

**SUBJECT PREFERENCE OF
HIGH SCHOOL JUNIORS**

BY

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SUBJECT PREFERENCE OF HIGH SCHOOL JUNIORS

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In Partial Fulfillment
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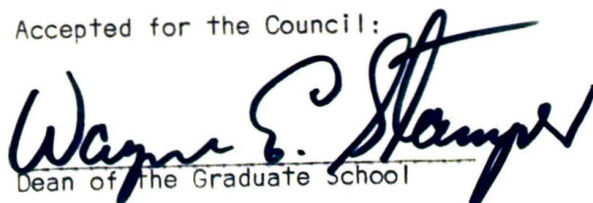
by
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To the Graduate Council:

I am submitting herewith a Research Paper written by Jerry C. Alleyne entitled "Subject Preference of High School Juniors." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts in Education with a major in Education.


Major Professor

Accepted for the Council:


Dean of the Graduate School

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TABLE OF CONTENTS

CHAPTER	PAGE
I. NATURE OF THE STUDY	1
The Problem	1
Statement of the problem	1
Importance of the study	1
Delimitations of the study	2
Limitations of the study	2
Assumptions	3
Definitions of Terms Used	3
Method of Procedure	4
Method of collection	4
Treatment of the data	4
Organization of the Study	5
II. REVIEW OF RELATED LITERATURE	6
Introduction	6
Subject Areas Preferred by High School Juniors	6
Summary	8
III. PRESENTATION AND ANALYSIS OF THE DATA	9
Introduction	9
Rank Order of Subject Preferences	9
Mean I. Q. in Selecting First Choice Areas	11
Student's Reason for Taking First Choice Subject Area	13
Subjects Chosen Last	15

CHAPTER	PAGE
IV. SUMMARY AND CONCLUSIONS	17
Summary	17
Rank order of subject preference	17
Mean I. Q. in selecting first choice areas	18
Student's reason for taking first choice subject area . .	18
Subjects chosen last	19
Conclusion	19
BIBLIOGRAPHY.	20

LIST OF TABLES

TABLE

PAGE

I. Rank Order of Subject Preferences	10
II. Mean I. Q. of All Students Selecting First Choice	
Subject Areas	12
III. Student's Reasons for Taking First Choice Subject	14
IV. Subject Areas Chosen Last	16

CHAPTER I

NATURE OF THE STUDY

In the year 1957, the Russians placed a man-made object in orbit around the earth. Since that time, the "race for space" between the United States and the Soviet Union has had a very influential effect upon the curricula in America's public schools. This, together with other events, had placed increased emphasis on certain skill and content areas in American education. Today's educators needed to take a new look at the student's reaction to the constantly changing curricula in our schools. What was the subject preference of today's children? Why were they taking a particular course of study and what did they expect to get from it?

The importance of the educator obtaining an idea of the student's attitude toward his particular subject area cannot be over-emphasized.

I. THE PROBLEM

Statement of the problem. The purpose of this study was to compare the subject preference of high school juniors in the Hopkinsville and Christian County school systems as it was related to their I. Q., ethnic group, and sex. In addition, an attempt was made to determine the reasons for the student's choice of a particular subject,

Importance of the study. It was of vital importance to the teachers of the different subject areas to know which groups of students tended to

prefer certain subject areas. Subject preference could be a valuable source of information to the teacher in that it would enable him to see what groups needed special attention in the field of motivation. In addition, the teacher could make adjustments in his teaching methods and techniques to the group or individual being taught. This study could also serve as a measurement in the evaluation of the current instructional program.

Delimitations of the study. The subjects used in the sample were 171 eleventh grade students from the Hopkinsville and Christian County high schools, Hopkinsville, Kentucky. The sample consisted of 72 males and 99 females; 34 Negroes and 137 whites.

Limitations of the study. The number of subjects in the sample was limited to 179 by the following criteria:

1. Those eleventh grade students who had taken the Stanford-Binet Intelligence Scale during their freshman year in high school.
2. Those eleventh grade students who were in the home rooms chosen at random to participate in the survey.
3. Those eleventh grade students who completed the questionnaire by following the instructions given.

The academic subject areas were limited to the five basic subjects: (1) English, (2) history, (3) mathematics, (4) physical education, and (5) science. Data collected on each student included I. Q., ethnic group, sex, and reasons the student chose the subject.

It was understood by the author, from the outset, that the students questioned could not answer the questions with complete objectivity. Personal likes and dislikes concerning the instructors, success or failure in a particular subject, and many other variables entered into their answers either consciously or unconsciously.

Assumptions. The author assumed the recorded data taken from the permanent record cards of the students were valid and correctly recorded by the high school administrative staff.

It was assumed that the 171 students selected for the study were a valid sample of the Hopkinsville and Christian County high schools' juniors.

II. DEFINITIONS OF TERMS USED

The terms used in this survey were listed below to serve as an explanation, and facilitate understanding.

Rank order. That order in which the student chose from the five basic subject areas: 1, 2, 3, 4, or 5.

Weight. The rank order of the subject areas was determined by weighting the various choices. This was done by assigning a weight which was comparable to the choice (i.e., a first choice received a weight of one, a second choice a weight of two, and the weighting process continued through the fifth choice in the same manner). The aggregate weighted score was then determined for each of the subject areas. The subject area with the lowest aggregate weighted score was highest on the preferential list of subjects; the one with the next to the lowest score

was second on the preferential list, and the procedure continued through the remaining subject areas to establish their rank order position.

Intelligence quotient (I. Q.). The numerical measurement that indicated the student's intelligence level and which was recorded on the student's permanent records.

III. METHOD OF PROCEDURE

Method of collection. The data used in this study were obtained from eleventh grade students of Hopkinsville High School, and Christian County High School, both located in Hopkinsville, Kentucky.

Questionnaires were handed out to students in home rooms selected at random. Each student was given oral instructions concerning the purpose and use of the questionnaire and then given fifteen minutes to answer the questions.

Students participating in this survey were assured that all information given would be kept strictly confidential.

Treatment of the data. The students were divided into various groups as the study was made. For example, one grouping would be male-female, another Negro-white, and another according to I. Q. All groupings were studied in relation to their subject preference.

Following the presentation of the data in table form, a brief discussion concerning the relationship indicated in each table followed.

IV. ORGANIZATION OF THE STUDY

The first chapter was designed to introduce the reader to the nature of the study, the problem and its importance, delimitations, limitations, assumptions, and the definitions of terms used. The second chapter was concerned with a discussion of the pertinent literature related to the problem. Chapter III presented an analysis of the data. The summary and tentative conclusions which resulted from the study were discussed in Chapter IV.

CHAPTER II

REVIEW OF RELATED LITERATURE

I. INTRODUCTION

Subject preference of high school juniors according to their I. Q., ethnic group, and sex was the subject of this study. The only literature concerning these variables was organized in this chapter under the heading of Subject Areas Preferred by High School Juniors. The library facilities used were those of Austin Peay State University and the Public Library of Hopkinsville, Kentucky.

II. SUBJECT AREAS PREFERRED BY HIGH SCHOOL JUNIORS

Robert L. Curry and Hughie Hughes, both instructors at Baylor University, have completed research in the area of subject preferences of high school and elementary students. Regarding this type of survey Curry was quick to point out that

...although educators recognize that each subject area has a contribution to make to the educational growth pattern of a child, there are those with special interest in certain subject areas who find it disturbing when other skill or content areas are more popular.¹

It was only natural for a teacher of social studies to be concerned if he found that his subject area was not regarded very highly for one reason or another. Likewise, an English instructor would be concerned if interest in his class was lacking.

¹R. L. Curry, and H. Hughes, "Subject Areas Preferred by Fifth Grade Children," Peabody Journal of Education, 41:23, July, 1963.

Curry and Hughes studied the subject preference areas of 904 eleventh grade students from four separate high schools in Waco, Texas. Data collected on each student included the sex, socio-economic status, ethnic group, and I. Q. Students were asked to rate the five basic subject areas of English, mathematics, physical education, science, and social studies. Some of the conclusions they reached were as follows:

1. Among the white students mathematics, physical education, and science were more popular for boys than girls, whereas English and social studies were less popular for the boys than the girls.
2. Among the Negro students science and social studies were more popular for the boys than the girls, whereas English and physical education were less popular for the boys than the girls. Mathematics was the least popular subject for Negro students and was ranked the same by both boys and girls.
3. When the ethnic groups were compared English and social studies were more popular with Negro students than with white students, whereas physical education was less popular with the Negro students than with the white students. Mathematics and science were ranked the same by both ethnic groups.
4. When the stated preferences of both ethnic groups were combined, physical education, mathematics, and science

were more popular with the boys than girls, whereas English and social studies were less popular with boys than with girls.

5. The mean I. Q. was higher for students who selected mathematics and science as their subject areas of first choice than for students who selected other subject areas as their first choice.²

III. SUMMARY

This review of related literature has shown that this particular type of statistical survey could be very beneficial to both the administrator and the teacher. It enabled educators to see in reality what they might otherwise scoff at and accept as mere hearsay. As Curry cites: "The knowledge concerning the preference pattern may indicate the general effectiveness of the instructional program in the subject areas in the past."³ The proper use of such material might also be a key to the curricula of the future.

²R. L. Curry, "Subject Areas Preferred by High School Juniors," Peabody Journal of Education, 42:239-240, January, 1965.

³Curry, op. cit., p. 236.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

I. INTRODUCTION

The purpose of this chapter was to present the data concerning subject preference of high school juniors in the Hopkinsville and Christian County school systems in relation to their sex, ethnic group, I. Q., and in addition, determine the reason for choosing these basic courses. In accordance with the delimitations of this study, the subjects were 171 juniors, consisting of 72 males, 99 females; 34 Negroes and 137 whites.

The students were then grouped under three general headings according to their (1) rank order of subject preference, (2) mean I. Q. in selecting first choice areas, and (3) reasons for taking each of the five basic subject areas.

II. RANK ORDER OF SUBJECT PREFERENCES

Students ranked the five basic high school subject areas from one to five. The first choice received a weight of one, the second a weight of two, proceeding to a weight of five for the last choice. The aggregate weighted score was then determined for each of the subject areas. The subject area with the lowest aggregated weighted score was highest on the preferential list of subjects; the one with the next to the lowest score was second on the preferential list, and the procedure continued through the remaining subject areas to establish their rank order

position. The procedure was used to determine the rank order for both boys and girls, boys and girls of each ethnic groups, and all groups totaled.

TABLE I
RANK ORDER OF SUBJECT PREFERENCES

Distribution of students		S u b j e c t A r e a s				
		English	History	Mathematics	Physical Education	Science
Whites	Boys	5 (3.7)	2 (2.5)	4 (3.2)	1 (1.8)	3 (2.9)
	Girls	1 (2.2)	2 (2.8)	5 (3.6)	3 (3.1)	4 (3.4)
	Total	3 (3.0)	2 (2.6)	5 (3.4)	1 (2.4)	4 (3.1)
Negroes	Boys	4 (3.4)	2 (2.5)	5 (4.0)	1 (2.1)	3 (2.9)
	Girls	1 (2.6)	5 (3.2)	3 (2.9)	2 (2.8)	4 (3.1)
	Total	3 (3.0)	2 (2.9)	5 (3.5)	1 (2.5)	4 (3.2)
Total	Boys	4 (3.4)	2 (2.7)	5 (3.5)	1 (2.2)	4 (3.2)
	Girls	1 (2.4)	2 (2.9)	5 (3.5)	3 (3.0)	4 (3.3)
	Total	3 (2.9)	2 (2.8)	5 (3.5)	1 (2.6)	4 (3.3)

There was evidence of a wide deviation in the subject area of English between male and female. Both Negro and white girls chose English as the highest ranking subject, whereas white males chose it last and Negro males chose it next to last.

History was ranked second in every instance with the exception of the Negro girls who ranked it last.

Mathematics made the poorest overall showing. Ranked last by all but two groups, it was a consistent last in the overall totals.

Males, both Negro and white, ranked physical education first, whereas white girls ranked it third and Negro girls ranked it second.

Science was a consistent fourth with the exception of the males, both Negro and white, who ranked the subject third.

There was no significant difference between the Negro male and the white male in their subject rankings. The only deviation came in the subject areas of English and mathematics. White males gave English an overall rank of 3.70, whereas the Negro male gave it a 3.36 rank. Mathematics received a ranking of 4.0 from the Negro male. The white male gave it a rank of 3.23.

There was, however, a significant difference in the rankings of two subject areas by the girls. The white female went along with the general consensus and gave history an overall rank of 2.75. The Negro girls deviated quite sharply with a ranking of 3.18. In the area of mathematics, where all other groups gave the subject area a very definite last place ranking, the Negro girls gave mathematics a 2.90 rank.

III. MEAN I. Q. IN SELECTING FIRST CHOICE AREAS

The subjects of this study were grouped into the five general subject preference areas according to which one they rated first. Their I. Q. scores were then averaged so that the result was a mean I. Q. for each of the five subject areas.

The I. Q. scores taken from the permanent records of the school which they attended were the result of the Stanford-Binet Intelligence Test taken as freshmen.

One might attempt to predict that those students who chose mathematics and science as their first choices would have the highest average I. Q., while those choosing physical education would have the lowest. Mean I. Q.'s of the groups selecting the various subject areas as first choice appeared in Table II.

TABLE II

MEAN I. Q. OF ALL STUDENTS SELECTING FIRST CHOICE SUBJECT AREAS

RACE	FIRST CHOICE SUBJECTS	MEAN I. Q.
WHITE	Mathematics	110.43
	History	109.78
	Science	109.36
	English	109.12
	Physical Education	101.07
NEGRO	English	99.62
	Science	96.75
	History	95.00
	Mathematics	91.00
	Physical Education	84.80
TOTAL	Mathematics	108.19
	English	106.81
	History	106.70
	Science	106.00
	Physical Education	98.45

The stated purpose of this segment of the research was to observe if there was any noticeable deviation among the I. Q.'s of students in their first choice subject. Among the whites, the only noticeable difference was among those who chose physical education.

The ranking of the subject areas according to the I. Q. went the same as the study made in Texas,⁴ with the exception of history, which occupied a higher rank than did science although the difference was only 0.42 of one point.

⁴Curry, loc. cit.

Mathematics took a sharp decline in the Negro's preference with a fourth place ranking, whereas English moved to the top with a mean I. Q. of 99.62. It was very obvious that the overall I. Q. of the Negro was substantially lower than that of the white students, and should be kept in mind when comparing the first two groups with the totals.

When the two groups were totaled, mathematics was ranked first with a mean I. Q. of 108.19. English moved into second place with a ranking of 106.81. History was third (106.70), science was fourth (106.00), and physical education was last (98.45).

IV. STUDENT'S REASON FOR TAKING FIRST CHOICE SUBJECT AREA

There are many reasons why a student took a particular subject. In the case of first choices, the author attempted to determine why by listing six general headings from which the student could choose, and leaving a seventh blank in order that the student could fill in his own reason that was not listed. The general headings were listed as follows:

1. Because it is interesting.
2. Because it will be valuable to me in later life.
3. Because it is required for college.
4. Because I like the instructor.
5. Because it is required for high school graduation.
6. Because it is easy.
7. Other (specify) . . .

In some cases a student would give more than one reason for taking a particular subject. The author accepted this and tabulated accordingly. Thus, in some instances there were more responses than participants.

TABLE III
STUDENT'S REASONS FOR TAKING FIRST CHOICE SUBJECT

SUBJECT CHOSEN FIRST	REASONS GIVEN						
	Inter- esting 1	Val. Later Life 2	Required for Col. 3	Like Instruc- tor 4	Required for Grad. 5	Easy 6	Other 7
English	30%	45%	5%	5%	11%	3%	0
History	66%	12%	3%	25%	6%	0	0
Mathematics	39%	35%	3%	7%	8%	8%	0
Physical Ed.	19%	3%	0	9%	9%	41%	19%
Science	79%	8%	4%	8%	0	0	0
Total	47%	21%	3%	11%	7%	9%	2%

The author found that nearly one-half of the students questioned ranked a subject first because he found it interesting. This was especially true in the subject area of history, where two-thirds of the students ranking that subject first considered it interesting. The same was found to be even more true in science, where eight out of every ten students ranking science first found it interesting.

English ranked highest among the students in being considered valuable to them in later life. Mathematics was second, history was third, science was fourth, and physical education was last.

It was found that only three per cent of the students questioned favored a course of study because it was required for college.

History was the highest rated subject in teacher appreciation, whereas very few students who chose a particular subject first did so because it was required for high school graduation.

The survey showed that nearly one-half of the students who chose physical education as their favorite subject did so because they thought it was easy. Also shown was the fact that more people had their own personal opinions concerning why they favored physical education; most of them listed "I enjoy it."

Concerning the totals, it was shown that seven out of every ten students questioned favored a particular course of study because it was either interesting or would be valuable to him in later life.

V. SUBJECTS CHOSEN LAST

The author thought that while the facts were available it might be interesting to find which subject areas were chosen as least desirable in relation to those that were chosen first. For example, which subject areas were picked as least desirable by those students ranking science first? After this was completed it was possible to summarize each subject area as to how poorly it ranked.

TABLE IV
SUBJECT AREAS CHOSEN LAST

SUBJECT CHOSEN FIRST	S U B J E C T C H O S E N L A S T				
	English	History	Mathematics	Physical Ed.	Science
English	0	8%	36%	28%	28%
History	9%	0	56%	15%	20%
Mathematics	15%	33%	0	30%	22%
Physical Ed.	35%	12%	30%	0	23%
Science	24%	4%	40%	32%	0
Total	18%	11%	33%	18%	20%

Of the five basic subject areas given, over one-half of the students ranked mathematics or science as the subjects they disliked the most. It was noted by the author that although the subjects of mathematics and science always seemed to be closely related, 40 per cent of the students choosing science as their first choice chose mathematics last. Those choosing history first seemed to have an intense dislike for mathematics (56%). The only group who did not choose mathematics last were those choosing physical education first. This group ranked English as their least desired subject.

CHAPTER IV

SUMMARY AND CONCLUSIONS

I. SUMMARY

In an attempt to help administrators and teachers better understand their students' attitudes toward particular subject areas, this study was devised to relate some of the variables and relationships that existed among high school juniors in the Hopkinsville and Christian County secondary schools. The study was confined to juniors attending these two high schools who had taken the Stanford-Binet Intelligence Scale during their freshman year in high school.

The students were divided into three basic groups based upon the answers they gave to the questionnaire they completed. The students were first grouped into one general category in relation to their subject preference. They were then subdivided into ethnic groups and finally by I. Q. A separate survey was conducted as to the reason for taking a first choice subject area and, in addition, a final analysis was made to determine the least popular subjects for high school juniors.

Rank order of subject preference. English, ranked very low by both Negro and white boys, was ranked first by Negro and white girls. Generally, mathematics was consistently the lowest rated subject area.

Before this survey was taken, the author had often thought that with all the technology in the world today and the current Negro revolution going on across the United States, there would be quite a

deviation between Negroes and whites in subject preferences, but this was not the case. With the small exception of Negro girls ranking history lower and mathematics higher than white girls, everything else was in almost complete agreement.

Mean I. Q. in selecting first choice areas. The students who selected mathematics as their first choice had the highest mean I. Q. Those choosing physical education as their favorite subject had the lowest mean I. Q.

There was quite a contrast between Negro and white in this area. Whereas the whites who rated mathematics first had the highest mean I. Q., the Negroes who rated mathematics first had the fourth lowest mean I. Q. The highest mean I. Q. for the Negroes was typical of the students ranking English as their favorite subject. For the white students, English ranked next to last in this area.

Those who ranked physical education as their favorite subject area had the lowest mean I. Q. among both the Negroes and the whites.

Student's reason for taking first choice subject area. The vast majority of the high school juniors questioned indicated that they favored a particular subject area primarily because it was interesting and valuable to the student in later life. As for liking a subject because it was easy, physical education was ranked first by a large margin. It was shown that very few students favored a particular course because it was required for entrance to college. History teachers ranked highest

in student appreciation as 25 per cent of the students who chose history as a first choice did so because they liked the instructor.

Subjects chosen last. Mathematics was chosen as the subject 33 per cent of the students liked the least. Science was next with a 20 per cent rating, followed by physical education and English at 18 per cent, and history with a ranking of 11 per cent.

The only large deviation in this survey occurred in the subject area of history where a total of 56 per cent of those choosing history as their favorite subject chose mathematics as their least favorite.

II. CONCLUSIONS

This study showed that subject preferences among high school juniors do exist. The difference between preferences was more prominent between male and female than between Negro and white. There was nothing found to indicate that I. Q. had any definite relationship in subject preference, with the exception of the area of physical education.

The majority of the students indicated that they chose to take their favorite subject for reasons of it being interesting and valuable to them in later life.

The information found in this survey could serve the teacher in several ways: to help in the motivation of students, and aid the teacher in adjusting teaching methods and techniques.

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