1935

A study of the vocational and prevocational offerings of the Morocco High School with recommendations for enrichment

V. Sydney Carlson
Indiana State University

A STUDY OF THE VOCATIONAL AND PREVOCATIONAL OFFERINGS OF THE MOROCCO HIGH SCHOOL WITH RECOMMENDATIONS FOR ENRICHMENT

by

V. Sydney Carlson

Contributions of the Graduate School
Indiana State Teachers College
Number 225

Submitted in Partial Fulfillment
of the Requirements for the
Master of Science Degree
in Education
1935

ACKNOWLEDGMENTS

For their guidance and assistance in this study the writer wishes to thank his advisers, Dr. J. R. Shannon and Dr. E. L. Welborn of the Education Department and Dr. Fred Donaghy of the Science Department of the Indiana State Teachers College.

The writer wishes to express his gratitude to Dr. H. A. Huntington, of the Vocational Department, for constructive suggestions and recommendations for the section on Vocational Guidance.

The writer wishes also to express his appreciation of the valuable co-operation of Mr. C. A. Grayson, Principal of the Morocco High School, and that of Mr. Melburn Garrard, clerk of the town of Morocco, both of whom assisted in the gathering of data.

To his wife, Lucille Ewart Carlson, the writer is especially grateful for her valuable assistance in tabulating data and for her helpful criticism.

V. Sydney Carlson

TABLE OF CONTENTS

LIST OF TABLES

LIST OF CHARTS

I. INTRODUCTION

A. General Statement

The Commission on National Aid to vocational education reported to the Congress of the United States in their report of June 1, 1914, "There is a great and crying need for vocational education that will prepare workers for the more common occupations in which the great masses of our people find useful employment."[1]

This report led to the "Vocational Education Act", more commonly known as the "Smith-Hughes Act", which became a law when signed by President Woodrow Wilson on February 23, 1917. Since the passage of the law many school corporations have taken advantage of this opportunity to obtain vocational education for their children, at reduced local cost. During the decade from 1920 to 1930 the amount of Smith-Hughes money spent by all the states increased from $2,476,503 to $7,404,223. In Indiana alone the amount spent from the same fund in the same decade rose from $74,206 to $208,760.[2]

B. Definition

1. Vocational Education. A combination of several definitions of vocational education gives the following

---

[1] "Report of the Commission on National Aid to Vocational Education", Document No. 1004, 63rd Congress, 2nd Session, I-XI, pp. 10-14.

[2] Statistical Abstract of the United States, p. 123.

definition. Vocational Education is a series of controlled and organized experiences, the purpose of which is: (1) to assist the student to determine his own abilities and aptitudes, (2) to acquaint him with the necessary abilities and aptitudes and the opportunities within the vocations and professions open to him, (3) to guide him in the choice of an occupation for which he is fitted, and (4) to prepare him to fill his place in society and to earn a comfortable living for himself and his dependents. This includes vocational guidance, prevocational activity, and actual vocational training.

2. Vocational Training. Vocational training, according to Payne, "is a much narrower term and is used for that type of education which is exclusively in the acquirement of vocational skills."[3] This term includes teaching the actual skills in doing the work itself. It is the aim which most vocational education has fulfilled in the past. It presupposes that the student has the abilities and the aptitudes to perform the tasks and does not consider the possibilities that the student might be better suited to another occupation. It is the final step in vocational education before placing the student at work.

3. Vocational Guidance. This term is used in the sense that its name implies. It is concerned with "directing the individual, counseling him in the choice of a career, assisting him to find out his aptitudes and limitations,

---

[3]Arthur Frank Payne, Administration of Vocational Education (New York: McGraw-Hill Book Co. Inc., 1924), p. 39.

awakening in him thoughts of the future, showing him opportunities, and supervising his entrance and progress in industry."[4]

4. Prevocational Education. This term is used to denote that part of vocational education which is concerned with assisting the student to discover his abilities and aptitudes mainly by "actual participation on the part of the learner, in a variety of typical experiences derived from the occupations involved."[5] This term is sometimes confused with the industrial arts course in the junior high school, manual training, manual arts, Sloyd, practical arts, and mechanical arts. These do sometimes have prevocational effects, because they sometimes contribute to the individual's ability to choose wisely a vocation. Nevertheless, these types of education are a part of general education rather than prevocational education.

There really can be no definite line drawn between the prevocational and general educational activities. Industrial arts education is based more on industrial pursuits. Manual training has for its object general education and the education of the mind, in part, through the hand. Manual arts is reserved as a term applying to practical hand work in wood, metal, clay, basketry, etc., in which the student first designs an artistic object, and then carries it out in the

---

[4]I. David Cohen, Principles and Practices of Vocational Guidance (New York: Century Co., 1929), p. 46.

[5]Vocational Secondary Education, U. S. Bureau of Education, Bulletin No. 21, 1916, p. 70.

materials. Sloyd has for its object pleasure in bodily labor, respect for it, etc. "Practical arts do not result, except by chance, in recognized forms of vocational efficiency,"[6] although they may become of vocational value to individuals. The mechanical arts are taught with less view to vocational use.

Prevocational education, then, will consist of a series of activities in shop and laboratory in which the student does some of the things he will have to do in each of the various occupations. Of course, it will be impossible to give him experiences in each of the twenty-five thousand occupations listed in the census report of 1930; consequently the school must attempt to give the student experiences such that he can choose between the broad fields or groups of employment as distinguished from specific occupations. Prevocational education should be used in the discovery of interests and aptitudes, industrial, commercial, or agricultural, which are more likely to continue than is the enthusiasm for some particular occupation in one of these fields.

This type of work must always be accompanied by the counsel and direction of the vocational guidance director and teachers.

C. The Problem

1. Purpose. It was the purpose of this study to determine what vocational activities should be added to the program of studies of the Morocco High School. No funds have

---

[6]David Snedden, Educational Sociology (New York: The Century Co., 1922), p. 539.

been drawn by this school from the Smith-Hughes organization except for a few years when vocational home economics was offered before the depression. The school now offers courses in commerce and industrial arts, with the customary English, social studies, mathematics, science, and Latin requirements for college entrance.

2. Territory Served by the School. The Morocco High School is situated in Beaver Township in the west middle section of Newton County. Its enrollment of approximately 175 students in grades nine to twelve is drawn from Beaver Township, in which is located the town of Morocco, which has approximately one thousand inhabitants, from McClellan and Lake Townships on the north, and from a part of Washington Township on the south. Occasionally a few students are drawn from Colfax Township on the northeast and from Iroquois County, Illinois, on the west.

The principal industry in this section of the country is farming. The incorporated town of Morocco and the unincorporated villages of Enos, Ade, Lake Village, and Sumava have the usual number of business houses found in villages of their size. There are no factories, unless the creamery in Morocco be considered as such.

Many graduates of the high school are drawn to the industries of Chicago and those of the Calumet district, about fifty miles north of Morocco.

The farm population consists of general farmers. Some farmers sell milk, but only a few can be termed dairy farmers.

The agricultural products find a ready market in Chicago. The soil is quite fertile, but an old lake bed and sandy ridges occupy a great deal of the two north townships and part of Beaver Township, in Newton County.

The residents of this area are progressive and believe strongly in education.

D. The Scope of the Study

Since the program of studies of each school must be adapted to the local needs, only the Morocco school was considered in the study. Probably the findings will be similar to those found in many other small high schools in Indiana.

E. Sources of Data

The data for this study were obtained from five sources:

1. Questionnaires. Two questionnaires presented to the students of the Morocco High School in the year 1934-35 and to the withdrawn students who would otherwise have been students at that time.

Samples of these questionnaires can be found in the appendix. One questionnaire attempts to ascertain each student's first and second choices of occupations, his experiences with each of the two, his aptitudes for those occupations, his prospects for receiving necessary training

for them, and the type of help he had received in his school classes in choosing his occupation.

The second questionnaire was presented to the students six months later than the first in order to ascertain the first, second, and third choices out of five possible curriculum groups.

2. Survey of the Occupations of the Residents of Beaver Township, Newton County. The investigator personally made inquiries in order to determine the occupations of all residents twenty-one years of age and above who lived outside the corporation limits of Morocco. In some cases neighbors and friends were asked. Within the corporation limits of Morocco, the town clerk was considered an authority. He had lived in or near Morocco for about fifty years and knew all the residents.

3. Survey of the Occupations of the Graduates and Non-Graduates of the Classes From 1918 to 1923 Inclusive. Information as to the occupations of graduates and non-graduates of the classes from 1918 to 1923 inclusive was obtained personally and from relatives and friends of the students.

4. Job Analysis. A job analysis of the prevailing industry (agriculture) which is carried on in the four townships from which the school draws its students was made.

5. A Study of the Program of Studies. A study of the program of studies of the Morocco High School for the year 1934-35 was made.

II. THE VOCATIONAL AND CURRICULAR CHOICES OF THE STUDENTS

A. Purpose and Source of Data

It is the purpose of this section to determine what occupations or types of occupations were desired by each class and the students who have withdrawn, and the curriculums they would rather have followed if a greater variety had been offered.

The information was gained from data given in a questionnaire on occupational choices (see appendix) and another on curricular choices (see appendix). The questionnaire on vocational choices was filled out by the students under the direction of the principal, Mr. Cecil Grayson, in November, 1934, and the information tabulated. Then five sample curriculums were prepared and the students were asked to designate their first, second, and third choices. Only three of the curriculums were applicable to girls but four were applicable to boys. The questionnaire on curricular choices was filled out under the direction of the principal, in May, 1935, during the last week of the school term. It was thought that a better measure of the permanence of the choice would be obtained if a comparatively long period of time elapsed between the two choices.

The withdrawn students were interviewed personally when possible. If they were not at home when visited, a copy of each questionnaire was left with the parents or mailed

to the students with a self-addressed stamped envelope to be used in returning the papers. Of thirty-seven withdrawn students, twenty-six answered the occupational questionnaire and thirteen the curricular questionnaire. Answers were obtained from more withdrawn boys than girls because several girls had married and were living in other towns, and no attempt was made to obtain a personal interview. Some students had moved to other schools during the intervening time, and no attempt was made to obtain their choices of curriculums although they had already given their occupational choices.

B. Present Program of Studies

1. Interpretation of Chart. An examination of the program of studies of the Morocco High School for the years 1934-35 and 1935-36, (see chart I) shows that the only subjects which have any vocational trend are the general home economics and general shop courses in the ninth grade, mechanical drawing in the eleventh grade, and the commercial courses in the three higher grades.

An interpretation of the chart is necessary. Vocational guidance is fused into the two general courses in the ninth grade. They are only nominally elective since girls seldom elect shop and boys seldom elect a home economics course. The principal, Mr. Grayson, had instructed his teachers to integrate all classes with vocational work by projecting the subject matter into its proper and possible

CHART I

PROGRAM OF STUDIES OF MOROCCO HIGH SCHOOL(1934-35 & 1935-36)

Group I---Students interested in Languages, Social Sciences, Journalism, Law, and Music.

	Required	Elective
Grade 9	English Algebra Biology	Home Economics[1] General Shop[1]
Grade 10	English History Latin	Pl. Geometry[2] Com. Arithmetic Geography
Grade 11	English U.S. History Latin	Adv. Algebra S. Geometry Physics Typing[3] Shorthand Mech. Drawing Bible[4]
Grade 12	English U.S. Gov't. Latin	Physics Bookkeeping Typing Shorthand Public Speaking[4] Bible[4]

Glee Club, Orchestra, and Art are open to all grades and all groups.

[1]Home Economics and Shop are general courses. Vocational guidance is fused into these courses. They are used as finding courses.

[2]Advised that this subject be elected.

[3]Required in music courses.

[4]Public Speaking and Bible two days per week and carry one credit per year. Called minors and taken as fifth subject.

CHART 1 (Continued)

Group III---Students interested in Natural Sciences, Engineering, Medicine, Pharmacy, Nursing, Dentistry.	Required	Elective
Grade 9	Same as group I	Same as group I.
Grade 10	English World History Latin[5] Pl. Geometry	Com. Arithmetic Geography
Grade 11	English U.S. History Latin[5] Adv. Algebra[6] S. Geometry[6] Physics	Typing Shorthand Mech. Drawing[7] Bible
Grade 12	English U.S. Gov't. & Econ. Physics Adv. Algebra S. Geometry	Bookkeeping Typing Public Speaking Bible

Group III---Students interested in Commercial Subjects.		
Grade 9	Same as group I.	Same as group I.
Grade 10	English World History Jr. Business Tr. (omitted 1934-35)	Arithmetic[8] Geography Geometry Latin
Grade 11	English U. S. History Typing	Shorthand Latin Adv. Algebra S. Geometry Physics Mech. Drawing Bible
Grade 12	U.S. Gov't. & Econ. Typing Bookkeeping	Shorthand English Physics Adv. Algebra S. Geometry Pub. Speaking Bible

[5]Not required of students who plan to attend colleges which do not require it.

[6]Required in Engineering and Science only.

[7]Advised for engineering students.

[8]Required for stenography course.

applications in the vocations. Thus Latin is taught in relation to its need in the fields of medicine, dentistry, nursing, etc. Extra-curricular activities other than glee club and orchestra are not mentioned because they are not given a place in the daily program. Mechanical drawing is given as an elective course in the eleventh grade and advised for prospective engineering students.

The usual courses preparatory for college are offered.

2. Conclusions. The school now offers two curriculums; (1) the commercial curriculum, which extends from the tenth grade to the twelfth and, (2) the college preparatory or academic curriculum. There is a finding course for boys and one for girls in the ninth grade. Vocational guidance is fused into these classes.

C. Vocations and Curriculums Chosen by the Students

1. Ninth Grade. Table I shows the first choice of occupations and curriculums chosen by ninth-grade students. It shows that the students aspire to the professions and the commercial occupations. The two students who aspire to be nurses who chose commerce, the prospective office worker and the prospective doctor who chose industrial arts, and the prospective engineer who chose agriculture probably are not yet fully determined as to the vocations they desire to follow. This condition is to be expected among students of the ninth grade because usually the

TABLE I

THE NUMBER OF NINTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM FIRST CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Nurse	4	2			2		8
Teacher	7						7
Office work	1	2	1		3		7
Beauty culture		1			3		4
Aviator	2				1		3
Doctor & Surgeon	2		1				3
Engineering	2			1			3
Music & Art		1	1		1		3
Lawyer	1				1		2
Author		1					1
Carpenter			1				1
Sailor	1						1
Undecided	1						1
Total	21	7	4	1	11		44

(29 Girls)
(15 Boys)

students of that age have not given much thought to the question:

In the choice of curriculum it shows that twenty-one, or 47.7 per cent, of the class give the college preparatory group first choice and eleven, or 25.0 per cent, prefer the commerce group. It is noticeable that only one student in the ninth grade gives agriculture first choice. This same person aspires to become an engineer.

Only one student indicated that she was undecided. She gave nursing as her second choice, although the table does not show this.

Table II shows the second choice of occupations and curriculums given by members of the same class. The professions rank first and commercial occupations second in this group also. There is a greater diversity of occupations than the first choice showed.

This table shows that seven, or 15.9 per cent, of the students asked for the college preparatory curriculum in addition to the 47.7 per cent who requested it in their first choice. This makes a total of twenty-eight out of forty-four ninth-grade students, or 62.6 per cent, who gave the college preparatory group as their first or second choice.

Seventeen, or 38.6 per cent, gave commerce as their second choice making a total of twenty-eight, or 63.6 per cent; of the class who gave this group as their first or second choice.

TABLE II

THE NUMBER OF NINTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM SECOND CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Teacher		3			5		8
Office work	2	2			3		7
Nurse	2	3			1		6
Aviator	1	2		1			4
Electrical work	1			1	1		3
Architect					2		2
Salesman				1	1		2
Beauty culture		1			1		2
Dairy farmer			1				1
Lawyer					1		1
Commercial Art		1					1
Homemaker		1					1
Explorer			1				1
Cabinetmaker			1				1
Artist					1		1
Music		1					1
Undecided	1				1		2
Total	7	14	3	3	17	0	44

(29 girls)
(15 boys)

Fourteen girls gave home economics a choice in addition to the seven giving it first choice, making a total of twenty-one in a class of twenty-nine girls, or 72.4 per cent, who gave home economics as their first or second choice.

Only four in a class of fifteen, or 26.7 per cent of the boys, gave agriculture as a choice while seven, or 46.7 per cent, gave industrial arts as a choice.

2. Tenth Grade. Table III shows the first choice of occupations and curriculums as given by members of the tenth grade. The professions and the commercial occupations again lead in popularity. Aviation is ranked high, and farming is tied with nursing for individual occupations. There is less agreement in choice of occupations than existed among the ninth-grade students.

In curricular choices the college preparatory group is popular since thirteen out of a class of thirty-two, or 31.0 per cent of the students, chose that curriculum. Fifteen students, or 35.7 per cent of the class, chose the commercial classes. The number of students choosing industrial arts is the same as in the ninth grade, while the agriculture curriculum has received six choices, four of which are from students who gave farming as their first choice of occupations.

Table IV shows a still greater diversity of choices when the second choice is tabulated. The professions, as chosen occupations, increase in prominence, while office work receives the preference as first choice. Six students,

TABLE III

THE NUMBER OF TENTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM FIRST CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com- merce	No Answer	Total
Office work					11		11
Aviator	3		3				6
Teacher	3	1				1	5
Nurse	2	2					4
Farmer				4			4
Electrical work	2				1		3
Mechanic			1	1			2
Librarian					1		1
Carpenter				1			1
Beauty operator					1		1
Dentist	1						1
Artist	1						1
Music	1						1
Barber					1		1
Total	13	3	4	6	15	1	42

(21 Girls)
(21 Boys)

TABLE IV

THE NUMBER OF TENTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM SECOND CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Ans.	Total
Teacher	1	4			1		6
Nurse	1	2			1		4
Doctor		1			2		3
Mechanic	1					1	2
Office work		1			1		2
Beauty operator		1			1		2
Farmer			1		1		2
Barber			1	1			2
Business					1	1	2
Pharmacy					1		1
Preacher			1				1
Engineer			1				1
Homemaker	1						1
Aviator					1		1
Army or Navy			1				1
Air hostess		1					1
Artist		1					1
Musician			1				1
Truck driver	1						1
Undecided		1	2		1		4
No Answer	1	1	1				3
Total	6	13	9	1	11	2	42

(21 Girls)
(21 Boys)

or 14.3 per cent of the class, coupled with the 31.0 per cent giving the college preparatory curriculum as first choice makes a total of nineteen students, or 45.3 per cent of the class, giving college preparation first or second choice. Eleven students, or 26.2 per cent of the class, giving commerce second choice make a total of twenty-six, or 61.9 per cent of the class, mentioning the commerce curriculum as first or second choice. Home economics received thirteen choices, bringing the total to sixteen, or 76.2 per cent of the twenty-one girls asking for this curriculum. A choice of industrial arts was made by 61.9 per cent of the boys, and a choice of agriculture was made by 71.4 per cent of them.

3. Eleventh Grade. Table V shows the first choice of occupations and curriculums of the students in the eleventh grade. The professions receive the greatest number of choices, with office work ranking above the other occupations. Commercial work is not as prominent a choice as it was in the ninth and tenth grades. There is more diversity of occupations.

In choosing their curriculums twenty students, or 55.6 per cent of the class, chose the college preparatory group. Nine students, or 25.6 per cent of the class, chose the commercial group. The home economics, industrial arts, and agriculture groups received little mention.

Table VI shows a great diversity of interest in the second choice of occupations. Students who chose home

TABLE V

THE NUMBER OF ELEVENTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM FIRST CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Ans.	Total
Nurse	4	1					5
Teacher	4				1		5
Office work		1			3		4
Engineering	4						4
Salesman					2		2
Lawyer	1					1	2
Aviator	1		1				2
Beauty culture		1			1		2
Prof. boxer	1						1
Soc. service	1						1
Home missionary	1						1
Entertainer	1						1
Army musician	1						1
Navy				1			1
Doctor	1						1
R.R. station operator					1		1
Court reporter					1		1
Total	20	3	1	1	9	1	35

(17 Girls)
(18 Boys)

TABLE VI

THE NUMBER OF ELEVENTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM SECOND CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Home Ec. work	2	2					4
Farming			1	1	1		3
Doctor				1	1	1	3
Teacher		2			1		3
Nurse	2						2
Engineering			2				2
Office work		1			1		2
Navy			1		1		2
Matron of orphans' home					1		1
Library work					1		1
Law					1		1
Cabinet maker			1				1
Art	1						1
Beauty culture		1					1
Journalist		1					1
Truck driver	1						1
Aviator			1				1
No Choice	1	1			2	1	5
Total	7	8	6	2	10	2	35
						(17 Girls) (18 Boys)	

economics work included two who wish to become homemakers, one prospective dressmaker, and one who chose "Home Economics" as an occupation.

Twenty students giving the college preparatory curriculum first choice and seven giving it second choice make a total of twenty-seven, or 77.1 per cent, who give the college preparatory curriculum first or second choice.

Nine first choices and ten second choices show that a total of nineteen students, or 54.3 per cent, mentioned the commerce group as first or second choice. Home economics received a total of eleven choices, or 64.7 per cent, from the seventeen girls.

Industrial arts received mention seven times, or by 38.9 per cent of the boys, while agriculture was mentioned only three times, or by 16.7 per cent of the boys.

4. Twelfth Grade. The first choices of the twelfth grade are tabulated in Table VII. Office work stands out as the occupation desired by the most students while teaching and engineering stand next. This situation creates a demand for college education.

Commerce is listed as the first curricular choice by the most students, with 44.4 per cent of the choices, and the college preparatory curriculum has almost as many with 38.9 per cent. Home economics received 21.3 per cent of the fourteen girls' choices, while industrial arts was chosen by 4.5 per cent of the boys, and agriculture was not mentioned at all.

TABLE VII

THE NUMBER OF TWELFTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM FIRST CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com. merce	No Answer	Total
Office work	1	1			12		14
Teacher	4						4
Engineering	4						4
Business	1				2		3
Farmer	1					1	2
Forestry	1						1
Teleg. operator						1	1
Law	1						1
Aviator					1		1
Dressmaker		1					1
Nurse		1					1
Oil station attendant					1		1
Draftsman			1				1
Undecided	1						1
Total	14	3	1	0	16	2	36
					(14 Girls) (22 Boys)		

Table VIII shows the second choice of the twelfth-grade students. Office work and the professions are again in the lead as occupations chosen by the students. There is more diversity in the second than in the first choice.

In choice of curriculums the college preparatory group, the industrial arts group, and the home economics group received a greater number of choices than did commerce. This was to be expected, since the commercial group received so many choices in the first preference.

When considering both first and second choices, one finds that the college preparatory group received mention by twenty-four students, or 66.7 per cent of the class. Commerce was chosen by twenty-two pupils, or 61.1 per cent of the class. Home economics received mention by ten, or 71.4 per cent of the fourteen girls. Industrial arts was mentioned by ten, or 45.5 per cent of the twenty-two boys, and agriculture by only two, or 9.1 per cent of them.

5. Withdrawn Group. Withdrawn students have been grouped as one, regardless of the grade in school to which they belonged. Table IX shows that not many of them aspire to the professions and commercial occupations as first choice of occupations. Of course, if more girls had returned answers, there probably would have been more such choices. Farming leads the list. Four girls wished to be nurses but later withdrew from school, thereby removing most of the probability of their becoming nurses. Of the twenty-one boys,

TABLE VIII

THE NUMBER OF TWELFTH-GRADE STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM SECOND CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Office work	7				1		8
Teacher		2	1		1		4
Farmer	1		2				3
Woodworking			1	1			2
Mechanic			2				2
Engineering			2				2
Store clerk		1					1
Nurse		1					1
Dietician					1		1
Dress designing		1					1
Dentistry					1		1
Doctor	1						1
Navy	1						1
Beauty culturist						1	1
Forest ranger					1		1
Builder						1	1
Drafting			1				1
Undecided				1			1
No choice		2			1		3
Total	10	7	9	2	6	2	36
					(14 Girls) (22 Boys)		

TABLE IX

THE NUMBER OF WITHDRAWN STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM FIRST CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Farmer				5		2	7
Nurse						4	4
Mechanic			2			1	3
Office work						3	3
Forest ranger			1				1
Store clerk			1				1
Truck driver			1				1
Mech. drawing			1				1
Elec. engineer			1				1
Teacher (moved to another school)						1	1
Missionary						1	1
News reporter (moved to another school)						1	1
Waitress		1					1
No report(*) (7 girls now married; 3 boys on farm; 1 boy will inherit a farm)						11	11
Total	0	1	7	5	0	24	37
						(21 boys)	(16 girls)

(*) Several students who had moved to other schools during other years were not sent questionnaires because their education is no longer the responsibility of the Morocco school.

seven chose the farming occupation, but three other boys who now live on the farm and one who probably will inherit land did not answer. The industrial arts curriculum seems to be more popular than that of agriculture. Thirty-three and three-tenths per cent of the boys asked for the industrial arts curriculum, while only 23.8 per cent of them asked for agriculture. Yet the boy who chose to be a forest ranger has more use for agriculture, and the two farmers who did not answer the curriculum questionnaire probably would have chosen agriculture. Although only one girl chose home economics, the marriage of seven girls shows their needs, regardless of their choices.

Table X shows the second choice of the withdrawn students. Farming again was most often desired. One of this group of students was a boy who made general farming his first choice and dairy farming his second choice. The prospective nurses and the two prospective home makers need home economics, with college preparation needed for the nurses. Considering the small number of students answering the questionnaire, the occupations chosen are very diversified.

In choosing their curriculums the three lone students, 11.5 per cent of the class, make little demand for the college preparatory curriculum. Although only one girl mentioned home economics, the fact that there were several married girls shows there is need for that subject. Ten boys, 47.6 per cent, mentioned industrial arts as their

(*) See note under Table IX.

TABLE X

THE NUMBER OF WITHDRAWN STUDENTS CHOOSING EACH OCCUPATION AND THE NUMBER GIVING EACH CURRICULUM SECOND CHOICE

Occupation	Curriculum						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Answer	Total
Farmer				3		2	5
Mechanic	1		2				3
Nurse (one has moved to another school)						2	2
Homemaker	1					1	2
Office work						2	2
Truck driver					1		1
Elec. work				1			1
Engineering			1				1
Carpenter				1			1
Butter-maker					1		1
R. R. engineer	1						1
Cabinet maker						1	1
Iceman.						1	1
Radio singer						1	1
Diplomatic worker (moved to another school)						1	1
Barber						1	1
Undecided						1	1
No report (*) (7 girls married; 3 boys on farm; 1 will inherit farm)						11	11
Total	3	0	3	5	2	24	37
					(21 boys) (16 girls)		

(*) See note under Table IX.

first or second choice. The same number mentioned agriculture as a first or second choice.

6. Third Choice of Curriculums. Table XI shows the third choice of curriculums. The table is of little value except to show how many students are little interested in following each curriculum but who might elect a few courses in the groups. Forty-seven students, or 24.2 per cent of the students of the school, gave the college preparatory curriculum as their third choice. Twenty-three girls, or 23.7 per cent of the ninety-seven girls, gave home economics as third choice. Twenty-six, or 26.7 per cent of the ninety-seven boys, gave industrial arts as third choice, while seventeen boys, or 17.5 per cent of them, gave agriculture as their third choice. Fifty-one pupils, or 25.7 per cent of the entire school, gave the commercial group as their third choice.

TABLE XI

THE NUMBER OF PUPILS IN EACH CLASS GIVING EACH CURRICULUM THIRD CHOICE

Class	CURRICULUM						
	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Com-merce	No Choice	No Report
9th grade	14	9	6	4	11	0	0
10th "	17	5	5	3	10	2	0
11th "	3	5	7	4	14	1	1
12th "	10	4	6	6	8	1	1
Withdrawn	3	0	2	0	8	0	24
Total	47	23	26	17	51	4	26

7. Weighted Evaluation of Curricular Choices. The advice of Dr. H. A. Huntington, of the industrial arts department of Indiana State Teachers College, was asked concerning the desirability of weighting the choices. Table XII shows the number of times the students of each class gave each curriculum first choice, second choice, and third choice and the strength of the demand for each curriculum after weighting. The numbers, three for first choice, two for second choice, and one for third choice, were chosen arbitrarily; no attempt was made to determine the validity of the weights given the choices. It was thought that the first choice was most important, yet many students are not sure of what curriculum they most desire. Some authors[1] say that we can not predict what vocation a student will follow. Students will often choose their electives from the curriculum which is their second or third choice. For these reasons the weighting was thought to be justifiable.

In determining the strength of the demand for each curriculum, it is necessary to consider that the college preparatory and commercial groups attract both sexes, while boys seldom enter home economics classes and girls seldom enter industrial arts and agriculture classes. With this fact in mind, one can understand why the groups open to both sexes receive a much higher valuation than the others. The table shows that the demand for agriculture is lowest in all groups except the group of withdrawn students and that

---

[1] J. R. Shannon, "Survey of Adult Vocational Placement," Junior-Senior High School Clearing House, VIII, Nov., 1933, pp. 180-185.

TABLE XII

THE NUMBER OF TIMES THE STUDENTS IN EACH CLASS GAVE EACH CURRICULUM FIRST, SECOND, AND THIRD CHOICE

Curriculum	Choice First	Second	Third	Total
Grade 9				
Coll. Prep.	21(x3)63	7(x2)14	14(x1)14	91
Home Ec.	7 " 21	14 " 28	9 " 9	58
Ind. Arts	4 " 12	3 " 6	6 " 6	24
Agri.	1 " 3	3 " 6	4 " 4	13
Commerce	11 " 33	17 " 34	11 " 11	78
No Choice	0	0	0	
Grade 10				
Coll. Prep.	13(x3)39	6(x2)12	17(x1)17	68
Home Ec.	3 " 9	13 " 26	5 " 5	40
Ind. Arts	4 " 12	9 " 18	5 " 5	35
Agri.	6 " 18	1 " 2	3 " 3	23
Commerce	15 " 45	11 " 22	10 " 10	77
No Choice	1	2	2	
Grade 11				
Coll. Prep.	20(x3)60	7(x2)14	3(x1) 3	77
Home Ec.	3 " 9	8 " 16	5 " 5	30
Ind. Arts	1 " 3	6 " 12	7 " 7	22
Agri.	1 " 3	2 " 4	4 " 4	11
Commerce	9 " 27	10 " 20	14 " 14	61
No Choice	1	2	1	
No Report			1	
Grade 12				
Coll. Prep.	14(x3)42	10(x2)20	10(x1)10	72
Home Ec.	3 " 9	7 " 14	4 " 4	27
Ind. Arts	1 " 3	9 " 18	6 " 6	27
Agri.	0 " 0	2 " 4	6 " 6	10
Commerce	16 " 48	6 " 12	8 " 8	68
No Choice	0	0	1	
No Report	2	2	1	

TABLE XII (Continued)

Withdrawn Students				
Coll. Prep.	0(x3) 0	3(x2) 6	3(x1)3	9
Home Ec.	1 " 3	0 " 0	0 " 0	3
Ind. Arts	7 " 21	3 " 6	2 " 2	29
Agri.	5 " 15	5 " 10	0 " 0	25
Commerce	0 " 0	2 " 4	8 " 8	12
No Choice	0	0	0	
No Report (boys)9(a)		9	9	
No Report (girls(b) 15		15	15	

(a) Of the nine boys who did not return their questionnaires, at least six are now farming.

(b) Of the fifteen girls who did not return their questionnaires, at least eight are now married and at least five are doing housework.

TABLE XIII

THE TOTAL VALUE OF THE DEMAND FOR EACH CURRICULUM AFTER BEING WEIGHTED

	Curriculum				
Class	Coll. Prep.	Home Ec.	Ind. Arts	Agri.	Commerce
Grade 9	91	58	24	13	78
Grade 10	68	40	35	23	77
Grade 11	77	30	22	11	61
Grade 12	72	27	27	10	68
Withdrawn	9	3	29	25	12
Total	317	158	137	82	296

industrial arts is next above it in rank. It is noticeable that the withdrawn group is the only one which demanded industrial arts and agriculture more than the other curriculums.

Table XIII shows the total value of the demand in the entire school for each curriculum, after weighting. The college preparatory curriculum and commerce curriculum receive practically the same demand. Home economics is found third. There is very little demand for agriculture and industrial arts.

8. Occupations Chosen by Entire School. Table XIV shows the number of choices of each occupation, grouped according to curriculums necessary for prevocational and vocational training in those occupations. Some items, such as engineering, appear twice or even three times because students preparing for these occupations should follow the college preparatory curriculum but need the industrial arts classes and some of the commerce classes. It is difficult to determine where some occupations should be classed. Probably the prospective sailors and aviators should take the college preparatory courses also.

The table shows that occupations for which the academic or college preparatory curriculums are requisites were mentioned 157 times in first and second choices. Commercial needs were mentioned 151 times. Home economics was considered desirable for all girls regardless of the occupations mentioned, because it is quite normal for a

TABLE XIV

OCCUPATIONS OF FIRST AND SECOND CHOICE GROUPED ACCORDING TO CURRICULUMS NEEDED TO HELP IN PREPARATION FOR THEM

	Choice		
	First	Second	Total
Professional group			157
Nurse	22	15	37
Doctor	3	5	8
Surgeon	1	2	3
Dentist	1	1	2
Pharmacist	0	1	1
Teacher	22	20	42
Music & Art	7	8	15
Law	5	2	7
Engineering	17	10	27
Forestry	1	1	2
Social Service	1	0	1
Architect	0	2	2
Missionary	2	0	2
Librarian	1	1	2
Author	1	0	1
News Reporter	1	0	1
Minister	0	1	1
Supt. of orphans' home	0	1	1
Journalist	0	1	1
Diplomat	0	1	1
Commercial group			151
Office work	38	22	600
Salesman	2	2	4
Business mgr.	3	2	5
Store clerk	2	1	3
Court reporter	1	0	1
Beauty shop operator	7	6	13
Engineering students	17	10	27
Agriculture			33
Barber	1	3	4
Oil station attendant	1	0	1

TABLE XIV (Continued)

Home economics group			97
Dressmaker	1	2	3
Waitress	1	0	1
Homemaker	0	6	6
Dietician	0	1	1
Air hostess	0	1	1
Home economics	0	1	1
Girls now married			7
Nurses			37
All other girls (occupations not considered)			40
Industrial arts group			81
Carpenter	2	2	4
Drafting	2	1	3
Telegrapher	2	0	2
Mechanic	3	7	10
Truck driver	1	3	4
Architect	0	2	2
Woodwork	0	5	5
R. R. engineer	0	1	1
Engineering			27
Aviator	12	6	18
Army & navy	2	3	5
Agricultural group			33
Farming	7	14	21
Forestry	2	1	3
Withdrawn students now farming			3
" " inheriting farm			1
Agriculture teacher			1
Buttermaker			1
Business mgr.			3

large proportion of girls to become homemakers. Occupations falling in the industrial arts group were mentioned 81 times and agricultural courses 33 times. The group needing agricultural classes could be increased in size by including those students who will care for flowers and gardens but, since it was impossible to determine the number of such students, for the purpose of the study they were not considered.

9. Occupations Receiving the Greatest Number of Choices. Table XV shows the five most frequently chosen occupations. Students choosing office work include those wishing to do stenographic and secretarial work chiefly, but there were also seven prospective accountants and bookkeepers. Teaching includes coaching of athletics. Engineering includes mechanical and electrical engineering.

Three of these occupations are found in a similar list prepared by Cohen[2] in a study in New York in 1918. He found secretarial and stenographical work most often favored; electrical engineering came second in choice; teaching, third; bookkeeping (included with office work in the present study), fourth; designing, fifth; and dentistry, sixth. Nursing, which is second in the present study, was seventeenth in Cohen's study. Aviation ranked low in his study.

---

[2] I. David Cohen, "Vocational Intelligence of Pupils," Current Education, Feb., 1918, p. 67.

TABLE XV

THE FIVE OCCUPATIONS RANKING HIGHEST IN FIRST CHOICE BY THE STUDENTS

Occupation	Times Chosen
Office work	38
Nursing	22
Teaching	22
Engineering	17
Aviation	12

D. Summary

A study of the program of studies of the school shows that the school does very little to prepare the student for most of the vocations in rural communities. This agrees with the studies made more than twenty years ago in Maryland and in Butte, Montana.[3]

By far the greatest number of occupations chosen by the students enrolled in the Morocco High School are within the professional and commercial groups.

The college preparatory curriculum was made the first or second choice of 63.6 per cent of the students in the ninth grade, 45.3 per cent of the tenth grade, 77.1 per cent of the eleventh grade, and 66.7 per cent of the twelfth grade; while the group who have withdrawn from school made

[3] I. David Cohen, Principles and Practices of Vocational Guidance (New York: Century Co., 1929), p. 5.

little demand for this curriculum, for only 11.5 per cent of them made it their first or second choice.

The commerce curriculum was given first or second choice by 63.6 per cent of the ninth grade, 61.9 per cent of the tenth grade, 54.3 per cent of the eleventh grade, and 61.1 per cent of the twelfth grade, but by only 5.4 per cent of the withdrawn group who answered the questionnaire.

Home economics was given as first or second choice by 72.4 per cent of the ninth grade, 76.2 per cent of the tenth grade, 64.7 per cent of the eleventh grade, and 71.4 per cent of the twelfth grade. Only one girl in the withdrawn group gave home economics as a choice, but since several of the girls in this group are married, it seems as if home economics should have been taught them in order to prepare them for their needs.

Industrial arts was given as first or second choice by 66.7 per cent of the boys in the ninth grade, 61.9 per cent of those in the tenth grade, 38.9 per cent of the boys in the eleventh grade, 45.5 per cent of the boys in the twelfth grade, and 47.6 per cent of the withdrawn boys who answered the questionnaire.

Agriculture was given first or second choice by 26.7 per cent of the boys in the ninth grade, 33.3 per cent of those in the tenth grade, 16.7 per cent of the boys in the eleventh grade, 9.1 per cent of the boys in the twelfth

grade and 47.6 per cent of the boys in the withdrawn group.

After weighting the demand for each curriculum, the writer found that the two curriculums now offered by the school are given practically the same demand. Of the groups of subjects home economics ranks third, industrial arts fourth, and agriculture last.

Classification of the occupations mentioned by the students ranks the need for the curriculums in the same order as the student demand for the curriculums.

III. STUDENT DEMAND FOR OCCUPATIONAL KNOWLEDGE

A. Purpose

It is the purpose of this section to show the present sources of occupational knowledge of the students and their felt need for occupational guidance.

The data for this part of the study were obtained from the occupational questionnaire (see appendix).

B. School Classes

Table XVI shows the number of pupils in each class who reported having had classes in school which were helpful in choosing their occupation. It shows that the present plan of integrating the class work with occupational work is serving its purpose in so far as the classes apply to the various occupations.

TABLE XVI

NUMBER OF STUDENTS WHO HAVE HAD CLASSES HELPFUL IN CHOOSING THEIR OCCUPATIONS

Grade	Yes	Per Cent of Those Answering	No	Per Cent of Those Answering	No Answer
9	23	69.7	10	30.3	1
10	26	65.0	14	35	2
11	24	68.6	11	31.4	0
12	28	77.8	8	22.2	0
Withdrawn	12	48.0	13	52.0	12
Total	123	68.7	56	31.3	15

TABLE XVII

CLASSES MENTIONED AS HAVING BEEN HELPFUL IN CHOOSING VOCATION

	Grades					
	9	10	11	12	W.	Total
Social Sciences						
Citizenship	1					1
History		3	1		1	5
U.S. Gov't				1		1
Voc. Citizenship			2	1		3
Voc. Education			2			2
Voc. Information			3			3
Vocations and Citizenship			2	4	1	7
Vocations		1	2	1	1	5
Total	1	4	12	7	3	27
Language Arts						
English	2	3	2	1		8
Latin	2	8	1		2	13
Literature	2				1	3
Public Speaking	1		1			2
Total	7	11	4	1	3	26
Mathmetics	5	2	1			8
Algebra	3			2		5
Arithmetic	2					2
Geometry				1		1
Total	10	2	1	3		16
Physical Education	5	1				6
Science	1	2		1	1	5
Agriculture	1				1	2
Biology	4		1	1	2	8
Gen. Science	3	1	3		1	8
Geography			1		1	2
Home Economics	12	3	6	2	3	26
Voc. Home Economics			1	1		2
Home Nursing				1		1
Laboratory	1					1
Physics		2	1	2		5
Total	22	8	13	8	9	60

TABLE XVII (Continued)

Commerce			5	15		20
Bookkeeping				1	1	2
Budgeting			2			2
Commercial Arithmetic		6				6
Shorthand			1			1
Typing			2	1		3
Total	0	6	10	17	1	34
Conference:						
Principal discussed required subjects		1				1
Principal discussed choice of subjects		1				1
Total		2				2
Extra Curricular Activities						
Athletics	1	1				2
Library			1			1
Total	1	1	1			3
Fine Arts						
Art	3			1		4
Commercial Art		2				2
Music	1		1			2
Total	4	2	1	1		8
Industrial Arts						
Farm Shop		2				2
Gen. Shop					1	1
Home Mechanics	1					1
Manual Training	6	6	1	1	3	17
Mechanical Drawing	1			2		3
Total	8	8	1	3	4	24

Table XVII shows what courses these students considered helpful in choosing vocations. It is noticeable that only twenty students mentioned a class in "Vocations", "Vocational Citizenship", etc. It is probable that all these students were in the same class but used different names for the course. Probably others were in the class but forgot to mention it. This work is probably what is now fused into the home economics and shop courses in the ninth grade. Agriculture, listed under science, probably refers to that subject as studied in the seventh and eighth grades. All the courses classified under industrial arts are probably considered in the general course in the ninth grade or in the seventh and eighth grades.

C. Knowledge of Occupations Chosen

1. Extent of Vocational Experience. No attempt was made to determine the extent of each individual's vocational experience. This is the duty of the vocational counselor. The students were asked whether they had gained any experience in the occupations they chose and, if so, what they had done (see occupational questionnaire in the appendix).

2. Place Where Experience Was Gained. Table XVIII shows whether or not they had had experience in the occupations and whether the experience had been gained in school or outside of school. Some students classified their classes in physical education and athletic experiences as experience in coaching, algebra and arithmetic classes as experience in accounting, etc. It is doubtful whether some of these may be considered as experience, but since the teacher may have given this type of work, the statement was accepted as correct. In each class,

except in the withdrawn group, approximately one-half of the students who answered mentioned, as first choice, occupations in which they had already had some experience. In the withdrawn group twenty-one persons, or 78.4 per cent of twenty-six who answered, had received experience in the occupation which was given as their first choice. Of these students still in school 50.0 per cent had obtained experience in the work chosen.

In their second choice of occupations not quite as large a proportion of the ninth and twelfth grades had had experience in the occupation they mentioned as had had their first choice. About one-half of the tenth- and eleventh-grade students who answered said that they had obtained experience in the occupation of their second choice. Eighty per cent of the withdrawn students had obtained experience in the occupation which was their second choice. Of the students in school 47.1 per cent of those answering had obtained experience in the occupation listed as their second choice.

Table XVIII shows that about half of the students in the ninth and tenth grades had received some experience in the occupations of their first choices in school and less than half of the eleventh and twelfth received any there. Some students had received experience both in school and outside of school.

Of the entire group in school who had had experience in the occupations of their first choices, thirty-three, or 39.2 per cent, had received some experience in school, and

TABLE XVIII

THE NUMBER OF STUDENTS WHO HAD HAD EXPERIENCE IN THE OCCUPATION THEY CHOSE AND THE PLACE WHERE THAT EXPERIENCE WAS GAINED

	FIRST CHOICE					
	Yes	No	No Ans.	Total in Class	Place of Experience In School	Outside of School
Grade 9	19	23	2	44	10	9
Grade 10	21	20	1	42	12	14
Grade 11	18	16	1	35	5	17
Grade 12	18	17	1	36	6	12
Total	76	76	5		33	52
Withdrawn	21	5	11	37	5	17
Total	97	81	16	194	38	69

	SECOND CHOICE					
Grade 9	18	24	2	44	11	11
Grade 10	18	16	8	42	4	16
Grade 11	15	14	6	35	3	15
Grade 12	13	18	5	36	5	11
Total	64	72	21		23	53
Withdrawn	20	5	12	37	2	19
Total	84	77	33	194	25	72

fifty-two, or 53.6 per cent, had received experience outside of school.

Of the withdrawn group 23.8 per cent had received experience in their chosen occupations in school and 80.9 per cent had received some outside of school.

More than half of the eighteen students in the ninth grade with experience in the occupations of their second choice had received some of that experience in school, but in the other classes less than half of the students had received any of their experience in school.

Of the entire group in school who had received experience in their chosen occupations, twenty-three, or 35.9 per cent, had received some school experience in their second choice and fifty-three, or 82.7 per cent, had received some experience outside of school.

Of the withdrawn group, two, or 10.0 per cent, had received some school experience in their second choice and 95.0 per cent had gained experience outside of school.

TABLE XIX

THE NUMBER OF STUDENTS WHO HAD OBSERVED OTHERS IN THE OCCUPATION THEY CHOSE

	First Choice			Second Choice		
	Yes	No	No Answer	Yes	No	No Answer
Grade 9	29	13	2	28	13	3
Grade 10	29	9	4	21	10	11
Grade 11	23	9	3	19	8	8
Grade 12	28	7	1	22	10	4
Withdrawn	20	5	12	10	3	14
Total	129	43	22	110	44	40

D. Observation of Others in Occupations Chosen

A source of vocational knowledge other than that of vocational experience is observation of others in the various occupations. The students were asked (see occupational questionnaire in index) whether or not they had carefully observed any one else in the work chosen. Table XIX shows the information given in answering the questionnaire. A large number in each group had observed others in both their first and second choices of occupations. In the first choice one hundred twenty-nine, or 75.0 per cent of those answering, had observed others in the work they chose. In the second choice one hundred ten students, or 71.4 per cent of those answering, had observed others in the work they chose.

E. Student Demand for Occupational Information

In order to determine whether students felt that they needed school help in choosing their occupation, they were asked whether they felt a need for such help. (See occupational questionnaire in appendix.)

TABLE XX

NUMBER OF STUDENTS IN EACH CLASS WHO FELT NEED FOR SCHOOL HELP IN CHOOSING THEIR VOCATIONS

Group	Yes	No	No Answer	Not Sure	Total
Grade 9	32	11	1		44
Grade 10	33	7	2		42
Grade 11	26	8	1		35
Grade 12	23	10	2	1	36
Withdrawn	20	5	12		37
Total	134	41	18	1	194

Table XX shows that a large proportion of each class felt a need for school help in choosing vocations. Of the entire group included in this study, one hundred thirty-four students, or 76.6 per cent, made the request for information which would be of aid in the choosing of vocations.

F. Abilities and Aptitudes of Students

An important item in a student's choice of his occupation is his knowledge of his abilities and aptitudes which would fit him for the occupation. Without the application of this knowledge, there will still be workers unfitted for the work they are doing and waste of human resources in industry.

In order to determine whether the Morocco school was teaching these items of information, the students were asked what abilities they had which made them feel that they would be successful in the occupations they chose. (See occupational questionnaire in appendix.)

The answers to this question and the number of times each was mentioned are shown in Table XXI. Most of the answers are general and could be applied to any occupation; some are not abilities at all, while only a few can be definitely classed as aptitudes.

Two students admitted that they had no abilities for the occupation they chose. Several said that they "Like it" when they had just admitted that they had obtained no experience. As a whole few abilities or aptitudes are mentioned.

G. Financial Condition of Parents

One important item of information, important to a guidance counselor, is that of the student's ability to

TABLE XXI

ABILITIES POSSESSED BY STUDENTS WHICH MADE THEM THINK THEY WOULD BE SUCCESSFUL IN OCCUPATIONS CHOSEN

Ability	No. of Times Mentioned
Like to do it or like something about it	97
Amount of intelligence necessary	71
Interest in the work	33
Experience	33
Former success and ability	29
Skills necessary	20
Patience	9
Daring nature	9
Know how to do it	7
Studied necessary subjects	7
Like children	6
Ambition	6
Constructive ability	5
Training	5
Watched and talked with others who did it	5
Physical ability	5
Self-control	5
Ability to handle children	4
Determination	4
Health	4
Read books about it	3
Sympathetic nature	3
Good grades in school	3
Industry	2

TABLE XXI (Continued)

My relative does it	2
Willingness	2
It would be easy	2
Neatness	2
None	2
Not self-conscious	2
Self-confidence	2
Ability to see weak points of opponent	1
All women become housekeepers	1
Can stand horror	1
Can stand smell of medicine	1
Follow instructions well	1
Honesty	1
Hopeful for success	1
It will pay for itself	1
Know many people	1
Remember books and authors	1
Sense of beauty and design	1
Thoughtfulness	1
Want to be useful	1
Will power	1

obtain financial support for vocational training in the occupation he chooses.[1] In order to obtain this information the students were asked whether their parents could afford to send them to a school for training in the occupation they chose if the students worked for part of their expenses. (See occupational questionnaire in index). Another purpose in asking this question was to determine whether it was necessary to teach vocational training in the secondary school because they could not obtain training elsewhere.

TABLE XXII

NUMBER OF STUDENTS IN EACH CLASS WHO SAID THEIR PARENTS COULD AFFORD TO PREPARE THEM FOR THEIR CHOSEN OCCUPATION

Group	Yes	No	No Answer	Maybe Doubtful	Don't Know, Etc.	Think So	Total
Grade 9	28	13		3			44
" 10	29	10	1	1	1		42
" 11	21	9	1	2	2		35
" 12	20	9	3	1	3		36
Withdrawn	7	14	13		2	1	37
Total	105	55	18	7	8	1	194

Table XXII shows that more than two-thirds of the students in each group except the withdrawn group think that their parents are able to provide financial support while they

[1] A. A. Metcalf, A Guidance Program for the Small High School (Ypsilanti: Standard Printing Co., n.d.) p. 39.

obtain vocational training in their chosen occupation.

In the withdrawn group, fourteen, or 66.7 per cent of those answering, think that their parents can not provide vocational training for them.

Of the entire group included in this study, one hundred five students, or 65.6 per cent, feel that their parents can afford to provide their vocational training.

H. Summary

The occupational knowledge of the students of the Morocco High School has been obtained in their classes in all subjects, from their experiences in school and outside, and from the observation of others. It is probable that the present program of studies offers a key to the reason why so many students chose the college preparatory, commercial, and home economics curriculums. The teachers had been told to integrate their classes with vocational information by projecting their subject matter into the vocations. The program of studies shows that probably no course taught in the school has any degree of application in rural occupations except the few weeks which apply to farm shop in a general course in shop work and possibly the courses in biology, physics, and mechanical drawing. All of these except the shop course are usually textbook and laboratory courses based upon textbooks and experiments which teach principles of science more applicable to the medical and engineering professions which the students chose. In other words, the students probably have been guided into these occupations by the courses they have taken.

A large proportion, 76.6 per cent, of the students feel a need for school help in choosing their life work.

The reasons most often mentioned by the students for choosing occupations are that they like the work, have the necessary intelligence, are interested, and have the necessary skills. Few definite abilities and aptitudes are mentioned. This indicates that the students are not being taught the abilities and aptitudes necessary for the occupations and that they are not receiving much help in determining their own abilities and aptitudes. Is the student who has intelligence being educated away from the farm? Perhaps he is.

A large proportion of the students in school think that their parents can afford to send them to a school to train them for the occupation they have chosen, but only a small number of the withdrawn students can afford such training. Since the withdrawn students are the ones who will remain on the farm and in the trades, those workers will be the ones who will not be trained. Thus one finds a lack of democracy in education.

IV. OCCUPATIONS OF ADULTS

A. Purpose

One means of determining the curricular needs of the school is to ascertain whether the school is preparing the students for the work which they will do. One method of determining this is to find out what other students in the school have done in earlier years. Another method is to determine what is being done in the community where the school is located. The writer's purpose in this section is to show the occupations of former students and to show what is being done in the community in which the Morocco High School is situated.

B. Former Students

1. Students Within a Thirty-Mile Radius. A radius of thirty miles was chosen because it would include an area where the occupations are similar to those in the area served by the school. It is near enough to exclude the Chicago district of northwestern Indiana. The years from 1918 to 1923 were chosen because the records were available, because those students have been out of school long enough to have become established in an occupation more or less permanent, and because they represent the period following the World War in which young people, as in the present, entered more varied occupational fields than they did before the war.

Table XXIII shows that sixty-three students of the group under consideration were living within thirty miles

TABLE XXIII

OCCUPATIONS FOLLOWED BY THE GRADUATES AND NON-GRADUATES OF THE CLASSES OF THE MOROCCO HIGH SCHOOL FROM 1918 TO 1923 WHO HAD REMAINED WITHIN A RADIUS OF THIRTY MILES OF MOROCCO

Occupation	Classes by Years 1918		1919		1920		1921		1922		1923		Total		
	W[a]	G[b]	W	G	W	G	W	G	W	G	W	G	W	G	
Homemaker	7	2		5	1	3			1	2	4	4	13	16	29
Farmer	2	3	1		1	1	2	1	1	2	3		10	7	17
Teacher		1						1				2		4	4
R.R. employee		1										1		2	2
Laborer			2										2		2
Clerk												1		1	1
Dentist				1										1	1
Insurance										1				1	1
Blacksmith	1												1		1
Janitor					1								1		1
Restaurant proprietor					1								1		1
Truck driver					1								1		1
Carpenter									1				1		1
Painter											1		1		1
Total	10	7	3	6	5	4	2	2	3	5	8	8	31	32	

63

[a]"W" refers to students who did not graduate.

[b]"G" refers to students who graduated.

(30 men)
(33 women)

of the school. Thirty of these are now men and thirty-three are women, although the table does not show this fact. Twenty-nine of the thirty-three women, or 87.9 per cent, are now homemakers. Seventeen men, or 56.7 per cent, are farmers. Four teachers, one farmer, one dentist, and at least two others, or 12.7 per cent of the group, are now college graduates. There is little or no agreement among the other occupations.

Thirty-two students of this group are graduates and thirty-one withdrew from school before graduation.

2. Students Beyond a Thirty-Mile Radius. Table XXIV shows that 113 former students of the classes considered are now living beyond a thirty-mile radius of the school. Of this group fifty-nine are now women and fifty-four are men. Of the women, forty-seven, or 79.7 per cent, are known to be homemakers. Probably some of the girls of whom no record was found should be included in the list of homemakers. Of the men, eight, or 14.8 per cent, are now engaged in business management of some kind. Seven men, or 12.9 per cent, are engaged in agriculture. At least twenty-four of this group. or 21.2 per cent, are college graduates, although the table does not show which ones are.

Combining homemakers in Table XXIII and XXIV gives a total of seventy-six, or 82.6 per cent of the ninety-two women, who are now homemakers. Twenty-four men in the

TABLE XXIV

OCCUPATIONS FOLLOWED BY THE GRADUATES AND NON-GRADUATES OF THE CLASSES OF THE MOROCCO HIGH SCHOOL FROM 1918 TO 1923 WHO HAD GONE BEYOND A RADIUS OF THIRTY MILES OF MOROCCO

Occupation	1918		1919		1920		1921		1922		1923		Total		
	W[a]	G[b]	W	G	W	G	W	G	W	G	W	G	W	G	
Homemaker	2	7	2	3	5	5	3	5	9	2	2	2	23	24	47
No record	2		6		2		3		5		1		19		19
Bus. Mgr.	1				2	1		3		1			3	5	8
Farmer		1			1		4		1				6	1	7
Teacher						4	1		1				2	4	6
R.R. Employee	1								3	1			4	1	5
Nurse										3				3	3
Carpenter		1					1						1	1	2
Foreman		1								1				2	2
Musician			1			1							1	1	2
Salesman		1						1						2	2
Waitress									1			1	1	1	2
Watchman												1		1	1
Sailor	1												1		1
Barber			1										1		1
Mail clerk					1								1		1
Undertaker					1								1		1
Missionary		1												1	1
Steamboat worker									1				1		1
Laborer									1				1		1
Total	7	12	10	3	12	11	12	9	22	8	3	4	66	47	113

[a]"W" refers to students who did not graduate. (59 women)

[b]"G" refers to students who graduated. (54 men)

two groups, or 28.6 per cent of all the ninety-two men, are farmers. Approximately thirty-one students, or 17.3 per cent, are college graduates. Probably there are more.

C. Occupations in Beaver Township

Table XXV shows the occupations of the adult residents of Beaver Township, in which Morocco High School is located. An attempt was made to classify these occupations under the classifications of the United States census bureau.

The greatest number in any one occupation was 408 homemakers, classed under personal service. Next in rank was general farming, engaging 132 men. Two dairymen, two poultry raisers, two truck farmers or gardeners, and thirty retired farmers brought the total to 168. No other single occupation employs any great number of workers, although business dealings would include a large number of individuals.

D. Job Analysis of the Farming Industry

Since farming is the dominating industry in the township served by the school, an analysis of the industry should be made before determining what prevocational work should be taught in the school. The same industry is even more dominating in the three other townships from which students are drawn, because those townships contain no incorporated towns at all.

TABLE XXV

OCCUPATIONS OF RESIDENTS OF BEAVER TOWNSHIP, NEWTON COUNTY

		Totals
Agriculture		
Dairy	2	
General farmer	132	
Poultry	2	
Retired farmer	30	
Truck farmer	2	
		168
Commerce		
Trade		
Bank officers and employees	4	
Coal dealer	1	
Creamery operators and cream testers	5	
Collector	1	
Druggist	3	
Farm implement dealer	2	
Farm implement employee	1	
Garage manager	4	
Gasoline station and garage helper	9	
Grain dealer	2	
Grain dealer employee	2	
Grocery store manager	5	
Grocery store clerk	6	
Hardware store manager	1	
Hatchery and feed store manager	1	
Jewelry store manager and repairman	1	
Leather goods store manager and repairman	1	
Lumberyard manager	1	
Lumberyard employee	1	
Men's clothing store manager	4	
Men's clothing store clerk	3	
Millinery and Ladies' Wear store manager	2	
Millinery and Ladies' Wear store clerk	1	
Real estate, trade, etc.	4	
Newsstand manager	1	
Oil station manager	7	
Oil station helper	6	
Poultry buyer	2	
Salesmen (Ins. etc.)	10	
Stenographer, secretary, bookkeeper and office worker	6	
Undertaker	1	
Variety store and notion clerk	4	

TABLE XXV (Continued)

Transportation		
Drayman	1	
Oil and gasoline distributor	4	
Postmaster	1	
Post office clerk	1	
R. F. D. carriers	3	
Railroad section hand	11	
Railroad station agent, telegrapher, and signalman	11	
Telephone Co. manager	1	
Telephone lineman	2	
Telephone switchboard operators	5	
Truck driver	19	
		163
Manufacturing		
Buttermaker	1	1
Personal Service		
Barber	7	
Cobbler	1	
Cook (in restaurant)	3	
Hotel and cabin camp manager	5	
Homemaker	408	
Ladies' hairdresser	3	
Lunchroom and restaurant manager	8	
Recreation parlor (poolroom) manager	2	
Theater manager	1	
Town marshall, watchman, sailor, and game warden	6	
Waiter and waitresses	9	
		453
Professional Service		
Attorney	2	
Dentist	1	
Minister of the Gospel	4	
Newspaper editor	1	
Newspaper employees	2	
Nurse	7	
Physicians	4	
Teachers	16	
Veterinary	1	
		38

TABLE XXV (Continued)

Skilled Labor		
Auctioneer	1	
Blacksmith	2	
Bricklayer	1	
Butcher	3	
Carpenter	10	
Electrician	2	
Dredge mechanic and operator	2	
Highway Supt.	2	
Janitor	3	
Mechanic	9	
Painter	3	
Surveyor	1	
		39
Unskilled Labor		
Day laborer	41	
Highway laborer	17	
		58
Miscellaneous		
No visible occupation	2	
Retired workers and business men	17	
		19
Grand Total		939

The following outline was made in an attempt to analyze agriculture into its major and secondary problems. The analysis was made by the individual making the study. He was reared on the farm and has lived in agricultural communities all his life. The work of farmers throughout northwestern Indiana was tabulated, classified, and re-classified under suitable major headings.

An Outline Analysis of Farm Problems.

I. Problems of production.

A. Soils and crops.

1. Grain production.
2. Fruit and berry production.
3. Garden crop production.
4. Special crop production.
5. Plant nursery.

B. Animal husbandry.

1. Dairy cattle.
2. Beef cattle.
3. Hogs.
4. Sheep.
5. Horses and mules.

C. Poultry production.

1. Chickens.
2. Turkeys.
3. Other poultry.

II. Problems of distribution.

A. Preparation for market.

B. Records and accounting.

C. Marketing.

D. Business law.

III. Problems of organization.

A. Crop rotation.

B. Implements and power.

C. Buildings and fencing.

IV. Conservation of natural resources.

A. Soil fertility.

B. Woodlots.

C. Drainage.

E. Summary

This section of the study deals with: (1) the present occupations of adults who attended the Morocco High School more than ten years ago, and (2) the present occupations of the adult residents of the township where the school is located.

The local area served by the school receives very little value in occupational training for local needs. This is shown by the fact that a large proportion of the girls who remain near the school become homemakers, yet the school provides practically no training in home economics. Only a small per cent of the students of the

school who use their college preparatory training, return to the community after they finish college. Of course, perhaps this loss is offset by others who come to the community after they have received this service in other schools.

The school supplies practically no activity which fulfills the vocational aim of education by providing activities of a prevocational nature in the predominating industry, agriculture.

V. FINDINGS OF THE STUDY

A. Purpose

It is the purpose of this section to state the findings of this study in order to determine what subject matter the school should add to its program in order to improve its efficiency in fulfilling the vocational aim in education.

B. The Needs of the Students and Community

A great number of students of the Morocco High School will need skills and knowledges peculiar to the trades, homemaking, and agriculture in addition to those obtained in the commercial and academic courses. As long as these are not provided we do not have democracy in education.

C. Conclusions Drawn from the Data

1. Home economics. The data show that a rather complete curriculum in home economics should be provided by the Morocco High School, because 82.6 per cent of the former girl students are now homemakers, and because more than 64 per cent of the girls in each class asked for it.

2. Prevocational Activity in the Trades and Engineering. The data show that the Morocco High School should provide prevocational experience in as many trades and as many branches of engineering as possible for the boys in the school. This should be done because many of the boys who are not getting this experience now will be drawn into the industrial district of northwestern Indiana. It is not possible to teach many of these occupations through experiences because of lack of equipment.

3. Agriculture. The data show that the Morocco High School should provide a rather complete curriculum in agriculture, in order to keep in school the students who would otherwise withdraw and in order to discover to students the possibilities of scientific agriculture, since agriculture is the predominant industry in the area supporting the school. It is true that only a few students asked for a curriculum in agriculture. Still more boys who were students in Morocco High School from 1918 to 1923 have become farmers than have become members of any other single occupation. Probably the present group of students have been discouraged by parents, friends, and others because of the recent gloomy outlook on the farm. The agricultural industry does need men of trained intelligence to carry on production, marketing, etc. and to engage efficiently in the commercial struggle which the industry must face in order to obtain a higher standard of living. The farmer does need commercial training, but it is not typing, spelling, and shorthand that he needs.

4. Occupational Information and Guidance. The data show that the Morocco High School should provide a program of vocational guidance to assist the students in choosing their life's work by helping them to discover what abilities and aptitudes are needed and the possibilities in occupations other than the professions and commercial occupations, and by helping them to obtain knowledge in other occupations through actual activity, observation, and reading. Such information was asked by 76.6 per cent of the pupils. Table XXI shows that few students are choosing their occupations as a result of abilities and aptitudes fitting them for the tasks.

VI. PREVOCATIONAL INSTRUCTION

A. Home Economics

In order to determine what course should be taught in the home economics curriculum, advice was asked of Miss Hortense Hurst, itinerant teacher of home economics. Chart 3 shows a three-unit program of home economics, recommended under the requirements of the Smith-Hughes Act of 1917. The ninth and tenth grade may be combined during the first year and the eleventh and twelfth during the second year.

CHART 2

A THREE-UNIT PROGRAM IN HOME ECONOMICS

Time: 2 years, one-half of the school day.

Title of Course	No. of Weeks	Length of Period	Periods Per Week
First Year			
First Semester			
Foods: Selection and Preparation	18	80 or 90 min.	5
Biology	18	80 or 90 min.	5
Home Practice			
Second Semester			
Clothing: Selection, Care and Instruction	18	80 or 90 min.	5
Biology	18	80 or 90 min.	5
Home Practice			
Second Year			
First Semester			
Advanced Clothing	18	80 or 90 min.	5
Related Art	9	80 or 90 min.	5
Home Management	9	80 or 90 min.	5
Home Project			
Second Semester			
Nutrition & Foods Management	18	80 or 90 min.	5
Home Nursing	9	80 or 90 min.	5
Child Development	9	80 or 90 min.	5
Home Projects			

B. Agriculture

The instruction in agriculture should meet the requirements of the Smith-Hughes Act. Bulletin 100 G-2 of the Indiana State Department of Public Instruction gives the following criteria in determining the particular courses which should be offered, (a) the needs and interests of the community, (b) the training of the teacher, (c) the adequacy of equipment and building facilities, and (d) the provision for proper supervision in the home projects.[1] Chart 3 shows a curriculum recommended with two substitutions because of lack of need of poultry and horticulture study, according to the analysis on page 62. The ninth and tenth grades may be combined during the first year and the eleventh and twelfth during the second year.

CHART 3

A TWO-UNIT CURRICULUM IN AGRICULTURE

Time: 2 years, one-half of the school day.

Title of Course	No. of Weeks	Length of Period	Periods Per Week
First Year			
First Semester			
Biology	18	80	5
Animal Husbandry	18	80	5
Second Semester			
Biology	18	80	5
Soils and Crops	18	80	5
Home Project and 4H Clubs			
Second Year			
First Semester			
Dairying	18	80	5
Farm Mechanics	18	80	5
Second Semester			
Beef Cattle	18	80	5
Special Crops	18	80	5
Home Project and 4H Clubs			

[1] Roy P. Wisehart, Courses in Agriculture for High Schools, Department of Public Instruction, Vocational Education Division, (Bulletin 100 G-2, 1928), p. 8.

C. Industrial Arts

The industrial arts curriculum should provide activity in as many skills as possible in order to determine the students' abilities and aptitudes for the various classes of industrial occupations. Its purpose is to assist the student to determine whether he should enter an engineering occupation, mechanics, or some trade.

Chart 4 provides a two-year curriculum in industrial arts. Grades nine and ten may be combined and grades eleven and twelve may be combined. This chart was made by the individual making the study, basing the curriculum upon the equipment now in the industrial arts shop in the school building.

CHART 4

A TWO-YEAR CURRICULUM IN INDUSTRIAL ARTS

Time: 2 years, eighty-minute period daily.

Title of Course	No. of Weeks	Length of Period	Periods Per Week
First Year			
First Semester			
General Shop	18	80 min.	5
Second Semester			
Wood Work	18	80 min.	5
Second Year			
First Semester			
Mech. Drawing	18	80 min.	5
Second Semester			
Electrical Shop	18	80 min.	5

D. Financial Support

1. Valuation and Tax Rate. The assessed valuation of Beaver Township for the year 1936 is $1,338,000. The tuition

tax rate is twenty cents. This indicates that the local school corporation is paying only $2,676 toward its teachers' salaries.

2. Teacher Load. A careful study of the present program of studies and the courses recommended in this study shows a table of thirty courses to be taught daily, without including music and art. There are nine teachers in the school. Since the music and art teacher must spend part of her time in the elementary school, her entire time is taken up by these courses. For the purpose of this study only the remaining eight of the teachers now employed in the school are considered. With the addition of a teacher of vocational agriculture a total of nine teachers is provided for classes in the high school only. Probably the home economics and agriculture teachers will be called upon to teach their subjects in the seventh and eighth grades twice each week.

Nine teachers teaching thirty classes in a day requires that each teacher teach four classes per day. This leaves the principal some time for supervision and leaves periods for the teachers to have charge of the study hall and to teach additional classes in order to prevent conflicts. From year to year grades may be combined in other courses if the teacher load seems to be heavy.

3. A Plan of Financial Support. The addition of a teacher of agriculture would increase the annual budget approximately fifteen hundred dollars. The salary of the home economics teacher probably will be increased about three hundred dollars in order to meet Smith-Hughes requirements.

This makes a total increase of eighteen hundred dollars. The Smith-Hughes department will pay 33.3 per cent of the salaries of the two vocational teachers, or one thousand dollars. Probably twelve hundred dollars is being paid the home economics teacher now. Then the total amount to be raised by local taxation to meet the increased tuition cost will be eight hundred dollars.

During the summer of 1935 the teachers of vocational agriculture in Vigo County have prepared an estimate of the cost of equipment needed to initiate the curriculum of vocational agriculture in their schools. The total expense according to their estimate[2] was $283.54. The Morocco school now has on hand a quantity of equipment in the industrial arts department which can be used by both groups. If one allows $33.54 for the value of this equipment, a total of $250 for new equipment is required.

In this way the total cost of adding to the program of studies of the school as recommended in this study will be one thousand fifty dollars. An increase of this amount in the tax rate would increase the local tax rate eight and six-tenths cents per hundred dollars. Chart 4 shows the additional tax which would be paid by taxpayers of varying degrees of wealth because of the increase in the tax rate mentioned. It shows that the increased tax would not be a serious burden to any taxpayer.

---

[2]A copy of this estimate can be obtained from the Vigo County agricultural agent or any of the agriculture teachers in the county.

Another possible source of support is the state relief system, more commonly but erroneously known as state aid. No attempt was made, in this study, to determine the possibility of drawing upon state relief.

The cost of providing a library for these curricular additions may be met through the regular library funds.

Adequate laboratory facilities for the classes in industrial arts and home economics already exist in the school. The administrators are already considering the necessity of remodeling or repairing the building where the elementary school is housed. With little expense, the basement rooms of that building can be arranged for the agriculture department. This would not interfere with the cooperative use of the equipment in the industrial arts department since the administration has already made plans to move that department to the elementary building. To do this would provide added space in the high school building.

4. Limitations. It is understood that the present teachers of home economics and industrial arts are now teaching other classes. Through additional combinations of classes, the teaching load of other teachers can be reduced and combinations of other subjects can be made in future years.

These changes should be distributed over a period of years in order to prevent upsetting the program of the school.

CHART 5

INCREASES IN TAXES CAUSED BY AN INCREASE IN THE TAX LEVY OF 8.6 CENTS PER HUNDRED DOLLARS

Property	Assessed Valuation	Tax Increase
1000 Acres of land assessed at $100 per acre	$100,000	$86.00
500 " " " " " " " "	50,000	43.00
400 " " " " " " " "	40,000	34.40
300 " " " " " " " "	30,000	25.80
200 " " " " " " " "	20,000	17.20
100 " " " " " " " "	10,000	8.60
40 " " " " " " " "	4,000	3.44
A business assessed at _____	50,000	43.00
" " " " _____	10,000	8.60
" " " " _____	1,000	.86
An automobile " " _____	500	.43
Furniture " " _____	500	.43
" " " _____	250	.22
A house " " _____	5,000	4.30
" " " " _____	3,000	2.58
" " " " _____	2,000	1.72
" " " " _____	1,000	.86

VII. A PROGRAM OF VOCATIONAL GUIDANCE

A. Function of Guidance

The function of vocational guidance is to direct the student, to counsel him in the choice of a career, to assist him in finding his aptitudes and limitations, to awaken in him thoughts of the future, to show him opportunities, and supervise his entrance and progress in industry.[1]

Dean[2] gives six contributions of vocational guidance to society:

"1. It prevents drifting.
2. It keeps children in school for a longer period.
3. It opens new avenues for the wise choice of a career.
4. It contributes more wisely to the development of our children.
5. It provides for different types of children.
6. It realizes that education which is efficient and appropriate for one is often extremely wasteful for another."

It is difficult for the student to choose his vocation in the modern complex world. It is the work of the vocational guidance program to help him to enter an occupation for which his nature and abilities are suited. If this is done, he will be saved much failure and sorrow during the earlier years of employment.

---

[1] See definition page 3.

[2] I. David Cohen, Principles and Practices of Vocational Guidance (New York: The Century Co., 1929), p. 50.

B. Personnel

1. Regular Teachers. A school the size of Morocco High School cannot finance the employment of an extensive personnel for a vocational guidance program. It will be necessary for each teacher to integrate her class work with the vocational guidance movement in the way the principal has directed her to do in the past. In connection with the development of this activity, the principal should make use of a year's project in vocational guidance study as a creative project in making teacher's meetings worthwhile. These meetings may be held monthly or twice per month as the principal sees fit. The meeting may be in charge of the principal, the vocational counselor, or an extension teacher from a neighboring college or university.

It must be impressed upon the teachers that they must co-operate with the vocational counselor.

2. Vocational Counselor. One teacher or the principal should be designated as the vocational counselor. In larger schools it is desirable to have a lady teacher to counsel the girls, but authorities in school administration believe that in a school of this size guidance is an administrative responsibility of the principal.[3] In such a case the principal would act as counselor for both boys and girls.

---

[3]Harl L. Douglas, Organization and Administration of Secondary Schools, (Chicago: Ginn and Co., 1932), pp. 81 (chart) and 198-199.

Cohen[4] gives the following attributes desirable in a counselor:

a. Good manners and address.
b. Cheerful outlook on life.
c. Excellent character.
d. Ability to make and keep friends.
e. Approachability.
f. Confidence-inspiring nature.
g. Tact.
h. Observation.
i. Judgment.
j. Knowledge of human nature.
k. Sympathy.
l. Knowledge of industry.
m. Knowledge of affairs.
n. Knowledge of institutions.
o. Knowledge of sources.
p. Knowledge of reference materials.
q. Spirit of inquiry.
r. Ethical standards.

He must not be excitable, irritable, domineering, overenergetic, or condescending. This counselor should be assigned a one-period conference hour each day of the year. He becomes the key-man in the guidance program. He should be provided an office which is equipped with furniture representing a comfortable living room. A wicker living room set, floor lamps made by the industrial arts class, shelves or bookcase for his vocational library, a library table and a filing cabinet are desirable. Perhaps his outer office may be made a lounge room for the students in order that he may see them in their more natural moments.

---

[4] I. David Cohen, op. cit., chapter XII.

The counselor should be encouraged to take a summer school course in guidance work if he has not already had such a course. If possible, this course should be taken before beginning the work in order that his summers may be free to work with the students in his community.

C. Library

1. Faculty Library. In the principal's office or in the counselor's office should be found a few of the good recent books on vocational guidance for the use of the teachers. A list is given below:

a. Jones, Arthur J. Principles of Guidance. New York: McGraw-Hill Book Co., 1930. This is one of the best recent references on the topic.

b. McKown, Harry C. Home Room Guidance. New York: McGraw-Hill Co., 1934. This volume discusses the use of the Home Room as a means of guidance.

c. Allen, Richard D. Case-Conference Problems in Group Guidance. New York: Inor Publishing Co., 1934. This is a manual and case book for class counselors in secondary schools.

d. Allen, Richard D. Common Problems in Group Guidance. New York: Inor Publishing Co., 1933. This is a very good manual for counselors. It gives the basic units in the group guidance curriculum.

e. Hatcher, O. Latham Guiding Rural Boys and Girls. New York: McGraw-Hill Book Co., 1930. Flexible guidance programs for use by rural schools and related agencies are given.

f. Basic Units for an Introductory Course in Vocational Guidance. New York: McGraw-Hill Book Co., 1931. This set of units was prepared by twenty-five vocational guidance teachers.

g. Proctor, W. M. Educational and Vocational Guidance. Chicago: Houghton Mifflin Co., 1925. This volume deals with the philosophy and technique of guidance.

h. Myers, G. E. The Problem of Vocational Guidance. Chicago: Macmillan Co., 1928. This is a very readable book, written to convince the reader that guidance is necessary.

i. Allen, Frederick J. Practice in Vocational Guidance. New York: McGraw-Hill Book Co., 1927. This book is valuable to guidance counselors. Part II discusses the class in Occupational Information.

j. Edgerton, A. H. Vocational Guidance and Counseling. New York: The Macmillan Co., 1926.

k. Prosser and Allen, Vocational Education in a Democracy. New York: The Century Co., 1925.

l. Payne, Arthur Frank Administration of Vocational Education. New York: McGraw-Hill Book Co., Inc., 1924. This book was written to develop methods, standards and requirements in organization for industrial vocational education; yet most of it applies also to home economics and agriculture.

2. Students' Library. In the school library or in the counselor's office should be placed a number of books on vocations. This list may be made up of books used as texts in an "Occupation" or "Vocations" class, suggested later, and other books on the subject. Lists of such books can be obtained from any library and most book companies. A few good books are listed below:

a. Proctor, Wm. M. Vocations. New York: Houghton Mifflin Co., 1929. The author discusses vocations in general. It is planned for the high-school age.

b. Lyon, Everett S. Making a Living.
New York: Macmillan Co., 1927.
A discussion of the problem of choosing an occupation is given.

c. Davis and Davis, Guidance for Youth.
Chicago: Ginn & Co., 1928.
This is a good reference on various occupations.

d. Wanger, Ruth What Girls Can Do. New York: Harper & Bros Publ. Co., 1926.
This publication gives a popular elementary discussion of important occupations.

e. Platt, Rutherford, Manual of Occupations.
New York: Putnam Publ. Co., 1929.
A concise description of about three hundred occupations, some treated with humor, is given.

Other good lists can be obtained from the following places:

a. Bulletin No. 19, Guidance in Secondary Schools, Bulletin of the National Association of Secondary School Principals. Cicero, Illinois: H. V. Church, n.d.

b. Vocational Information. Ann Arbor, Michigan: University of Michigan, 1928.
This work contains a bibliography for college and high school students, prepared by the committee on Vocational Counsel and Placement.

c. Vocations in Fiction. Chicago: American Library Association, 1932.
An annotated bibliography of novels, classified by occupations and telling whether they are desirable for adults or young people is given.

d. Harry D. Kitson, Vocational Guidance through the Library. Chicago: American Library Association for The J. C. Penney Foundation, 1931.
Kitson's work is a good classified bibliography of books for counselors and students.

D. Class in Occupations or Vocations

1. Time of Offering. It has been customary in many schools to offer a class in occupations or vocations (which class should be taught by the vocational counselor) in the ninth grade during one semester. It is questionable if this procedure is any more desirable than the present method of fusing this course with the home economics and general shop courses which are considered as finding courses. There are authorities[4] who feel that a student in the tenth grade is too young to be asked to specialize. They would leave specialization until the age of sixteen, especially during the present period of unemployment. If this is done, it will be necessary to provide other means of vocational training than the secondary school. As the school organization now exists, it is desirable to leave the "Occupations" class in the ninth grade. Doing this will give the students some occupational knowledge on which they can base their curriculum choices in high school. They do not need to specialize immediately, although the great number who do not enter a college will need to do so. If they do not specialize in high school, they probably will not receive any special training for their occupation. It is left to the principal to determine whether better results are obtained by fusing as mentioned above.

---

[4] J. R. Shannon, "Survey of Adult Vocational Placement", Junior-Senior High School Clearing House, VIII, Nov., 1933, p. 184 and G. D. Whitney, "The Place of Vocational Education", Junior-Senior High School Clearing House, VIII, 1932, p. 144.

2. Subject Matter and Method. As much as possible the members of the class in vocations should actually take part in the activities which are a part of the occupations mentioned. The fusing plan is satisfactory for this purpose if a varied program of studies is offered, such as this study recommends, but it is impossible to provide this prevocational activity for many occupations with the present program of studies of the school because the courses do not have value in enough occupations.

Through co-operation with the business men in Morocco the counselor should arrange for trips to the various business houses. The undertaker may take a few boys into his funeral parlor when a body is embalmed. The printer may give individuals an opportunity to set type. A trip may be made to the creamery where cream is tested and butter made. Students can work at oil stations. Trips should be made to the steel mills of the Calumet district and to other industrial plants there.

Talks may be given to the class by bankers, barbers, fliers, mechanics, and others.

More than one text should be used in this class. These can be provided by dividing the class into two, three, or four groups and having each group obtain a different text.

E. Tests and Records

1. Intelligence Tests. Probably the school already has

on file the results of intelligence testing so that a measure of the intelligence of the students is available. If not, a good group intelligence test should be given all students. The Otis Self-Administering Test of Mental Ability is usable. Tests may be obtained from the World Book Company at Chicago. Some authors feel that a student should be given the test a second time if he does not measure up to the expectations of the teachers. This time he should be warned not to study too long on any given problem of the test but to omit it and return to it if possible before time is called.[5] The pupil should not be told his intelligence quotient. He may be told that he should not attempt to enter certain fields of employment or that he has a good or poor chance of success in college.

The counselor must not feel that all intelligent students should enter the professions nor that the results of intelligence testing are infallible.

2. Mechanical-Ability Testing. Some guidance men[6] consider the Stenquist Mechanical Ability Test a measure for indicating the mechanical ability of the student. It can be obtained from the World Book Company at Chicago.

---

[5]A. A. Metcalf, A Guidance Program for the Small High School, (Ypsilanti, Michigan: Standard Printing Co., n.d.), pp. 48, 49.

[6]Ibid., p. 42

[6]"Vocational Guidance in Rehabilitation Service", Vocational Education Bulletin No. 148, Vocational Rehabilitation Series No. 20, 1935.

3. Permanent Records. The counselor should have easy access to the permanent record blanks in the principal's office. These blanks should include a record of the student's extracurricular activities and health as well as one of his curricular activities.

4. Vocational Guidance Card. The counselor should keep a "Vocational Guidance Card" with the following data:

VOCATIONAL GUIDANCE CARD[7]

Name_____ Date of Birth_____
Parent or Guardian_____ His occupation_____
Names and ages of other children_____

Quality of health_____ Of eyesight_____
Temperament_____
Financial backing_____
Extracurricular activities pursued in high school
A. Activity_____
B. Offices held_____
C. Trips to industrial plants_____
Leisure time activities.
A. Books and magazines read_____
B. Hobbies_____
C. Associates_____
D. Games_____
E. Entertainment_____
F. Other activities_____

[7]Revision of card recommended by Metcalf, op. cit., p. 44.

(Reverse side)

TEST RECORD

Name of test	Date	Norm	Student's score	I.Q.,,,etc.

CONFERENCE RECORD

Vocational choices	Date	Interests	Aptitudes disclosed

Remarks_____

A card five inches by eight is convenient for this purpose. An elaborate system is next to impossible in such a small school.

F. Extra Curricular Activities

1. Desirable Activities. The extra curricular program of the school should provide for activities in which each pupil and the sponsors can determine his abilities and aptitudes. Each pupil should be required to take part in at least one activity at all times. A period should be set aside at least one day each week for these activities. The activities organized should be determined by the desires of the students and the availability of competent sponsors, with the permission of the principal. The type of activities

should include publication of a school paper and a handbook, debates, intra-mural and interscholastic athletics, and clubs such as glee, orchestra, dramatic, hobby, journalism, agricultural, radio, sewing, canning, and commercial clubs. These clubs will become a desirable means of obtaining many of the prevocational activities in connection with the class in occupations or vocations.

G. Limitations

It is not to be expected that the guidance counselor can determine the most desirable vocation for every student. After four years' experience under the type of guidance advocated in this study the student should possess a comprehensive view of the vocations and occupations open to him and have an improved basis for judging his chances of success in the work offered. Many students who might otherwise withdraw will be retained in the school for a longer time and be better able to fill their places in society. Even though they do not follow the occupations recommended, they will have a better understanding and a greater sympathy with workers in other occupations and a possible fulfillment of the avocational efficiency aim in education.

VIII. APPENDIX

A. Occupational Questionnaire

Please answer these questions carefully. The information gained will be used to determine possible vocational education needs of the Morocco High School.

Your name _____ Year in School _____

Give below your first choice and second choice of occupations for your life's work.

	1st Choice	2nd Choice
I a / I b	Occupation _____	Occupation _____
II a / II b	Have you had any experience in this work? _____	Have you had any experience in this work? _____
III a / III b	If so, tell what you have done	If so, tell what you have done
	_____	_____
	_____	_____
	_____	_____
IV a / IV b	Have you observed carefully anyone else in this work? _____	Have you observed carefully anyone else in this work? _____
V a / V b	What abilities do you have which cause you to feel that you would be successful in this work? (If intelligence is one of these, say so.)	What abilities do you have which cause you to feel that you would be successful in this work? (If intelligence is one of these, say so.
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

VI Have you had any classes in school attempting to help you choose your life's work? _____

VII If you have, list them.

A. _____

B. _____

C. _____

VIII Do you feel a need of some school help in choosing your life's work? _____

IX Can your parents afford to send you to a school which will train you for these occupations after you finish high school even though you may have to work for part of your expenses? _____

B. Curricular Questionnaire

Name_____ Year in School_____ Boy or Girl_____

The papers filled out by you earlier in the year seem to request five separate groups of courses but probably only three can be given.

All students must take certain subjects such as: English--three years, social studies--two years, physical education and health--one year, mathematics--one year, science--one year, etc.

You will have some electives with each group but you will find below some subjects required for each of the five separate groups. Please mark the group of courses you <u>think</u> you would have taken if they had been offered to you earlier in high school.

Mark <u>first choice</u>, <u>second choice</u>, and <u>third choice</u>. Please mark three even though you may not care much for the second and third choices.

GROUP I -- College Preparatory:

This course is for nurses, teachers, athletic coaches, musicians, librarians, newspaper reporters, civil, electrical, and radio engineers, draftsmen, forest rangers, dentists, doctors, surgeons, etc., who must attend a college, university, or have hospital trg., etc.

Algebra
Biology
Latin I and II
Plane Geometry
Typing (Advised)

EXTRA FOR ENGINEERING STUDENTS
Advanced Algebra ½ yr.
Solid Geometry ½ yr.
Physics
Mechanical Drawing

GROUP II -- Home Economics:

This course is for housekeepers, nurses, dressmakers, food specialists, etc.

Foods I ½ yr.
Clothing I ½ yr.
Biology
Home Nursing ½ yr.
Child Development ½ yr.
Latin I and II (if going to college)
Foods II ½ yr.
Clothing II ½ yr.
Typewriting (advised)
Home Management ½ yr.
Home & Social Relationships ½ yr.

GROUP III -- Industrial Arts:

This course should be taken by those who wish to be cabinet makers, woodworkers, electricians, automobile mechanics.

General Shop
Farm Mechanics ½ yr.
Household Repairs ½ yr.
Automobile Mechanics ½ yr.
Mechanical Drawing
Electrical Shop ½ yr.
Mill Work ½ yr.

GROUP IV -- Agriculture:

This course should be taken by all who hope to be general dairy farmers, gardeners, nurserymen, etc.

Animal Husbandry ½ yr.
Soils and Crops ½ yr.
Biology
Farm Mechanics ½ yr.
Household Repairs ½ yr.
Poultry ½ yr.
Beef Cattle ½ yr.
Horticulture ½ yr.
Dairying ½ yr.

GROUP V -- Commerce:

This course is to be taken by those hoping to do office work, secretarial work, bookkeeping, sales work, etc.

Business Arithmetic ½ yr.
Junior Business Training ½ yr.
Commercial Geography
Typewriting
Shorthand (if taking secretarial work)
Bookkeeping
Business Law ½ yr.
Economics ½ yr.

Please look over your paper again and see if you have marked a first choice, a second choice, and a third choice. Be sure you have shown which is first, which is second, and which is third choice.

C. Bibliography

1. Vocational Education

a. Books

Bobbitt, Franklin, The Curriculum. Chicago: Houghton Mifflin Co., 1918.

A treatise on the organization and administration of the curriculum.

Brim, O. G. Rural Education. New York: Macmillan Co., 1923.

A discussion of aims and methods in rural education.

Brown, Oran I. A Survey of Educational Choosing. Terre Haute: Contributions of the Graduate School, I. S. T. C. No. 194, 1935.

A study of the occupational choosings of seven hundred successful adults.

Dewey, John. The Way Out of Educational Confusion. Cambridge: Harvard University Press, Inglis Lecture, 1931.

A scholarly discussion of subject-matter reorganization.

Payne, Arthur F. Administration of Vocational Education. New York: McGraw-Hill Book Co., Inc., 1924.

The author has kept in mind three groups of readers: (1) directors of vocational education, (2) superintendents of schools, and (3) students and teachers in teacher-training institutions.

Prosser, Charles A. and Allen, Charles R. Vocational Education in a Democracy. New York: The Century Co., 1925.

The authors discuss the need for vocational education, what it is, methods of instruction, and basic theories.

b. Magazine Articles and Bulletins

Baumgarten, Fraziska. "New Aspects of Job Analysis" Occupations. Vol. XII. June, 1934. Pp. 632-633.

A treatment of job analysis in construction of the curriculum.

Earle, F. M. "Prediction of Vocational Success." Occupations. Vol. XII. Dec., 1933. Pp. 84-88.

Prosser, Charles A. "Vocational Advancement in a Changing Economic World." Vocational Guidance Magazine. Vol. XI. Nov., 1933. Pp. 51-66.

Shannon, J. R. "Survey of Adult Vocational Placement." Junior-Senior High School Clearing House. Vol. VIII. Nov., 1933. Pp. 180-185.

A study of the occupational placement of successful adults.

Thorndike, E. L. "The Prediction of Vocational Success." Occupations. Dec., 1933. Pp. 21-25.

The discussion topic is expressed by the title.

Whitney, G. D. "The Place of Vocational Education." Junior-Senior High School Clearing House.

Vol. VIII. Feb., 1934. Pp. 33-36.

A study of freshmen at the University of Chicago.

2. Vocational Guidance

a. Books

Allen, Frederick J. A Guide to the Study of Occupations. Cambridge: Harvard University Press, 1921.

Authoritative material for educational and vocational counselors.

Allen, Frederick J. Principles and Problems of Vocational Guidance. New York: McGraw Hill Co., Inc., 1927.

A more recent book than the preceding one by the same author.

Allen, Richard D. Organization and Supervision of Guidance in Public Education. New York: Inor Publishing Co., 1934.

A very good recent book for the counselor.

Anderson, V. V. Psychiatry in Industry. New York: Harper & Bros.

Discusses industrial readjustment of workers. Can be used by counselor for suggestions in mental hygiene.

Bingham, Walter Van Dyke and Freyd, Max. Procedure in Vocational Psychology. Chicago: A. W. Shaw Co.

A complete system of organization of vocational guidance in a large school.

Bronner, Augusta F. The Psychology of Special Abilities and Disabilities. Boston: Little, Brown and Co., 1917.

Suggestions in guidance of children of unusual types.

Bronner, Augusta F., Healy, William, Lowe, H. E., and Shimberg, R. L. A Manual of Individual Mental Tests and Testing. Boston: Little, Brown and Co., 1926.
A description of 125 tests and materials required in making them.

Brewer, John M. Cases in the Administration of Guidance. New York: McGraw Hill Book Co., Inc., 1929.
The title is fitting.

Brewer, John M. The Vocational Guidance Movement. New York: Macmillan Co., 1921.
Brewer discusses the needs for and gives suggestions in vocational guidance.

Case, C. H. Common Problems in Group Guidance. New York: Inor Publishing Co., 1934.
A manual for counselors in the secondary school which gives the basic units in the group-guidance curriculum.

Cohen, I. David. Principles and Practices of Vocational Guidance. New York: The Century Co., 1929.
A complete discussion of the need for vocational guidance.

Dean, Arthur D. Just Between Ourselves. Peoria, Illinois. The Manual Arts Press, 1923.
Practical talks to industrial and vocational teachers.

Douglas, Harl D. Organization and Administration of Secondary Schools. Chicago: Ginn and Co., 1932.
A guide to the administration of the secondary schools. Discusses the place of the principal in vocational guidance.

Hatcher, O. L. Guiding Rural Boys and Girls. New York: McGraw Hill Co., 1930.

Flexible guidance programs for use by rural schools and related agencies.

Jones, Arthur Julius, Principles of Guidance. New York: McGraw Hill Book Co., 1930.

A good book by one of the best authorities on the subject.

Kitson, Harry D. The Psychology of Vocational Adjustment. Philadelphia: J. B. Lippincott Co. Washington Square Press, 1925.

Points out psychological problems in choosing a vocation, describes what has been done, and gives scientific methods for continuation of the study.

McKown, Harry C. Home-Room Guidance. New York: McGraw Hill Book Co., 1934.

An up-to-date book on the use of the home-room as a means of guidance.

Metcalf, A. A. A Guidance Program for the Small High School. Ypsilanti, Michigan: Standard Printing Co., n.d.

Mr. Metcalf has produced one of the few books applying guidance to the small school.

Proctor, W. M. Educational and Vocational Guidance. Chicago: Houghton Mifflin Co., 1925.

A good book showing the educational guidance relationship to vocational guidance.

Teeter, Verl A. A Syllabus on Vocational Guidance. New York: Macmillan Co., 1926.

A great help in organization of the guidance program.

Watson, E. E. A Source Book for Vocational Guidance. New York: H. W. Wilson Co., 1930.

Planned to aid counselors and teachers in making routine work more interesting by vivid illustrations and explanations. Very good.

b. Magazine Articles and Bulletins

Bonser, Frederick G. "Vocational Guidance", U. S. Government Bureau of Education Bulletin. No. 14. Washington, D. C. Superintendent of Documents, 1914.

An early federal government bulletin on the topic.

Cohen, I. David. The Oswego Survey. Albany, New York State Department of Education, 1920.

A survey of conditions in the Oswego schools.

McKinney, James, and Simmons, A. M. Success Through Vocational Guidance. Chicago: American School Publishing Co., 1922.

A discussion of the value of guidance.

National Vocational Guidance Magazine "The Counseling Number," October, 1925.

Proctor, W. M. "The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils." Journal of Educational Research Monographs. 1921.

Profitt, Maris M. Courses in Occupational Information. Bulletin No. 11, 1934. Washington: U. S. Government Printing Office, 1934.

Tells what has been done in recent years.

Reavis, W. C. Programs of Guidance. Washington: U. S. Government Printing Office, 1933.

A bulletin with programs for various size schools.

Van Vlissingen, Arthur, Jr. "Rocking the Cradle of Apprentice Training." Factory and Industrial Management. Vol. LXXVIII. Oct., 1929. Pp. 827-828.

Regrets that there is little apprentice training in modern industry. Mentions good work of the Falk Corporation in Milwaukee.

Vocational Guidance Magazine, Cambridge, Mass. Howard University Graduate School of Education.

3. Statistics

Fifteenth Census of the United States. Washington: U. S. Government Printing Office, 1933.

Statistical Abstract of the United States. Washington: U. S. Government Printing Office, 1934.