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Factors Influencing the Success of Ninth Graders in Hoopeston Senior High School

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FACTORS INFLUENCING THE SUCCESS OF NINTH GRADERS IN HOOPESTON SENIOR HIGH SCHOOL

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CHAPTER I

INTRODUCTION

Purpose

This study was conducted with the intention of gaining insight into whether there were any significant trends of grade-point averages of ninth grade students in comparison with their geographic location, sex, family size, parents' education, IQ scores, which were obtained from the Otis Quick-Scoring Mental Ability Test, Iowa Test of Basic Skills (using the total Language Achievement Scores, total Work Study Achievement Scores, total Arithmetic Achievement Scores and the Composite Scores), and also occupation of the head of the household.

Source of the Data

For this research study, an Information Sheet[1] was used for each student in the Hoopeston High School, Hoopeston, Illinois. The necessary information was transferred from the individual ninth grade records of the Sophomores, Juniors and Seniors in the high school.

Out of a total of 389 student records, 343 were used, as their records contained the data needed to complete the Information Sheet. Of the 343, 120 were Sophomores, 113 were Juniors and 110 were Seniors. There were 162 males and 181 females, totaling 343 students.

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[1] A copy of the Information Sheet is in the Appendix of this paper.

Treatment of the Data

In order to analyze the data gathered from this study, grade-point averages in comparison with occupational structure, geographic location, family size, parent with the highest education, parents' education (mother and father), IQ scores, total Language Achievement Scores, total Work Study Achievement Scores, total Arithmetic Achievement Scores, and total Composite Scores from the Iowa Test of Basic Skills, were needed. For the occupational structure, the head of the household's occupation was used. The seven divisions of the 1949 edition of the Dictionary of Occupational Titles were selected. All of the parent's occupations were classified as: Professional and Managerial; Clerical and Sales; Services; Agriculture, Fishing, and Forestry; Skilled; Semi-Skilled; or Un-Skilled. For the geographic location, three areas were chosen for the grouping. They were: Rural; City Limits; and Living Within One-Half Mile of the High School. The family size was based on how many children were in the family and it was divided into five groups: 1-2; 3-4; 5-6; 7-8; and over 9. The parents' education was divided into three groups: The Mother's Education; The Father's Education and the Parent With The Highest Education. For the structure of the educational levels of the parents, eight levels were chosen for the grouping. They were: Eighth Grade; First Year of High School; Second Year of High School; Third Year of High School; High School Graduate; Trade School; Attended College; and College Graduate. For the IQ scores, five different levels were used. They were: 74 and below; 75-91; 92-107; 108-124; 125 and above.

The method of obtaining these five levels of IQ scores was by using the Normal Curve. In this study the Normal Curve was changed to thirty-eight percent for the middle group with the distribution falling within the area under the curve bounded by one-half standard deviation above and one-half standard deviation below the mean. Twenty-four percent of the measures fall within each of the next areas of the curve which are marked off between the perpendiculars at the one-half standard deviation from the mean and one and one-half standard deviation from the mean. Seven percent of the measures lie between plus one and one-half standard deviation and above and minus one and one-half standard deviation and below from the mean. This method was also used to obtain the levels of scores for the Achievement Tests.

The Iowa Test of Basic Skills was divided as follows:

Language Achievement Totals: 44-53; 54-75; 76-100; 101-117; 118 and above.

Arithmetic Achievement Totals: 51-60; 61-78; 79-99; 100-115; 116 and above.

Work Study Achievement Totals: 48-57; 58-77; 78-99; 100-113; 114 and above.

Composite Totals for above Achievement Tests: 50-59; 60-78; 79-98; 99-113; 114 and above.

The grade-point average was divided into five different parts: 0.0-0.8; 0.9-1.6; 1.7-2.4; 2.5-3.2; 3.3-4.0. These grade points were used in comparison for the above eleven categories. Also, males were compared with females and a total was shown for each category.

On the basis of these eleven sources of information, the data contained in Tables 1 to 11 were tabulated.

Limitations of the Scope of the Study

Certain factors limited the scope of the conclusions of the study. While the data included information from student records in the ninth grade, some were incomplete because of transfer students and those who did not complete the tests that were used in this study. Another factor which limited the conclusions was the inability to get records, including the activities in which the students participated in the ninth grade. Also, the parent's income was going to be used in this study, but no accurate information was available.

This study was able to include those students who dropped out of high school because their ninth grade records were used. Had this study been completed in another location, it may have varied considerably.

CHAPTER II

RELATED RESEARCH

The research which has been done in the area of factors affecting success of high school students is numerous. There have been studies made and some theories offered. The related research which has been done is discussed here in terms of achievement vs. mental ability, sex differences, and other factors related to success.

Many differences exist in achievement and mental tests. The nature of these differences is described by Tom Hastings:

> The achievement test differs from the intelligence test in that it is focused more precisely on the learnings that have taken place in the classroom. Naturally, there is a rather high positive relationship between intelligence tests and achievement tests, since we really are saying that, in general, learning in the classroom situation parallels learning in the total social situation, which includes the classroom.[2]

Also, Gordon Rummel found differences in his study:

> The typical achievement test usually deals with a narrower range of academic knowledge than the typical intelligence test and included more items for a comprehensive measurement of that range. On the other hand, many parts of the typical achievement test involves novel situations not usually found in the typical achievement test. Thus the intelligence test's novelty and apparent

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[2] Tom Hastings, "The Role of Intelligence Testing," Education, LXXXI (1960), 76.

> unrelatedness to ordinary school subjects may create greater interest and better testing morale on the part of the students who have antipathies toward one year in subjects than will the achievement test.[3]

In 1942, Stroud reviewed previous studies of achievement and intelligence in relation to socioeconomic status, and reported a group of his own studies. An interesting feature of Stroud's studies was the instrument which he constructed and used for rating socioeconomic status. This instrument contained a number of elements which were commonly used in later studies as criteria of social class. There were four sections: (1) miscellaneous items; such as, the presence or absence of a telephone, furnace heat, refrigerator, and servants in the home which, taken together, might be regarded as indicators of standard of living; (2) the educational level of parents; (3) occupation of father; and (4) monthly rental value of the home. On the basis of previous studies, as well as his own, Stroud reached the conclusion that, "...the relation between socioeconomic status of pupils and their academic achievement is of about the same degree as that between socioeconomic status of pupils and their test intelligence."[4]

In the area dealing with sex differences, it was found, through studies, that the average scores of sexes were strikingly similar. In one study, Wellman examined some 500 references,

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[3] Gordon Rummel, "The Role of Intelligence Testing," Education, LXXXI (1960), 79.

[4] J. B. Stroud, "Predictive Value of Obtained Intelligence Quotients of Groups Favored and Unfavored in Socioeconomic Status," Elementary School (Junior), 1942, 97-104, p. 101.

reporting six differences and concluded: In the material covered, there seems to be some slight support for the hypothesis of greater variability of boys. The case is by no means clear, because the findings depend so much upon the type of measuring instrument, the measure of variability used, and the selection of a population.[5]

In another study of the top and bottom fifteen percent of 1,100 graduating seniors in a Chicago high school, Anspaugh concluded that success in high school is closely associated with high intelligence, extensive guidance services by the school, regular attendance, limited dating, limited outside work for pay and regular homework. On the other hand, several factors usually considered associated with good marks were not found to be so in this study; these factors included living with both natural parents, having brothers and sisters, belonging to a church, having a quiet place to study, and coming from a family of average or better financial status.[6]

In a review of studies of general intelligence of various groups, Horrocks found no conclusive evidence of intrinsic difference within individuals which made boys either inferior or superior to girls, negroes to whites, or some nationality or socioeconomic groups to other groups.[7] This point of view seems to be true from other such reports read.

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[5]B.L. Wellman, "Sex Differences," in C. Murchison (ed.), Handbook of Child Psychology, (rev. ed.: Worcester, Mass.: Clark University Press, 1933), Chap. 15, p. 630.

[6]G. E. Anspaugh, "Qualities Related to High Scholarship in Secondary School," School Review 6:337-40; 1953

[7]John E. Horrocks, The Psychology of Adolescence, Houghton, 1951, p. 614.

There has been some sex differences in the studies about factors of intelligence. Doppelt's study showed that girls at the age of thirteen to seventeen were superior to boys. They were superior in clerical skills, and in linguistic abilities in the use of both words and sentences, and boys were superior to girls in abstract thinking (slight), space perception, mechanical ability and number concepts. In the ability to work verbal problems, no difference was found between the two sexes.[8]

General, Social and Economic Characteristics of Hoopeston, Illinois

Hoopeston is twenty-five miles north of Danville, Illinois, and 100 miles south of Chicago, Illinois on U.S. Route 1. The population of the city in 1960 was 6,606.

The United States Census of 1960 shows the following statistics:

I. 1% foreign born and off springs.

9% native of foreign or mixed parentage.

Amish people are found in the surrounding area. Germany is the country of origin of the foreign born.

II. Employed Persons Occupation and Industry -

1. 3.7% in Managerial

2. 36.2% in White Collar

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[8] Jerome E. Doppelt, "The Organization of Mental Abilities in the Age Range from Thirteen to Seventeen," TC, 1950. p. 86

3. Occupation Groups -	Males	Females
Totals	1,595	843
1. Professional & Managerial	11%	15%
2. Clerical and Sales	12%	34%
3. Skilled	31%	4%
4. Semi-Skilled	24%	27%
5. Un-Skilled	11%	20%
6. Unemployed	11%	

4. Industry Groups -

1. Agriculture, Forestry & Fishing	2%
2. Durable Goods Mfg.	37%
3. Construction	6%
4. Transport, Comm. & other Public Utilities	5%
5. Non-durable Goods Mfg.	11%
6. Wholesale and Rental Trade	11%
7. Finance, Insurance, Real Estate	2%
8. Business and Repair Service	1%
9. Personal Services	3%
10. Entertainment and Recreation Services	1%
11. Professional and Related Services	21%
12. Public Administration	5%
13. Industry Not Reported	8%

III. Formal Education (25 years and over)

1. 9.7 median school years completed

2. 35% completed four years of high school

3. 6.1% completed four years of college

IV. Family Income

1. 14.2% of income under $3,000

2. 3.9% of income under $1,000

3. 4.2% of income under $2,000

4. 8.7% of income over $10,000

5. Median dollar income - $5,670[9]

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[9]United States Census, 1960, Illinois

This concludes the review of the related literature. As stated before, there were many studies available concerning the factors of success. The information available was numerous and contradictory, making it difficult, if not impossible to come to any definite conclusions.

CHAPTER III

PRESENTATION OF THE RESULTS

In order to study the data gathered from this survey, eleven tables were developed. The first of these tables, Table 1, shows the geographic location of the students. The rural area includes fifteen males and twenty-four females. The total for the rural area is thirty-nine students. In the area which is one-half mile from school, there are twenty males and twenty-seven females. The total for this area is forty-seven students. The third area, which is within the city limits, has 127 males and 130 females. The total for this area is 257.

For this table, as well as all the other tables, the structure used is that of the grade-point average. The categories included in this structure are: 0.0-0.8; 0.9-1.6; 1.7-2.4; 2.5-3.2; and 3.3-4.0.

The 0.0-0.8 grade-point area shows there is a total of fifteen students, with a division of two males in the rural area, no students in the close-to-school area and eleven males and two females in the city-limits area. The second grade-point area of 0.9-1.6 shows there is a total of ninety-three students, with a division of eight males and four females in the rural area; ten males and three females in the close-to-school area and forty-four males and twenty-four females in the city limits.

Upon checking the third grade-point area of 1.7-2.4, it is found that there is 116 students with a breakdown of five males and eleven females in the rural area; five males and fourteen females in the close-to-school area; and thirty-six males and forty-five females in the city limits. The fourth grade-point area of 2.5-3.2 shows there is a total of eighty-seven students; six females in the rural area; four males and six females in the close-to-school area; and thirty males and forty-one females in the city-limits area. The last grade-point area of 3.3-4.0, shows there is a total of thirty-two students: three females from the rural area; one male and four females in the close-to-school area; and six males and eighteen females in the city-limits area.

This table indicates that the majority of students live in the geographic area of the city limits. Also, there is a larger number of students in the grade-point average group of 1.7-2.4. This is as expected because this is the average or middle grouping. The average or middle grouping will be predominant throughout the following tables.

The next table, Table 2, is used to compare the grade-point averages with the number of children in each student's family. There are twenty-eight males and forty females, making a total of sixty-eight families with 1-2 children. There are eighty-seven males and 103 females for a total of 190 families with 3-4 children. There are thirty-seven males and twenty-eight females making a total of sixty-five families with 5-6 children. There are nine males and ten females for a total of nineteen

TABLE 1

COMPARISON OF GRADE-POINT AVERAGE WITH GEOGRAPHIC LOCATION

Grade-Point Average	Rural			One-Half Mile of School			City Limits			TOTAL
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
0.0-0.8	2		2				11	2	13	15
0.9-1.6	8	4	12	10	3	13	44	24	68	93
1.7-2.4	5	11	16	5	14	19	36	45	81	116
2.5-3.2		6	6	4	6	10	30	41	71	87
3.3-4.0		3	3	1	4	5	6	18	24	32
TOTALS	15	24	39	20	27	47	127	130	257	343

families with 7-8 children. There is only one male in a family of nine children or over.

When comparing the grade-point averages with the family size, it is found that the 0.0-0.8 grade-point average area indicates there are three males in the 1-2 family size; six males in the 3-4 family size; four males and two females in the 5-6 family size. The next grade-point averages of 0.9-1.6 indicates there are ten males and six females in the 1-2 family size; twenty-eight males and fourteen females in the 3-4 family size; eighteen males and nine females in the 5-6 family size; six males and two females in the 7-8 family size. The third area of grade-point averages, 2.5-3.2, shows there are six males and seventeen females in the 1-2 family size; eighteen males and thirty-two females in the 3-4 family size; nine males in the 5-6 family size; four females in the 7-8 family size; and one male in the nine and over family size. The last area of grade-point averages, 3.3-4.0, shows there are three males and six females in the 1-2 family size; three males and sixteen females in the 3-4 family size; and one male and three females in the 5-6 family size.

This table tells that the majority of the students were in the family size of 3-4 children.

Table 3 shows the educational attainment of each student's mother. There are forty-six males and forty-five females, for a total of ninety-one, at the level of Eighth Grade. At the level of One Year of High School, there are six males and three females, for a total of nine. At the level of Two Years of High

TABLE 2

COMPARISON OF GRADE-POINT AVERAGE WITH STUDENT'S FAMILY SIZE (Brothers and Sisters)

Grade-Point Average	1-2			3-4			5-6			7-8			9+			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8	3		3	6		6	4	2	6							15
0.9-1.6	10	6	16	28	14	42	18	9	27	6	2	8				93
1.6-2.4	6	11	17	32	41	73	5	14	19	3	4	7				116
2.5-3.2	6	17	23	18	32	50	9		9		4	4	1		1	87
3.3-4.0	3	6	9	3	16	19	1	3	4							32
TOTALS	28	40	68	87	103	190	37	28	65	9	10	19	1		1	343

M - Male
F - Female
T - Total

School, there are eight males and seven females for a total of fifteen. At the level of Three Years of High School, there are ten males and seven females for a total of seventeen. At the level of High School Graduate, there are seventy-two males and 105 females for a total of 177. At the level of Attended College, there are six males and twelve females for a total of eighteen. At the level of College Graduate, there are eleven males and five females for a total of sixteen.

The students with grade-point averages of 0.0-0.8 are ten males and two females at the level of the Eighth Grade, and three males at the level of High School Graduate. The second area of 0.9-1.6 grade-point averages for students indicates there are seventeen males and sixteen females at the level of Eighth Grade; six males at the One Year of High School level; four males at the level of Three Years of High School; and thirty-one males and fifteen females at the level of High School Graduate. The grade-point averages of 1.7-2.4 shows there are seventeen males and ten females at the level of Eighth Grade; three males and four females at the level of Two Years of High School; and 120 males and fifty-two females at the level of High School Graduate. The third area of grade-point averages, 2.5-3.2, shows there are two males and fourteen females at the level of Eighth Grade; three females at the level of One Year of High School; three females at the level of Two Years of High School; three females at the level of Three Years of High School; eighteen males and twenty-three females at the level of High School Graduate; three males and seven females at the level of Attended College; and eleven males at the level of College Graduate.

TABLE 3

COMPARISON OF GRADE-POINT AVERAGES WITH STUDENT'S MOTHERS' EDUCATION

Grade-Point Average	8th Grade			1-yr. H. S.			2-yr. H. S.			3-yr. H. S.			H. S. Grad.			Trade School			Attend. College			College Grad.			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8	10	2	12										3		3										15
0.9-1.6	17	16	33	6		6	4		4	4		4	31	15	46										93
1.7-2.4	17	10	27				3	4	7	6	4	10	20	52	72										116
2.5-3.2	2	14	16		3	3		3	3		3	3	18	23	41				3	7	10	11		11	87
3.3-4.0		3	3				1		1					15	15				3	5	8		5	5	32
TOTALS	46	45	91	6	3	9	8	7	15	10	7	17	72	105	177				6	12	18	11	5	16	343

M - Male
F - Female
T - Total
H.S. - High School

In the last area of 3.3-4.0, there are three females at the level of Eighth Grade; one male at the level of Two Years of High School; fifteen females at the level of High School Graduate; three males and five females at the level of Attended College; and five females at the level of College Graduate.

The majority of the students' mother's education attainment, according to this table, is at the level of High School Graduate. Also, this table shows that the students whose mothers attended college or graduated from college did not have a lower grade-point average than 2.5.

Table 4 shows the educational attainment of each student's father. At the level of Eighth Grade, there are fifty-eight males and fifty females for a total of 108. At the level of One Year of High School, there are seven females. At the level of Two Years of High School, there are ten males and three females for a total of thirteen. At the level of Three Years of High School, there are eight males. At the level of High School Graduate, there are fifty-nine males and 102 females for a total of 161. At the Trade-School level, there are seven females. At the level of Attended College, there are nine males. There are eighteen males and twelve females for a total of thirty at the level of College Graduate.

Again the grade-point average is compared with the father's educational attainment. In the category of 0.0-0.8, there are nine males and two females at the level of Eighth Grade; one male at the level of High School Graduate; and three males at the level of College Graduate. The second area of grade-point

averages, 0.9-1.6, indicates there are twenty-four males and fifteen females at the level of Eighth Grade; seven males at the level of Two Years of High School; three males at the level of Three Years of High School; twenty-four males and sixteen females at the level of High School Graduate; and four males at the level of Attended College. The 1.7-2.4 area of grade-point averages tells that there are twenty-three males and twelve females at the level of Eighth Grade; three females at the level of Two Years of High School; five males at the level of Three Years of High School; fifteen males and fifty-two females at the level of High School Graduate; three females at the Trade-School level; and three males at the Attended-College level. The grade-point averages of 2.5-3.2 shows there are two males and fifteen females at the Eighth-Grade level; four females at the level of One Year of High School; fifteen males and twenty-five females at the level of High School Graduate; two males at the Attended-College level; and fifteen males and nine females at the College-Graduate level. The last area of grade-point averages, 3.3-4.0, indicates there are six males at the Eighth-Grade level; three females at the level of One Year of High School; three males at the level of Two Years of High School; four males and nine females at the level of High School Graduate; four females at the Trade-School level; and three females at the College-Graduate level.

This table shows that at the level of High School Graduate there are considerably more student's fathers with an educational attainment of this level than the other levels mentioned. It is surprising to the writer that so many of the fathers educational attainment is at the Eighth-Grade level.

TABLE 4

COMPARISON OF GRADE-POINT AVERAGES WITH
FATHER'S EDUCATION

Grade-Point Average	8th Grade			1 yr. H. S.			2 yr. H. S.			3 yr. H. S.			H. S. Grad.			Trade School			Attend. College			College Grad.			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8	9	2	11										1		1							3		3	15
0.9-1.6	24	15	39				7		7	3		3	24	16	40				4		4				93
1.7-2.4	23	12	35					3	3	5		5	15	52	67		3	3	3		3				116
2.5-3.2	2	15	17		4	4							15	25	40				2		2	15	9	24	87
3.3-4.0		6	6		3	3	3		3				4	9	13		4	4					3	3	32
TOTALS	58	50	108		7	7	10	3	13	8		8	59	102	161		7	7	9		9	18	12	30	343

M - Male
F - Female
T - Total
H.S. - High School

Table 5 shows the parent with the highest education. There are forty-eight males and thirty-three females, for a total of eighty-one, at the Eighth-Grade level; three males and eight females, for a total of eleven, at the level of One Year of High School; seven males and four females, for a total of eleven, at the level of Two Years of High School; seven males and nine females, for a total of sixteen, at the level of Three Years of High School; sixty-six males and ninety-nine females, for a total of 165, at the level of High School Graduate; six females at the Trade-School level; fourteen males and nine females, for a total of twenty-three, at the Attended-College level; eighteen males and twelve females, for a total of thirty, at the College-Graduate level.

When comparing the grade-point averages, there are nine males at the Eighth-Grade level; two females at the level of High School Graduate; and four males at the Attended College level with a grade-point average of 0.0-0.8. Eighteen males and fifteen females at the Eighth-Grade level; three males at the level of One Year of High School; four males at the level of Two Years of High School; three males at the level of Three Years of High School; thirty-one males and fifteen females at the level of High School Graduate; and three males and one female at the Attended College level has a grade-point average of 0.9-1.6. There are eighteen males and three females at the Eighth-Grade level; four females at the Two-Years-of-High-School level; four males and three females at the level of Three Years of High School; twenty-one males and fifty-four females at the level of

TABLE 5

COMPARISON OF GRADE-POINT AVERAGES WITH THE PARENT WITH HIGHEST EDUCATION

Grade-Point Average	8th Grade			1 yr. H. S.			2 yr. H. S.			3 yr. H. S.			H. S. Grad.			Trade School			Attend. College			College Grad.			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8	9		9											2	2				4		4				15
0.9-1.6	18	15	33	3		3	4		4	3		3	31	15	46				3	1	4				93
1.7-2.4	18	3	21					4	4	4	3	7	21	54	75		6	6	3		3				116
2.5-3.2	3	12	15		5	5					6	6	14	19	33					4	4	18	6	24	87
3.3-4.0		3	3		3	3	3		3					9	9				4	4	8		6	6	32
TOTALS	48	33	81	3	8	11	7	4	11	7	9	16	66	99	165		6	6	14	9	23	18	12	30	343

M - Male
F - Female
T - Total
H.S. - HighSchool

High School Graduate; six females at the Trade-School level; and three males at the Attended-College level who have a grade point average of 1.7-2.4. Those students with grade-point averages of 2.5-3.2 are three males and twelve females at the Eighth-Grade level; five females at the level of One Year of High School; six females at the level of Three Years of High School; fourteen males and nineteen females at the High-School Graduate level; four females at the Attended-College level; and eighteen males and six females at the College-Graduate level. The last category of grade-point averages, 3.3-4.0, shows there are three females at the Eighth-Grade level; three females at the level of One Year of High School; three males at the level of Two Years of High School; nine females at the level of High School Graduate; four males and four females at the Attended-College level; and six females at the College-Graduate level.

This table tells that the majority of the students' parents' highest educational attainment is at the level of High School Graduate or higher.

Table 6 shows the students' IQ scores. This IQ score is from the Otis Quick-Scoring Mental Ability Test given to the students in the fall of the ninth grade. The IQ scores are broken into five different levels. At the first level of 74 and below, there are three males. At the second level of 75-91, there are thirty-six males and twenty-four females for a total of sixty. At the third level of 92-107, there are seventy-four males and eighty-six females for a total of 160. At the fourth level of 108-124, there are forty-two males and sixty-one females

for a total of 103. At the 125 and above level, there are seven males and ten females for a total of seventeen.

When comparing the IQ scores with the grade-point averages, it is found that in the 0.0-0.8 category, there are three males at the 74 and below level; six males and two females at the 75-91 level; and four males at the 92-107 level. The grade-point averages of 0.9-1.6 indicate there are twenty-nine males and ten females at the 75-91 level; twenty-seven males and twenty-one females at the 92-107 level; and sixteen males at the 108-124 level. There is one male and twelve females at the 75-91 level; thirty males and thirty-nine females at the 92-107 level; and fifteen males and nineteen females at the 108-124 level with grade-point averages of 1.7-2.4. There are seven males and twenty females at the 92-107 level; twenty-one males and twenty-nine females at the 108-124 level; and six males and four females at the 125 and above level who have grade-point averages of 2.5-3.2. In the last area of grade-point averages of 3.3-4.0, there are six males and six females at the 92-107 level; thirteen females at the 108-124 level; and one male and six females at the 125 and above level.

This table indicates that the females have higher IQ's than the males. Also, there are substantially more students at the 92-107 level than the other levels. The students who are in the 2.5-4.0 area all have IQ's of 92 and above. It is interesting to note that out of the total of 343 students there are only three with an IQ of 74 and below. The IQ's of the students seem to run true with their grades. Also, it may be noted that there

TABLE 6

COMPARISON OF GRADE-POINT AVERAGES WITH
STUDENT IQ SCORES

Grade-Point Average	74 & Below			75-91			92-107			108-124			125 & Above			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8	3		3	6	2	8	4		4							15
0.9-1.6				29	10	39	27	21	48	6		6				93
1.7-2.4				1	12	13	30	39	69	15	19	34				116
2.5-3.2							7	20	27	21	29	50	6	4	10	87
3.3-4.0							6	6	12		13	13	1	6	7	32
TOTALS	3		3	36	24	60	74	86	160	42	61	103	7	10	17	343

M - Male
F - Female
T - Total

are very few exceptions in this table where the student does not seem to be working up to his capacity.

Table 7 shows the total Language Achievement scores taken from the Iowa Test of Basic Skills. The total Language scores are broken into five levels. At the first level of 44-53, there are no students in this level. At the 54-75 level, there are fifty-two males and nineteen females for a total of seventy-one. At the 76-100 level, there are ninety-one males and ninety-six females for a total of 187. At the 101-107 level, there are sixteen males and fifty females for a total of sixty-six. At the 118 and above level, there are three males and sixteen females for a total of nineteen.

The comparison of the students' total Language scores with their grade-point averages is as follows: there are eight males and one female at the 54-75 level; and five males and one female at the 76-100 level with grade-point averages of 0.0-0.8. There are thirty-three males and twelve females at the 54-75 level; and twenty-nine males and nineteen females at the 76-100 level with grade-point averages of 0.9-1.6. In the third division of grade-point averages, 1.7-2.4, there are eleven males and six females at the 54-75 level; thirty-two males and fifty-five females at the 76-100 levels; and three males and nine females at the 101-117 level. The fourth division of grade-point averages, 2.5-3.2, shows there are nineteen males and twenty females at the 76-100 level; twelve males and twenty-nine females at the 101-117 level; and three males and four females at the 118 and above level. In the last

TABLE 7

COMPARISON OF GRADE-POINT AVERAGES WITH THE
IOWA TEST OF BASIC SKILLS - TOTAL LANGUAGE ACHIEVEMENT SCORES

Grade-Point Average	44-53			54-75			76-100			101-117			118 & Above			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8				8	1	9	5	1	6							15
0.9-1.6				33	12	45	29	19	48							93
1.7-2.4				11	6	17	32	55	87	3	9	12				116
2.5-3.2							19	20	39	12	29	41	3	4	7	87
3.3-4.0							6	1	7	1	12	13		12	12	32
TOTALS				52	19	71	91	96	187	16	50	66	3	16	19	343

M - Male
F - Female
T - Total

category of 3.3-4.0 of the grade-point averages, there are six males and one female at the 76-100 level; one male and twelve females at the 101-117 level; and twelve females at the 118 and above level.

This table shows that the majority of students fall into the 76-100 level. It is also interesting to note there are more females scoring higher on this total Language Achievement Test than there are males. The grade-point averages of the students seem to hold true with their scores on this particular phase of the test.

Table 8 is the second part of the Iowa Test of Basic Skills and it deals with the total Work Study Achievement Scores. This table is divided into five levels. The first level is 48-57 and there are no students at this level. The second level is 58-77 and there are thirty-nine males and eight females for a total of forty-seven. At the third level of 78-99, there are eighty-eight males and 128 females for a total of 216. At the fourth level of 100-113, there are thirty males and thirty-six females for a total of sixty-six. At the fifth level of 114 and above, there are five males and nine females for a total of fourteen.

Once again the grade-point averages are compared with the total Work Study Achievement scores and it is found that there are nine males and one female at the 58-77 level, and four males and one female at the 78-99 level with grade-point averages of 0.0-0.8. There are twenty-nine males and six females at the 58-77 level, and thirty-three males and twenty-five females at the 78-99 level with grade-point averages of 0.9-1.6. There is one male and one female at the 58-77 level; thirty males and

TABLE 8

COMPARISON OF GRADE-POINT AVERAGES WITH THE
IOWA TEST OF BASIC SKILLS - TOTAL WORK STUDY ACHIEVEMENT SCORES

Grade-Point Average	48-57			58-77			78-99			100-113			114 & Above			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8				9	1	10	4	1	5							15
0.9-1.6				29	6	35	33	25	58							93
1.7-2.4				1	1	2	30	69	99	15		15				116
2.5-3.2							15	30	45	14	17	31	5	6	11	87
3.3-4.0							6	3	9	1	19	20		3	3	32
TOTALS				39	8	47	88	128	216	30	36	66	5	9	14	343

M - Male
F - Female
T - Total

sixty-nine females at the 78-99 level; and fifteen males at the 100-113 level with grade-point averages of 1.7-2.4 There are fifteen males and thirty females at the 78-99 level; fourteen males and seventeen females at the 100-113 level; and five males and six females at the 114 and above level with grade-point averages of 2.5-3.2. In the last category of 3.3-4.0 grade-point averages, there are six males and three females at the 78-99 level; one male and nineteen females at the 100-113 level, and three females at the 114 and above level.

From this table it may be determined that the majority of the students fall in the 78-99 level. It is interesting to note in this table and the preceding table that there are no students in the lowest level.

Table 9 consists of the third part of the Iowa Test of Basic Skills, using the total Arithmetic Achievement Scores. This table is also divided into five parts. The first part is 51-60 and there are no students at this level. The second level is 61-78 and there are forty-one males and twenty-three females for a total of sixty-four. At the third level of 79-99, there are ninety males and 118 females for a total of 208. At the fourth level of 100-115, there are twenty-seven males and thirty-five females for a total of sixty-two. At the fifth level of 116 and above, there are four males and five females for a total of nine.

In comparing the grade-point averages with the total Arithmetic Achievement Scores, the first division of 0.0-0.8 shows there are seven males and two females at the 61-78 level, and

TABLE 9

COMPARISON OF GRADE-POINT AVERAGES WITH THE
IOWA TEST OF BASIC SKILLS - TOTAL ARITHMETIC ACHIEVEMENT SCORES

Grade-Point Average	51-60			61-78			79-99			100-115			116 & Above			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8				7	2	9	6		6							15
0.9-1.6				29	15	44	33	16	49							93
1.7-2.4				5	6	11	35	60	95	3		3	3	4	7	116
2.5-3.2							13	36	49	21	17	38				87
3.3-4.0							3	6	9	3	18	21	1	1	2	32
TOTALS				41	23	64	90	118	208	27	35	62	4	5	9	343

M - Male
F - Female
T - Total

six males at the 79-99 level. In the 0.9-1.6 division of grade-point averages, there are twenty-nine males and fiftten females at the 61-78 level, and thirty-three males and sixteen females at the 77-99 level. There are five males and six females at the 61-78 level; thirty-five males and sixty females at the 79-99 level; three males at the 100-115 level; and three males and four females at the 116 and above level with grade-point averages of 1.7-2.4. There are thirteen males and thirty-six females at the 79-99 level, and twenty-one males and seventeen females at the 100-115 level with grade-point averages of 2.5-3.2. In the last division of grade-point averages, 3.3-4.0, there are three males and six females at the 79-99 level; three males and eighteen females at the 100-115 level; and one male and one female at the 116 and above level.

The majority of the students are in the 79-99 level of the total Arithmetic Achievement Scores. As noted in the previous two parts of the Iowa Test of Basic Skills, there are no students in the lowest level.

Table 10 consists of the total Composite Scores of the Iowa Test of Basic Skills. This table is also divided into five levels. At the 50-59 level, there are no students. At the 60-78 level, there are fifty-one males and ten females for a total of sixty-one. At the 79-98 level, there are seventy-eight males and 126 females for a total of 204. At the 99-113 level, there are thirty males and thirty-five females for a total of sixty-five. At the 114 and above level, there are three males and ten females for a total of thirteen.

TABLE 10

COMPARISON OF GRADE-POINT AVERAGES WITH THE
IOWA TEST OF BASIC SKILLS - TOTAL COMPOSITE SCORES

Grade-Point Average	50-59			60-78			79-98			99-113			114 & Above			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8				9	1	10	4	1	5							15
0.9-1.6				35	6	41	27	25	52							93
1.7-2.4				7	3	10	27	63	90	12	4	16				116
2.5-3.2							14	28	42	17	21	38	3	4	7	87
3.3-4.0							6	9	15	1	10	11		6	6	32
TOTALS				51	10	61	78	126	204	30	35	65	3	10	13	343

M - Male
F - Female
T - Total

In comparing the grade-point averages with the total Composite Scores, there are nine males and one female at the 60-78 level, and four males and one female at the 79-98 level with grade-point averages of 0.0-0.8. There are thirty-five males and six females at the 60-78 level, and twenty-seven males and twenty-five females at the 79-98 level with grade-point averages of 0.9-1.6. In the 1.7-2.4 division of grade-point averages, there are seven males and three females at the 60-78 level; twenty-seven males and sixty-three females at the 79-98 level; and twelve males and four females at the 99-113 level. In the 2.5-3.2 area of grade-point averages, there are fourteen males and twenty-eight females at the 79-98 level; seventeen males and twenty-one females at the 99-113 level; and three males and four females at the 114 and above level. In the last grade-point category of 3.3-4.0, there are six males and nine females at the 79-98 level; one male and ten females at the 99-113 level; and six females at the 114 and above level.

This table indicates that the majority of students are in the 79-98 level on the total Composite Score of the Iowa Test of Basic Skills. Those students with a grade-point average of 2.5-4.0 are at the level of 79 or above. Also in this table it is surprising to note there are no students in the lowest level, 50-59.

Table 11 consists of the occupation of the head of the household for each student. The occupations are classified into seven divisions taken from the 1949 edition of the Dictionary of Occupational Titles. All of the parents'

TABLE 11

COMPARISON OF GRADE-POINT AVERAGES WITH THE
OCCUPATION OF THE HEAD OF THE HOUSEHOLD

Grd-Point Average	0			1			2			3			4-5			6-7			8-9			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0.0-0.8							-	1	1	1	1	2				9		9	3		3	15
0.9-1.6	12		12	6		6	9		9	3	5	8	12	9	21	13	8	21	7	9	16	93
1.7-2.4	3	9	12	6	12	18	9		9	6	3	9	14	15	29	5	22	27	3	9	12	116
2.5-3.2	18	13	31	11	8	19	3	3	6		6	6	7	12	19		6	6				87
3.3-4.0	4	6	10								4	4		6	6	3	6	9		3	3	32
TOTALS	37	28	65	23	20	43	21	4	25	10	19	29	33	42	75	30	42	72	13	21	34	343

0 - Professional and Managerial
1 - Clerical and Sales
2 - Services
3 - Agriculture, Fishing and Forestry
4-5 - Skilled
6-7 - Semi-Skilled
8-9 - Unskilled

occupations are classified as: (0) Professional and Managerial; (1) Clerical and Sales; (2) Services; (3) Agriculture, Fishing and Forestry; (4-5) Skilled; (6-7) Semi-Skilled; and (8-9) Un-Skilled. In the Professional and Managerial classification, there are thirty-seven males and twenty-eight females for a total of sixty-five. In the Clerical and Sales classification, there are twenty-three males and twenty females for a total of forty-three. In the Services classification, there are twenty-one males and four females for a total of twenty-five. In the Agriculture, Fishing and Forestry classification, there are ten males and nineteen females for a total of twenty-nine. In the Skilled classification, there are thirty-three males and forty-two females for a total of seventy-five. In the Semi-Skilled classification, there are thirty males and forty-two females for a total of seventy-two. In the Un-Skilled classification, there are thirteen males and twenty-one females for a total of thirty-four.

The grade-point averages in comparison with the classifications of the occupations is as follows: There is one female in the Services classification; one male and one female in the Agriculture, Fishing and Forestry classification; nine males in the Semi-Skilled classification; and three males in the Un-Skilled classification with grade-point averages of 0.0-0.8. There are three males and nine females in the Professional and Managerial classification; six males and twelve females in the Clerical and Sales classification; nine males in the Services classification; six males and three females in the Agriculture, Fishing, and Forestry

classification; fourteen males and fifteen females in the Skilled classification; five males and twenty-one females in the Semi-Skilled classification; and three males and nine females in the Un-Skilled classification who have grade-point averages of 1.7-2.4. There are eighteen males and thirteen females in the Professional and Managerial classification; eleven males and eight females in the Clerical and Sales classification; three males and three females in the Services classification; six females in the Agriculture, Fishing and Forestry classification; seven males and twelve females in the Skilled classification; and six females in the Semi-Skilled classification with grade-point averages of 2.5-3.2. In the last category of 3.3-4.0 grade-point averages, there are four males and six females in the Professional and Managerial classification; four females in the Agriculture, Fishing and Forestry classification; six females in the Skilled classification; three males and six females in the Semi-Skilled classification; and three females in the Un-Skilled classification.

The parents' occupations are distributed mainly in three groups: Professional and Managerial, Skilled and Semi-Skilled. The other groups are evenly distributed without a great bulk falling into any one of the remaining classifications. In regards to the grade-point average, there are no significant characteristics between the student's grade-point average and the parents' occupations.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was designed to study factors relating to success of ninth graders in the Hoopeston Senior High School. The factors used were comparison of grade-point average and sex with geographic location, family size, parents' educational attainment, IQ scores and achievement tests.

The group chosen for this study were the Sophomores, Juniors and Seniors, using their ninth-grade records, for the purpose of predicting their success.

This study was conducted during the early part of June, 1966.

The following conclusions have been drawn from this study:

1. More children lived in the geographic area of the city limits.
2. There was a large number of students with a grade-point average of 1.7-2.4. This is expected because this is the average or middle grouping.
3. It was found that the majority of the students were in a family size of 3-4.
4. The majority of the students' mothers' educational attainment was at the level of High School Graduate.

Also, the students whose mothers attended college or graduated from college did not have a lower grade-point average of 2.5.

5. There were considerably more students' fathers with an educational attainment at the level of High School Graduate than any of the other educational levels. It was surprising that so many of the father's educational attainment was at the level of Eighth Grade.
6. The majority of the students' parents' highest educational attainment was high school graduate or higher.
7. The students who were in the 2.5-4.0 area all had IQ's of ninety-two and above. The IQ of the students seemed to run true with their grades. In the total group, it was interesting to note there were only three with an IQ of seventy-four and below.
8. None of the students in the study dealing with the achievement test were in the lower category of the rating scale. The grade-point averages of the students seem to hold true with their scores on this particular achievement test.
9. The parents' occupations were described mainly in three groups: Professional and Managerial, Skilled, and Semi-Skilled. The other groups were evenly

distributed without a great bulk falling into any one of the remaining classifications. In regards to the grade-point averages, there were no significant characteristics between the students' grade-point averages and the parents' occupations.

Recommendations

It is hoped that this study may have brought to attention the factors of grade-point averages and sex differences determining the success of high school students. However, further explorations of other possible factors influencing the success of ninth graders is necessary and should be of value to a counselor who is trying to guide the student into an educational area for which he is best suited.

APPENDIX

INFORMATION SHEET

Name_____ Sex: Male_____
Female_____

Year: Seniors_____
Juniors_____
Sophomores_____

Parents' Occupation_____

Geographic Location: Rural_____
City Limits_____
Close-to-school_____

Family size: 1-2_____
3-4_____
5-6_____
7-8_____
over 9 _____

Parents' Income: $0-$3,000_____
$3,000-$5,000_____
$5,100-$7,000_____
$7,100-$10,000_____
$10,000-$15,000_____
$15,000 & Over_____

Parents' Education:

	Mother	Father
8th Grade	____	____
1 yr. High School	____	____
2 yr. High School	____	____
3 yr. High School	____	____
High School Grad.	____	____
Trade School	____	____
Attended College	____	____
College Grad.	____	____

Activities in High School: none_____ Types: _____
one_____ _____
two_____ _____
three_____ _____
four_____ _____
five_____ _____
six_____ _____

Otis test of Mental Ability--IQ_____

Grade Point Average: A_____ Overall:_____
B_____
C_____ Class Rank:_____
D_____
F_____

Achievement Test: Iowa Test of Basic Skills

Total Language Achievement	Total Work Study Achievement	Total Arithmetic Achievement	Total Composite

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