AN ACCELERATED LEARNING PROGRAM IN LA CROSSE, WISCONSIN -- A FOLLOW-UP STUDY

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Abstract

This study was a follow-up of an accelerated learning program in the La Crosse City Public Schools. The purpose was to determine the effect of an accelerated program on subsequent academic achievement, educational and occupational aspirations, extracurricular activities, and leadership positions.

The experimental group in this study consisted of 14 Central High School seniors who were identified in first grade as being intellectually gifted. These students participated in an accelerated learning program which allowed them to complete the content of first, second, and third grades during the first and second grade school years and two summer sessions. They entered fourth grade in September 1962, following the completion of second grade.

Comparisons were made between the experimental group and three control groups. The first control group consisted of six juniors who had been identified as gifted, but who did not participate in the accelerated program. The second control group was 30 randomly chosen seniors and the third was 30 randomly chosen juniors.

Data analyzed were scores on the Henmon-Nelson Tests of Mental Ability, scores on the Iowa Tests of Educational Development, and cumulative grade point average. Additional scores on the original Stanford-Binet Intelligence Scale were available for the accelerated seniors and for the nonaccelerated juniors. A questionnaire was

constructed and administered to the students to obtain information about extracurricular activities and leadership positions, educational and occupational aspirations, attitudes toward school, and educational problems.

Statistical tests on the data showed few differences between the accelerated seniors and the nonaccelerated juniors. Significant differences were found between the Stanford-Binet and Henmon-Nelson scores of the experimental group and the first control group. This may reflect original aptitude differences rather than the effects of the program.

Comparison of the experimental group with the two random sample control groups showed the experimental group to have significantly higher scores on the Henmon-Nelson, cumulative grade point average, and the ITED composite score.

The results of this study indicated that the program caused no measurable differences in academic achievement, but it had no adverse effects on the accelerated students. The program also enabled the students to graduate from high school one year earlier than if they had not been accelerated.

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Chapter I

Introduction and Objectives

Attempts to identify and offer special training to gifted children have long existed. More than 2,300 years ago Plato set about determining ways of identifying those children who had the ability to be trained for leadership of the Greek state. (Henry, 1950, p. 259)

The earliest use of special educational techniques for gifted children in the United States occurred in 1867, when William T. Harris introduced into the public school system of St. Louis, Missouri a flexible promotional system. This system allowed talented students to "accelerate" their pace in school and eliminated the need for them to be slowed down in the traditional educational program. (Henry, 1950, p. 260) Although the trends toward special education for the gifted fluctuated, interest began to increase following World War II. A high point was reached in the 1950's, with the drive to educate superior students being, in large part, a result of United States competition with the Soviet Union. This competition in the fields of science and space exploration followed the launching of the Soviet earth satellite, Sputnik. (DeHaan, 1963, p. 60) Dunlap has stated that education's responsibility to meet the needs of the superior and gifted student is no longer a debatable issue. (Dunlap, 1955)

Definition of Terms

In this paper the term "intellectually gifted students" is used to indicate those students identified as having a mental age of at least two years more than their chronological age and a grade achievement of at least two years more than their grade placement.

The terms "accelerated learning program" and "acceleration" are used interchangeably to indicate an educational method of challenging intellectually gifted students. Generally, acceleration provides additional material to be learned at a more rapid rate which allows the students to complete the thirteen years of public school education in twelve years. A more advanced curriculum and a greater variety of learning opportunities than those usually found in the regular classroom are also included. (Cruickshank and Johnson, 1967, p. 167)

Problem

An accelerated program involves learning at a faster rate. This faster rate of learning causes the participating students to be younger than their classmates. Grade-skipping and the resulting age differences of accelerated and nonaccelerated students must be evaluated if their effects on such variables as achievement, extracurricular activities, leadership roles, and future aspirations of students are to be known. The general objective of this paper is to evaluate the effect of an accelerated learning program in the

primary elementary grades on subsequent academic achievement in high school.

Specific Objectives

This paper satisfies the need for a follow-up study of an accelerated learning program in the La Crosse City Public Schools. In the spring of 1961, a group of first grade students at Hogan Elementary School was identified as being intellectually gifted. This identification process began with the building principal's recommendation and the classroom teacher's evaluation. Group and individual intelligence and achievement tests formed the objective basis for identification. Those students, who had parental permission, participated in an accelerated learning program which allowed them to complete the content material of first, second, and third grades during the first and second grade school years and two summer sessions. This procedure allowed them to advance to the fourth grade in September of 1962 following the completion of second grade. The effects of this acceleration program had not been evaluated prior to this study.

This study compared the accelerated group with three control groups which were appropriately matched for age and grade placement. The specific objectives of the study were:

1. To determine whether a statistically reliable difference existed between the level of academic achievement of the students in the accelerated group and the students in the three control groups.

2. To determine if the group of accelerated students and the students in the control groups had similar educational and occupational aspirations.

3. To determine if the group of accelerated students and the students in the control groups participated in similar extracurricular activities and if they held similar leadership positions.

Chapter II

Review of the Literature

Research on the practice of academic acceleration is both extensive and varied. One of the most ambitious investigations of intellectually gifted individuals was that of Terman (1926) at Stanford University. In 1921, Terman and his colleagues undertook a search to find 500 to 1,000 gifted individuals using age-grade status and intelligence test scores as the criteria for selection. (p. 5) They found that on the basis of age-grade status 85% of the gifted children were accelerated in their school progress. (p. 253) Further investigation showed that the average gifted child between the ages of three and 13 years was accelerated in his achievement. This acceleration was equal to 14% of his age. The amount of acceleration increased with age. This meant that the mean difference between chronological age and mental age in the first grade was 2.8 years while the difference was nearly five years in the fifth grade. (p. 285) The results of this study showed that gifted children did school work of superior quality and that they scored higher in all areas of achievement than did the control groups. (p. 305)

A two year follow-up of the Terman study indicated that those students who had skipped a grade in school showed a less positive attitude toward school than those who had not skipped a grade. It also showed that the group who skipped a grade had improved their ability to apply themselves to school work. (p. 629)

Successive follow-ups of this study (Terman and Ogden, 1947) compared the accelerated students with nonaccelerated students in childhood intelligence, adult intelligence, achievement, mental and social adjustment, age at puberty, and scholastic record in high school. These follow-up studies showed that the accelerated individuals were equal to or superior to the nonaccelerated students in all measures obtained. Although a child's school achievement paralleled his mental age, many of the subjects lacked motivation for school work and failed to develop the qualities necessary to allow their success in college. Terman concluded that since the risk of social and personal maladjustment is not great, academic acceleration is a feasible educational program for many gifted children. (p. 280)

Advantages of Achievement

Some authors have presented arguments opposing acceleration and claiming that it is more harmful than helpful, but the research has demonstrated that accelerated learning programs are a satisfactory way of challenging gifted students. (Goldberg, 1965, p. 41) Proponents of acceleration (Pressey, 1962; Wilson, 1951) claimed that it saves time and allows the gifted to add productive working years to their careers. Pressey argued that acceleration is the best educational program for the gifted because those finishing their education at a young age are more successful. The increased number of educational experiences available with acceleration makes higher scores on measures of intelligence a

possibility. Misfortunes such as lack of subject matter and common understandings, danger to health, and social maladjustment have occurred among accelerated students. These same misfortunes have also occurred among nonaccelerated students.

Additional benefits of acceleration programs were cited by the National Education Association (1960). These advantages included; educational challenges which are equal to the child's ability, completion of school in a shorter time so that they reduce educational costs and increase their productive work during the peak of their creativity, and stimulation of the students to do more work. DeHaan (1963) has stated that other desirable effects of acceleration are; the accelerated students become intrinsically motivated to excel, the students of the regular classroom benefit because they are given an incentive to achieve and much material can be adapted to their educational needs, teachers are challenged, the morale of the school is improved and a tradition of excellence is developed, and the school is able to produce better educated citizens for the community.

Effects on Academic Achievement at the Elementary Level

The effect of acceleration on the child's academic achievement in the school years following the acceleration program has been of great interest to educators. A program in Racine, Wisconsin (Klausmeier and Ripple, 1962) accelerated gifted second grade students into the fourth grade following a five week summer session.

These accelerated students were compared with nonaccelerated students during the fourth grade. The results showed the only negative effect to be relatively lower peer acceptance among the accelerated boys. A follow-up of this program (Klausmeier, 1963) at the end of the fifth grade year showed that in the areas of intellectual and psychomotor skills and in adjustment the accelerants were equal to or had surpassed the students in the control groups of students with average ability and students of superior ability who were younger than the median age for the grade. The accelerants scored significantly lower than superior students who were older than the median age in Word Knowledge, Language Total, and Handwriting Legibility. This appeared to be a temporary situation since the accelerants had not had as much time to develop these particular skills.

Miller (1957) found that of the children she studied who were young for their grade placement 80% of the kindergarten children were average or superior in their reading readiness. The young students in the first grade all had average or superior reading ability. She found that, when tested in the fifth grade 100% of the children who had been admitted to kindergarten at a young age were average or above in academic achievement. The study also showed that 94% of the students in the fifth grade, who were young for that grade due to some other type of acceleration, scored average or above in academic achievement. The young students were ranked high in teacher ratings of maturity.

Effects of Acceleration on Academic Achievement at the Secondary Level

A program in a school system in New York (Rusch and Clark, 1963) which provided enrichment along with acceleration showed that fourth grade students could be ready for ninth grade in three years instead of the usual four years. The Intelligent Quotient of the students selected ranged from 111 to 137 points. At the end of the experiment the group scored as well as or better than the control group matched for age, ability, and achievement and a matched group which was one year older and a year above in achievement in reading and arithmetic.

Achievement of gifted students in New York City who completed junior high school in two rather than three years was found to be significantly higher than nonaccelerated students in mathematics, science, social studies, work-study skills, and creative expression in language arts. (Justman, 1954) Wilkins (1936) reported that high school students who had been accelerated in elementary school achieved more satisfactorily than the average. He found that 28% of the accelerants ranked in the top 20th of the class and that 70% ranked in the top fourth of the class. The accelerated students ranked approximately 20 percentile points above the average in the graduating class.

A program in the Los Angeles City Schools (Mirman, 1962) found that accelerated high school students preferred more intellectually demanding occupations than did the nonaccelerated students. Participation in school activities and ratings in

leadership were similar for the two groups. Little difference was found in reading interests or the types of studies preferred. The accelerated students felt that acceleration generally had not been harmful to them and that it had in many cases been beneficial to them academically.

Summary

The data provided by most of the research on accelerated learning programs leads to the conclusion that accelerated programs are not harmful to gifted students. No conclusive evidence exists to show that acceleration is detrimental to academic achievement. Conversely, many investigators have found that younger students do better scholastically than the older students in the same grade. Acceleration of qualified students appears to be an adequate program for allowing students to gain a maximum educational experience.

Chapter III

Method

Site of the Study

The subjects of this study were students at La Crosse Central High School, a three year public educational institution with an enrollment of 1,600 students. The school provides a curriculum in Industrial Arts, Home Economics, or Business for those students with post-graduation plans which do not include college. It also offers a general college preparatory course in addition to college preparatory courses in the areas of science and mathematics, industrial arts, home economics, and business education.

Subjects

The sample used in this study consisted of 80 juniors and seniors at Central High School. The 46 girls and 34 boys included in the study ranged in age from 16 years, 2 months to 19 years, 4 months. Four groups of subjects were used.

1. The experimental group consisted of 14 students who had been identified as being academically gifted in 1961 when they were in first grade. They participated in a program of academic acceleration which allowed them to complete the second, third, and fourth grades in two academic years and two summer sessions. At the time of this study twelve of these students were seniors and two of them were juniors.

2. The first control group consisted of six students who were identified as gifted in 1961, but who did not participate in the acceleration program. The parents of this group, for various reasons, did not choose for them to be accelerated. This first control group had many of the same characteristics as the experimental group, including the same school entry date into kindergarten, similar mental maturity, as measured by the tests given in 1961, and similar social maturity, as indicated by the classroom teacher and building principal at that time.

3. The second control group consisted of 30 randomly chosen seniors. This group had the same grade placement as the experimental group, but their school entry date was one year earlier.

4. The third control group consisted of 30 randomly chosen juniors. This group, too, had the same school entry date as the experimental group.

Measuring Instruments

In this study, data were collected on five measuring instruments. These were: The Stanford-Binet Intelligence Scale, Form L-M; The Henmon-Nelson Tests of Mental Ability; The Iowa Tests of Educational Development; cumulative grade point average; and a questionnaire completed by the subjects.

1. The Stanford-Binet Intelligence Scale, 1960 Revision, Form L-M: The 1960 Revision of the Stanford-Binet Intelligence

Scale is an incorporation of the most discriminative subtests of the L and M forms of the 1937 Revision.

Standardization subjects for the 1937 scale were 3,184 native-born whites who were equally divided between the sexes at each age level. Item selections included in the 1960 scale were based on a group of 4,498 subjects.

Three sources of validity are present for the 1960 scale. First, items chosen according to mental age on the 1937 scale assures that the same thing is being measured in both scales. Secondly, data indicate that a regular increase in mental age for successive chronological ages exists. Internal consistency is provided for since items were included in the scale on the basis of correlation with the total score. The mean biserial correlation of the subtests of the 1960 scale is .66.

Reliability on Form L-M is high because the biserial correlations between the subtest scores and the total score are high. (Terman, 1962)

The Stanford-Binet Intelligence Scale, for the purposes of this study, was the instrument used in the original identification process of gifted students. Scores on this test were available only for the students identified for the program of acceleration.

2. The Henmon-Nelson Tests of Mental Ability: The Henmon-Nelson Revision is a battery of group tests used to measure aspects of mental ability needed for success in school and in other activities

outside of school. Standardization of the present revision was done on a cross-section of the United States in various geographical regions and in both large and small schools. Content validity was obtained by comparison with other tests of mental ability. Comparison of the Henmon-Nelson Revision with the California Test of Mental Maturity done in a study in Milwaukee, Wisconsin resulted in a correlation coefficient of .750 on I.Q. (Lamke and Nelson, 1957, p 10)

Concurrent validity of the Henmon-Nelson Revision is measured through a correlation with the criterion measures of grades and achievement test scores. In several studies done by the authors the correlation coefficients were high. (Lamke and Nelson, 1957, p. 10)

Composite scores from the Henmon-Nelson Tests of Mental Ability were used in this study to indicate the present ability levels of the groups included.

3. The Iowa Tests of Educational Development (ITED): The ITED is a group test given to measure academic achievement in English, mathematics, natural sciences, and social studies at the secondary level. It was standardized on a sample of 148,590 pupils from 48 states. The authors of this test have not attempted to establish a quantitative measure of validity, but have stated that a common sense evaluation of it is superior. (Science Research Associates, 1949, p. 19)

The reliability coefficient of the eight subtests comprising the composite score is .91 for the students in a single grade of a single school. (SRA, 1949, p. 19) The purpose of including the ITED data was to provide an objective, standardized measure of academic achievement which allowed comparison of the groups in the study.

4. Cumulative Grade Point Average (GPA): The GPA of each student was calculated through the first semester of the 1971-1972 school year. Cumulative GPA was used to compare the academic achievement of the four groups of the study.

The GPA at the end of their junior year was also calculated for the accelerated group. These grade point averages were used to provide a more appropriate comparison of academic achievement between the experimental group and control group 1, the nonaccelerated gifted students.

5. Questionnaire completed by the subjects: A questionnaire with a forced-choice format was devised to collect data from the subjects. (see Appendix A) The questionnaire was divided into three areas including:

a. Information about extracurricular activities which the students had participated in and the leadership positions they had held.

b. Information about the subjects' future educational and occupational aspirations and plans.

c. Information about the students' attitudes toward school and the educational problems which they may have encountered.

The questionnaire was administered to the students in the Guidance Office at Central High School during the fourth week of the second semester of the 1971-1972 school year. Seventy-seven of the 80 students involved in the study responded to the questionnaire. This represented 96% of the total group in the study.

Chapter IV

Results

Comparisons between each pair of groups were made on all measures, except the questionnaire, by computing t tests on the mean scores. This data is shown in Tables 1 through 6.

The only significant differences found between the accelerated seniors and the nonaccelerated juniors (Table 1) were in the Stanford-Binet Intelligence Scale and the Henmon-Nelson Tests of Mental Ability. The experimental group obtained a mean score of 141.79 on the Stanford-Binet and the nonaccelerated group obtained a mean score of 135.17 ($t = 1.834$, $p < .05$). The mean Henmon-Nelson score for the experimental group was 120.43 and for the first control group was 113.80 ($t = -1.755$, $p < .05$). No significant differences were found among the mean scores of subtests of the Iowa Tests of Educational Development or cumulative grade point average for either the senior year or the junior year level.

Scores on the Stanford-Binet and the Henmon-Nelson appeared to have no rank relationship. The Spearman rank order correlation coefficient between the Stanford-Binet scores and the Henmon-Nelson scores of the experimental group combined with the first control group was +.29. The correlation was found to be insignificant ($t = 1.25$, $p > .05$). This suggests that the individuals within these two groups have changed relative positions in measures of

Table 1

Comparison of the Mean Scores of Accelerated Seniors (E) with the Mean Scores of Nonaccelerated Juniors (C-1)

Measure	Mean E	Mean C-1	t Score	Probability
1961 Stanford-Binet	141.79	135.17	1.834	$p < .05$
Henmon-Nelson	120.43	113.80	1.755	$p < .05$
ITED Standard Scores				
Basic Social Concepts	21.00	20.50	0.405	NS
Background in Natural Science	21.21	22.67	-0.047	NS
Correctness in Expression	20.36	19.67	0.499	NS
Quantitative Thinking	20.00	21.33	-0.585	NS
Reading - Social Studies	21.50	19.00	1.205	NS
Reading - Natural Science	23.64	23.50	0.077	NS
Reading - Literature	21.36	19.33	0.919	NS
Reading Average	22.14	20.50	1.098	NS
General Vocabulary	22.64	21.67	0.518	NS
Composite Score	22.93	22.17	0.506	NS
Cumulative Grade Point Average	2.77	2.85	-0.336	NS
Junior Level Grade Point Average	2.78	2.85	-0.323	NS

mental ability from the Stanford-Binet results to the Henmon-Nelson results. For example, the individual who scored highest on the Stanford-Binet ranked twelfth on the Henmon-Nelson.

Measures of mental ability that the students obtained on the Henmon-Nelson appeared to be lower than those obtained on the Stanford-Binet. A correlated means t test comparing the scores indicated that the mean score of the Henmon-Nelson was significantly lower than the mean score of the Stanford-Binet ($t = 10.389$, $p < .001$).

The comparison of the accelerated group and the random sample seniors (Table 2) indicated a significant difference in the mean scores on the Hemon-Nelson Tests of Mental Ability. The mean Henmon-Nelson score for the experimental group was 120.43 and for the second control group it was 106.60 ($t = -3.717$, $p < .05$). The experimental group did score significantly higher than the second control group on several subtests of the Iowa Tests of Educational Development. The mean ITED composite score for the experimental group was 22.93 and 19.43 for the group of random sample seniors ($t = -2.277$, $p < .05$). Cumulative grade point average was also significantly higher for the experimental group when compared to the second control group.

The accelerated group scored significantly higher in all measures than did the random sample juniors (Table 3). The Henmon-Nelson mean score for the experimental group was 120.43 and

Table 2

Comparison of the Mean Scores of Accelerated Seniors (E) with the Mean Scores of Random Sample Seniors (C-2)

Measure	Mean E	Mean C-2	t Score	Probability
Henmon-Nelson	120.43	106.60	3.717	$p < .05$
ITED Standard Scores				
Basic Social Concepts	21.00	18.23	1.858	$p < .05$
Background in Natural Science	21.21	19.53	1.013	NS
Correctness in Expression	20.36	16.37	3.289	$p < .05$
Quantitative Thinking	20.00	17.23	1.552	NS
Reading - Social Studies	21.50	18.77	1.561	NS
Reading - Natural Science	23.64	19.73	2.291	$p < .05$
Reading - Literature	21.36	18.27	1.749	$p < .05$
Reading Average	22.14	18.97	2.056	$p < .05$
General Vocabulary	22.64	18.87	2.686	$p < .05$
Composite Score	22.93	19.43	2.277	$p < .05$
Cumulative Grade Point Average	2.77	2.31	2.754	$p < .05$

Table 3

Comparison of the Mean Scores of Accelerated Seniors (E) with the Mean Scores of Random Sample Juniors (C-3)

Measure	Mean E	Mean C-3	t Score	Probability
Henmon-Nelson	120.43	104.37	5.743	$p < .05$
ITED Standard Scores				
Basic Social Concepts	21.00	16.30	3.069	$p < .05$
Background in Natural Science	21.21	16.67	2.414	$p < .05$
Correctness in Expression	20.36	15.83	3.900	$p < .05$
Quantitative Thinking	20.00	15.70	2.317	$p < .05$
Reading - Social Studies	21.50	16.10	3.170	$p < .05$
Reading - Natural Science	23.64	18.00	3.336	$p < .05$
Reading - Literature	21.36	15.40	3.673	$p < .05$
Reading Average	22.14	16.50	3.815	$p < .05$
General Vocabulary	22.64	18.10	3.019	$p < .05$
Composite Score	22.93	17.33	3.744	$p < .05$
Cumulative Grade Point Average	2.77	2.29	2.774	$p < .05$

for the third control group 104.37 ($t = -5.743$, $p < .05$). In achievement, the mean composite score on the ITED was 22.93 for the experimental group and 17.33 for the group of random sample juniors ($t = -3.774$, $p < .05$). Cumulative grade point average for the experimental group was 2.77 and for the third control group it was 2.29 ($t = -2.774$, $p < .05$).

Comparison of the nonaccelerated juniors with the random sample seniors (Table 4) showed a significant difference in cumulative grade point averages. The mean cumulative GPA of the first group was 2.85 and for the second group it was 2.31 ($t = 2.413$, $p < .05$).

The mean Henmon-Nelson score of the nonaccelerated juniors was significantly higher than that of the random sample juniors. The mean scores on that test were 113.80 for the nonaccelerated juniors and 104.37 for the random sample juniors ($t = -2.314$, $p < .05$). Several of the mean ITED subtest scores (Table 5) of the first control group were significantly higher than those of the third control group. Mean cumulative grade point average of the nonaccelerated juniors was 2.85 and of the random sample juniors was 2.29 ($t = 2.373$, $p < .05$).

Few significant differences were found between the random sample seniors and the random sample juniors (Table 6).

A general tabulation of the responses to each item on the questionnaire was made. Chi square analysis of this data was done

Table 4

Comparison of the Mean Scores of Nonaccelerated Juniors (C-1) with the Mean Scores of Random Sample Seniors (C-2)

Measure	Mean C-1	Mean C-2	t Score	Probability
Henmon-Nelson	113.80	106.60	1.300	NS
ITED Standard Scores				
Basic Social Concepts	20.50	18.23	1.024	NS
Background in Natural Science	22.67	19.53	1.108	NS
Correctness in Expression	19.67	16.37	1.249	NS
Quantitative Thinking	21.33	17.23	1.737	$p < .05$
Reading - Social Studies	19.00	18.77	0.096	NS
Reading - Natural Science	23.50	19.73	1.498	NS
Reading - Literature	19.33	18.27	0.389	NS
Reading Average	20.50	18.97	0.675	NS
General Vocabulary	21.67	18.87	1.374	NS
Composite Score	22.17	19.43	1.189	NS
Cumulative Grade Point Average	2.85	2.31	2.413	$p < .05$

Table 5

Comparison of the Mean Scores of Nonaccelerated Juniors (C-1) with the Mean Scores of Random Sample Juniors (C-3)

Measure	Mean C-1	Mean C-3	t Score	Probability
Henmon-Nelson	113.80	104.37	2.314	$p < .05$
ITED Standard Scores				
Basic Social Concepts	20.50	16.30	1.842	$p < .05$
Background in Natural Science	22.67	16.67	2.005	$p < .05$
Correctness in Expression	19.67	15.83	1.534	NS
Quantitative Thinking	21.33	15.70	2.263	$p < .05$
Reading - Social Studies	19.00	16.10	1.227	NS
Reading - Natural Science	23.50	18.00	2.207	$p < .05$
Reading - Literature	19.33	15.40	1.559	NS
Reading Average	20.50	16.50	1.845	$p < .05$
General Vocabulary	21.67	18.10	1.622	NS
Composite Score	22.17	17.33	2.162	$p < .05$
Cumulative Grade Point Average	2.85	2.29	2.373	$p < .05$

Table 6

Comparison of the Mean Scores of Random Sample Seniors (C-2) with the Mean Scores of Random Sample Juniors (C-3)

Measure	Mean C-2	Mean C-3	t Score	Probability
Henmon-Nelson	106.60	104.37	0.770	NS
ITED Standard Scores				
Basic Social Concepts	18.23	16.30	1.401	NS
Background in Natural Science	19.53	16.67	1.855	$p < .05$
Correctness in Expression	16.37	15.83	0.507	NS
Quantitative Thinking	17.23	15.70	1.029	NS
Reading - Social Studies	18.77	16.10	1.815	$p < .05$
Reading - Natural Science	19.73	18.00	1.154	NS
Reading - Literature	18.27	15.40	1.906	$p < .05$
Reading Average	18.97	16.50	1.827	$p < .05$
General Vocabulary	18.87	18.10	0.616	NS
Composite Score	19.43	17.33	1.538	NS
Cumulative Grade Point Average	2.31	2.29	0.191	NS

to determine which responses of each group were significantly different from those of the other groups. Where chi square (χ^2) is reported in this paper, probability in each case is less than .05.

The groups responded differently from one another on only a few questions. Question six indicated that the members of the accelerated group and the nonaccelerated juniors participated more often in activities such as athletics and clubs than did the random sample juniors. Chi square values for these comparisons were 14.812 and 9.387 respectively. The nonaccelerated juniors also participated in musical, dramatic, and publication activities more often than the random sample juniors (Question seven; $\chi^2 = 4.371$). Significantly more random sample juniors than nonaccelerated juniors expressed the desire to have participated in extracurricular activities if they had not participated (Question eleven; $\chi^2 = 19.465$). The random sample juniors also expressed this desire more often than the random sample seniors (Question eleven; $\chi^2 = 10.730$).

Educational plans of the experimental group and the first control group, as indicated in question twelve, included a bachelor's degree or master's degree more often than did the plans of the random sample juniors. Chi square values for these two comparisons were 15.747 and 10.849 respectively. More of the experimental group than random sample juniors indicated that a secondary level teacher

had the most influence on their choice of post high school plans (Question sixteen; $\chi^2 = 16.042$). A secondary level teacher had more influence on the post high school plans of the random sample seniors than the plans of the random sample juniors (Question sixteen; $\chi^2 = 36.050$). Question twenty-two which asked the students to rate the difficulty of their high school education showed that more of the experimental group than of the random sample juniors stated it was "a little too easy" ($\chi^2 = 8.515$).

No differences were found in other questions, but some interesting patterns were observed. None of the members of the experimental or first control group indicated that they had participated most often in organizations for scholarship, but one individual in each of the random sample groups indicated this (Question six). No one, in either the experimental or first control group, had held a class office in high school (Question ten).

The response of 50% of the accelerated students to question thirty-one was that the ideal age to graduate from high school is eighteen years of age. Fifty per cent of this same group stated in question thirty-three that age was the personal characteristic least helpful to them. Only one-fourth of the random sample seniors stated this.

Approximately half of the members of each of the groups indicated that they had been successful in the past and had accomplished what they wanted (Question thirty-five). The majority

of the students in each group indicated in question thirty-six that they looked forward to the future with optimism.

Question thirty-seven reflected the students' attitudes about their acceleration. Fifty per cent stated it had been helpful and 21% indicated it had been harmful to them. None of them had ever repeated a subject in high school (Question thirty-nine), but two of them had repeated a grade in elementary school or high school (Question thirty-eight).

Chapter V

Summary and Conclusions

The results of this study showed that the scores on the Henmon-Nelson Tests of Mental Ability were significantly higher for the accelerated students than for the nonaccelerated students who were originally identified for the program. However, this was also true for the scores on the Stanford-Binet Intelligence Scale used in the original identification. This may indicate that the difference in ability, as measured by the Henmon-Nelson was not due to the influence of the acceleration program. The assumption made at the outset of this study was that the two groups who were originally identified were similar in aptitude. However, analysis of the data suggested the differences in later ability scores may be due to aptitude differences in the original groups.

A rank order correlation of Stanford-Binet and Henmon-Nelson scores indicated a very low relationship ($r_s = .29$). Considerable shifting of relative positions within the groups took place in the ten to eleven years between the administration of the Stanford-Binet and the administration of the Henmon-Nelson. This may have been a result of the two different types of administration procedures involved in the two tests. It may also have been a reflection of varying degrees of maturity among students at the time of identification. A need exists for a closer look at the identification procedures employed in a program for gifted children.

These results indicate the necessity for a careful evaluation of the gifted child's reading ability in both vocabulary and comprehension skills. Another requirement of a program for the gifted is continuous monitoring throughout the elementary and secondary levels so that the progress of the students can be determined. An empirical evaluation at the conclusion of the program is imperative.

The Stanford-Binet scores were found to be significantly higher than the Henmon-Nelson scores when compared for the experimental group alone and for the experimental group and the nonaccelerated group combined. The Henmon-Nelson is a group test which relies heavily on the reading skills of the individual. This possibly caused some of the students to score lower on the Henmon-Nelson than they would have scored on an individually administered test. Another explanation might be that the high ceiling possible and the relatively small range of scores on the Stanford-Binet did not allow for an adequate comparison.

In 1961, approximately 50% of the first grade students at Hogan School were found to have an I.Q. of 130 or more on the Stanford-Binet. This is a high percentage when compared to the normal distribution of the ability of the general population. This high percentage of gifted among the first grade population at Hogan School may have been, in part, a result of the identification procedure. That is, the children were recommended to the examiner

by the teacher and principal for possible placement in the acceleration program. This may have caused the examiner and others involved in the identification to perceive these students as being especially intelligent. A final explanation of the discrepancies between the Stanford-Binet and the Henmon-Nelson scores may be the Stanford-Binet's predictive validity at young ages. The Stanford-Binet was administered to the students when they were six or seven years of age. If these students had been given the Stanford-Binet at a later age the scores might have correlated better with the Henmon-Nelson scores obtained in high school.

Standardized data on academic achievement indicated that no significant differences existed between the accelerated students and the nonaccelerated students. No difference in cumulative grade point average was found using both the senior year and junior year level GPA for the accelerated group and comparing them to the junior level GPA for the nonaccelerated group. The lack of difference in achievement, especially since the accelerated group had significantly higher ability at the beginning of the program, indicated that the acceleration program had not provided the necessary elements to cause greater achievement. The program's desired effect of increasing achievement, which should have been reflected by ITED scores and cumulative GPA, was not demonstrated in these results. The question might be asked, "Is acceleration without special enrichment materials and/or other educational

treatment adequate to bring about a higher level of achievement?" The evidence suggests that without additional activities the only benefit of acceleration is graduation from high school one year earlier.

The members of the experimental group and the first control group did not respond in significantly different ways to any of the questions on the questionnaire. This implies that the program of acceleration did not greatly affect participation in activities, leadership, aspirations for the future, or attitudes toward school.

When compared to the groups of random sample seniors and random sample juniors the accelerated students scored significantly higher on the Henmon-Nelson. This suggests that the accelerated students had greater than average ability at the outset and achieved accordingly. The ITED scores and cumulative GPA indicated that the accelerated students, as expected, achieved at a higher than average level. Responses to the questionnaire showed that the accelerated students were more similar to the random sample seniors than to the random sample juniors. This suggested that their responses were influenced more by their grade and present situation than by their age.

The nonaccelerated students did not score significantly higher than the random sample seniors on the Henmon-Nelson. Small differences existed between the ITED scores of these two groups,

but the nonaccelerated group had a significantly higher mean cumulative GPA than the random sample seniors. More difficult courses at the senior level and the influence of dissimilar outside interests and activities may have been reflected in this difference. No significant differences were found between the two groups on the items of the questionnaire.

The nonaccelerated juniors scored significantly higher than the random sample juniors in all areas measured except four subtests of the ITED. This showed that these nonaccelerated students had greater than average ability and achieved at a higher than average level. Based on responses to the questionnaire the nonaccelerated group had significantly higher aspirations for future education. This was not unexpected because the ability, as identified in 1961, and achievement of the nonaccelerated group were higher.

The two random sample groups were similar in measures of ability and achievement. Only a few of the ITED subtests showed that the seniors scored significantly higher than the juniors. These results indicated that a random sample group of juniors and a random sample group of seniors were very much alike in ability and achievement. The responses to question eleven showed that more random sample juniors than random sample seniors wished they had participated in extracurricular activities. Question sixteen indicated that a secondary level teacher had influenced the post high school plans of significantly more seniors than juniors.

In summary, the results of this study indicate that the experimental group was not different from the nonaccelerated group following the acceleration program. Based on the measures of ability, perhaps some of the accelerated students should have remained in the regular program. Collection of additional information in the first grade, such as reading ability and maturity, might have made the identification process more complete.

This study did not show any harmful effects on the students as a result of acceleration. However, three of the students claimed, on question thirty-seven, that acceleration had been harmful to them. The results support the findings of Wilkins (1936) that high school students who were accelerated in elementary school achieved at a higher level than average students. Mirman's (1962) conclusions that participation in school activities and leadership were similar for accelerated and nonaccelerated students are also supported. The majority of the subjects of this study and Mirman's study similarly responded that acceleration had not been harmful to them and often helped them. Therefore, with modifications in the identification procedures and the academic methods employed, this type of acceleration appears to be an applicable educational technique for gifted students.

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Appendixes

Appendix A

Answer each question below as it applies to you and your educational experiences and plans. Choose only the one most appropriate response to each question. Use a pencil and be sure to make your marks heavy and black. Erase completely any answers you wish to change.

1. Boys only respond. Have you ever been a member of a varsity basketball, football, wrestling, or baseball team?
   a) yes
   b) no

2. Boys only respond. In how many of the above listed varsity sports have you participated?
   a) 1
   b) 2
   c) 3
   d) 4

3. Boys only respond. Have you ever been a member of a varsity golf, tennis, track, or cross country team?
   a) yes
   b) no

4. Boys only respond. In how many of the above listed varsity sports have you participated?
   a) 1
   b) 2
   c) 3
   d) 4

5. Girls only respond. If you have ever been on an extramural athletic team, in which sport have you participated?
   a) skiing
   b) gymnastics
   c) track

6. In which type of club or organization have you participated most during high school?
   a) athletic (varsity, intra, or extra mural)
   b) school subject (Art, French, History, Spanish, etc.)
   c) scholarship (National Honor Society)
   d) recreation or hobby (Booster Club, debate, forensics, chess, etc.)
   e) none

7. In which type of extracurricular activity have you participated most during high school?
   a) musical (Swing Choir, Concert Band, Marching Band, etc.)
   b) student government
   c) school or community service (Big Brother-Sister, office page, etc.)
   d) dramatics or school publications (High Tribune, The Booster, etc.)
   e) none

8. How many different clubs and organizations have you belonged to?
   a) 1
   b) 2 or 3
   c) 4 or 5
   d) more than 5
   e) none

9. How many clubs or organizations have you held offices in?
   a) 1
   b) 2 or 3
   c) 4 or 5
   d) more than 5
   e) none

10. Have you ever held a class office in high school?
   a) yes
   b) no

11. If you did not participate in athletic or extracurricular activities, do you wish you had?
   a) yes
   b) no
   c) not sure

12. What are your educational plans for the future?
   a) Bachelor's degree
   b) Master's degree
   c) vocational or technical school
   d) nursing or business school
   e) no further schooling

13. Where is the institution you plan to attend located?
   a) in La Crosse
   b) in Wisconsin
   c) out of Wisconsin, less than 100 miles from La Crosse
   d) out of Wisconsin, more than 100 miles from La Crosse
   e) don't know

14. How many students are enrolled in the institution you plan to attend?
    a) less than 1,000
    b) 1,000 - 5,000
    c) 5,000 - 10,000
    d) more than 10,000

15. What type of occupation would you like to have?
    a) professional or skilled
    b) sales or service
    c) office or clerical
    d) production line
    e) other

16. Which person in school has had the most influence on your choice of post high school plans?
    a) elementary teacher
    b) secondary teacher
    c) counselor
    d) friend
    e) other

17. Which person outside of school has had the most influence on your choice of post high school plans?
    a) father
    b) mother
    c) employer
    d) clergy
    e) other friend or relative

18. How much money do you think you will be earning per year in five years? (or your spouse)
    a) 0 - $3,000
    b) $3,000 - $6,000
    c) $6,000 - $9,000
    d) $9,000 - $12,000
    e) more than $12,000

19. If you plan to go to college, what field will you specialize in?
    a) preprofessional (law, dentistry, medicine, etc.)
    b) business administration
    c) engineering or sciences
    d) teaching or nursing
    e) humanities (art, literature, music, philosophy)

27. What educational problem have you experienced in school? (Choose one)
    a) unsatisfactory teacher attitude
    b) need for more and better counseling
    c) lower marks than deserved
    d) need for more individual and special group activities
    e) no problem

28. What phase of your education has been most meaningful to you?
    a) classes
    b) extracurricular, athletic, and social activities
    c) relationships with fellow classmates
    d) adult relationships (teachers, counselors, coaches, etc.)
    e) knowledge of my own character and intellectual abilities

29. What phase of your education has been least meaningful to you?
    a) classes
    b) extracurricular, athletic, and social activities
    c) relationships with fellow classmates
    d) adult relationships (teachers, counselors, coaches, etc.)
    e) knowledge of my own character and intellectual abilities

30. Are you satisfied with your social life in school?
    a) yes
    b) no

31. What is the ideal age at which to graduate from high school?
    a) 16 years
    b) $16\frac{1}{2}$ years
    c) 17 years
    d) $17\frac{1}{2}$ years
    e) 18 years

32. What personal characteristic has been most helpful to you?
    a) age
    b) height or weight
    c) personal appearance
    d) personality
    e) a and b above

33. What personal characteristic has been least helpful to you?
    a) age
    b) height or weight
    c) personal appearance
    d) personality
    e) a and b above

34. Did you ever seriously consider dropping out of school?
    a) yes
    b) no

35. Looking back, do you believe you have been successful and have accomplished the things you wanted to?
    a) yes
    b) no

36. Looking toward the future, do you believe things will work out for you?
    a) yes
    b) no

37. Have you ever skipped a grade in school?
    a) yes - it was helpful to me
    b) yes - it didn't help me
    c) yes - it was harmful to me
    d) no

38. Have you ever been held back a grade in school?
    a) yes - it was helpful to me
    b) yes - it didn't help me
    c) yes - it was harmful to me
    d) no

39. Have you ever repeated a subject in high school?
    a) yes - it was helpful to me
    b) yes - it didn't help me
    c) yes - it was harmful to me
    d) no

Appendix B

Questionnaire Responses

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
1. Boys only respond. Have you ever been a member of a varsity basketball, football, wrestling, or baseball team?								
a) yes	2	14.2	0	0.0	5	17.8	5	17.2
b) no	2	14.2	2	13.3	11	39.2	6	20.6
No Response	10	71.4	4	66.6	12	42.8	18	62.0
2. Boys only respond. In how many of the above listed varsity sports have you participated?								
a) 1	1	7.1	1	16.6	5	17.8	3	10.3
b) 2	0	0.0	0	0.0	1	3.5	3	10.3
c) 3	0	0.0	0	0.0	1	3.5	0	0.0
d) 4	1	7.1	1	16.6	0	0.0	0	0.0
No Response	12	85.7	4	66.6	21	75.0	23	79.3
3. Boys only respond. Have you ever been a member of a varsity golf, tennis, track, or cross country team?								
a) yes	2	14.2	0	0.0	2	7.1	3	10.3
b) no	2	14.2	2	33.3	14	50.0	7	24.1
No Response	10	71.4	4	66.6	12	42.8	19	65.5

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
4. Boys only respond. In how many of the above listed varsity sports have you participated?								
a) 1	0	0.0	1	16.6	3	10.7	5	17.2
b) 2	1	7.1	1	16.6	1	3.5	0	0.0
c) 3	0	0.0	0	0.0	0	0.0	0	0.0
d) 4	0	0.0	0	0.0	0	0.0	0	0.0
No Response	13	92.8	4	66.6	24	85.7	24	82.7
5. Girls only respond. If you have ever been on an extramural athletic team, in which sport have you participated?								
a) skiing	0	0.0	0	0.0	2	7.1	0	0.0
b) gymnastics	1	7.1	2	33.3	2	7.1	3	10.3
c) track	1	7.1	0	0.0	1	3.5	3	10.3
No Response	12	85.7	4	66.6	23	82.0	23	79.2

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
6. In which type of club or organization have you participated most during high school?								
a) athletic (varsity, intra, or extra mural)	4	28.5	2	33.3	8	28.5	6	20.6
b) school subject (Art, French, History, Spanish, etc.)	4	28.5	0	0.0	2	7.1	3	10.3
c) scholarship (National Honor Society)	0	0.0	0	0.0	1	3.5	1	3.4
d) recreation or hobby (Booster Club, debate, forensics, chess, etc.)	5	35.7	3	50.0	7	25.0	1	3.4
e) none	1	7.1	1	16.6	6	21.4	16	55.1
No Response	0	0.0	0	0.0	4	14.2	2	6.8

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
7. In which type of extracurricular activity have you participated most during high school?								
a) musical (Swing Choir, Concert Band, Marching Band, etc.)	7	50.0	3	50.0	7	25.0	10	34.4
b) student government	1	7.1	0	0.0	5	17.8	1	3.4
c) school or community service (Big Brother-Sister, office page, etc.)	1	7.1	0	0.0	1	3.5	2	6.8
d) dramatics or school publications (High Tribune, The Booster, etc.)	2	14.2	2	33.3	3	10.7	0	0.0
e) none	3	21.4	1	16.6	10	35.7	15	51.7
No Response	0	0.0	0	0.0	2	7.1	1	3.4
8. How many different clubs and organizations have you belonged to?								
a) 1	1	7.1	1	16.6	3	10.7	6	20.6
b) 2 or 3	9	64.2	2	33.3	8	28.5	9	31.0
c) 4 or 5	2	14.2	2	33.3	2	7.1	3	10.3
d) more than 5	1	7.1	1	16.6	6	21.4	3	10.3
e) none	1	7.1	0	0.0	8	28.5	8	27.5
No Response	0	0.0	0	0.0	1	3.5	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
9. How many clubs or organizations have you held offices in?								
a) 1	3	21.4	1	16.6	5	17.8	8	27.5
b) 2 or 3	1	7.1	1	16.6	4	14.2	2	6.8
c) 4 or 5	0	0.0	0	0.0	0	0.0	0	0.0
d) more than 5	0	0.0	0	0.0	0	0.0	0	0.0
e) none	10	71.4	4	66.6	17	60.7	19	65.5
No Response	0	0.0	0	0.0	2	7.1	0	0.0
10. Have you ever held a class office in high school?								
a) yes	0	0.0	0	0.0	3	10.7	2	6.8
b) no	14	100.0	6	100.0	24	85.7	25	86.2
No Response	0	0.0	0	0.0	1	3.5	2	6.8
11. If you did not participate in athletic or extracurricular activities, do you wish you had?								
a) yes	3	21.4	1	16.6	4	14.2	14	48.2
b) no	0	0.0	0	0.0	7	25.0	1	3.4
c) not sure	2	14.2	0	0.0	8	28.5	5	17.2
No Response	9	64.2	5	83.3	9	32.1	9	27.5

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
12. What are your educational plans for the future?								
a) Bachelor's degree	9	64.2	2	33.3	7	25.0	5	17.2
b) Master's degree	3	21.4	2	33.3	6	21.4	1	3.4
c) vocational or technical school	2	14.2	0	0.0	8	28.5	12	41.3
d) nursing or business school	0	0.0	2	33.3	3	10.7	3	10.3
e) no further schooling	0	0.0	0	0.0	3	10.7	6	20.6
No Response	0	0.0	0	0.0	1	3.5	2	6.8
13. Where is the institution you plan to attend located?								
a) in La Crosse	8	57.1	2	33.3	18	64.2	10	34.4
b) in Wisconsin	2	14.2	1	16.6	4	14.2	6	20.6
c) out of Wisconsin, less than 100 miles from La Crosse	0	0.0	0	0.0	0	0.0	0	0.0
d) out of Wisconsin, more than 100 miles from La Crosse	2	14.2	1	16.6	2	7.1	4	13.7
e) don't know	2	14.2	2	33.3	1	3.5	6	20.6
No Response	0	0.0	0	0.0	3	10.7	3	10.3

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
14. How many students are enrolled in the institution you plan to attend?								
a) less than 1,000	2	14.2	0	0.0	0	0.0	3	10.3
b) 1,000 - 5,000	4	28.5	0	0.0	11	39.2	7	24.1
c) 5,000 - 10,000	5	35.7	1	16.6	8	28.5	7	24.1
d) more than 10,000	2	14.2	3	50.0	3	10.7	3	10.3
No Response	1	7.1	2	33.3	6	21.4	9	30.9
15. What type of occupation would you like to have?								
a) professional or skilled	12	85.7	6	100.0	16	57.1	13	44.8
b) sales or service	0	0.0	0	0.0	3	10.7	3	10.3
c) office or clerical	0	0.0	0	0.0	3	10.7	6	20.6
d) production line	0	0.0	0	0.0	0	0.0	0	0.0
e) other	2	14.2	0	0.0	5	17.8	7	24.1
No Response	0	0.0	0	0.0	1	3.5	0	0.0
16. Which person in school has had the most influence on your choice of post high school plans?								
a) elementary teacher	0	0.0	0	0.0	1	3.5	1	3.4
b) secondary teacher	8	57.1	1	16.6	8	28.5	2	6.8
c) counselor	0	0.0	1	16.6	6	21.4	5	17.2
d) friend	1	7.1	1	16.6	4	14.2	8	27.5
e) other	4	28.5	3	50.0	9	32.1	13	44.8
No Response	1	7.1	0	0.0	0	0.0	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
17. Which person outside of school has had the most influence on your choice of post high school plans?								
a) father	3	21.4	2	33.3	6	21.4	6	20.6
b) mother	2	14.2	2	33.3	7	25.0	8	27.5
c) employer	1	7.1	0	0.0	1	3.5	1	3.4
d) clergy	0	0.0	0	0.0	0	0.0	0	0.0
e) other friend or relative	6	42.8	2	33.3	11	39.2	13	44.8
No Response	2	14.2	0	0.0	3	10.7	1	3.4
18. How much money do you think you will be earning per year in five years? (or your spouse)								
a) 0 - $3,000	2	14.2	0	0.0	1	3.5	7	24.1
b) $3,000 - $6,000	2	14.2	1	16.6	8	28.5	6	20.6
c) $6,000 - $9,000	6	42.8	1	16.6	12	42.8	4	13.7
d) $9,000 - $12,000	2	14.2	2	33.3	4	14.2	7	24.1
e) more than $12,000	2	14.2	1	16.6	2	7.1	1	3.4
No Response	0	0.0	1	16.6	1	3.5	4	13.7

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
19. If you plan to go to college, what field will you specialize in?								
a) preprofessional (law, dentistry, medicine, etc.)	6	42.8	3	50.0	5	17.8	6	20.6
b) business administration	0	0.0	0	0.0	4	14.2	4	13.7
c) engineering or sciences	2	14.2	1	16.6	5	17.8	4	13.7
d) teaching or nursing	1	7.1	1	16.6	5	17.8	5	17.2
e) humanities (art, literature, music, philosophy)	3	21.4	1	16.6	1	3.5	2	6.8
No Response	2	14.2	0	0.0	8	28.5	8	27.5
20. On which high school subject have you concentrated?								
a) vocational or business education	1	7.1	0	0.0	6	21.4	9	31.0
b) music or art	1	7.1	2	33.3	3	10.7	2	6.8
c) English or foreign language	3	21.4	0	0.0	2	7.1	6	20.6
d) mathematics or science	7	50.0	3	50.0	9	32.1	7	24.1
e) social studies	2	14.2	1	16.6	4	14.2	2	6.8
No Response	0	0.0	0	0.0	4	14.2	3	10.3

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
21. How would you rate the usefulness of your high school education?								
a) very useful - directly helpful for my future plans	4	28.5	2	33.3	9	32.1	11	37.9
b) moderately useful - has some relevance to my future plans	9	64.2	3	50.0	13	46.4	14	48.2
c) little use - I got little out of it	1	7.1	1	16.6	4	14.2	1	3.4
d) waste of time - of no use to me	0	0.0	0	0.0	2	7.1	3	10.3
No Response	0	0.0	0	0.0	0	0.0	0	0.0
22. How would you rate the difficulty of your high school education?								
a) too little substance - too easy	1	7.1	0	0.0	1	3.5	0	0.0
b) a little too easy	5	35.7	1	16.6	5	17.8	2	6.8
c) about right	7	50.0	5	83.3	17	60.7	22	75.8
d) a little too difficult	1	7.1	0	0.0	4	14.2	5	17.2
e) too difficult, too much work	0	0.0	0	0.0	0	0.0	0	0.0
No Response	0	0.0	0	0.0	1	3.5	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
23. What change would you make in your high school experiences?								
a) no change needed	0	0.0	0	0.0	4	14.2	8	27.5
b) curriculum (courses offered)	5	35.7	3	50.0	15	53.5	10	34.4
c) people on the faculty	3	21.4	2	33.3	1	3.5	3	10.3
d) social, extracurricular, athletic activities	2	14.2	0	0.0	4	14.2	6	20.6
e) administration and procedures and rules	4	28.5	1	16.6	4	14.2	2	6.8
No Response	0	0.0	0	0.0	0	0.0	0	0.0
24. Do you believe that the faculty at Central High School should be more involved with the students?								
a) yes	11	78.5	6	100.0	16	57.1	16	55.1
b) no	3	21.4	0	0.0	12	42.8	13	44.8
No Response	0	0.0	0	0.0	0	0.0	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
25. How much should students participate in academic planning? (Choose one)								
a) attend class and complete assignments	0	0.0	1	16.6	4	14.2	7	24.1
b) help plan subject content	4	28.5	1	16.6	4	14.2	7	24.1
c) have some responsibility for teaching subjects	1	7.1	0	0.0	3	10.7	0	0.0
d) have some responsibility for planning the curriculum and graduation requirements	5	35.7	2	33.3	11	39.2	13	44.8
e) initiate individual projects and activities	4	28.5	2	33.3	4	14.2	2	6.8
No Response	0	0.0	0	0.0	2	7.1	0	0.0
26. Of what value has your education been to you? (Choose the one that best applies to you)								
a) increased knowledge and aided in learning	5	35.7	3	50.0	15	53.5	13	44.8
b) personal improvement in social relationships	3	21.4	3	50.0	4	14.2	6	20.6
c) improved work and study habits	0	0.0	0	0.0	1	3.5	1	3.4
d) increased interest in learning	6	42.8	0	0.0	3	10.7	7	24.1
e) has not influenced my development	0	0.0	0	0.0	3	10.7	2	6.8
No Response	0	0.0	0	0.0	2	7.1	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
27. What educational problem have you experienced in school?								
a) unsatisfactory teacher attitude	5	35.7	2	33.3	10	35.7	5	17.2
b) need for more and better counseling	1	7.1	1	16.6	2	7.1	1	3.4
c) lower marks than deserved	0	0.0	0	0.0	8	28.5	3	10.3
d) need for more individual and special group activities	5	35.7	0	0.0	2	7.1	8	27.5
e) no problem	3	21.4	3	50.0	6	21.4	10	34.4
No Response	0	0.0	0	0.0	0	0.0	2	6.8
28. What phase of your education has been most meaningful to you?								
a) classes	2	14.2	0	0.0	2	7.1	3	10.3
b) extracurricular, athletic, and social activities	2	14.2	1	16.6	8	28.5	3	10.3
c) relationships with fellow classmates	4	28.5	2	33.3	7	25.0	10	34.4
d) adult relationships (teachers, counselors, coaches, etc.)	1	7.1	0	0.0	3	10.7	2	6.8
e) knowledge of my own character and intellectual abilities	5	35.7	3	50.0	8	28.5	9	31.0
No Response	0	0.0	0	0.0	0	0.0	2	6.8

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
29. What phase of your education has been least meaningful to you?								
a) classes	4	28.5	1	16.6	4	14.2	3	10.3
b) extracurricular, athletic, and social activities	5	35.7	1	16.6	8	28.5	12	41.3
c) relationships with fellow classmates	0	0.0	1	16.6	4	14.2	0	0.0
d) adult relationships (teachers, counselors, coaches, etc.)	4	28.5	3	50.0	8	28.5	10	34.4
e) knowledge of my own character and intellectual abilities	1	7.1	0	0.0	3	10.7	1	3.4
No Response	0	0.0	0	0.0	1	3.5	3	10.3
30. Are you satisfied with your social life in school?								
a) yes	9	64.2	4	66.6	19	67.8	22	75.8
b) no	5	35.7	2	33.3	9	32.1	7	24.1
No Response	0	0.0	0	0.0	0	0.0	0	0.0
31. What is the ideal age at which to graduate from high school?								
a) 16 years	1	7.1	0	0.0	1	3.5	0	0.0
b) 16½ years	0	0.0	0	0.0	1	3.5	0	0.0
c) 17 years	3	21.4	0	0.0	5	17.8	7	24.1
d) 17½ years	3	21.4	2	33.3	6	21.4	15	51.7
e) 18 years	7	50.0	4	66.6	15	53.5	7	24.1
No Response	0	0.0	0	0.0	0	0.0	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
32. What personal characteristic has been most helpful to you?								
a) age	0	0.0	0	0.0	4	14.2	1	3.4
b) height or weight	2	14.2	0	0.0	2	7.1	2	6.8
c) personal appearance	2	14.2	1	16.6	6	21.4	10	34.4
d) personality	8	57.1	5	83.3	15	53.5	14	58.2
e) a and b above	1	7.1	0	0.0	0	0.0	1	3.4
No Response	0	0.0	0	0.0	0	0.0	0	0.0
33. What personal characteristic has been least helpful to you?								
a) age	7	50.0	1	16.6	7	25.0	8	27.5
b) height or weight	2	14.2	3	50.0	10	35.7	5	17.2
c) personal appearance	3	21.4	0	0.0	4	14.2	9	31.0
d) personality	0	0.0	0	0.0	3	10.7	3	10.3
e) a and b above	1	7.1	2	33.3	3	10.7	4	13.7
No Response	1	7.1	0	0.0	1	3.5	0	0.0
34. Did you ever seriously consider dropping out of school?								
a) yes	3	21.4	1	16.6	4	14.2	7	24.1
b) no	11	78.5	5	83.3	24	85.7	22	75.8
No Response	0	0.0	0	0.0	0	0.0	0	0.0

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
35. Looking back, do you believe you have been successful and have accomplished the things you wanted to?								
a) yes	8	57.1	3	50.0	12	42.8	15	51.7
b) no	6	42.8	3	50.0	16	57.1	14	48.2
No Response	0	0.0	0	0.0	0	0.0	0	0.0
36. Looking toward the future, do you believe things will work out for you?								
a) yes	13	92.8	6	100.0	25	89.2	26	89.6
b) no	1	7.1	0	0.0	3	10.7	2	6.8
No Response	0	0.0	0	0.0	0	0.0	1	3.4
37. Have you ever skipped a grade in school?								
a) yes - it was helpful to me	7	50.0	1	16.6	0	0.0	1	3.4
b) yes - it didn't help me	4	28.5	0	0.0	2	7.1	0	0.0
c) yes - it was harmful to me	3	21.4	0	0.0	0	0.0	0	0.0
d) no	0	0.0	5	83.3	23	82.1	26	89.6
No Response	0	0.0	0	0.0	3	10.7	2	6.8

Questionnaire Responses (Continued)

Question	Accelerated Seniors		Nonaccelerated Juniors		Random Sample Seniors		Random Sample Juniors	
	No.	%	No.	%	No.	%	No.	%
38. Have you ever been held back a grade in school?								
a) yes - it was helpful to me	2	14.2	1	16.6	1	3.5	0	0.0
b) yes - it didn't help me	0	0.0	0	0.0	1	3.5	0	0.0
c) yes - it was harmful to me	0	0.0	0	0.0	0	0.0	1	3.4
d) no	10	71.4	5	83.3	25	89.2	26	89.6
No Response	2	14.2	0	0.0	1	3.5	2	6.8
39. Have you ever repeated a subject in high school?								
a) yes - it was helpful to me	0	0.0	1	16.6	0	0.0	0	0.0
b) yes - it didn't help me	0	0.0	0	0.0	1	3.5	1	3.4
c) yes - it was harmful to me	0	0.0	0	0.0	0	0.0	0	0.0
d) no	12	71.4	5	83.3	26	92.8	26	89.6
No Response	2	14.2	0	0.0	1	3.5	2	6.8