	93	82	1	9.1	9.5	9.9	11.2	9,7	77	90	88	-
2	96	9.4	10.6	9.9	7.3	10.2	59	98	90	70	2	9.9	8.3	8.3	7.5	8.6	87	79	79	55
3	93	9.6	10.6	11.2	9.0	10.0	61	91	84	77	3	10.4	8.6	8.7	6.9	8.8	95	89	68	58
4	79	7.0	9.2	9.4	10.5	8.9	44	92	96	83	4	9.6	8.9	11.2	8.3	9.3	76	82	87	80
5	79	8.4	9.2	9.0	8.8	8.9	81	96	88	76	5	10.6	8.8	9.0	8.0	9.2	80	78	80	72
6	74	8.5	9.5	8.7	7.7	8.7	83	86	87	69	6	9.5	8.6	9.0	7.5	8.8	80	81	84	58
7	67	7.5	9.2	8.7	8.5	8.6	77	77	86	89	7	7.7	9.0	8.3	7.5	8.1	54	73	83	60
8	63	8.9	7.9	10.4	8.3	8.4	65	68	65	70	8	8.6	9.2	6.4	7.5	8.3	62	84	63	54
9	63	8.0	8.8	8.5	8.5	8.4	73	66	86	82	9	10.0	10.4	9.4	9.7	10.0	78	98	97	80
10	61	9.3	8.3	10.4	8.0	8.3	55	61	69	60	10	6.8	7.7	7.4	7.9	7.4	61	69	83	70
11	58	8.1	7.9	8.7	9.7	8.2	76	57	78	68	11	9.1	8.1	11.2	10.5	9.4	91	80	92	89
12	56	8.1	7.3	8.7	10.8	8.1	-	64	75	79	12	7.0	8.9	8.3	8.0	8.2	36	74	73	-
13	56	7.0	8.5	9.0	7.7	8.1	80	86	82	70	13	8.7	8.5	8.3	10.5	8.6	-	85	-	85
14	55	6.4	7.9	8.7	8.0	8.0	67	84	81	68	14	8.3	9.2	7.6	9.7	8.7	64	78	93	54
15	55	8.0	7.3	9.0	11.6	8.0	57	63	84	80	15	6.7	8.2	6.1	9.4	7.7	60	81	80	43
16	55	7.8	8.2	7.4	9.4	8.0	86	67	76	78	16	8.6	9.2	8.3	8.8	8.9	73	96	94	77
17	50	8.6	7.4	7.8	8.5	7.8	50	57	82	70	17	7.3	7.8	9.0	10.1	7.9	51	-	92	77
18	44	8.6	7.1	11.2	6.2	7.7	63	67	56	30	18	7.6	10.1	8.8	6.9	8.8	67	64	72	50
19	44	7.3	8.1	9.9	6.2	7.7	39	73	79	43	19	7.1	8.5	9.9	9.0	8.5	37	91	83	72
20	40	9.0	7.1	7.4	8.3	7.5	43	52	84	69	20	7.7	8.0	6.4	6.1	7.3	59	56	63	40
21	34	7.4	6.9	8.7	8.0	7.3	58	52	70	46	21	7.8	9.8	9.0	9.4	9.2	-	86	95	73
22	31	8.3	7.0	7.0	6.4	7.1	80	80	69	68	22	10.4	8.6	8.0	5.6	8.6	75	74	68	62
23	29	6.1	7.5	7.0	7.9	7.0	23	78	78	51	23	-	-	-	-	-	-	-	-	-
24	29	7.1	8.4	6.1	6.5	7.0	42	82	75	63	24	10.4	9.8	9.0	7.9	9.4	80	88	80	73
Medians		8.1	8.2	8.7	8.3	8.3	63	75	81.5	70		8.6	8.8	8.7	8.0	8.7	73	80.5	83	70
Range		6.1	6.9	6.1	6.2	7.0	23	52	56	30		6.8	7.7	6.4	5.6	7.3	36	56	63	40
		10.0	10.6	11.2	11.2	10.6	89	98	96	89		10.6	10.4	11.2	11.2	10.0	95	98	97	89
Med.Montrose & R.H.Gr.VI		7.7	8.0	8.0	7.9	8.0	55.5	69.2	73.7	55.8										
Med.All of Wpg.							52.9	66.1	67.7	56.4										

A study of the table on page 118 reveals that the medians of accelerates and controls were well above the local, and Winnipeg Grade VI medians in the School Board examinations, and the local sample in the Stanford Battery. The medians for controls and accelerates in the Stanford Battery were identical in Language, slightly higher for the accelerates in Reading and Arithmetic. With the exception of Spelling, the controls ranked higher than the accelerates on the School Board examinations.

At the time of the administration of the Stanford Battery, the median chronological age of the accelerated students was 11-1. For the remaining 110 Grade VI students the median chronological age was 11-11. In the general promotion ratings at the end of Grade VI, the accelerated children had 8 A's, 8 B's, and 8 C's; the controls 10 A's, 9 B's, and 5 C's. Percentages in final standings are shown as follows:

Classification	A	B	C	D	E
Accelerated Students	33.33	33.33	33.33	0	0
Control Students	41.66	37.50	20.84	0	0
All Non-Accelerated Students	15.45	37.27	39.09	5.45	2.74

Academic Achievement in Grade VII

The 48 children, 24 accelerates, and 24 control students, entered River Heights Junior High School for Grade VII in September, 1955. They became part of a large Grade VII school population of over 300. Because Grade VII classes in this school were grouped by chronological ages, 17 of the 24 accelerates were placed together in Room 22. 5 were in Room 20, 1 in Room 27, and 1 in Room 14. The controls were scattered more widely through the Grade VII classes: 5 in each of Rooms 21 and 27, 4 in Room 23, 3 in Room 14, 2 in each of Rooms 22 and 26, and 1 in each of Rooms 22, 25 and 28. T

The first uniform set of examinations was given in December.

Table IV, page 121 shows the standings of the two groups and the total Grade VII students on this set of examinations.

The accelerates and controls did considerably better than the Grade VI students in all subjects. The accelerates scored slightly higher than the controls in Science, equalled the controls in Spelling, and scored slightly lower in the remaining subjects.

TABLE IV

RESULTS OF GRADE VII DECEMBER EXAMINATIONS

ACCELERATES							CONTROLS						
Student No.	Spelling	Language	Literature	Mathematics	Science	Social Studies	Student No.	Spelling	Language	Literature	Mathematics	Science	Social Studies
1	90	90	83	96	90	90	1	90	78	71	97	85	86
2	82	80	74	89	82	76	2	84	80	77	81	74	80
3	82	80	82	89	83	88	3	74	73	77	82	82	72
4	82	84	71	96	81	70	4	94	78	66	78	69	73
5	80	80	69	95	72	72	5	84	79	79	82	87	82
6	90	85	96	90	96	74	6	80	78	75	85	76	76
7	86	90	83	88	85	70	7	66	80	91	63	83	63
8	74	65	65	82	66	68	8	91	83	61	63	66	77
9	88	76	85	89	68	73	9	88	86	94	96	81	86
10	88	71	78	86	82	81	10	76	76	68	88	74	67
11	70	66	75	67	72	60	11	92	91	73	66	63	81
12	92	70	60	68	69	73	12	74	82	74	84	80	81
13	64	75	67	80	76	60	13	96	83	81	84	80	79
14	96	67	78	62	86	61	14	64	76	83	86	72	81
15	94	86	96	61	89	71	15	82	64	78	69	87	80
16	82	78	71	81	77	71	16	82	73	84	85	72	61
17	68	76	70	69	63	83	17	94	82	77	62	80	81
18	36	51	75	61	65	50	18	34	74	68	84	64	76
19	50	77	82	55	62	62	19	78	72	83	52	60	62
20	80	66	75	75	60	83	20	56	61	55	58	50	65
21	68	72	64	50	57	57	21	90	81	80	79	86	81
22	56	66	67	78	75	75	22	62	76	65	75	74	60
23	76	76	66	77	66	61	23	60	68	70	74	41	46
24	72	70	79	81	77	66	24	90	85	88	97	85	63
Medians	82	76	75	80.5	75.5	72.5	Medians	82	78	77	81.5	75	76.5
Range	36-96	51-90	60-96	50-95	57-96	50-90	Range	34-96	61-91	55-94	52-97	41-87	46-86
School Medians	72	72	72	72	72	67		72	72	72	72	72	67

The second set of uniform examinations, with the exception of Literature, was given just before Easter. Table V, page 123, shows the relative standings of the two groups on these examinations and also the results of an Iowa Reading Test given in February, 1956.

Table V reveals that the accelerates ranked slightly higher as a group in reading, equalled contols in Spelling, scored slightly lower in Science and Social Studies. Their medians were 6.5 and 4.5 points lower in Language and Mathematics respectively.

TABLE V

RESULTS OF GRADE VII EASTER EXAMINATIONS

ACCELERATES								CONTROLS							
Student No.	Iowa Reading Gr.	Spelling	Language	Liter.	Maths.	Science	Social Studies	Student No.	Iowa Reading Gr.	Spelling	Language	Liter.	Maths.	Science	Social Studies
1	16.3	100	88		97	95	100	1	9.2	96	88		94	91	92
2	11.9	90	75		99	82	79	2	10.5	92	83		86	75	90
3	14.1	86	81		87	91	86	3	15.5	82	79		85	77	86
4	11.3	96	79		87	82	68	4	12.3	90	89		66	84	52
5	9.6	94	88		95	78	80	5	10.8	94	82		90	84	93
6	15.5	94	98		98	94	90	6	10.8	66	79		81	84	81
7	12.7	94	83		71	91	88	7	9.2	86	84		87	80	80
8	9.4	86	59		85	68	75	8	-	-	-		-	-	-
9	10.5	96	80		70	84	78	9	15.5	98	93		99	85	91
10	10.5	94	84		82	80	88	10	8.7	96	81		90	79	82
11	9.6	86	75		53	73	66	11	16.3	96	90		69	96	73
12	10.5	98	64		79	79	89	12	10.3	92	88		96	78	90
13	10.8	82	82		78	60	63	13	13.3	98	84		91	91	85
14.	10.8	98	88		67	90	75	14	12.3	98	92		87	97	81
15	10.5	98	87		60	82	80	15	8.7	82	77		78	82	80
16	9.6	82	70		82	72	54	16	9.6	90	76		95	82	81
17	10.5	86	70		79	83	77	17	13.1	98	77		57	84	70
18	10.0	58	50		50	68	81	18	9.2	76	60		75	75	83
19	10.5	72	71		75	75	78	19	8.7	86	81		55	81	59
20	16.3	90	52		55	76	83	20	8.7	64	55		55	52	52
21	8.3	84	50		67	59	56	21	16.3	90	93		83	93	85
22	11.6	76	66		86	67	83	22	10.0	80	71		85	74	85
23	7.5	84	68		89	70	85	23	9.6	78	67		63	56	78
24	8.0	94	70		87	81	78	24	-	94	88		97	88	95
Median	10.5	90	75		80.5	79.5	79.5	Med.	10.4	90	81.5		85	82	81
Range	7.5-16.3	58-100	50-98		53-99	59-97	54-100	Range	8.7-16.3	64-98	55-93		55-99	52-97	52-95

Final examinations were written near the end of June. Those students who had an average of 70 or over for the year in a subject, did not have to write that subject. On page 125, Table VI, are shown final standing in Grade VII for both accelerates and controls. The total attendance for the school years 1952-53, 1953-54, and 1954-55 is also tabulated.

The attendance of the accelerates was somewhat better than the controls for the three year period. Again the standing of the two groups in school subjects showed only slight difference, with the exception of Language and Literature where the greater difference might be significant.

TABLE VI

RESULTS OF FINAL EXAMINATIONS, JUNE, 1956.

	ACCELERATED								CONTROLS							
	Student No.	3 year Attendance	Spelling	Language	Liter.	Maths.	Science	Social Studies	Student No.	3 year Attendance	Spelling	Language	Liter.	Maths.	Science	Social Studies
	1	546.5	97	88	81	96	93	95	1	553.5	94	83	85	94	89	90
	2	556	88	76	69	96	83	78	2	558	89	79	81	84	76	86
	3	564.5	86	81	72	87	89	86	3	543.5	79	75	76	83	78	81
	4	554	92	81	59	90	83	69	4	528.5	92	86	73	71	81	60
	5	564.5	89	84	66	93	80	77	5	536	90	80	80	87	85	88
	6	563.5	93	89	92	95	94	89	6	561.5	72	79	81	82	82	77
	7	571.5	92	86	86	78	90	82	7	560	79	81	81	77	82	74
	8	565	82	64	66	80	66	73	8	398.5	88	68	52	61	51	67
	9	573	93	79	71	75	80	78	9	563	95	91	92	98	85	88
	10	548	92	78	76	82	80	83	10	582.5	88	79	77	87	77	78
	11	550	81	72	57	58	72	62	11	542.5	95	90	79	70	86	77
	12	557	96	66	65	75	75	82	12	579	86	84	76	92	78	86
	13	559	77	79	71	77	66	63	13	530.5	97	84	76	86	87	84
	14	571.5	96	80	77	72	89	71	14	546.5	81	79	82	86	86	77
	15	562	97	85	85	62	84	76	15	572.5	83	72	71	74	84	79
	16	567.5	82	72	67	80	75	63	16	573	89	75	84	91	79	74
	17	534	81	71	73	74	83	79	17	535	97	79	79	54	84	75
	18	582.5	55	55	69	56	68	60	18	556	65	62	67	75	71	80
	19	558	72	73	80	62	71	75	19	558.5	84	78	82	53	74	68
	20	545	86	55	66	60	73	83	20	573.5	65	55	71	59	53	67
	21	552	79	59	52	66	56	52	21	509.5	90	89	77	81	91	84
	22	555.5	68	61	67	83	70	79	22	575	73	71	71	82	75	75
	23	572	81	71	64	83	68	76	23	571.5	72	63	74	58	55	65
	24	579	86	70	83	85	82	74	24	549.5	93	86	84	97	87	85
Median		560.5	86	74	70	79	80	76.5		555	88	79	77	83.5	81.5	77.5
Range			55-96	55-89	52-92	56-96	56-93	52-95			65-97	55-91	52-92	53-98	55-91	60-90

Social and Emotional Adjustment in Grade VII

An attempt was made toward the end of the Grade VII year, to appraise the social adjustments of the accelerates by various sociometric devices. It was felt that Wilkins was correct when he stated, "The whole question of the feasibility of such a scheme as acceleration, rests on the satisfactory social adjustment of the individual pupils. Other things being equal, the child with the salutory interests in the things about him, his companions, reading, school, etc., is probably a happier and better adjusted child than a child without such interests. That their interests are a good index to the general social adjustment of children, Terman's work with gifted children has shown."[1]

An interest inventory combining intellectual, social, and activity interests, was given to all the 316 Grade VII's in the River Heights School. The instructions for the inventory were as follows:

> "Mark with the figure 1 activities listed below that you like very much; the figure 2 activities that you like almost as much; the figure 3 activities that you neither like or dislike; the figure 4 activities that you dislike somewhat; and the figure 5 activities that you dislike very much."

In addition to the interest inventory, a test soliciting friend choices was given to all the Grade VII's.

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[1] Wilkins, Walter L. - "The Social Adjustment of Accelerated Pupils" - The School Review, Vol.44,1936, pp.445-6.

TABLE VII

PERCENTAGES FOR CHOICES ON INTEREST INVENTORY

GROUPS		All Grade VII's 163 Girls 153 Boys					Accelerates 14 Girls 10 Boys					Controls 14 Girls 10 Boys				
ACTIVITIES	Sex	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	B	2.6	13.1	49.6	22.9	11.8	10.0	10.0	40.0	40.0	-	-	20	30	50	-
Studying	G	1.2	15.3	57.1	19.6	6.8	-	28.7	57.1	14.2	-	-	21.5	50.0	21.5	7.1
	All	1.9	14.2	53.4	21.2	9.3	4.2	20.8	50.0	25.0	-	-	20.8	41.8	33.3	4.1
General	B	39.9	35.9	20.9	1.4	1.9	50	40	10	-	-	40	40	20	-	-
Reading	G	50.9	36.9	9.8	2.4	-	57.1	35.8	-	7.1	-	35.5	50	7.1	7.1	-
	All	45.6	36.4	15.2	1.8	.9	54.2	37.5	4.2	4.1	-	37.5	45.9	12.5	4.1	-
Spending time with several other persons	B	43.1	40.5	14.5	1.9	-	50	30	20	-	-	40	50	10	-	-
	G	43.6	44.8	11.0	.6	-	28.7	57.1	14.2	-	-	50	42.9	7.1	-	-
	All	43.4	42.7	12.7	1.2	-	37.5	45.9	16.6	-	-	45.9	45.9	8.2	-	2
Spending time with one's best friend	B	70.6	22.9	4.6	1.9	-	80	20	-	-	-	50	40	-	10	-
	G	65.6	28.8	3.7	1.3	.6	57.1	42.9	-	-	-	71.4	21.5	-	7.1	-
	All	68.1	25.9	4.1	1.6	.3	66.7	33.3	-	-	-	62.5	29.2	-	8.3	-
Using tools or working with machinery	B	47.6	29.4	17.0	4.6	1.4	20	50	30	-	-	40	30	-	10	20
	G	14.1	14.7	35.0	20.9	15.3	7.1	14.2	42.9	28.7	7.1	7.1	21.5	35.6	28.7	7.1
	All	30.8	22.1	26.0	12.8	8.3	12.5	29.2	37.5	16.7	4.1	20.9	25	20.9	16.7	12.5
Taking part in games that require much exercise	B	65.2	26.9	6.5	.7	.7	50	30	20	-	-	60	20	20	-	-
	G	50.3	28.8	18.4	2.5	-	64.2	21.5	14.3	-	-	57.1	21.5	14.3	7.1	-
	All	57.7	27.9	12.4	1.6	.4	58.3	25	16.7	-	-	58.3	20.9	16.7	4.1	-
Taking part in games that require little exercise	B	11.1	30.0	35.9	12.4	10.6	-	20	40	30	10	10	30	40	10	10
	G	9.8	39.3	29.4	16.6	4.9	-	14.2	42.9	42.9	-	-	64.2	21.5	14.3	-
	All	10.5	34.6	32.7	14.5	7.7	-	16.7	41.7	37.5	4.1	4.1	50	29.3	12.5	4.1
Spending time alone	B	5.9	8.5	26.8	31.4	27.4	-	10	50	10	30	-	-	50	30	30
	G	8.0	17.2	26.4	25.8	22.6	7.1	7.1	28.7	42.9	14.2	7.1	7.1	42.9	28.7	14.2
	All	6.9	12.9	26.6	28.6	25.0	4.1	8.3	37.5	29.2	20.9	4.1	4.1	45.9	29.2	16.7
Going to parties	B	51.6	17.6	24.2	1.9	4.7	60	30	10	-	-	30	40	30	-	-
	G	67.5	21.5	6.7	2.4	1.9	57.1	28.7	14.2	-	-	64.2	28.7	-	7.1	-
	All	59.6	19.5	15.5	2.1	3.3	58.3	29.2	12.5	-	-	50	33.3	12.5	4.2	-
Going to Club meetings	B	15.7	34.0	32.0	11.8	6.5	10	40	50	-	-	-	40	30	30	
	G	24.5	36.2	27.0	9.9	2.4	14.3	21.5	35.6	28.7	-	28.6	21.5	42.8	7.1	-
	All	20.1	35.1	29.5	10.9	4.4	12.5	29.2	41.7	46.6	-	16.7	29.3	33.3	16.7	-
Being a team leader or a club leader	B	22.9	22.6	28.7	17.6	8.2	20	20	20	30	10	-	20	50	20	10
	G	26.4	33.7	25.2	10.4	4.3	21.5	28.6	21.5	21.5	7.1	21.5	28.6	42.8	-	7.1
	All	24.7	28.1	26.9	14.0	6.3	20.9	25	20.9	25	8.2	12.5	25	45.9	8.3	8.3
Doing Work at home	B	7.8	27.4	40.0	15.7	9.1	10	30	40	10	10	-	10	70	20	-
	G	9.2	26.4	47.2	14.8	2.4	7.1	42.9	42.9	7.1	-	-	21.5	64.3	14.2	-
	All	8.5	26.9	43.6	15.3	5.7	8.3	37.5	41.7	8.3	4.2	-	16.7	66.7	16.6	-

Jennings, a recognized authority on sociometry, states that, "Sociometry may be described as a means of presenting simply and graphically, the entire structure of relations existing at a given time among members of a given group. The major lines of communication or the pattern of attraction and rejection in its full scope, are made readily comprehensible at a glance. This is done by asking the children to choose from among themselves, preferred companions in some school situation that is real to them."[2]

"The most important things," she continues, "to remember about administering the test are: (1) to include the motivating elements in the introductory remarks, (2) to word the question so that children understand how the results are to be used, (3) to allow enough time, (4) to emphasize any boy or girl, so as to approve in advance any direction the choice may take, (5) to present the test situation with interest and some enthusiasm, (6) to say how soon that the arrangements based on the test can be made, and (7) to keep the whole procedure as casual as possible."[3]

Although conditions were slightly different in the main, the above principles were followed in the administration of ~~the~~ a friend choices inventory. The in-

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[2] Jennings, Helen H., Sociometry in Group Relations, American Council on Education, Washington, 1951, p.11.

[3] Ibid., p.16.

structions issued to the class teacher who administered the test were as follows:

"1. The validity of resulting data depends greatly on the degree of rapport between examiner and examined. In the sociometric test students must feel that their replies will be kept confidential.

2. They must feel too, that the question has sense and value, and that something will be done with the results. In this case you can tell them it is for a valuable experiment.

3. When giving the test the examiner should use words which can be easily understood, express interest and enthusiasm, and keep the atmosphere as casual as possible. They should be allowed plenty of time.

4. All students in your room are given a white card and write their own name and room number on one side, and on the other side on the left margin, the figures 1, 2 and 3 which represent choices.

5. Instructions are then given, "Write the names of your three best friends in this room, in order of your choice, opposite figures 1, 2 and 3."

6. When they are finished they can turn their card over, their own name showing, and teacher collects them."[4]

The results of this test for both accelerates and controls and a summary for all Grade VII's is shown in Table VIII. First choice is rated 3 points, second choice, 2 points, and third choice 1 point.

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[4] Letter to teachers, dated April 13, 1956.

TABLE VIII

RESULTS OF FRIEND CHOICES TEST

ACCELERATES					CONTROLS				
Student No.	Number of 1st Choices	Number of 2nd Choices	Number of 3rd Choices	Total Points	Student No.	Number of 1st Choices	Number of 2nd Choices	Number of 3rd Choices	Total Points
1	2	-	-	6	1	2	-	1	7
2	2	3	2	14	2	1	2	3	10
3	-	-	1	1	3	1	2	-	5
4	5	3	3	24	4	1	1	-	5
5	2	2	-	10	5	1	1	1	4
6	3	2	-	13	6	1	2	3	10
7	-	3	-	6	7	-	1	-	2
8	-	1	-	2	8	-	-	1	1
9	1	1	3	8	9	-	2	-	4
10	-	-	2	2	10	5	1	-	17
11	-	-	1	1	11	3	-	1	10
12	-	1	3	5	12	2	-	3	9
13	-	-	1	1	13	-	-	4	4
14	-	1	2	4	14	2	-	1	7
15	1	4	-	11	15	-	-	-	0
16	1	-	-	3	16	1	1	2	7
17	1	2	2	9	17	-	3	-	6
18	1	1	-	5	18	2	-	-	6
19	1	1	-	5	19	1	2	4	1
20	-	-	-	0	20	-	-	2	2
21	1	-	-	3	21	1	5	-	13
22	-	1	-	2	22	1	-	-	3
23	1	-	1	4	23	-	-	1	1
24	-	-	-	0	24	-	2	-	4
TOTAL POINTS				139	TOTAL POINTS				148
Av. per Student				5.8	Average per student				6.2
Per.having no points				8.3	Per.having no points				4.2

Average points per student for all Grade VII's = 1916 ÷ 330 = 5.8

Percentage of all Grade VII students having no points = $\frac{30}{330}$ x 100 = 9.1

Questionnaires were sent to the accelerates and their parents, separately in May. The text of the letter accompanying the parents' questionnaire, follows:

"Dear

Please find enclosed a questionnaire concerning _____. I would deem it a great kindness if you could take time to fill it out for me.

I am completing a thesis on the progress of the children in Miss _____ room in River Heights School, who covered Grades 2, 3 and 4 in two years. The purpose of the study is to assess the merits and demerits of acceleration as a practice to meet the educational needs of our brighter students. You, the parents, are in a position to give first hand evidence.

Please complete the questionnaire as objectively as possible by placing a check mark (√) in the appropriate column opposite each question and return to me in the enclosed self-addressed stamped envelope. Please do not discuss it with your child as I wish your reactions only. I am also mailing a questionnaire to _____ from which I hope to get his/her personal opinions arrived at without discussion with anyone. Would you kindly see that he/she completes this as soon as possible?

Thank you so much.

Yours sincerely,"

Returns were received from all the children's parents. Table IX which follows shows the percentage of their answers to the questions listed.

TABLE IX

Percentage of Parent's Answers to Questionnaire

	Yes	No	Undecided
1. Do you feel acceleration caused a strain on your child?	8.34	87.49	4.17
2. Did it cause undue worry?	4.17	91.66	4.17
3. Did he/she appear interested in his/her school work through the elementary grades?	95.83	4.17	
4. Would you say that your child became socially maladjusted because of acceleration?	4.17	95.83	
5. Do you think he/she missed important academic background because of acceleration?		79.15	20.85
6. Has he/she appeared to adjust well to Junior High School academically?	87.49	12.51	
7. Has he/she appeared to adjust well to Junior High School socially?	79.15	8.34	12.51
8. Has he/she given you the impression that he/she has found it difficult to hold his/her own with his/her classmates because of being younger?	8.34	91.66	
9. Do you feel that saving a year in school so that our mature bright pupils begin their adult life and careers one year earlier, is a policy to be encouraged in our schools?	70.81	8.34	20.85

	Yes	No	Undecided
10. In some places they are also accelerating one year in Grades 10, 11, and 12 for the more mature bright students. Would you endorse such a policy?	45.81	33.34	20.85
11. Do you feel that the consent of parents should be secured before a child embarks on an accelerated program?	79.15	8.34	12.51
12. If you answered No.9 in the negative, what is your main reason for doing so			

The two negative replies to Number 9 were:-

1. "This is a multi-faceted question which could never be answered adequately."

2. "There are three important factors which are difficult to foresee at the Grade II level, but which contribute to success or failure of acceleration: (a) How quickly will the child mature, (b) physical growth, (c) calibre of teachers after acceleration period. If the children are bright there are so many activities outside of school to keep them stimulated."

A detailed analysis of the parents' questionnaire is given in the concluding chapter. In general, it is apparent that most parents were kindly disposed to the practice of acceleration.

The following statements were offered by parents as to why they answered No.9 as undecided:-

1. "I feel it is not important to begin their careers earlier; but rather to keep their mind working ahead and learn to think."

2. "We would hesitate to say whether it should be encouraged in the schools until an over-all picture has been obtained."

3. "Had my child been a boy, the check mark would have been in the affirmative."

Unsolicited favorable comments were received from the parents as follows:-

1. "I do not know whether the acceleration and keeping the student busy, or the fine teacher, is to be given the credit for the fine results."

2. "I would endorse acceleration in high school if it concerned one of my children."

3. "Acceleration has certainly not been any cause for worry."

4. "We are very happy with her progress at school during the past year."

5. "I don't see any harm in accelerating one year in the early grades. I think I might object to having her accelerated again in the senior grades because of the social implications in getting too far away from her age group."

6. "We believe that brighter students should not be held back on account of age. The plan is O.K.

7. "We have no cause to regret her acceleration. Her marks compared very favorably with the Grades median marks."

8. "I believe it is a good policy provided the child and the parent can take it in their stride. I sometimes think the parent has to adjust more than the child. Provided the parent and child seem capable of meeting the social adjustment, I'm very much in favor of acceleration."

The following is the text of the letter accompanying the students' questionnaire:-

Dear

You will remember that you and many others in your class is Miss _____ room, were allowed to cover your Grade 2, 3 and 4 work in two years. You are therefore known as an accelerated student because your educational program was speeded up by one year.

I have been very interested in following your progress during the past five years and I am making a special study of your group. I want to find out what you think of the idea of acceleration after all these years.

Will you fill out the enclosed questionnaire as honestly as you can for me? Your answers will be told to no one, and your name will never be used. I think you know you can depend on me, to keep my promise.

I should like you to do this by yourself and not discuss it with anyone. Just put a check mark (√) in the proper column headed "Yes" or "No". If you are not sure, one way or the other, put a check mark in the "Undecided" column. Kindly mail it back to me in the enclosed self-addressed stamped envelope as soon as possible.

Thank you very much, and my best wishes for your future success.

Yours sincerely,

Replies were received from all of the children. Below in Table X is shown the percentage of their answers to the questions.

TABLE X

PERCENTAGE OF STUDENTS' ANSWERS TO QUESTIONNAIRE

	Yes	No	Undecided
1. Did you think the accelerated program was a strain on your health?		100	
2. Did the accelerated program cause you worry?	4.17	87.49	8.34
3. Did you find it hard to keep up with the students who were not accelerated?	8.34	87.49	4.17
4. Do you think you would have made higher marks this year if you had not accelerated?	12.51	54.15	33.34
5. Are you glad you were accelerated?	91.66		8.34
6. Have you found it hard to make friends with your classmates because you were younger?	4.17	95.83	
7. Did you find it hard to make classroom teams in sports?	25.0	54.15	20.85
8. Did you find the accelerated program interesting and a challenge to your ability?	87.49	4.17	8.34
9. Would you rather have been older when you started Junior High?	16.68	58.32	25.0
10. Do you feel you missed any important work in school because of acceleration?	4.17	91.66	4.17
11. What group activities have you been in this year outside of school?			
12. What special jobs, class officer positions, or positions of school teams have you had this year?			

The following group activities were listed in answer to No.11 with the number participating given: Guides and C.G.I.T. - 7; Y.M.C.A. or Y.M.H.A. - 7; Scouts - 3; Swimming Club - 2; Badminton Club - 2; Paper Boys - 2; Dancing Class - 2; Art Class - 2; Gym Club - 1; Drama Club - 1; Junior Musical Club - 1; Winnipeg Boys' Choir - 1; Explorers' Club - 1; Polly Pigtail Club - 1; Horse Fly Club - 1; Rod and Reel Club - 1; Junior Museum - 1; Fencing Club - 1; Playground Hockey - 1. The average group activities outside of school per student was 1.6.

The answers to No.12, regarding jobs or positions in school, were as follows:- Class President - 1; Nominee for Class President - 1; Class Vice President - 1; Sports' Captains - 3; Art Representatives - 2; Assistant Librarians - 2; School Teams - 4; Room Teams - 6; P.T. Captain - 1. The average special job per student was .9.

A composite appraisal of the adjustment of these children through the years was obtained from their class teachers. In April, 1956, the following letter was sent to all their former and present class teachers.

April 13, 1956.

Dear

I am enclosing an appraisal sheet concerning children now in Grade VII who I have been studying over a period of four years. Data on these children comprise

part of a thesis I am preparing.

I would deem it a great kindness if you could appraise the children, underlined in red, according to the seven factors listed at the top. For each factor that you think would apply to that particular student, please put a check mark (√). Those which do not apply please leave blank.

Yours sincerely,

The appraisal sheets were returned by all eight teachers. A summary of all these sheets is presented in Table XI on page 139.

TABLE XI

SUMMARY OF APPRAISAL OF CLASS TEACHERS

Factor	Seemed adequately challenged by accelerated program				Appeared happy in their work				Showed strain in keeping up with classmates				Seemed to be maladjusted socially				Appeared to be immature				Exercised normal qualities of leadership				Appeared to have missed important curricular background			
Grade	4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7
Stud.No.																												
1	✓	✓	✓	✓	✓	✓	✓	✓														✓	✓					
2	✓	✓	✓	✓	✓	✓	✓	✓													✓	✓	✓					
3	✓	✓	✓	✓	✓	✓	✓	✓											✓			✓						
4	✓	✓	✓	✓	✓	✓	✓	✓				✓								✓	✓	✓	✓	✓				
5	✓	✓	✓	✓	✓	✓	✓	✓													✓	✓	✓					
6	✓	✓	✓	✓	✓	✓	✓	✓													✓	✓	✓	✓				
7	✓	✓	✓	✓	✓	✓	✓	✓																✓				
8	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓								✓		✓						
9	✓	✓	✓	✓	✓	✓	✓	✓													✓	✓	✓	✓				
10			✓	✓			✓	✓	✓	✓		✓				✓			✓						✓	✓		✓
11	✓			✓	✓	✓		✓			✓	✓		✓					✓	✓								
12	✓	✓	✓	✓	✓	✓	✓	✓			✓									✓		✓						
13			✓	✓			✓	✓	✓	✓		✓	✓				✓	✓		✓					✓	✓		
14	✓	✓	✓	✓	✓	✓	✓	✓														✓		✓				
15				✓				✓	✓	✓	✓						✓	✓						✓	✓	✓		
16	✓	✓		✓	✓	✓	✓				✓								✓	✓	✓	✓						
17	✓	✓		✓	✓		✓	✓													✓	✓	✓	✓				
18				✓			✓	✓	✓	✓	✓	✓					✓	✓	✓	✓					✓	✓	✓	
19				✓				✓	✓	✓	✓		✓	✓			✓	✓	✓				✓	✓	✓	✓	✓	
20	✓	✓		✓	✓	✓		✓			✓			✓	✓	✓			✓	✓								
21				✓				✓		✓	✓	✓					✓	✓	✓				✓		✓	✓		
22			✓	✓		✓	✓	✓	✓		✓	✓			✓		✓	✓	✓	✓					✓	✓	✓	
23				✓				✓		✓	✓	✓					✓	✓		✓					✓	✓		
24			✓	✓			✓	✓	✓	✓							✓	✓	✓						✓	✓		

The Grade VII teacher who had the larger part of the accelerates in his class, marked many of them immature. He qualifies this appraisal as follows:- "I have marked many of these pupils 'immature'. Few of them would appear so with the most immature Grade VII, but I am in part comparing them with the better Grade VII's....I should also point out that the program I set is deliberately made quite challenging and some of these pupils would have adjusted better in an average class."

This completes the data collected regarding the academic and social adjustment of these accelerated children in their final year under study. Interpretation of this data and findings of possible significance will be discussed in the concluding chapter.

CHAPTER V

- Conclusion -

An attempt has been made throughout this treatise, to present sound arguments for acceleration of our bright young people, at least one year in their school career. Considerable evidence has been presented of similar opinions held by eminent educationalists, and successful practice elsewhere of this method of meeting the educational needs of our children, who are not challenged adequately by the normal educational program.

The sample study described in Chapter IV was of too limited a nature to supply much further evidence. It is of interest, however, to note indications which may have some significance in support of the positive arguments for acceleration, and which tend to refute the negative arguments. This concluding chapter will deal with this task.

In their excellent pamphlet "Planning for Talented Youth", published in 1955, Passow, Goldberg, et al., in summing up research on acceleration, state the major arguments advanced in support of acceleration as:-

> "1. Evidence shows that health, physical strength and endurance, intellectual alertness, interests and enthusiasm, all seem to reach a peak near the beginning of adult life. This finding suggests the desirability of enabling talented individuals to complete full-time schooling and engage in productive careers as early as possible.

2. Increasingly, more and more young people spend a longer time in the "social, economic, and intellectual adolescent of full time school." Acceleration fosters earlier assumption of adult responsibilities.

3. Inflexible administration and large classes have resulted in lack of appropriate variation in rate of progress through school. Greater adaptability in providing for individual differences is possible through rapid progress for the talented.

4. The cost of schooling has become exceedingly high. By shortening the stay of talented youngsters school costs can be decreased.

5. Our national life has a tremendous need for talent. Acceleration can make more talent available earlier.

6. Keeping children in groups in which they are not adequately challenged may result in social and emotional maladjustment. While some problems may develop as a result of acceleration, research findings seem to indicate that such problems do not lead to permanent maladjustment.

7. Research has indicated that there is little correlation between knowledge attained in a given subject and the months or years devoted to it. Therefore, not time, but mastery should be the criterion for promotion.

8. If a number of gifted students were accelerated together, maladjustment, due to social immaturity could be minimized."[1]

Findings of The Experiment Supporting Affirmative Arguments for Acceleration

In Chapter II of this treatise much evidence has been presented in support of these arguments.

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[1] Passow, Goldberg, Tennenbaum, and French - Planning for Talented Youth., Bureau of Publications, Teachers' College, Columbia University, 1955, pp.47-8.

The data compiled from the experiment outlined in the preceding chapter will be examined now for further evidence in support of any of these contentions.

It is apparent that points 4, 6, 7 and 8 have a relationship to the experiment.

In regard to the cost of schooling, according to the Superintendent's Annual Report, the cost per Winnipeg pupil per year in 1954 was $245.44[2] If the 24 students had not been accelerated they would have taken their Grade IV during the school year 1953-54. Instead they took their Grade V that year, thus saving a year of tuition. They therefore saved the Winnipeg tax payer $5890.56, which during that ~~would~~ year would more than pay the principal's salary in the school. In addition they provided space for 24 more children for one year, which would be a substantial saving.

Considering Number 6 and maladjustment resulting from insufficient challenge, the experiment was not broad enough, and the sample large enough to present much evidence regarding the bright controls who were not accelerated. However, in passing, one instance is worth noting. In the case of Number 1 accelerated and Number 1 control - two boys, exceptionally bright and with approximately the same home and community background, the accelerate made a better academic record in Grade VII right through. His average

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[2] School District of Winnipeg No.1 - Annual Report for the Year, 1954, p.60.

for December, Easter, and June examinations was 89.7 , 96 and 91.7 respectively, while the control's was 84.5, 92.2 and 89.2, for the same sets. The Grade VII class teacher describes the accelerate as being adequately challenged, interested in his studies, and a "brilliant student". The control boy was described as not adequately challenged, a question as to whether he was interested in his studies, and having "exceptional ability but rather a blasé attitude."

There is some evidence to show that possibly the very clever control, had never been really challenged in school. John Dewey has said, "a normal person demands a certain amount of diffulty to surmount in order that he may have full sense of what he is about, and have a lively interest in what he is doing."[3]

Dealing with the second half of Number 6, there is evidence from the experiment to show that early maladjustments often cure themselves with the passing of time. Two illustrations are student accelerates Number 23 and 24. According to data in Table XI, Chapter IV, for the first three years, Number 23 found the accelerated course difficult, did not appear happy in his work, and appeared to be missing important curricular background. By Grade VII all of these negative aspects seem to have disappeared. Number 24 likewise, for the first two years, found the course hard

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[3] University Women's Club of Ontario - The Education of the Intellectual and Gifted Child, 1955, p.9.

going, did not appear happy in his work, showed strain in keeping up with his classmates, appeared immature, and to have missed important curricular background. His Grade VII class teacher did not report evidences of any of these. He had a final average of 80 in Grade VII. His father called the writer in June of that year to thank him for the opportunity given to his son to accelerate, and to give information about the conclusive manner in which the early difficulties had disappeared.

There is considerable evidence from the data compiled in the experiment to show the lack of correlation between knowledge attained in a given subject, and months or years devoted to it as stated in argument Number 7. The average of the medians, calculated for the Grade VII year in the accelerates' and controls' academic subjects as revealed in Tables IV, V and VI, chapter IV were as follows:

	(Iowa) Read.	Spell.	Science	Soc. Stud.	Maths.	Lit.	Lang.
Accelerates	10.5	86	78.3	76.2	80	72.5	75
Controls	10.4	86.6	79.5	78.3	83.3	77.	86.1

With the exception of Literature and Language the differences are so slight they have little significance. The evidence seems to point out the very small gain in academic achievement from the extra year of tuition.

Finally, concerning the advantage listed as Number 8, pointing out that if gifted students were accelerated together in groups, social maladjustment is minimized; two comments of parents returned with questionnaires are of interest:

1. "I feel that one reason he did so well in the accelerated program was the fact that he was in a group."

2. "With the exception of last years schooling he has been with the boys and girls taking the accelerated course. He has always been very happy with them."

Even after four years had elapsed, seventeen of the twenty-four were still in the same class in Grade VII. With over half of their room in their peer group, social maladjustment was not a serious factor. It is an indication of what would result in Junior High Schools, if all elementary schools which feed that school, accelerated a normal number of bright students. There would at least be a room of accelerates. Gradually, instead of being the exceptional few, it would be considered normal for mature bright children to enter Junior High School younger, and their numbers sufficient to earn prestige in the student body.

The experiment therefore supplied evidence in support of affirmative arguments for acceleration. It will now be examined for findings that might tend to answer negative arguments.

Findings of the Experiment in Relation to Negative Arguments for Acceleration

In summarizing the negative arguments concerning acceleration, Passow, Goldberg, et al., list the following:

1. "Younger students are at a disadvantage in competing with older ones in many areas, and as a result, experience emotional and social pressures that are harmful.

2. Skipping some phases of one or more subjects causes difficulty as missed material is needed later.

3. Because individuals differ in ability from one subject-matter area to another, the widdom of equal acceleration in all subjects is questionable.

4. Acceleration tends to accentuate differences in ability and to set the youngster apart from his age peers, forcing him into undesirable social patterns."[4]

Since No.1 is the most frequent criticism of the practice of acceleration, it will be dealt with now in some detail.

The Evidence of Social and Emotional Adjustment of Accelerates

It has been pointed out previously that Terman and other authorities claim that interests are a good index to the social adjustment of children. Table VII, Chapter IV, summarizes the interest inventory given to all the 316 Grade VII students in River Heights School and with the accelerates and controls also listed separately for comparison.

In studying, the accelerates were keener than the

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[4] Passow, Goldberg, et al., op.cit.,p.48

other two groups. They showed considerably more interest in reading, than either group. In spending time with several persons, the boys were higher than the other groups, and the girls lower, averaging out to a slightly lower percentage. In spending time with their best friend, they showed equal interest with the other two groups. They were not as interested in using tools or working with machinery. They were equally interested in taking part in games requiring much exercise, but showed a marked disinterest in games requiring little exercise, in comparison with the non-accelerates. They also appeared to dislike spending time alone, moreso than the others. They were equally enthusiastic about going to parties; not quite as enthusiastic about club meetings. They were about on a par with the large group in the desire to be a leader, and doing work at home, but were more interested than the controls in these two activities.

There is no evidence here to show the accelerates were out of line in their interests. In the social and intellectual interests they were keener than the older controls.

When Table VIII of the preceding chapter is examined it is found that in friend choices, the accelerates rated identically with all of the Grade VII's in average points per student, and lower than the Grade VII group in percentages having no points. The controls ranked only four-

tenths of a point higher. The controls had only one student who received no points, the accelerates two, accounting for the higher percentage for the controls in this category. The accelerates seemed to be accepted by their classmates socially as well as the non-accelerates.

The tabulation of parents' answers shown in Table IX reveals that only 4.17 percent of the parents thought the accelerated program caused undue worry and 8.34 percent, any strain. Nearly 96 percent reported their child interested in school during the elementary grades, and believed it caused no social maladjustment. Only 9.34 percent felt their child had not adjusted well socially to Junior High School. Nearly 92 percent felt that their child had not found it difficult to hold his own with his classmates because of being younger. From the parents' observation, therefore, there seems to be little evidence of social and emotional maladjustment.

Table X dealing with student's answers to their questionnaire, shows that 4.17 percent only, believed they had been caused to worry because of the accelerated program. Only 8.34 percent had found it hard to keep up with non-accelerated students, and just 4.17 percent had found it hard to make friends with older classmates. 25 percent had found it hard to make classroom teams in sports. Only 16.68 percent would rather have been older when they started

Junior High. No one answered the question "Are you glad you were accelerated?" in the negative. The percentage of children who had found it difficult to make classroom teams is not abnormal. This would apply in any class, as those making classroom teams would seldom exceed 75 percent of a class. It is fair to say, therefore, that the students' answers showed little evidence of any maladjustment caused by acceleration. The answers to Number 11, listing group activities engaged in outside of school, showed a very wide range of interests, and pupil participation. The answers to Number 12 regarding special school jobs would appear to be quite normal for any group of children.

Table XI showing a summary of teachers' appraisals reveals the following opinions:- 71 percent of the accelerates seemed adequately challenged by the grade program, and appeared happy in their work. 36 percent seemed to show some strain in keeping up with classmates. Only 9 percent appeared to be maladjusted socially and appeared immature. When one considers the antipathy toward acceleration which apparently prevails throughout Winnipeg toward acceleration in general, the accelerates fared quite well on this composite appraisal of the teachers. It would appear that in any class of children, similar observations of teachers might be made.

In considering the total evidence as revealed by all of the above sociometric procedures, it seems reasonable

to conclude that, while some maladjustment does occur in any group of ~~accelerates~~ children, that the social and emotional adjustment of these children, in the main, has been normal and wholesome. There appears to be little evidence that excessive maladjustment is likely to accompany acceleration of one year in the elementary school program.

Other Negative Criticisms of Acceleration in Relation to the Experiment

Another common negative argument ~~and~~ in connection with acceleration is Number 2, "that skipping some phases of one or more subjects causes difficulty as missed material is needed later". Of course, in the definition of acceleration used in this treatise there is no skipping of any work, However, the opinion prevails that if less time is spent on covering the grade subjects, weak spots in their academic background will reveal itself in subsequent years.

Data already presented shows the accelerates doing much better in every instance academically, than a large grade sample of children. Evidence has also been submitted which shows they did almost as well as the equally bright controls in their academic subjects in Junior High School even though the accelerates had one year less schooling. In the Parents' Questionnaire, no parent was certain that their child had missed important academic background because of acceleration. Over 87 percent believed that their child had adjusted well to Junior High academically. In the

childrens' answers to their questionnaire only 12.51 percent believed they might have made higher marks in Junior High if they had not accelerated. Only 4.17 percent believed they had missed any important work in school because of accelleration. In the composite appraisal of teachers only in 22.9 percent of instances did there appear to be any important curricular background weakness.

In the great majority of cases therefore, there was no loss but a decided gain in academic achievement for the accelerates, compared with the large number of the non-accelerates in the grade. This might be attributed to the fine teaching they experienced, and the marked enthusiasm with which the most of them accepted the challenge of their accelerated program.

Criticism Number 3 that "the wisdom of equal acceleration in all subjects is questionable" applies equally well to all present grade promotion procedure. Very few students achieve uniformly well in all subjects. However, due to administration difficulties in dealing with large numbers of children in to-day's classrooms, the grade promotion system is followed with its inherent weaknesses.

With the accelerates, Table VI showing their Grade VII final standings, reveals no glaring weaknesses in subject mastery. 13 percent of the marks were in the 90's, 32 percent in the 80's, 29 percent in the 70's with slightly over 1 percent of the marks below 55, all received by one student, Number 21. With the exception of this one student, none approached the failure marks in any of the subjects.

Criticism Number 4 that "acceleration tends to accentuate differences in ability and to set the youngster apart from his age peers, forcing him into undesirable social patterns", is in many respects a repetition of Number 1 dealing with social and emotional adjustment. This phase of the criticism has been covered. It has been revealed, as far as this acceleration sample is concerned, there was very little evidence of "undesirable social patterns." The setting of the child apart, is bound up with the whole controversy of ability grouping and is not part of this treatise. It is very difficult to camouflage talent, in school as in life, and it is questionable if children should be shielded from this reality. To realize one's potential with all its drawbacks, and plan a life in accordance with this situation, seems to be a road to a full and happy life. One chief advantage of acceleration over segregated classes for the gifted, is this very fact, that accelerates are not conspicuously singled out as being gifted and removed from their natural school and community environment. They still may travel to school, play, and enter into extra-curricular activities with their age peers.

A further negative criticism often applied to acceleration is that it causes a strain on a child's health. Table VI in Chapter IV gives the attendance figures for the three years preceding Junior High School for both accelerates and controls. The median for the accelerates was $4\frac{1}{2}$ days higher than for the controls. If there is a positive

correlation between a child's attendance, and the condition of his health, there is no evidence here that the accelerates' health was affected. Only 8.34 percent of the parents felt that acceleration had caused any strain on their child. None of the accelerates themselves believe the accelerated program was a strain on their health. There is little evidence from this experiment to validate this criticism.

It is proper, with any educational procedure, that parents' attitude should be considered. A good public relations program demands that this be done. It is often hinted in the discussions on acceleration that, in the main, parents are not very enthusiastic. Unsolicited favorable comments of parents regarding this experiment have already been submitted. The parents' questionnaire revealed that only 8.34 percent of the parents were not in favor of acceleration. Just 33.34 percent were definitely against another year of acceleration in high school. They felt, however, that the decision to accelerate should be agreed to by the parents in 79.15 percent of the answers. 12.51 percent were undecided on this issue.

There is no question of the popularity of acceleration with the students themselves, however. 91.66 percent were definitely glad they had been accelerated, and 8.34 percent were undecided. No one answered the question in the negative. As the pupil's state of mind is vastly important for the success of any educational practice, this testimony is a significant endorsement of acceleration.

Appraisal of the Experiment

From the vantage point of over four years after, it is possible to make a tentative appraisal of the success of the experiment. In the case of half of the accelerates, numbers 1,2,3,4,5,6,7,8,9,12,14 and 17, there is no question. They made excellent adjustments both academically and socially. Even though Number 12 was younger, and an exception made in his case for inclusion, he appeared to run into no difficulty. Number 17, although having a measured I.Q. of only 113, because of her social maturity, and general application did creditably. The remaining twelve will be examined now in greater detail.

Numbers 10, 19, and 23, who were marginal cases and only included some time later, although encounting difficulty in the earlier stages, appeared to be out of serious difficulty at the end of Grade VII. Their final averages were 81.8, 72.2 and 73.8 respectively.

Numbers 13 and 16 who were the second youngest in the group, matured slowly, and although they did quite well academically, still appeared immature at the end of Grade VII. Adolescence will likely help in curing this defect.

Number 11 was another marginal case. At the beginning of the acceleration period (i.e. at the commencement of Grade III), her reading grade was just 3.0. She showed no serious social maladjustment all the way through, but her academic achievement was very average. Her final average in Grade VII was 63.7.

Number 20 shows serious social maladjustment. In the opinion of his teachers this is not due to acceleration but to general nature. His Grade VII class teacher believed he had definitely gained by acceleration, but that "he was not appreciated by his classmates."

At the beginning there was no measure of reading grade for Number 21, but because of her high I.Q., and other factors, she was included in the accelerates. However, at the end of Grade IV, her reading grade was only 4.6 and in Grade VII, 8.3, when the group median was 10.5. Through the grades she showed strain in keeping up with her classmates. Her final Grade VII average was 60.7. She seemed to be more socially mature in Grade VII, however, and for the first time was rated adequately challenged, and happy in her work by her teacher.

Number 22 experienced difficulty both academically and socially. He was a marginal reading case at the beginning. His general nature was not such as to make friends easily, and he seemed to spend much emotional energy trying very hard to be accepted by his peers. He appears to be out of difficulty academically, his final Grade VII average being 71.3.

Number 15 encountered some academic difficulty, and appeared to not have adjusted too well socially until her Grade VII year when she seemed to be getting along fine in that respect. Her final average was 81.5.

Number 24 also experienced academic difficulty

during the first two years and was rated immature. But at the end of Grade VII, he was doing quite well both socially and academically according to the teachers' rating, his final average being 80.

It therefore seems correct to say that most difficulties encountered were of a temporary nature and mostly disappeared with the passage of time. With number 18, however, it was a different story. There does not seem to be any question that he would have been better not to have accelerated. Although at the beginning, there appeared to be no reason why he should not be included in the group, his very slow rate of maturation as the years advanced, found him quite socially immature for Junior High in every way. He did not seem to have the maturity to cope with the concepts of advanced work even though his inherent ability rated a 125 I.Q.

His academic achievement kept going steadily down until his final Grade VII average was 60.5. Because of his superior mental ability, and excellent attitude toward his studies, there seems to be a good chance of this condition righting itself when this boy enters adolescence and takes on corresponding maturity. Time alone will reveal if acceleration has done him permanent harm.

This case is a good example of the handicap acceleration has encountered in past years. Throughout the community Number 18 is discussed by some as proving the experiment

a failure. No one hears much about the remaining 23 who did not suffer from acceleration or definitely gained very much from the experience. These do not make news. But it points up the fact, nevertheless, that because acceleration is good for some, it is not automatically good for everyone.

In retrospect, greater refinement of bases of selection, might have avoided much difficulty. Extra emphasis on subjects like English in which it takes a long time to achieve proficiency, would have likely helped. It may be that the minimum I.Q. of 115 decided upon was too low, and also greater accuracy might have been achieved in its measure of an additional group test or individual testing. Those who experienced academic difficulties, in the main, were those who had marginal reading grades. It is possible the minimum requirements of 3.0 at the beginning of Grade III was far too low for accelerates. Much was gained by their being in a group, and also retaining the same teacher through the acceleration period of Grades II, III and IV. They were also fortunate in having excellent teachers right through. It may well be that the parents should have been consulted regarding the plan, and their advice and that of any others in contact with the children, considered in deciding upon the social and emotional maturity of each child. The chronological age of those around the 7-7 mark at the outset, should possibly have been considered with greater care.

In only one case is it clear that acceleration was definitely unwise. In general, even with the questionable selection methods used, twenty-three students have gained a year, without any permanent serious maladjustment, and have a good chance of success throughout junior and senior high school. For those going on to college, it will mean reaching the end of their long period of professional training, one year earlier, with all its attendant benefits personally, and to society.

Recommendations

In view of the experience gained, and from studies made of acceleration elsewhere, the following recommendations are offered:-

1. All bright, mature, children should be given the opportunity to accelerate one year in elementary school, if administratively possible.
2. At least two group intelligence tests, or better an individual test, should be used as a measure of mental ability for accelerates.
3. An I.Q. of 120 should be considered the minimum for accelerates in most cases.
4. Parents, teachers, and any other personnel having contact with the child, should help decide if a student's social and emotional maturity are adequate for acceleration.

5. Parents consent and co-operation should be ~~un-~~ solicited before embarking on an accelerated program.
6. Careful watch should be exercised at all times to decide if a student should continue in the accelerated program.
7. Accelerates should move forward in a teaching group, if possible, not singly.
8. Chonological age should be weighed very carefully in deciding on the wisdom of acceleration.
9. Candidates for acceleration should have a reading grade at least six months in advance of their present grade placement.
10. The teacher of accelerates should be a better than average teacher, who is in favor of the procedure, and should continue through the acceleration period if possible.
11. Extra emphasis should be placed on English in the program of instruction for accelerated students.
12. Enrichment of the curriculum in other subjects should accompany acceleration, for it appears that bright mature accelerates need the challenge of enriched academic fare as well.

Concluding Statement

In conclusion, a quotation from that excellent book, "The Gifted Child", seems most appropriate.

> "Educators at all levels of instruction must divest themselves of the belief that gifted students can get along by themselves and that it is undemocratic to give them special education suited to their particular needs. And we must also dispel the fear sometimes expressed that the gifted may become selfish through too much consideration, for it is precisely this group of individuals of great ability who, in the long run and as a group, will be the least selfish, and the least likely to monopolize the good things in this world, and by their inventions and discoveries, by their creative work in the arts, by their activities in all fields, will in the future help humanity in its groping struggle upward toward a better civilization."[5]

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[5] American Association for Gifted Children - The Gifted Child, Edited by Paul Witty, Health and Co.,1951,p.275.

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