

Summer 1964

A study of the accelerated program in the Chesterfield County school system

Charles Willard Krause

Follow this and additional works at: <http://scholarship.richmond.edu/masters-theses>

Recommended Citation

Krause, Charles Willard, "A study of the accelerated program in the Chesterfield County school system" (1964). *Master's Theses*. Paper 229.

This Thesis is brought to you for free and open access by the Student Research at UR Scholarship Repository. It has been accepted for inclusion in Master's Theses by an authorized administrator of UR Scholarship Repository. For more information, please contact scholarshiprepository@richmond.edu.

A STUDY OF THE ACCELERATED PROGRAM
IN THE CHESTERFIELD COUNTY
SCHOOL SYSTEM

A Thesis
Presented to
the Graduate Faculty of the
University of Richmond, Virginia

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by
Charles Willard Krause
August, 1964

APPROVAL SHEET

The undersigned, appointed by the Chairman of the Department of Education, have examined this thesis by Charles Willard Krause, B.A., B.D. candidate for the degree of Master of Science in Education, and hereby certify their approval of its acceptance.

Edward F. Overton

Edward F. Overton, Ph. D.
Professor of Education
University of Richmond

Mamie C. Spangler

Mamie C. Spangler, M.A.
Assistant Professor of
Education
University of Richmond

Franklin Ross Jones

Franklin R. Jones, Ed. D.
Professor of Education
Randolph-Macon College
Visiting Lecturer
University of Richmond

Calvin H. Phipps

Calvin H. Phipps, Ph. D.
Professor of Education
Limestone College
Visiting Lecturer
University of Richmond

LIBRARY
UNIVERSITY OF RICHMOND
VIRGINIA

August, 1964

ACKNOWLEDGMENTS

The writer acknowledges with gratitude help from the following persons:

Dr. Edward F. Overton, Chairman of the Department of Education and Dean of the Summer School, University of Richmond, whose patience during the final critical days was most helpful.

Dr. Calvin H. Phippins, Visiting Lecturer, Professor of Education at Limestone College, whose summer school lectures instilled a deeper respect and greater admiration for the teaching profession.

Dr. Franklin Ross Jones, Visiting Lecturer, Professor of Education at Randolph-Macon College, who read the thesis and gave constructive criticism.

Mr. Fred D. Thompson, Superintendent; Mr. W. W. Gordon, Assistant Superintendent; Mr. Maxwell R. Schools and Miss Thelma Crenshaw, Supervisors, for their kind permission to use records and other information from the school board office.

Mr. J. A. Michael, Principal of Manchester High School; Mr. G. H. Reid, Principal of Huguenot High School; and Mr. W. N. Kaempf, Principal of New Broad Rock Elementary School, for their information and encouragement in preparing Chapter V.

The teachers, principals, counselors and students who so graciously took time to answer the questionnaires.

Mrs. Evelyn A. Krause who helped record from permanent records grades and test scores to insure accuracy in transcription.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
The Problem	2
Purposes of the Study	3
Importance of the Investigation	3
Definitions of Terms Used	4
Procedures and Limitations	4
Previous Research in the Field	5
II. THE PRESENT ACCELERATED PROGRAM	8
Selection of Candidates	8
Seventh Grade Teachers	8
Screening Test	10
Principal and Parent Conference	11
Evaluation of the Selection Process	11
Program Offering	12
Mathematics and Science Advancement	13
English and Social Studies	13
Electives	14
Evaluation of the Program Offering	15
III. STATISTICAL DATA	16
Intelligence Tests	16
California Mental Maturity Test	17
Otis Quick-Scoring Mental Ability Test	18

CHAPTER	PAGE
Grade Point Averages	19
Correlations	20
IV. ANALYSIS OF QUESTIONNAIRE RESULTS	24
Student Replies	25
Teacher Replies	29
Principal Replies	37
Counselor Replies	40
V. SUGGESTIONS FOR IMPROVING THE PROGRAM	44
Selection of Candidates	44
Selection and Training of Teachers	45
Curriculum	46
Mathematics and Science	47
English and Social Studies	47
Languages	49
Evaluation of Student Progress	49
Adjustment Provisions	51
VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	53
Summary	53
Conclusions	54
Recommendations	55
Name of Program	55
Criteria for Candidates	56
Probation Period	56
Early Graduation	57

CHAPTER	PAGE
Permanent Records	57
Curriculum	58
Future Study	58
BIBLIOGRAPHY	59
APPENDIXES	61
A. Form Letter Sent to Principals	62
B. Questionnaire Forms Sent to Students, Teachers, Principals, and Counselors	64
C. Form for Listing Statistical Data	72
D. List of Definitions Sent With Questionnaire	75
VITA	77

LIST OF TABLES

TABLE	PAGE
I. Summary of Answers to Pupils' Questionnaire	26
II. Summary of Answers to Seventh Grade Teachers' Questionnaire	30
III. Summary of Answers to Seventh Grade Teachers' Questionnaire, Bases for Recommendation	32
IV. Summary of Answers to High School Teachers' Questionnaire	34
V. Summary of Answers to High School Teachers' Questionnaire, System of Grading	35
VI. Summary of Answers to Elementary Principals' Questionnaire	38
VII. Summary of Answers to High School Principals' Questionnaire	39
VIII. Summary of Answers to Counselors' Questionnaire	42

LIST OF FIGURES

FIGURE	PAGE
1. Correlation between Grade Point Average and California Mental Maturity Test	21
2. Correlation between Grade Point Average and Otis Quick-Scoring Mental Ability Test	22

CHAPTER I

INTRODUCTION

Differences among students have been recognized for many years. Many attempts have been made to provide for these differences by the local and state school systems of the country. A variety of programs has been tried with varying degrees of success. Harold G. Shane, Professor of Education and Dean of the School of Education, Indiana University, has listed thirty-six grouping plans for providing for pupil differences at all grade levels.¹ One vital fact to be gathered from the literature on the subject of the gifted child is that there is no one basically satisfactory method of providing for his needs. Each school system must work out its own program according to its own needs and materials with which it must work.

Among the various methods tried are advanced placement, enrichment, acceleration, and combinations of these programs. Dr. Robert Frank DeHaan, Chairman of the Department of Psychology, Hope College, and author of the book Accelerated Learning Programs says, "Enrichment assumes acceleration and acceleration is futile without enrichment."

¹Harold G. Shane, "An Annotated List of 36 Grouping Plans" (Washington, D.C.: National Education Association, 1962) (Mimeographed.)

In practice the two generally go together."² The principal argument in favor of acceleration is that

...it enables a student to advance as rapidly as his ability will permit.... Acceleration permits the gifted student to complete his general program in less time and to get on with work in the field in which he has special talent.)

The Chesterfield County School authorities had for some time recognized the need for some special work for the gifted, but it was not until 1958 under the direction of Mr. J. R. Tucker that any definite program was organized. Since 1959 Miss Thelma Crenshaw has supervised the program. This thesis is an attempt to study in detail the methods used by the principals in carrying out the program in the local schools, to evaluate the program, and to make suggestions for improvement.

I. THE PROBLEM

The program developed in Chesterfield County, as elsewhere, was in response to public demand for more mathematics and science in the school curriculum. The problem is to describe three phases of the accelerated program, namely, (1) a description of the program as it now functions in each of the high schools, the subjects involved, and student

²Robert F. DeHaan, Accelerated Learning Programs (Washington, D.C.: The Center for Applied Research in Education, Inc., 1963) p. 4

³Ibid., p. 359

participation in it; (2) an evaluation of the program as reported by students, teachers, counselors, and administrators; and (3) an attempt to explore possible methods of improving the program.

Purposes of the Study

The purposes of this study are (1) to give a review of the actual practices of the individual schools as they provide for the brighter students, (2) to ascertain the effectiveness of the program, (3) to suggest ways to make the program more effective, and (4) to discover some ways of improving the coordination of the program.

Importance of the Investigation

The evaluation of the program is expected to aid in improving its effectiveness by providing for areas of acceleration beyond mathematics and science. It will also serve (1) to aid as guidelines for elementary principals and teachers as they attempt to recommend students for the program, (2) to aid secondary principals and teachers as they provide curricular offerings to meet the needs of the students, (3) to provide a basis for uniformity in the program as it functions in the schools of the county, (4) to provide information for counselors on specific sequence of subjects at appropriate grade levels so they can better help students select the course to fit a particular need, and finally, (5) to provide the basis for a statement to accompany

transcripts to colleges, in order that admissions officials may understand the nature of the program as it affects students from Chesterfield County.

Definitions of Terms Used

For the purpose of this study the definition of acceleration will be that provided by Carter V. Good in Dictionary of Education, "Advancement in mental growth or achievement beyond the average for the individual's chronological age."⁴

The program provides for vertical enrichment which, by definition, is "The curricular provision for advanced work or further specialization in the same area of learning."⁵

Procedures and Limitations

Information for this study was limited to that obtained from questionnaires, personal interviews, permanent records, and personal observation of the Manchester High School program.

A questionnaire was prepared and given advanced testing to the accelerated students in the junior class at Manchester High School. The results were first shown to Mr. M. R. Schools, Superintendent of Instruction for Chesterfield

⁴Carter V. Good, Dictionary of Education (New York: McGraw-Hill Book Co., 1959) p. 4

⁵Ibid., p. 201

County, and later to Mr. W. W. Gordon, Assistant Superintendent of Schools. Upon their recommendation, certain items were deleted and other items re-worded.

Additional questionnaires for teachers, principals, and counselors were prepared and submitted for suggested changes or additions. Then a form was devised upon which all information about subjects taken, standardized test scores, and grades could be conveniently listed for tabulation. The information recorded on this form was taken directly from each accelerated student's permanent record folder.

This study is limited in two areas, namely, (1) there are no graduates from this program whose progress in college could be studied, and (2) scores for the Otis Quick-Scoring Test of Mental Ability were available only for those students who took it in 1962 and 1963.

II. PREVIOUS RESEARCH IN THE FIELD

No previous attempt has been made to study the accelerated program in Chesterfield County. However, in a countywide meeting of counselors held recently, all of the counselors reported general dissatisfaction with the program as they observed in in operation in their respective schools.

There has been a great deal of study of the gifted student on a nationwide basis, however. The National Education Association Project on the Academically Talented

Student in cooperation with the American Educational Research Association reports in its Summary of Research on the Academically Talented Student 251 titles of books, magazine articles and other items. This list includes material published prior to 1959.⁶ J. Ned Bryan, Specialist for Gifted and Talented Children and Youth, United States Office of Education, in a memorandum to the Principals and Supervisors of Richmond, Virginia, Schools in 1962, lists seventy-nine additional titles on the subject.⁷

In describing the accelerated learning programs in America, a pioneer worker in the field of discovering those children with various kinds of talents, Robert F. DeHaan says,

At present there is no standardized accelerated program.... Rapid learners exhibit even greater varieties of ability and motivational patterns than do average or slow-learning children and therefore require a greater variety of educational offerings.⁸

Speaking out for more educational activity for the gifted students, George N. Shuster says,

First... education can proceed in its full glory and significance only insofar as it is concerned with those for whom it is not merely an obligation but also

⁶Louis A. Fliegler and Charles E. Bish, Summary of Research on the Academically Talented (Washington, D.C.: National Association Association, 1959) pp. 439-450.

⁷J. Ned Bryan, "A Limited Bibliography on the Gifted" (Washington, D.C.: United States Office of Education, 1962) (Mimeographed.)

⁸DeHaan, op. cit., p. 5

primarily and increasingly an adventure.... Those who are eager and able to embark on the adventure of education should be singled out as soon as possible, freed of crippling economic handicaps, and made to realize that the training of the mind is at least as rigorous as the training of the body. To continue to accept the lowest common pupil denominator as the norm is to doom the potential intellectual power of the nation to turning somersaults around the statue of Huckleberry Finn.⁹

The United States Department of Health, Education and Welfare has done a great deal of research in the area of providing for the needs of students with above average ability. Studies have shown a definite difference between intellectual and creative I.Q.'s. A need is expressed for a "broad-band" identification of the gifted in order to determine academic, creative, artistic, mechanical, and other areas of high ability.¹⁰

Another publication from the same department shows that above average students in the large high schools have a decided advantage over those in the small high schools in the number of courses available to students. This is with particular reference to foreign languages and science.¹¹

⁹George N. Shuster, "Singling Out the Adventurous," Education in the Age of Science, Bland Blanshard, editor (New York: Basic Books, Inc., 1959) pp. 34-36.

¹⁰The Gifted Student (Washington, D.C.: United States Office of Health, Education and Welfare, 1960) p. 3.

¹¹High School Programs (Washington, D.C.: United States Office of Health, Education and Welfare, 1961) p. 7.

CHAPTER II

THE PRESENT ACCELERATED PROGRAM

During the five years that the accelerated program has been in existence in Chesterfield County, there has been little attempt to provide for standardization of the curriculum in the respective high schools. Two schools, Grange Hall and Carver, offer no accelerated program. The number of candidates for the program at Midlothian and Matoaca is so small that the students are placed in the regular sections of first year algebra and ninth grade science during their eighth grade. Meadowbrook High School was opened in September, 1963, with grades eight through eleven, and therefore offers no advanced mathematics and advanced science. The three remaining schools offer a mixed program, some grade levels with full sections of accelerated students and with other grade levels having so few students that they are mixed with the regular students.

I. SELECTION OF CANDIDATES

The method of selecting candidates for the accelerated program is uniform throughout the county as far as basic factors are concerned.

Seventh Grade Teachers

In the spring semester of each year the seventh

grade teachers are asked to nominate those students who they feel are mentally, emotionally, and socially mature enough to profit from the program. One of the major problems here, however, is the fact that no specific criteria for selection are given. Among the limited criteria given are high grades in classwork and high scores on the California Mental Maturity Test, Short Form. The separate scores on the test, Language and non-Language, may vary widely. In some instances a pupil has been recommended with a high language score and a low non-language score even though acceleration is primarily in the fields of mathematics and science.

Concerning selection by teachers, DeHaan asks and answers a very important question.

How effective are teachers in identifying gifted children? Research conducted to answer the question is inconclusive. What has been rather clearly shown by research is that if teachers are given only vague and unclear criteria of giftedness, if they are not trained to observe children carefully, if they do not have a chance to know their pupils, and if they are not supervised in their observations, there is little agreement between teachers' observations and the results of aptitude tests. It is not clear, however, whether the fault lies with the teachers, with the conditions under which they are asked to rate their pupils, or with the tests that are used as criteria of intelligence.¹²

Buros, in Fifth Mental Measurement Yearbook, in evaluation of the California Mental Maturity Test, Short Form, says,

Reliability of total scores according to Kuder-

¹²DeHaan, op. cit., p. 19.

Richardson formula 21 varies between .87 and .89 at most grade levels.... In any case, two or three sub-tests, lasting in all only seven to fifteen minutes, would scarcely suffice to yield a reliable and valid assessment for the so-called special "factors." Indeed, the reliability coefficients recorded for the separate assessments are nearly all fairly low (.50 to .75 but higher for the secondary group); much of this must really be reliability as measures of general capacity. Moreover, little or nothing is actually known as to how these particular "factors" would affect different types of school work.... But from the practical standpoint of the teacher, the names given to the factors and the detailed instructions for their measurement in terms of separate mental ages or I.Q.'s might encourage him to fancy that he can extract far more information out of the test results than is actually the case. These minor criticisms, however, in no way affect the general merits of the test as a whole.¹³

Screening Test

In May, after the preliminary selection has been made, each selectee is given the Otis Quick-Scoring Mental Ability Test: New Edition, Beta Test: Form Em. These tests are hand scored by the teachers, and the names of the students who have made an I.Q. score of 120 or more are given to the principal of the elementary school. After the close of school in June, this list is forwarded to the high school principal for his use in scheduling the students' classes for the next school year.

Buros says of the Otis test,

School personnel in using such a "single-variable" test of scholastic aptitude should guard against an oversimplified interpretation of this score for even the

¹³Oscar K. Buros (ed.), Fifth Mental Measurement Year book (Highland Park, N.J.: Gryphon Press, 1959) p. 435.

academically oriented pupil, should be especially cautious in applying the test findings to children with clinical problems or those who need remedial help in reading and in the language arts. The abilities of the pupil whose interests are distinctly along "nonbookish" lines may be incorrectly appraised by this type of test.... A high score on a test of this kind does not necessarily imply that a pupil can be expected to distinguish himself in some particular branch of school work. For this purpose... standardized tests of attainment in various school subjects would seem to be more serviceable.¹⁴

Principal and Parent Conference

It is at this point that practice in the various schools begins to differ. All of the elementary principals reported conferences with parents. Some of the conferences, however, were by telephone, some were by having the parents arrange for a conference in the principal's office where the pupil's entire record could be discussed, and some were group conferences. It was on the basis of information exchanged during this interview that parents made a decision whether to allow their children to enter the program.

As a result of these conferences, fifty of the ninety-two boys and girls who took the qualifying test in 1963 were enrolled in the program, and fifty of seventy-eight were enrolled in 1962.

Evaluation of the Selection Process

Several problems are quite apparent in the selection process. As has been mentioned, the lack of specific criteria

¹⁴Ibid., pp. 498-499.

for helping teachers make the initial selection is a handicap. Many of the teachers requested that more attention be given to ability coupled with motivation as observed by the teacher. One seventh grade teacher, in response to a request for comments wrote,

Performance is a very important factor. I had some students that could qualify according to I.Q. scores but their classwork and attitude would not permit such consideration. Motivation and performance are important factors as far as I am concerned.

Counselors have reported students at the high school level who could do accelerated work, but who did not qualify on the screening test.

Another problem is the lack of effective communication between the school, teachers and principals, and the parents at the time a decision must be made. In some cases the explanation is not presented clearly, or is misunderstood by the parents. In other an insufficient amount of explanation is offered, and decisions are made with resulting disappointment for parents, students, and teachers.

II. PROGRAM OFFERING

After the pupil, with the consent of his parents, has decided to embark upon the program of acceleration in the high school, what new experiences will he face? It is impossible to determine what the candidate expects, but considering some of the comments of the pupils, what they expected and what they received were not the same.

Mathematics and Science Advancement

The program as originally organized in Chesterfield County was to have the pupil accelerated in mathematics and science only. His five-year sequence of classes in each subject would be as follows:

<u>Grade</u>	<u>Mathematics</u>	<u>Science</u>
8	Algebra I	Science 9
9	Plane Geometry	Biology
10	Algebra II	Chemistry
11	Solid Geometry and Trigonometry	Physios
12	Advanced Mathematics	Advanced Science

The basic program was followed in all schools having the accelerated students. In the smaller schools, these students were placed in sections with regular students and all were taught alike. In the larger schools, the accelerated students were placed in sections by themselves, and they were given more work than was given the regular students.

English and Social Studies

When the accelerated program was begun, there was no intention of any advancement or special enrichment in English and social studies. The advanced students would be grouped with the brighter non-accelerated students and all would be taught alike. This program has been followed in the same manner in each of the smaller high schools.

It was in the larger schools, namely Manchester,

Huguenot, and Thomas Dale that a different program developed. The students who were accelerated in mathematics and science were also kept together in English and social studies. Since no specific courses of study have been provided by the county, each group was taught according to the judgment of the teacher in that particular subject. According to reports, some of the teachers used the same material for her accelerated classes that she used for the brighter non-accelerated groups. Other teachers enriched these accelerated classes to a much greater extent.

Electives

The accelerated program, which is based primarily on the college preparatory course, provides little or no opportunity for elective subjects. One or more foreign languages are required, and the student has the choice of Latin, Spanish or French.

Should a student desire speech, art, music, mechanical drawing, typewriting, or any of the other courses offered, he must drop one of the academic classes. This presents a problem for both the counselor and the student. The student wants to take the elective for a very good reason, but the counselor knows that the colleges prefer the academic subjects. As a result the student either continues without enthusiasm in the college preparatory course, or he risks college entrance by broadening his range of activities.

Evaluation of the Program

Many of the students expressed appreciation for the opportunity for advancement in mathematics and science. They felt that it helped them to be under more pressure than in regular classes. However, the students and their teachers and counselors have expressed the need for improvement in the following areas:

1. Seventh grade teachers need more detailed criteria for selecting candidates for the program.
2. Provision should be made for acceleration in English and social studies either in addition to or in place of mathematics and science.
3. High school teachers need more background information on what to expect of the accelerated students, and also more uniform courses of study so there will not be as much variety in teaching methods and content of courses.

One weakness which was pointed out by the counselors can be overcome only by the students themselves. This is the tendency to use acceleration as a status symbol rather than an opportunity to broaden and deepen their total educational program.

CHAPTER III

STATISTICAL DATA

This chapter contains more detailed information about the standardized tests which were used in the selection of accelerated students. Correlations were made between these tests and grade point averages. Data were gathered from the permanent record folder of each student. Three of the schools, Huguenot, Manchester, and Midlothian, had available lists of the students on the accelerated program. In the other schools the record of every student enrolled was inspected to discover those who were accelerated. This was determined by those who were enrolled in the first year of algebra in the eighth grade.

A special form was prepared on which could be recorded the scores of the Lorge-Thorndike Test taken at the fourth grade level; the California Mental Maturity Test, Short Form, taken at the seventh grade level; the Differential Aptitude Test taken at the eighth grade level; and any other test which the student might have taken at any level in high school. Also recorded were each subject and each letter grade by years. A copy of this form will be found in Appendix A.

I. INTELLIGENCE TESTS

While three tests have been previously mentioned as

having been given at the elementary level, these were not the only ones to be found in the pupils' files. These were, however, the only ones that were regarded as meeting the needs for this particular study. There seemed to be a rather wide difference in I.Q. scores on the Lorge-Thorndike and the California Mental Maturity Tests. The two tests used in making correlations with grade point averages were the California Mental Maturity Test and the Otis Quick-Scoring Test of Mental Ability. Students took the former test in the fall of the seventh grade, and the latter in the spring of the same grade.

California Mental Maturity Test, Short Form

While this test basically has four areas of measurement, only the language and non-language factors were used. From these two scores a total I.Q. score was derived. The countywide Mean I.Q. was found to be 123 with a standard deviation of 8.7 score points. The local school Means were:

<u>School</u>	<u>Mean I.Q.</u>	<u>S.D.</u>
Huguenot	125.0	8.2
Manchester	121.5	5.2
Meadowbrook	123.6	6.8
Midlothian	125.5	6.8
Thomas Dale	118.6	13.0

The following table lists the Mean I.Q.'s in the language and non-language factors. The county language Mean was 127.0, and the non-language Mean was 118.1. It

would appear that more consideration should be given to acceleration not only in mathematics and science, but also in English, social studies, and languages.

<u>School</u>	<u>Language</u> <u>Mean I.Q.</u>	<u>Non-Language</u> <u>Mean I.Q.</u>
Huguenot	128.8	120.0
Manchester	124.7	118.0
Meadowbrook	126.3	120.5
Midlothian	127.5	122.5
Thomas Dale	125.0	112.6

Otis Quick-Scoring Mental Ability Test

The specific form of this test was Beta, Em, for grades four through nine. This test takes thirty minutes to administer and yields a single score. It was given only to pupils considered by the teachers to be candidates for the accelerated program. For the years 1962 and 1963 a total of 160 boys and girls attained the necessary cut-off score of 120. It was noticed that many of the elementary schools reported only two or three as having failed to attain the required score, while other schools reported as many as one-half of their students failing to do so. The scores on this test are retained in the school board office, and no record is placed in the pupils' permanent record folders.

The county Mean I.Q. on this test was 124.6 with a standard deviation of 3.7 score points. The local school tabulation using the rounded figure of 125 as the Mean gives the figures shown on the next page. It should be remembered

that the lowest possible score in this group is 120.

Schools	Mean I. Q.	S. D.
Huguenot	125.0	3.40
Manchester	123.0	3.16
Meadowbrook	125.0	4.58
Midlothian	124.0	3.40
Thomas Dale	123.7	3.70

II. GRADE POINT AVERAGES

It is the policy of the Chesterfield School Board that all grades be recorded on report cards and permanent records in the form of letters. The letter grades and corresponding number grades are shown as follows:

<u>Letter Grade</u>	<u>Number Grade Range</u>
A	100 - 95
B	94 - 89
C	88 - 82
D	81 - 75
F	74 - 0

The principals of the county have adopted a different system for ranking purposes. In this system A = 4, B = 3, C = 2, D = 1, and F = 0. The grade point averages derived for this study were based on this system. All subjects a student had taken were included in the computation.

The Mean Grade Point Average for all accelerated students in the county was 3.1 with a standard deviation of .63 score points. The lowest individual average was 1.2. A tabulation of grade point averages and standard deviations

for the schools shows a range of .5 grade points among the schools, and Thomas Dale as having the greatest range of grades.

<u>Schools</u>	<u>G.P.A.</u>	<u>S.D.</u>
Huguenot	3.0	.46
Manchester	3.1	.57
Meadowbrook	3.1	.50
Midlothian	3.5	.57
Thomas Dale	3.3	.74

III. CORRELATIONS

Since this is a study of the county-wide program of acceleration, standard deviations and correlation coefficients are determined on the basis of county Means rather than local school Means. The formula for "r" is $\frac{\sum xy}{N\sigma_x\sigma_y}$ in which $\sum xy$ is the sum of the products of the raw score deviations above or below the group mean, and $\sigma_x\sigma_y$ are the standard deviations of the two variables, and N is the number of scores used.¹⁵

The tabulation on page 23 presents the correlation between the grade point averages and the I.Q. scores on the California Mental Maturity Test and between the grade point averages and the I.Q. scores on the Otis Quick-Scoring Mental Ability Test. The correlation coefficients were .0068 and .0170 respectively for the county. Scattergrams of these correlation coefficients will be found in Figures 1 and 2.

¹⁵Anne Anastasi, Psychological Testing (New York: The MacMillan Company, 1960) p. 104.

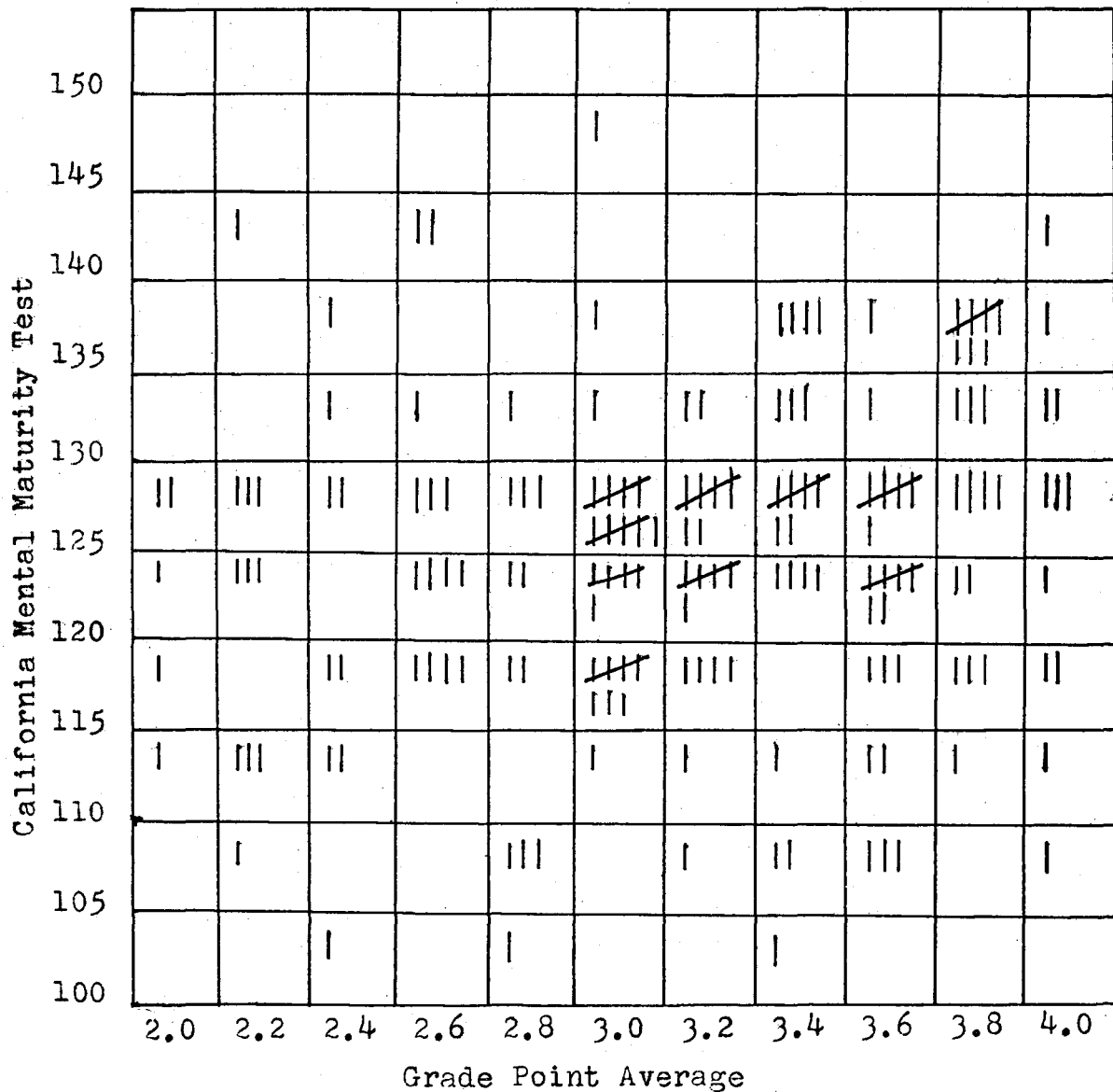


FIGURE 1

CORRELATION OF GRADE POINT
 AVERAGES WITH CALIFORNIA
 MENTAL MATURITY TEST

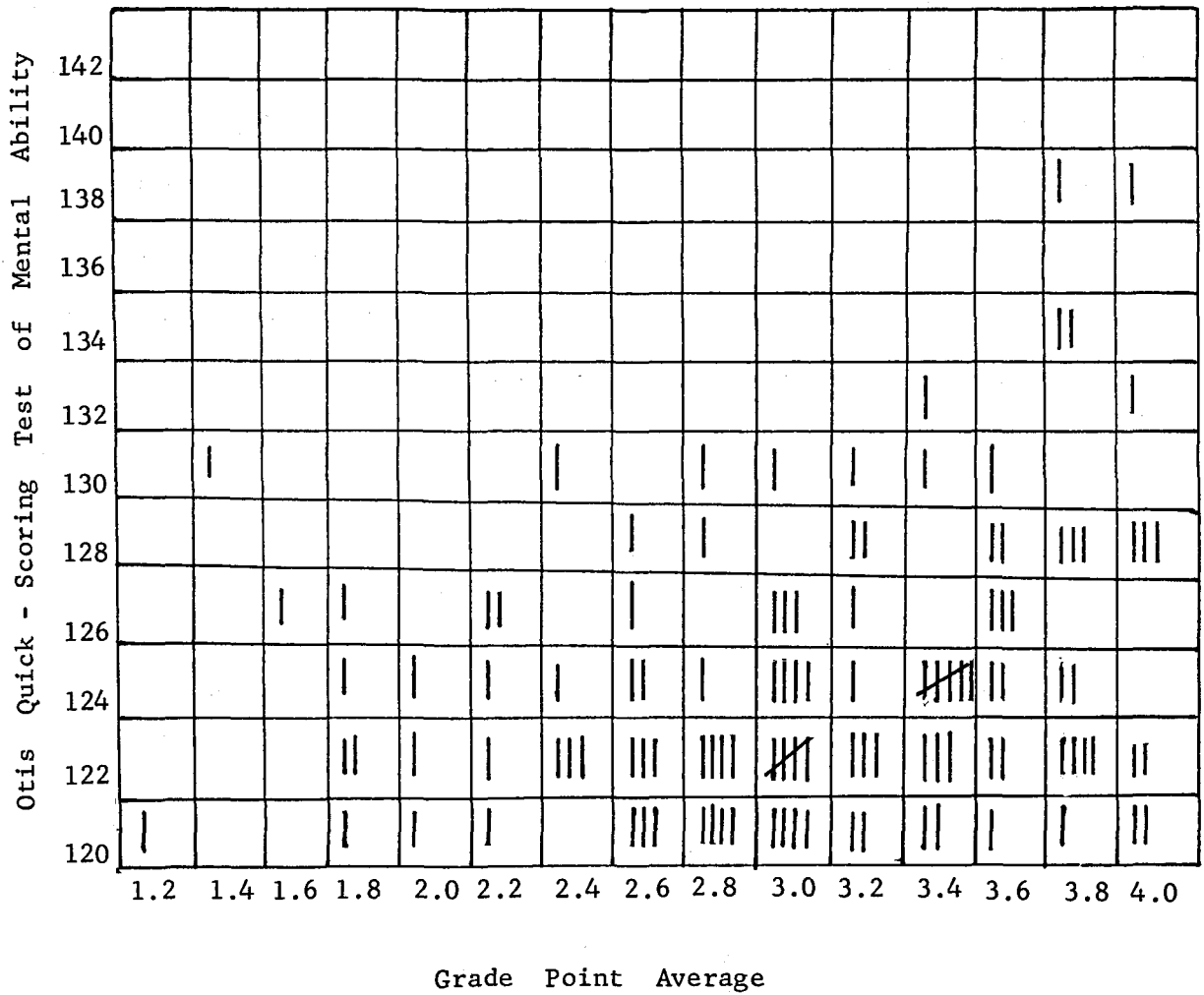


FIGURE 2

CORRELATION OF GRADE POINT AVERAGE
 WITH OTIS QUICK - SCORING TEST
 OF MENTAL ABILITY

Summary: The low correlation was to be expected as the ranges in both the intelligence test scores and the grade point averages were so narrow. Variations in school programs, the philosophy of the accelerated program, and differences in instruction make gradation in intelligence scores and grade point averages such that higher correlations are impossible to obtain. The fact that the correlations were positive indicates a general consistency between the test scores and grades.

<u>Schools</u>	<u>California</u>	<u>Otis</u>
Huguenot	.0062	.0020
Manchester	.0105	.0160
Meadowbrook	.0065	.0410
Midlothian	.0523	.0593
Thomas Dale	.0051	.0445

CHAPTER IV

ANALYSIS OF QUESTIONNAIRE RESULTS

In this study it was obvious from the beginning that only part of the information could be objective. That material was discussed in Chapter III. It has been observed that people are seldom objective when considering their own personal needs. Since this chapter concerns the needs of students and their reactions to the way these needs are being met, and since the students have been requested to reveal their thoughts on the subject, the information must of necessity be subjective. Even the teachers, counselors, and administrators who have all received some training in being objective found it difficult to adhere strictly to this principle.

Questionnaires were sent to accelerated students in all of the high schools of the county, to teachers who had any advanced students in their classes, to all guidance counselors, to all seventh grade teachers, and to all elementary and secondary principals. Personal interviews were held with the principals. Additional material has been gathered from observation of the accelerated program at Manchester High School, and conferences with the students and their teachers concerning special needs and problems.

This chapter will be concerned with an evaluation of the program by students, teachers, counselors, and principals.

There was a variety of comment about the program as it now exists in Chesterfield County. While the eighth and ninth grade students' reactions were generally favorable, the older students desired certain changes which would more nearly meet their needs. The teachers were in favor of some special provision for children of above average mental ability, but they were not satisfied with the present program.

Student Replies

The students were questioned in two areas: classwork and homework. The questions were of necessity subjective, and the answers were more in the nature of opinions than facts. Table I presents a grade by grade report on the answers to the particular questions. It is apparent that the majority of the students enjoyed their classes even though, as many of them indicated, they had to work beyond their capacity. There seemed to be a reversal in the feeling of being challenged by the program, shown in part by the answers to the third part of section one, and in part by the comment from a senior at Huguenot High School. He said,

I find the teachers' attitudes very discouraging at times. So often they will give extra work and say it's because "you're accelerated." Other times if a student doesn't understand something or asks a question, the teacher will say, "You should know that, you're accelerated." Either this program should be more selective to include only those students who are not concerned with extra activities, or the teachers should be made to realize that accelerated students are quite normal, except that they have a little more academic ability.

TABLE I

SUMMARY OF ANSWERS TO PUPILS' QUESTIONNAIRE

Question	Grade	Number Answering	
	Level	Yes	No
1. Classwork:			
Do you get any enjoyment from your classes?	8	65	5
	9	41	0
	10	36	0
	11	35	5
	12	14	0
Do you feel you are being challenged to do your best work at all times?	8	40	36
	9	25	20
	10	12	25
	11	13	30
	12	3	12
Do you sometimes have the feeling of being "pushed" beyond your capacity?	8	23	52
	9	18	26
	10	6	32
	11	27	16
	12	5	8
2. Homework:			
Do you feel you have too much homework?	8	15	23
	9	22	20
	10	10	27
	11	26	16
	12	2	13
Does your homework add to your understanding of the subject?	8	62	9
	9	37	53
	10	21	16
	11	36	4
	12	9	4
Does your homework load exclude you from school social activities?	8	10	60
	9	13	28
	10	2	36
	11	5	36
	12	0	13

A small majority of the students, 57 per cent, felt that the homework load was excessive, with the eleventh graders leading with 62 per cent, and the ninth graders next with 52 per cent. Only 13 per cent of the seniors believed they had too much homework. The most frequent complaint about this particular problem was the fact that teachers were not consistent in making assignments. On some nights the students would be burdened with work, and then would go for a week with no specific assignments. The consensus of the students was that homework was just so much extra work and they could get along just as well without quite so much.

With regard to school work interfering with outside activities, 32 per cent of the ninth graders reported difficulties, but none of the seniors admitted having any problems. One student commented, "It should but it doesn't."

Space will not permit the presentation of all the comments made by the students. However, as samples, one comment from each grade level is given here.

An unidentified senior at Thomas Dale High School said,

Thus my opinion of the accelerated program is this: It's an excellent idea, but it needs to be developed further. Provide proper texts, qualified teachers, and good equipment to work with (such as laboratory facilities). Arrange and allow constructive field trips and guest speakers. To hold the attention of an exceptional student, every effort must be made to stimulate his interest, explain his questions, and illustrate the why's and wherefore's of the subject.

From the other end of the county, a student in the eleventh grade at Huguenot High School tells how he feels about the program.

Teachers tend to somewhat classify accelerated students as "cream of the crop" and the accelerated student is not allowed to not understand information in some classes. In some cases the student is expected to immediately grasp new material and then intelligently discuss work in which he has not had a chance to become secure. All students cannot have the same degree of aptitude in all areas but accelerated students are classified as a group rather than individuals by some instructors. A familiar refrain when grades are poor throughout the class is "but you're supposed to be accelerated."

A Manchester High School tenth grader has an interesting remark about some of his classmates.

I enjoy most of my classes except the ones in which the teacher must keep on going over and over something. But that does not bother me as much as when a person is not paying attention and does not understand but still must have it gone over "just one more time."

The ninth graders apparently had no great feelings about the program, either for or against. From the eighth grade, two students, one each from Midlothian and Meadowbrook High Schools, respectively, speak out.

I love to learn, though I can't say I like to work, for I am lazy. I never feel pushed and sometimes I feel as if I could accomplish more. I must say, though, that my accelerated classes are always interesting.

I think it would be better if we didn't have the same ten or twelve people in each class because six periods with the same people can be boring. Having entirely different people in three or four classes or just some new ones would help.

Teacher Replies

One of the most important persons in the life of the prospective candidate for the accelerated program is the teacher of the seventh grade. This is the person who has the final decision about the quality of a child's preparation for the eighth grade and high school. This teacher must take a child after six years in school, consider the variety of learning experiences under six or more different dedicated or less-than-dedicated teachers, teach him what she can in nine months, and then try to evaluate to the best of her ability that child's capacity to attempt advanced work for the next five years. It is upon the recommendation of the seventh grade teacher that a child is given the opportunity to take the screening test for the accelerated program.

The questions which the seventh grade teachers answered were such that they could not all be grouped in one table. Table II is a partial summary of the answers.

Eight of the sixteen who replied said that they did not confer with a child's previous teachers before making a recommendation, five said they did confer regularly, and three reported conferences occasionally or when there was some particular problem involved.

One definite problem area was revealed in the fact that only one-half of the teachers felt they understood the accelerated program, one was certain she did not understand it, and eight were uncertain about all or parts of the program.

TABLE II

SUMMARY OF ANSWERS TO SEVENTH GRADE TEACHERS' QUESTIONNAIRE

Question	Number Answering		
	Yes	No	?*
1. Do you understand the purpose of the accelerated program as it now exists?	8	1	8
2. Do you talk to a child's previous teachers before making a final recommendation?	5	8	3
3. Do you help the child's parents understand the purpose of the program at the time of recommendation?	12	1	3

*These numbers represent teachers who were not sure or who qualified their answers.

As indicated by the answers to the questions listed in Table III, the primary factors considered by the teachers when making a recommendation were: (1) high scholastic ability, (2) a pleasant personality and a spirit of cooperation, (3) high standardized test scores, and (4) a response to the challenge.

Three teachers added other factors to the ones listed. They are: (1) capacity to work under stress and high competition, (2) how a student expresses himself in speaking and writing, and (3) ability to organize work in all areas.

One teacher, in commenting on "potential" as a factor in selection said,

Potential is considered in all cases, but the child who has not worked to his potential in seven years of elementary work with seven different teachers trying to stimulate thought and activity - that child almost invariably has personality traits or other factors that make him "unlikely-to-succeed" as an accelerated student.

One of the most frequent criticisms concerned the lack of specific criteria to be used in making recommendations. It was felt that more guidance was needed in this very important area. One teacher stated,

The teachers need to know specifically what qualifications the county believes are necessary for candidates in its "accelerated" program.

Another teacher, commenting on the testing program, said,

I feel that too much emphasis is placed on the test; too often children are uneasy, frightened, or ill and consequently have a "bad test day"; these same children

TABLE III

SUMMARY OF ANSWERS TO SEVENTH GRADE TEACHERS' QUESTIONNAIRE

Bases for Recommendation	Number Answering
1. Straight "A" grades	8
2. Mixed "A"s and "B"s	14
3. Personality - pleasant, co-operative, energetic	13
4. Potential - "Could do better work if he tried."	6
5. Think he would respond to the "Challenge"	12
6. High Standardized Test scores and high grades	15
7. High Standardized Test scores and low grades	2

may have done well all through elementary school and would be a credit to the program.

The answers to the high school teachers' questionnaires revealed that twenty-four of the forty-eight replying had not taught an accelerated class prior to this past year. The teachers were evenly divided on the value of the text-books being used in their classes. The major problem in this area seemed to center on the science text. Due to differences in types of answers required, the questions are listed in two groups in Tables IV and V. Four questions, which are not adaptable to tabulation, are discussed below.

Three-fourths of the teachers observed that the accelerated students were more grade conscious than were the average students. Teachers' opinions were evenly divided as to whether the accelerated students displayed any attitude of superiority over their peers in the regular class groups. It was the feeling of the majority of the teachers that the accelerated students were more highly motivated than their peers, and that the accelerated students were able to make better adjustment to new situations. Ninety per cent of the teachers agreed that students should be accelerated only in those areas of greatest strength as revealed by achievement and standardized tests.

The high school teachers were evenly divided in their judgment as to the superiority in ability or achievement when

TABLE IV

SUMMARY OF ANSWERS TO HIGH SCHOOL TEACHERS' QUESTIONNAIRE

Question	Number Answering	
	Yes	No
1. Did you teach this same course last year?	23	24
2. Are the text-books appropriate for the program?	22	23
3. Can you find sufficient material to supplement the text?	37	6
4. Taken as a group, are your accelerated students outstandingly superior to your best non-accelerated students?	21	22

TABLE V

SUMMARY OF ANSWERS TO HIGH SCHOOL TEACHERS' QUESTIONNAIRE

System of Grading	Number Answering
1. Strict numerical grading from zero to one hundred.	33
2. On the curve so you will have approximately as many low grades as high grades.	0
3. Tests so difficult that only the very best students will make high grades.	3
4. Use all students in all classes to determine the curve.	9
5. Tend to make a "B" on the accelerated course equal to an "A" on the regular course.	10

comparing the accelerated students with brighter non-accelerated students. An English teacher had this to say about her accelerated group:

The group I am teaching has some weak points. They are:

1. Very weak in paragraph development and composition work. This is not measured by the test which they take in the seventh grade, and I feel this is the chief difficulty that my students have experienced.
2. Lack of incentive and motivation. These children are interested, with few exceptions, in material achievement which the evidence by gaining surface information. It has been a struggle to awaken the majority of these students to desire an understanding of that which they are studying. An underlying cause of this indifference is parents' lack of concern as long as their child brings home the desired grade.

A teacher in one of the larger high schools, in her commentary on attitudes, had this to say:

.... In many cases, the students and their parents seem to look upon the "X" classification as more of a status symbol than a sign that they are to study in greater depth or accomplish more intellectually. They seem to be more interested in grades and status, which will provide entry into the "right" college.

On the other hand, parents of several of my finest students have recently expressed doubts about their children in the "X" class. One mother in particular would like to have her daughter dropped from the group because she feels that her daughter has been with one group too long, and would prefer a more heterogeneous experience for her. (She makes straight "A"s by the way.) However, the strong deterrent factor is the student's fear that her friends in the class will not understand that her dropping the "X" classification will have nothing to do with grades.

I strongly recommend the cancellation of the accelerated program as it now exists in Chesterfield County.

Principals' Replies

Replies were received from four of the eight elementary principals who administered the screening test. Follow-up telephone calls elicited promises to get the replies in the mail, but the replies did not arrive. It is apparent from the replies received that the elementary principals understand the purpose of the accelerated program. They feel, however, that it is the responsibility of the high school to make special provision for the accelerated students. None of the elementary principals had made any plans for identifying gifted pupils below the seventh grade. Table VI is a summary of the elementary principals' replies.

In one area complete agreement was observed, namely, the need for a closer working relationship between the high school counselors and the elementary schools. This idea was emphasized in several personal interviews with the elementary principals.

Mr. Willard N. Kaempf, Principal of the New Broad Rock Elementary School, felt that the major weakness of the program lay in its failure to take into account the needs of children gifted in verbal as well as in mathematical abilities.

All of the high school principals returned the questionnaire. Table VII is a summary of these replies. All but one reported an understanding of the program as it is now organized, even though in their comments they disagreed with

TABLE VI

SUMMARY OF ANSWERS TO ELEMENTARY
PRINCIPALS' QUESTIONNAIRE

Question	Number Answering	
	Yes	No
1. Do you feel that you fully understand the accelerated program?	3	1
2. Do you have conferences with your seventh grade teachers to help them make the proper selection of candidates for the program?	4	0
3. Do you review the records of the selected students before allowing them to be approached on the subject?	4	0
4. Do you discuss the program with the parents of the selected children?	3	0*
5. Do you have a plan for identifying gifted students below the seventh grade and helping your teachers give them more than average attention and help?	0	4
6. Would you accept help from the high school guidance personnel in guiding your selection of students for this program?	4	0
7. Would you like to see a closer working relationship between the high school counselors and the elementary schools?	4	0

*One principal had conferences only with those who desired them.

TABLE VII

SUMMARY OF ANSWERS TO HIGH SCHOOL
PRINCIPALS' QUESTIONNAIRE

Question	Number Answering	
	Yes	No
1. Do you feel that you fully understand the accelerated program?	4	1
2. Do you have any special in-service training programs for the teachers of the accelerated courses?	0	4
3. Do you review the records of a student before he is scheduled for the accelerated program in the eighth grade?	4	1
4. Do you ask for progress reports from teachers and counselors concerning these students?	4	1
5. Do you let the parents take the initiative in requesting that a student be removed from the accelerated program?	1	2

the way it was being conducted. The replies indicate a major weakness in the area of in-service training for teachers of accelerated students.

One principal pointed out that his teachers tend to enrich the program considerably, and raised the question, "Is this double acceleration?" He also stated,

I am concerned about the evaluation of the work of the accelerated students. I am afraid they are being penalized as far as grading is concerned in comparison with above-average students not in the program. Of the top five college preparatory students in this year's senior class, not one is an accelerated student.

Another principal wrote,

By definition, ours is not a truly accelerated plan. It does not shorten the time required to finish high school.

Nor do we have enrichment of program as we continue to offer the minimum requirements plus a few vocational courses and very little more than traditional subjects.

Our students need opportunity to specialize or to broaden their scope of learning in a given field without the straight-jacket requirements.

Counselors' Replies

Among the persons most concerned about the progress of the accelerated program are the guidance counselors. Three of the high schools have two full-time counselors each with additional teacher-counselors, and two of the schools have one full-time counselor each and teacher-counselors. These counselors have been concerned about the program for some time.

While there was general disagreement with the title of

the program, there was diversity of opinion as to an adequately descriptive name. The present title was favored by three, but their comments indicated they were suggesting retention of the name for want of a better one. Table VIII is a summary of the answers to the counselors' questionnaire.

The counselors as a group expressed dissatisfaction with the way the program has developed in the county. One counselor wrote,

Seventh grade pupils should be screened more carefully so that those who are not mature enough to be advanced should be allowed to seek their own level. Some should be advanced in language rather than in math and science. The English program should be enriched for those with enriched reading, creative writing, journalism, and dramatics in place of much repetition in grammar.

A great deal of concern was expressed about the grading and ranking of accelerated students. As one counselor suggested, "Devise a system of evaluation that does not penalize these students."

The appraisal by the Huguenot Guidance staff is presented here.

Although there has been improvement in the selection of students for the program, according to ability, not enough stress seems to be placed upon industry and maturity. A careful check of the present eighth grade indicates good test scores but lack of interest and application on the part of about half the class of thirty-three students.

Many accelerated students, especially girls, have not continued in advanced placement in the science program. A few students have not taken advanced math.

TABLE VIII

SUMMARY OF ANSWERS TO COUNSELORS' QUESTIONNAIRE

Question	Number Answering	
	Yes	No
1. Are you a full-time counselor?	8	7
2. If not, have you had any special training in guidance?	3	4
3. Do you follow the progress of your accelerated students?	9	3
4. Do you talk to parents when these students fail to make expected grades?	4	4
5. Do you recommend that students leave the program when they cannot or will not maintain high grades?	7	3

All teachers do not have uniform standards for the accelerated groups. Some have unreasonable requirements; others teach an accelerated group just the same as any other group.

Another counselor, discussing permanent records, said,

I feel that the program is improperly named. I object even to "advanced placement" until the permanent record has a place to call attention more emphatically to the fact that the student is accelerated or in advanced courses. Colleges still tend to pay little attention to the fact that a student has been accelerated; instead they place emphasis on grades and class rank when admitting students to college.

Summary: Analysis of the questionnaires showed the following criticisms:

1. Seventh grade teachers felt a need for selection criteria on which to judge candidates.
2. Students at the eighth and ninth grade levels were generally satisfied with the program, but the older students felt that there should be a wider choice of subjects in the program.
3. Administrators indicated the lack of in-service training for teachers of accelerated students.
4. Counselors felt that more emphasis should be placed on motivation and achievement as basic criteria for selection rather than a standardized test. Counselors also expressed concern over the lack of uniform standards of teaching and evaluating the achievement of accelerated students.

CHAPTER V

SUGGESTIONS FOR IMPROVING THE PROGRAM

Students, teachers, counselors, and administrators were all quite willing to offer suggestions for improving the program. One suggestion made more frequently by those students in special accelerated classes was to mix them with the other students. As one student expressed it, "We get tired of looking at the same faces all day every day." Another suggestion was to recommend that teachers consult one another before deciding on the amount of homework to be assigned in each class in order to prevent an excessive homework load.

I. SELECTION OF CANDIDATES

Counselors and teachers alike were concerned about the criteria used in making selections of students for the program. Seventh grade teachers recommended more emphasis on achievement and less emphasis on standardized tests. Counselors recommended, in addition to achievement, more emphasis on maturity, reading ability, and special interests.

A complete list of criteria for selection would include the following items:

1. Achievement - no grade less than a "B" in sixth and seventh grade subjects.

2. Motivation - (a) promptness in turning in assignments, (b) using time to good advantage, (c) being self-motivated rather than parent-motivated.

3. Personality - (a) ability to get along with peers, (b) showing courtesy toward teachers, (c) maintaining good self-control.

4. Aptitude - interest and demonstrated ability in one or more academic subjects.

5. Standardized test score - at least one standard deviation above the mean on an achievement test.

6. Approval of parents, teacher, principal - all must agree that the pupil is capable of accelerated work.

One teacher suggested as an additional criterion the capacity to work under stress and high competition.

II. SELECTION AND TRAINING OF TEACHERS

The success of any classroom situation depends upon two major factors - a student who wants to learn and a teacher who knows his subject field and who can impart that knowledge in a challenging manner. Several of the counselors felt that more attention should be given to the selection of teachers for accelerated classes. The principals recognized the need for more in-service training for these teachers. Students have indirectly suggested several areas for training as indicated by some of their comments.

Understanding Accelerated Students

A ninth grade student at Huguenot High School said,

I think that teachers, not knowing how to cope with this type of student, feel they must demonstrate their intelligence by giving these students extra classwork, homework, and outside assignments. These teachers are not teaching to the entire class, but are teaching to the smartest ones in the group.

An eleventh grade student at the same school said,

In certain classes the teacher attempts to provide a flavor of what can be expected in college. This may be fine for preparing the students for college, but at times the material seems way over their heads and does nothing to enlighten them. Teachers also take it for granted that all accelerated students are budding geniuses, whereas only a few have that distinction.

A tenth grade student at Manchester High School commented,

I feel that teachers sometimes expect too much of a student just because he or she is accelerated.

Teaching Methods

Thomas Dale High School provides the background for this comment from an eighth grade student.

Also when work becomes a repetitious cycle: taking notes (classwork), studying them (homework), discussing them, and having a test, it is easy to see how a class can be bored "silly."

III. CURRICULUM

Students entering the accelerated program would have an initial choice of area, but within that selected area the choice of subjects would be limited.

Mathematics and Science

This program would follow exactly the present pattern.

<u>Grade</u>	<u>Mathematics</u>	<u>Science</u>
8	Algebra I	General Science
9	Plane Geometry	Biology
10	Algebra II	Chemistry
11	Solid Geometry and Trigonometry	Physics
12	Advanced Mathematics	Advanced Science

The content of the advanced mathematics course would of necessity depend largely on the qualifications of the teacher and students. The counselors at Huguenot said, "Graduates have told us they need more advanced algebra."

G. H. Reid, Principal of Huguenot High School, proposed that the advanced science course offer advanced work in each of the three sciences, biology, chemistry, and physics. Each would be taught for approximately twelve weeks by the specific subject teacher. Mr. Reid indicated that there might be a minor problem of scheduling for the teachers, but that this would not be insurmountable. This would not be a college credit course, but would be solely for enrichment.

English and Social Studies

Each student must take five years of English and three years of social studies as prescribed by the State Board of Education. In social studies the candidate for graduation must take either geography or world history, United States

and Virginia History, and United States and Virginia Government. The State Board of Education prescribes no specific courses at any grade level. The matter of content is entirely at the discretion of the local school system, according to Mr. Gordon Brooks, Director of Teacher Education and Certification, State Board of Education.¹⁶ The suggested sequence of courses listed below shows how acceleration may take place and still meet state requirements.

English 9, the designation for English taken at the ninth grade level, would be omitted, and the subsequent courses would be advanced one year, thereby providing for an accelerated English course during the twelfth grade. United States History and Government, normally taken at eleventh and twelfth grade levels, respectively, would be advanced one year, and thus provide for an extra social studies course in the twelfth grade.

<u>Grade</u>	<u>English</u>	<u>Social Studies</u>
8	English 8	History 8
9	English 10	Geography or World History
10	English 11	United States History
11	English 12	United States Government
12	Advanced English World Literature Creative Writing Vocabulary	Social Studies Economics, Political Science, Sociology Psychology

¹⁶Gordon Brooks, State Board of Education, telephone interview, June 26, 1964.

The schedule given above was planned in conference with Mr. W. N. Kaempf, Principal of New Broad Rock Elementary School; Mr. G. H. Reid, Principal of Huguenot High School; and Mr. J. A. Michael, Principal of Manchester High School. The desirability for such a program had been expressed by other principals, students, and counselors.

Languages

At the present time, Latin, Spanish, and French are the only foreign languages offered in Chesterfield County. These courses begin in the ninth grade. Few seventh grade students have applied to take a foreign language at the eighth grade level. The counselors at Huguenot High School recommended that Latin be offered at the eighth and ninth grade levels. In the tenth grade, the student would have the choice of continuing with Latin or beginning French or Spanish. The offering of any other language such as German or Russian would of necessity depend on the student demand and the availability of qualified teachers.

III. EVALUATION OF STUDENT PROGRESS

One problem which only three of the students mentioned, but which was important enough for one of the principals to point out, was the matter of evaluating the work which the students accomplished. An eleventh grade student at Huguenot

High School wrote as follows:

One of my main complaints about the accelerated course is not receiving compensation for the extra work. For instance, when I receive an "A" I know that I have really worked on it a lot harder than many other students not in the "X" program. This is true in some classes more than others. I do not mind the extra work so much as other students receiving the same or better grades for much less work.

The counselors at Huguenot High School in their recommendation on the evaluation of students wrote,

Provide some means for evaluating students so that the accelerated ones will not be penalized by getting lower grades than the comparable student on the non-accelerated course.

Although the counselors did not recommend a specific solution to the problem in the written report, they had mentioned in previous interviews the system used by the Richmond City Public Schools. In 1962 the Richmond City School Board received a report from a committee which had studied the matter of ranking students in class. This committee recommended a weighting factor of 1.3 to be used in determining rank for accelerated students. This meant that the grade in each subject would be multiplied by this factor in order to reach a fair average for the student who had to work harder for his grades. According to the report, this had the effect of increasing the total average by one letter grade.¹⁷

¹⁷"Report of the Committee on Determining Rank in Class" (Richmond, Va.: Richmond Public Schools, 1962) (Mimeographed.)

IV. ADJUSTMENT PROVISIONS

Experience has shown that there are some students who either cannot or will not maintain the pace necessary to make satisfactory progress in the accelerated program. No student who has over-estimated his ability to keep up with his studies or for some other reason has failed to maintain high grades need be forced to remain in the program. It has also been observed that interests which were considered all-important at one age or grade level may become matters of least importance to the student at a later level. In either event, some means must be provided for changing the student from the accelerated program to the regular program.

Since enrollment in the accelerated program is basically a matter of being in a class one year ahead of the normal schedule, then leaving the program would simply be a matter of enrolling in a class at the normal grade level. The progress of all accelerated students should be reviewed at the end of the first grading period in the fall and any student whose grades were unsatisfactory or who appeared to be having difficulty would immediately be scheduled into the appropriate class. Students who fail to maintain a "B" or better average should be placed in the regular program as is the practice at John Marshall High School in Richmond.¹⁸

¹⁸"Programs of Study - Placement of Pupils"
(Richmond, Va.: John Marshall High School, 1962) (Mimeographed.)

Students, with the consent of their parents and counselors, may withdraw from the program for any succeeding year, and return to the regular program.

Several of the principals recommended that means be provided for students to move into the program after they had entered high school. While they made no specific recommendation, it was felt that any student qualifying for the accelerated program could take the necessary make-up work in summer school. The advanced course could then be taken during the regular school session.

Summary - Improvements were suggested in four major areas as follows:

1. Selection - develop criteria to guide the seventh grade teachers in their selection of candidates.
2. Subject areas - expand the program to include English, social studies, and foreign languages.
3. Uniform county program - place all accelerated students one year ahead of their normal grade placement in their chosen subject area. Major enrichment would take place in the senior year.
4. Early graduation - permit qualified students who so desire to graduate at the end of four years.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purposes of this study were to make a survey of the accelerated program in the high schools of Chesterfield County, to evaluate the program, and to make suggestions for its improvement.

I. SUMMARY

The accelerated program was begun in 1958 in response to public demand for a stronger program in mathematics and science. Candidates were selected in the seventh grade by their teachers, and were given an intelligence test in an attempt to determine their intellectual qualifications. Final selection of candidates was based on an I.Q. of 120 or higher as determined by the test.

Pupils who chose to enter the program took, in the eighth grade, algebra and science which under normal conditions were offered in the ninth grade. As originally planned, there was to be no acceleration in any other subject.

As enrollment increased in the larger high schools, the accelerated program was expanded to include English and social studies. In addition to advancement in grade level, acceleration took the form of enrichment.

Many students who found they lacked the aptitude or interest for mathematics or science withdrew from the program

at the end of the ninth grade. This meant that such students were no longer considered to be on the accelerated program. Huguenot High School was found to be the only one to permit a student to continue in accelerated English and social studies after returning to the regular mathematics and science courses.

II. CONCLUSIONS

Information was obtained during interviews and from questionnaire replies from students, teachers, counselors, and principals. An analysis of this information revealed the following:

1. Seventh grade teachers are not given sufficient criteria to use as a background for making a selection of candidates. These teachers have requested such criteria.

2. Students in the eighth and ninth grades were generally satisfied with the program. However, students in the upper grades expressed dissatisfaction with the way the program has developed.

3. The smaller high schools have followed the original program quite closely. The larger high schools, with a sufficient number of students to justify separate sections, have developed a form of acceleration and enrichment in English and social studies as well as mathematics and science.

4. The Otis Quick-Scoring Mental Ability Test used for screening was found to be inadequate for the purpose. Teachers felt that more emphasis should be placed on achievement and motivation than on a standardized test.

5. Teachers, counselors, and principals expressed the desire for greater uniformity in the program.

6. The title which the program now has is misleading because of the variety of forms the program takes in the separate schools.

III. RECOMMENDATIONS

All students in Chesterfield County who have the mental ability as measured by recognized standardized test scores and the demonstrated ability to achieve and maintain a high level of success in their chosen fields should be given the opportunity to enroll in the accelerated program.

Name of Program

It is recommended that the name accelerated program be retained, and that it be defined as "advancement in mental growth or achievement beyond the average for the individual's chronological age." In application, an accelerated student would be placed in classes one year ahead of his normal grade placement in any one or more academic subjects of his choice. This meaning will be used uniformly throughout the county.

Criteria for Candidates

All students who are interested should be permitted to take the qualifying test. Candidates will be enrolled in the accelerated program on the following bases:

1. Test score approximately one standard deviation above the established mean score for the test.
2. Achievement demonstrated by grades of "B" or better in grades six and seven.
3. Recommendations of seventh grade teacher based on criteria given in Chapter V.
4. The approval of the elementary principal.
5. The consent of the student's parents.

Probation Period

The eighth grade would serve as a probationary period. Students who fail to maintain at least a "B" average in the accelerated subjects would be required to enroll in the regular program in the ninth grade. During the eighth grade, the student's record would be reviewed by a counselor, and a conference would be held with the student. If for any reason the counselor, the parent, or the student decided it was best to withdraw from the program, the change would be made to take effect at the beginning of the ninth grade.

Early Graduation

Students with demonstrated ability should be permitted to progress through high school as quickly as they wish to go

and can go. It would be possible, on the proposed program, to earn the required number of credits for graduation in four years. Should he desire early graduation, it would be necessary for the student to take one year of English in summer school in order to get the required five credits. All other requirements for either a college preparatory or a general diploma could be met in the shorter time.

In those instances where a student with outstanding ability attended a small high school which could not offer advanced courses due to limited enrollment, early graduation would permit that student to attend college a year earlier. This would relieve the administrative problem of providing special classes for one or two students.

Permanent Records

All subjects would be recorded on the permanent record form in terms of the grade level of the class being taken, using the designations adopted by the county for such classes. In practice, this means that a student accelerated in English would omit ninth grade English, going directly from eighth to tenth grade English, and thence to eleventh, twelfth, and advanced English in that order. The permanent record would be marked in accordance with these designations. This would help reduce confusion when transcripts are forwarded to college admissions officials.

Curriculum

On the basis of suggestions from counselors and principals, it is recommended that no major enrichment be given in classes from the eighth grade through the eleventh grade. It is further recommended that advanced courses in mathematics, science, English, and social studies be offered in the twelfth grade. A more detailed outline of the content of these courses has been provided in Chapter V.

Future Study

It is recommended that a study be made of those students who were listed as candidates by their seventh grade teachers but who failed to achieve the score of 120 required for admission to the program. The question to be explored would be, "How many of these students have achieved as well as those who qualified and were enrolled in the program?"

It is also recommended that a follow-up study be made of the students now on the program as they enter college to determine the value of the type of acceleration they have received.

BIBLIOGRAPHY

BIBLIOGRAPHICAL ENTRIES

A. BOOKS

- Anastasi, Anne. Psychological Testing. New York: The MacMillan Company, 1954.
- Blanshard, Bland (ed.). Education in the Age of Science. New York: Basic Books, Inc., 1959.
- Buros, Oscar Krisen (ed.). Fifth Mental Measurements Yearbook. Highland Park, N.J.: Gryphon Press, 1959.
- DeHaan, Robert Frank. Accelerated Learning Programs. Washington, D.C.: The Center for Applied Research, Inc., 1963.
- Douglass, Harl R. (ed.). The High School Curriculum. New York: The Ronald Press Co., 1956.
- Ehlers, Henry, and Gordon C. Lee. Crucial Issues in Education - An Anthology. New York: Henry Holt and Co., 1959.
- Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Co., 1959.
- Phillips, E. Lakin, Daniel N. Wiener, and Norris G. Haring. Discipline, Achievement, and Mental Health. Englewood-Cliffs, N.J.: Prentice-Hall, Inc., 1960.

B. PERIODICALS

- Hoggard, J. Kendall. "Grading the Accelerated Student," Education, 83:297-299, January, 1963.
- Passow, A. Harry. "The Maze of the Research on Ability Grouping," The Educational Forum, 26:281-288, March, 1962.
- Rich, John Martin. "Excellence and Its Limitations," Education, 84:501-502, April, 1964.
- The Bulletin of the National Association of Secondary School Principals, XLVII, 287, December, 1963.

C. OTHER PUBLICATIONS

National Education Association. Administration Procedures and School Practices for the Academically Talented Student, Washington, D.C.: National Education Assoc., 1960.

_____. Finding and Educating the Academically Talented Student, Washington, D.C.: National Education Assoc., 1962.

_____. Guidance for the Academically Talented Student, Washington, D.C.: National Education Assoc., 1961.

_____. The Identification and Education of the Academically Talented Student in the American Secondary School, Washington, D.C.: National Education Assoc., 1958.

_____. Summary of Research on the Academically Talented Student. Washington, D.C.: National Education Assoc., 1959.

Standards for the Accrediting of Secondary Schools. Richmond, Va.: State Board of Education, 1960.

D. UNPUBLISHED MATERIALS

Kincaid, Donald. "Some Critical Issues in the Education of Gifted Pupils." Mimeographed copy of a talk April 18, 1960.

Seago, May V. "Learning Characteristics of Gifted Children." Mimeographed copy of a talk October 28, 1959.

Shane, Harold G. "An Annotated List of 36 Grouping Plans." Expansion of a list which originally appeared in Phi Delta Kappan. (Mimeographed.)

"Programs of Study - Placement of Students." Richmond, Va.: John Marshall High School, 1962. (Mimeographed.)

"Report of the Committee on Determining Class Rank." Richmond, Va., Richmond Public Schools, 1962. (Mimeographed.)

"Statement of Policy for Public Schools." Richmond, Va.; State Board of Education, 1961.

APPENDIX

APPENDIX A

**A copy of the letter which was sent to the principals
of the elementary and high schools of Chesterfield County.**

To: Principals
Chesterfield County

From: C. W. Krause
Guidance Coordinator Phone 232-5526
Manchester High School

Re: Study of "Accelerated" program as it now exists in
Chesterfield County, and suggestions for improvement.

May we have your help in a very special project? The undersigned is attempting to gather material for a Master's Thesis, and Dr. Edward F. Overton, Together with Mr. Fred D. Thompson and Mr. W. W. Gordon, have approved the topic.

The purpose of the study is to determine the exact nature of the program as it now exists in Chesterfield County, and to make recommendations for improvement. A summary of the paper will be prepared to send to colleges in this area to give them a better understanding of our program.

You will find enclosed some questionnaires designed to gather the information needed. Attached to each questionnaire is a statement defining the terms being used. All answers should be in terms of the definitions in so far as possible.

In addition to the information requested on the questionnaires, I will need some statistical data on the students who have been and who are now on the program. With your permission, I would like to visit your school and gather this material personally.

If possible, I would like to have the information by May 22. The statistical data required can be gathered after school is out if necessary.

Secondary school principals will received questionnaires for themselves, guidance personnel, teachers who are this year teaching one or more accelerated classes, and students who are now in the program. Elementary principals will receive forms for themselves and their seventh grade teachers. We will not require statistical data on elementary pupils.

Many thanks for your help in this matter.

APPENDIX B

Copies of the questionnaire forms which were sent to students, teachers, principals, and counselors.

STUDENT'S QUESTIONNAIRE

School _____ Grade _____

Looking back over your accelerated school program, what do you think about it? Please answer the questions below.

1. Classwork:

Do you get any enjoyment out of your classes? Yes _____ No _____

Do you feel you are being challenged to do your best work at all times? Yes _____ No _____

Do you sometimes have the feeling of being "pushed" beyond your capacity? Yes _____ No _____

Other comments on classwork below.

2. Homework:

Do you feel that you have too much homework? Yes _____ No _____

Does your homework add to your understanding of the subject? Yes _____ No _____

Is your homework largely a simple repetition of class work? Yes _____ No _____

Does your homework load exclude you from school social activities? Yes _____ No _____

Other comments on homework below.

SEVENTH GRADE TEACHER'S
QUESTIONNAIRE

An attempt is being made to study the accelerated program for gifted students as it now exists in Chesterfield County. As a seventh grade teacher, you have a great responsibility for recommending students for this program. Would you please help us by filling out the questionnaire below?

1. Check all of the bases on which you recommend a student for this program.

- 1. Straight "A" grades _____
- 2. Mixed "A"s and "B"s _____
- 3. Personality - pleasant, cooperative _____
- 4. Potential - "Could do better" _____
- 5. Think he would respond to challenge _____
- 6. High standardized test scores _____
- 7. High standardized test scores even
if grades are low _____
- 8. Other _____

2. Do you talk to a child's previous teachers before making a final recommendation? Yes _____ No _____

3. Do you help the child's parents understand the purpose of the program at the time of recommendation? Yes _____ No _____

4. Do you yourself understand the purpose of the accelerated program as it now exists? Yes _____ No _____

5. Comments or suggestions for improving the method of selection of students for the program. Use space below.

HIGH SCHOOL TEACHER'S
QUESTIONNAIRE

An attempt is being made to study the accelerated program as it now exists in Chesterfield County. We would like to have your frank appraisal in the answers to the questions below. All replies will be kept confidential.

Subject _____ Grade _____

Part 1.

1. Number of pupils in your accelerated class? _____
2. Did you teach this same course last year? Yes _____ No _____
3. Are the textbooks appropriate for the accelerated program? Yes _____ No _____
4. Can you find sufficient supplementary material? Yes _____ No _____
5. Taken as a group, are your accelerated students outstandingly superior to your best non-accelerated students? Yes _____ No _____
6. In your opinion, what per cent of the students in your accelerated class should not have been placed in this group? _____
7. Which title do you feel best describes the present program?
Accelerated _____
Enriched _____
Advanced Placement _____
Other _____
8. Should students be accelerated in all subjects or only in those areas which standardized tests show their greatest strength?
All subjects _____
Limited _____

HIGH SCHOOL TEACHER'S
QUESTIONNAIRE

Part 2.

9. Check the system of grading below which most nearly fits the one you use. (Not for report card purposes)

1. Strict numerical grading from zero to one hundred. _____
2. On the curve so that you will have approximately as many low grades as high grades. _____
3. Tests so difficult that only the best students will make high grades. _____
4. Use all students in all of your classes to determine the curve. _____
5. Tend to make a "B" on the accelerated course equal to an "A" on the regular course. _____

10. Observation of characteristics of accelerated students as a group.

1. Feeling of superiority over average students. _____
No noticeable difference between accelerated and average groups. _____
2. Adjustment to new situations as compared with average students.
Better _____ Same as _____ Poorer _____
3. Motivation to study as compared with average students.
Better _____ Same as _____ Poorer _____
4. Grade-consciousness more apparent in accelerated students than in average students?
More _____ Same as _____ Poorer _____

11. Type of certificate you hold. _____
Degree you now hold. _____
Date of last class you took to maintain or improve your certificate. _____

PRINCIPAL'S QUESTIONNAIRE

Elementary

An attempt is being made to study the accelerated program for gifted students in Chesterfield County. Will you please answer the questions below?

1. Do you feel you understand the accelerated program? Yes ___ No ___
2. Do you have conferences with your seventh grade teachers to help them make the proper selection of students for the program? Yes ___ No ___
3. Do you review the records of the selected students before allowing them to be approached on the subject? Yes ___ No ___
4. Do you discuss the program with the parents of the selected children? Yes ___ No ___
5. Do you have a plan for identifying gifted students below the seventh grade and helping teachers give them more than average attention and help? Yes ___ No ___
6. Would you accept help from the high school guidance personnel in guiding your selection of students for this program? Yes ___ No ___
7. Would you like to see a closer working relationship between the high school counselors and the elementary schools? Yes ___ No ___

On the reverse of this sheet, please give your frank appraisal of the accelerated program as it now exists in Chesterfield County with special reference to the definitions given on the attached sheet. Please list your suggestions for improving the program.

PRINCIPAL'S QUESTIONNAIRE

HIGH SCHOOL

1. Do you feel that you fully understand the accelerated program? Yes ___ No ___
2. Do you have any special in-service training programs for the teachers of accelerated courses? Yes ___ No ___
3. Do you review the records of students before they are scheduled for the accelerated program in the eighth grade? Yes ___ No ___
4. Do you ask for progress reports from teachers and counselors concerning these students? Yes ___ No ___
5. Do you let the parents take the initiative in requesting that a student be removed from the accelerated program? Yes ___ No ___

On the reverse of this sheet, please give your frank appraisal of the accelerated program as it now exists in Chesterfield County with special reference to the definitions given elsewhere. Please list your suggestions for improving the program.

COUNSELOR'S QUESTIONNAIRE

An attempt is being made to study the accelerated program for gifted students as it now exists in Chesterfield County. In your work with these students you have had time to observe the operation of the program and its effect on the students. Your frank appraisal of the program would be very much appreciated.

1. Are you a full- or part-time counselor? Full Part
2. If part-time, have you had any special training in guidance? Yes No
3. Do you follow the progress of your accelerated students? Yes No
4. Do you talk to parents when these students fail to make expected grades? Yes No
5. Do you recommend that students drop from the program when they cannot or will not maintain high grades? Yes No
6. What title would you give to the program as it now exists?
 - a. Accelerated
 - b. Advanced placement
 - c. Enriched
 - d. Other (Specify) _____
7. In the space below, please give your appraisal of the program as it now functions, and any suggestions you would make for improving it.

APPENDIX C

**Form used for gathering statistical data from
students' permanent records.**

Name _____ School _____ Grade _____

California Mental Maturity Test Lang ___ Non-Lang ___ Tot ___

Lorge-Thorndike Lang ___ Non-Lang ___ Tot ___

Differential Aptitude Test %ile Verb ___ Numerical ___ Tot ___

S.C.A.T. 9th grade Verb ___ Numerical ___ Tot ___

S.C.A.T. 11th grade Verb ___ Numerical ___ Tot ___

S.T.E.P. 9th grade

Math ___ Science ___ Soc. St. ___ Reading ___ List ___ Write ___

S.T.E.P. 11th grade

Math ___ Science ___ Soc. St. ___ Reading ___ List ___ Write ___

Grades

8th grade

9th grade

10th grade

Eng. L ___ Gr ___

Eng. L ___ Gr ___

Eng. L ___ Gr ___

Algebra 1 ___

Pl. Geom. ___

Algebra 2 ___

Gen. Sci. ___

Biology ___

Chemistry ___

History ___

Phys. Ed. ___

Phys. Ed. ___

Phys. Ed. ___

11th grade

12th grade

Summer School

Eng. L ___ Gr ___

Eng. L ___ Gr ___

History 3 ___

Government ___

Physics ___

Adv. Sci. ___

Math 4 ___

Adv. Math. ___

APPENDIX D

**List of definitions which accompanied questionnaires
sent to teachers, principals and counselors.**

DEFINITIONS

For the purpose of this paper, definitions of terms as found in Dictionary of Education, Carter V. Good, McGraw-Hill Book Co., Inc., New York, 1959, will be used.

ACCELERATION -

- 1) the process of progressing through the school grades at a rate faster than that of the average child, either by skipping grades or by rapidly mastering the work of one grade and moving on to the next higher grade:
- 2) advancement in mental growth or achievement beyond the average for the individual's chronological age:
- 3) a general term including all administrative practices which result in completing a school program in less than the usual time.

ADVANCED STANDING

The status accorded a student admitted to an educational institution with educational attainment credited to him beyond the minimum required for admission. (Advanced standing usually shortens the time necessary to complete diploma or degree requirements.)

ENRICHMENT

Enriched curriculum - a curriculum planned to take care of individual differences so that pupils of all levels of ability may be stimulated to do their best work.

Enrichment - subject - the act or process of increasing the quality or quantity of the offering in a unit of instruction by the inclusion of pertinent illustrative and related material with the basic subject matter or lesson to be taught.

Enrichment - vertical - The curricular provision for advanced work or further specialization in the same area of learning.

VITA

Charles Willard Krause, son of Elbert L. and Esther H. Krause, was born August 9, 1918, in Windsor, North Carolina. He was graduated from Baltimore City College, Baltimore, Maryland, in 1937, with a combined college preparatory and business certificate. He was graduated from the University of Richmond in 1942 with a Bachelor of Arts Degree. In 1945 he received the Bachelor of Divinity Degree from Colgate-Rochester Divinity School, Rochester, New York.

He served as pastor of the Vesuvius Baptist Church, Vesuvius, Virginia from October, 1945, until March, 1952. In response to a call from the Board of Christian Education, Presbyterian Church in the United States, he accepted the position of Director of the Audio-Visual Aids Department. He served in this position from 1952 until September, 1960, when he was appointed to his present post of Director of Guidance at Manchester High School, Chesterfield County, Virginia.

In 1943 he was married to a Westhampton College graduate, Miss Evelyn L. Allen. A son, Charles Allen Krause, was born on February 9, 1948.