

FACTORS ASSOCIATED WITH STUDENT INTEREST AND BEHAVIOR IN  
AGRICULTURAL COURSES TAUGHT IN FOUR HIGH SCHOOLS  
OF CHOLLA NAM DO PROVINCE, KOREA

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Candidate for Degree of Master of Science

Major Field: Agricultural Education

Scope of Study: To ascertain the factors which were associated with student interest and behavior in agricultural courses taught in four high schools of Cholla Nam Do Province in Korea. The respective high school administrators and vocational agriculture teachers were asked to respond to a prepared questionnaire. Certain tests were also administered to 171 students who were asked to answer a questionnaire prepared for them.

Findings and Conclusions: Three major factors and a number of minor factors were identified as having a definite influence on the learning and interest of students. The three major factors were: (1) environment of home, school, and community; (2) teacher's interest and methods used in teaching; and (3) the attitude of the students and the degree of interest he had in becoming established in the vocation of farming. On the basis of these findings, one may conclude that the interest of the student in taking vocational agriculture is largely dependent upon the skill of the teacher in situations where adequate facilities are available and the home environment is favorable.

436676

ADVISER'S APPROVAL

Robert R. Price

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## CHAPTER I

### INTRODUCTION

For a number of years the writer has been observing boys who have been studying agriculture in the high schools of Korea. Very often he felt they failed to secure appropriate knowledge of farming procedures, despite the critical needs of Korean society. The writer decided to make this study for the purpose of finding the exact conditions that exist in our present society with regard to agricultural education and to discover some educational barriers which may be preventing vocational agriculture education in Korea from being fully effective.

The writer noticed that many statesmen and educators are concerned about their nation's future in the light of the people's living conditions. Without increased agricultural production, in many cases, survival is in question.

Many parents, with sons attending agricultural high schools, often encourage the students to change to enrollment in an academic high school. Furthermore, the author has noticed that enrollees in vocational agricultural high schools are decreasing in number day by day, month by month, and year by year.

The writer also observed that many agricultural high schools are encountering increasing difficulties because of the decreasing enrollment and financial difficulties, while the academic high schools are gradually increasing their enrollment.



In view of the gravity of the situation, the writer sincerely desired to secure any available information that might help solve some of the problems related to vocational education in agriculture in Korea.

#### PURPOSE OF THIS STUDY

The purpose of this study is to discover possible causes for the fact that, to a degree, vocational agriculture high schools have failed to fully develop according to their original mission, and to further determine why many students enrolled in these schools have lost interest in the studies offered.

The study will seek to identify factors responsible for the ineffectiveness of vocational agriculture education in Korea.

Explicit questions with which the study is concerned include:

1. How do environmental factors as location of school; transportation; school facilities; related organizations and other factors influence student interest in and attitude toward vocational agriculture?
2. What are the contributing factors to decreased student interest in studying vocational agriculture?
3. Does the vocational agriculture education program in Cholla Nam Do need any revision of fundamental philosophy and basic organization?

#### METHOD OF PROCEDURE

To secure basic data for consideration in this study, the writer obtained much information of value from the following publications:

- (1) Economic Almanac 1957, Research Department, Korean Bank;
- (2) Economic Almanac 1957, Research Department, Korean Agricultural Bank;

(3) A program for Korean Reconstruction (prepared for the United Nations Korean Reconstruction Agency) 1958; and (4) a report, "A Critical Analysis of Korean Education" written by Kwang Man Kouh.<sup>1</sup> A survey of selected Korean agricultural high schools was also made to secure appropriate data. A copy of the questionnaire used is included in this report and can be found in the appendix.

Since the high school principal in Korea occupies a role as the chief high school administrator, he has a great responsibility in developing and carrying out the school curriculum. The investigator contacted four principals or vice-principals, and the head vocational agriculture teacher in each school. In addition, two hundred questionnaires were sent to the four schools for the purpose of securing information from the high school students. A large portion of the examination covered the student's basic knowledge of livestock husbandry. One hundred and seventy one completed returns were received from the high school students. All of these students had studied vocational agriculture courses for two years or more. The courses had included studies in livestock management. The investigator thought as a result of this study a fairly accurate picture of the existing conditions of vocational agriculture education in Korea would be secured. The types of farming represented the major types found in Korea since the farms in Cholla Nam Do represent all of the major farming types found in Korea.

The findings of the study should be of some value to teachers of vocational agriculture in schools throughout the country.

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<sup>1</sup>Kwang Man Kouh, "Critical Analysis of Korean Education," Phi Delta Kappan, (December 1957), pp. 112-114.

#### GENERAL CONDITIONS IN THE FOUR SCHOOLS SURVEYED

The following high schools were surveyed: (1) Soon Chon Agricultural High School, located in Maikok Dong Soon Chon City, Cholla Nam Do; (2) Kwang Ju Agricultural High School, located in Lim Dong Kwang Ju City, Cholla Nam Do; (3) Kwang Yang Agricultural High School, located in Mok Sung Ni Kwang Yang District, Cholla Nam Do; and (4) Koo Rei Agricultural High School, located in Bong Jon Ni Koo Rei District, Cholla Nam Do.

Soon Chon Agricultural High School is located in the northern section of Soon Chon City where there is a population of 60,000 people. This school was established in 1935 by the Japanese Government. By 1957, the school had graduated 1,307 students. Seventy per cent of the graduates are now engaged in farming and related farm occupations. By 1945, this school was one of three secondary level agricultural schools located in the central region of the eastern seven farming districts. The facilities were sufficient for only 150 students; however, after the Korean liberation the number of students increased rapidly, totaling 1,800 within five years.

With the revision of the National School Laws in 1950, this school was separated into two parts -- a junior high school for the enrollment of 7th through the 9th grade boys, and a senior high school for the enrollment of 10th through the 12th grade boys.

Soon Chon Agricultural High School now functions as a senior high school. The courses taught in this school are quite different from those taught in the general academic high school.

Kwang Ju Agricultural High School is located near the northern boundary of Kwang Ju, capital city of Cholla Nam Do, which is the home

of 160,000 people. Established in 1909 soon after the Japanese occupation, it was designed to meet the need of governmental agriculture leaders and advanced farmers. By 1957, 3,228 students had been graduated. Seventy-eight per cent are now engaged in farming and related farm occupations. After the Korean liberation all properties and facilities of the school were transferred to the newly established agricultural college. The high school was transferred to a new site having very poor facilities. There is one advantage, however, since this school is located near the capital city, students have many opportunities to observe and visit nearby facilities for their agricultural study. For instance, the Agricultural Research Center, livestock research center, forestry experimental station and colleges, are located in Kwang Ju where students may secure worthwhile information to assist in their studies.

Kwang Yang Agricultural High School is located in the center of Kwang Yang City which has a population of approximately 15,000 people. Within 10 miles to the north, there are large, rough, and steep mountains named Baik Un San. Along the eastern and northern boundaries of this area are several thousand acres of plains. Fertile farms on these plains produce much rice, barley, and vegetables. This school is located only 7.5 miles from Soon Chon City, so students have chances to come to the city. Undoubtedly, such a close proximity to urban culture has its effect upon the development of the agricultural students.

This school was established in 1948 by the Korean government to meet the need for agriculturally trained leaders. There were 280 graduates produced by 1957, 70 per cent of these engaged in farming and related farm occupations at the present.

Koo Rei Agricultural High School is located just at the foot of Mt. Chi Ri which is one of the largest mountains in Korea. Most people in this area obtain their livelihood through forestry. Only a small amount of field crops and vegetables are produced. No large plains exist except in small units of a dozen or so acres forming farm blocks. This high school is located about 20 miles north of Soon Chon City, and 50 miles east of Kwang Ju City. Rural students in this school are, therefore, more isolated from urban influence than students in the other schools.

Koo Rei Agricultural High School was established in 1950 just before the Korean War. The school produced 462 graduates by 1957, and 70 per cent of them are now engaged in farming and related farm occupations.

## AGRICULTURE IN KOREA

TABLE I

### General Characteristics of Korea 1955

Total population	21,526,374
Farm population	13,299,812
Farm area	2,011,454 chongbo* (4,928,062 acres)
Area per farm	0.88 chongbo (2.2 acres)

\* One chongbo = 2.45 acres

TABLE II

Major Crops Grown in Korea<sup>2</sup>  
1956

Rice	12,780,971 sok* (63,904,855 bu.)
Barley, Wheat and Rye	5,805,162 sok (29,025,810 bu.)
Other grains	1,868,413 sok (8,342,065 bu.)
Potatoes	1,312,381 sok (6,561,905 bu.)

\* One sok = 5 bushels

Agriculture occupies a central role in the Korean economy. It not only provides the means of livelihood for over 70 per cent of the people and feeds a large population, but is historically and potentially the source of about half of Korea's exports. Agriculture in Korea is characterized by an intensive use of land, water, and human resources. Limited land, considerable rainfall, and a crowded population have resulted in a concentration on intensive rice cultivation.

Only about a quarter of the total land area is arable. The rest of the area is either forest or wasteland. The arable land is intensively cultivated. Much of it has been carefully terraced and banded for cultivation of rice. Extensive irrigation systems have been built. Any further increase in cultivable area is dependent upon the reclamation of tidelands and some further development of hillside slopes.

<sup>2</sup>"Korean Agriculture, Past and Present," An economic program for Korean Reconstruction, (Prepared for the United Nations' Korean Reconstruction Agency), p. 261.

Soils of Korea are divided into two broad classes -- the rice paddy fields, usually under water during seasons of normal rainfall, and the dry upland fields which are devoted to other crops such as barley and soybeans.

About 1.2 million chungbo - the Korean measure of land area equalling 2.451 acres -- are classified as paddy fields, of which less than half are fully irrigated and the remainder is partly irrigated or non-irrigated. A little over one million chungbo consists of dry or upland fields. Rice is planted in the paddy fields in the summer and various grains, as well as potatoes and other crops are planted in the upland.

The larger part of the upland area and about 40 per cent of the paddy lands are double-cropped under this system. "Summer" grasses (small grains) are planted after the fall harvest and are harvested in the early summer of the following year.

Through continuous, intensive cultivation over thousands of years without planned rotation, the soils of Korea have suffered heavy depletion of plant nutrients. As a consequence, good yields are possible only with the liberal application of organic and chemical fertilizers. The soils of Korea are badly deficient in organic matter, and analyses have revealed deficiencies in nitrogen and phosphorous content.

The size of Korean farms is too small for efficient operation. Tools are crude and in short supply; draft animals are relatively scarce. The average size of a farm is now about 2.30 acres. Under the ROK (Republic of Korea) Land Reform Program, individual holdings are limited to three chungbo or 7.35 acres. Many farms are too small to produce sufficient food for the farmer's family and have any surplus to sell.

Korea's limited cultivable acreage and deficient soils must support a population that has now reached 22 million people. Population density is now 600 people per square mile.

The natural increase in population is about two per cent a year, or 440,000 individuals. In recent years the population of South Korea has been increased by the influx of refugees from North Korea and the repatriation after World War II of Koreans from Japan and other parts of the Far East. Since 1941, the population of South Korea has increased by nearly 50 per cent. Each chungbo of arable land must now support nearly 10 individuals (four persons per acre).

#### EDUCATION IN KOREA

The origin of school education in Korea goes back to a period of "The Three Kingdoms" about sixteen centuries ago. Since then, of course, there have been repeated changes in the educational system, as far as content and method. School education in the modern sense, began in the late Lee Dynasty around the end of the nineteenth century. But the content of education had been divorced from practical value with the result that there was no scientific development.

In the last part of the Lee Dynasty, Korea began to open her eyes wide to the international situation of the time, and modern schools and curricula were developed. But, in great pity, Korea was invaded by the Japanese just when a great revolution was going to occur in Korean education. Korea was set aside from world progress due to the Japanese imperialism until the liberation on August 15, 1945.



The Present Status of Korean Education. Within three years after the independence of the Republic of Korea, all kinds of cultural activities began in spite of the fact that independence was brought only to the southern part of Korea without unification of the south and the north. In the arena of education, there has been a firm determination to erase the regressive aspects in Korean society as soon as possible. This determination brought memorable development under the most adverse conditions.

A. Educational system.

At present, six years of elementary education is compulsory. Middle schools and high school each provide three years of schooling; four year colleges are also available. But there are variations. For example, vocational high schools can be established; also junior colleges of two year curriculum can be operated. In the case of medical colleges, two years of pre-medical curriculum can be installed. Civic schools, manual schools, special schools (such as schools for the deaf, the blind, and the feeble-minded), and kindergartens are also in operation.

B. Common Education (Elementary and Secondary Education).

Development after the birth of the Republic in the field of common education is especially brilliant. Enrollment in the elementary schools jumped from 54 per cent of school age children in 1945 to 93 per cent in 1956. In secondary education, there were 257 schools -- this number increased rapidly by 5.7 and 7.0 times respectively since 1945.

The Korean War, 1950-53, completely destroyed 10,891 classrooms and this devastation necessitates 40,000 more classrooms

by 1960 in the area of compulsory education alone. The government plans to build 7,062 classrooms by 1960; however, it is barely able to pay one-third of the expense. Another one-third is to be paid by the parents, due to the enfeeblement of the financial capacity of provincial governments.

From 1953 to 1957, UNKRA and ICA devoted \$8,436,143 to rebuild 5,109 classrooms as a part of their reconstruction aid program in Korea. This was, however, only 47 per cent of the classrooms that were devastated by the war.

### C. Higher Education.

Before the liberation, there were twenty-five junior colleges and only one university, all mainly in service to the Japanese. Now, Korea has fifteen universities, 34 colleges, six junior colleges, and 20 special college level schools or 75 institutions of higher education displaying the vigor of Korean education. Such an increase in the quantity of higher education, however, brought a deterioration in the quality of higher education. Here lies the Korean problem of higher education and in order to solve this problem, the government is devoting every effort to rehabilitating the educational facilities, and to achieve its expected outcomes in cooperation with the United Nations Korean Reconstruction Agency and International Cooperation Administration.

## AGRICULTURAL EDUCATION IN KOREA

One of the urgent problems in Korean society is to rehabilitate vocational education. The government recognized the need very early,

and set up various vocational high schools in agriculture, industry, commerce, fisheries, and home economics.

Furthermore, the government has tried to keep the ratio of academic high schools to vocational schools at three to seven. But, in practice the situation has not come up to this policy of vocational emphasis due to various reasons.

In the field of agricultural education, only 12 agricultural colleges out of 75 universities and colleges have been established. There are only 7,705 agricultural students out of a total enrollment of 80,118 college students. There are 142 vocational agricultural high schools among 614 high schools. This number represents 21 per cent of the schools.

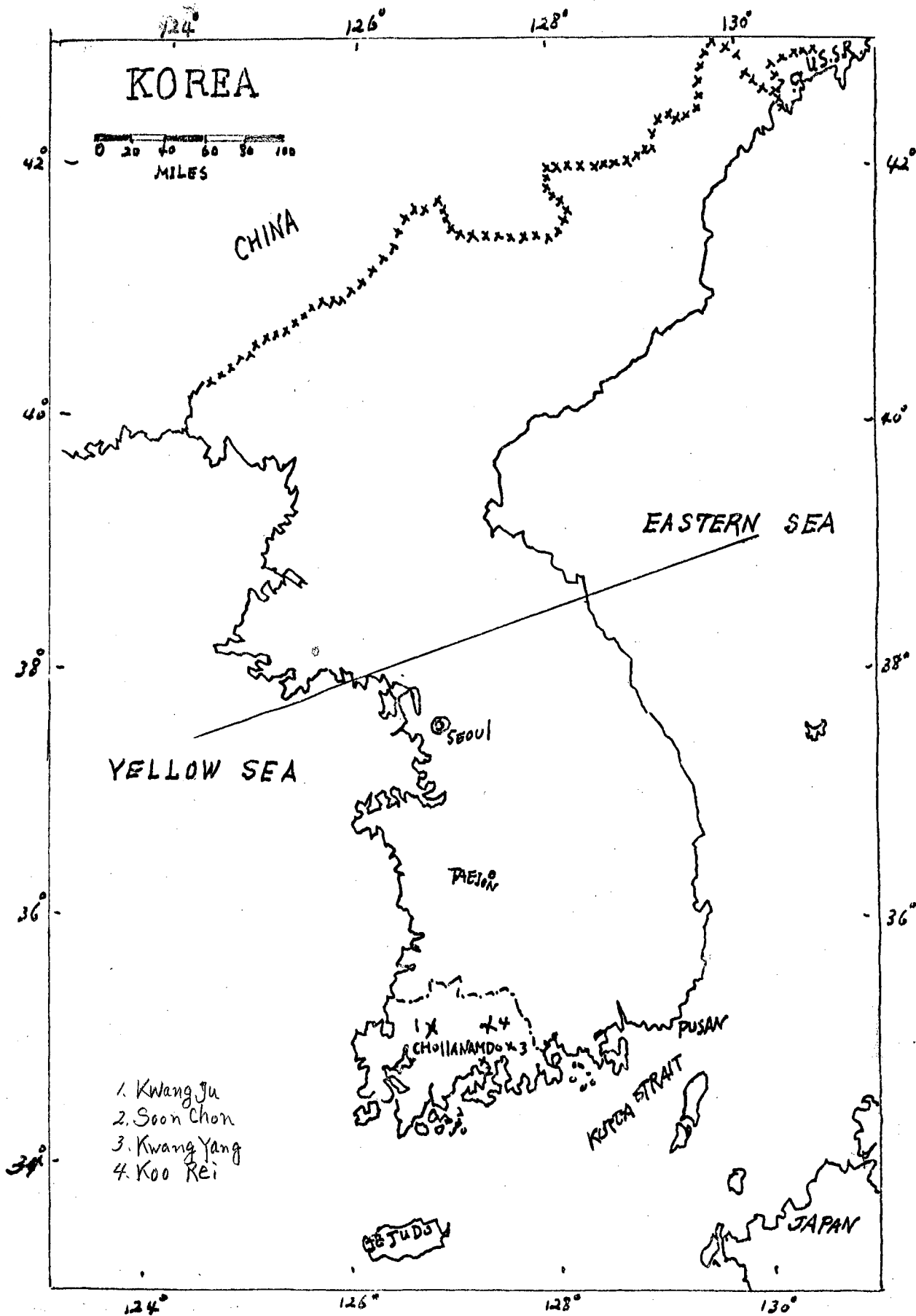
In spite of heavy devastation of facilities during the Korean War, government and many educational pioneers emphasized the need of vocational agricultural education. Because of the limitation of federal funds and provincial weaknesses, they still remain in unsatisfactory condition. The consequences are that some of the parents are complaining of the uselessness of vocational agriculture education without adequate facilities and that the present vocational schools are trying to convert themselves into academic high schools where less facilities are needed.

As reported in a recent issue of the professional education journal, the Phi Delta Kappan,<sup>3</sup> foreign aid agencies, particularly UNKRA and ICA are providing material and technical assistance to raise the level of Korean schools. UNKRA carried the major responsibility in the education

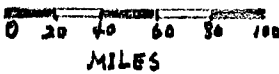
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<sup>3</sup>Phi Delta Kappan, December 1957, p. 113.

field up to the end of 1955, contributing slightly over ten million dollars during the previous three-year period for classroom construction, teacher training, vocational education, library and science equipment, basic school supplies, textbook producing facilities, and a fundamental education training center.



# KOREA



CHINA

U.S.S.R.

EASTERN SEA

YELLOW SEA

SEOUL

DAEJON

PUSAN

CHOLLANAMDO

KORAEA STRAIT

JAPAN

BEJUDDO

- 1. Kwang Ju
- 2. Soon Chon
- 3. Kwang Yang
- 4. Koo Rei

CHAPTER II

PRESENTATION AND ANALYSIS OF DATA

General Information about the Schools.

TABLE III

GENERAL INFORMATION ABOUT THE FOUR AGRICULTURAL HIGH SCHOOLS INCLUDED IN THIS STUDY.

Items of Information	Name of cooperating schools			
	Soon Chon	Kwang Ju	Kwang Yang	Koo Rei
Distance to a large city in miles	0	0	7.5	17.5
Railroads -- miles	0	0	7.5	2.5
Total number on staff	14	23	11	10
Number of Vocational agriculture teachers	5	10	3	3
Age of students in years	16-19	16-19	16-19	16-19
Year established	1935	1909	1948	1950
Yearly budget (1957)	\$62,600	\$101,500	\$36,800	\$14,006
Spent for farm practice	\$ 1,400	\$ 1,100	\$ 368	\$ 296
Money spent per student	\$182.00	\$161.00	\$140.00	\$ 97.00
Student fees per year	\$ 45.60	\$ 62.40	\$ 40.00	\$ 44.00
Number of students dropped for failure to pay fees	3	93	1	5

The information presented in Table III indicates that there are four factors which may influence student's interests in vocational agriculture. They are as follows: (1) the location of the high school with reference to a city or rural areas; (2) the amount of money available for farm practice work; (3) the expenditure per student by the school; and (4) the amount of fees each student has to pay.

TABLE IV

DISTANCE TO THE MAIN CITY AND RAILROAD STATION OF THE SCHOOLS  
INCLUDED IN THE STUDY

School	Distance of school from:		
	Soon Chon	Kwang Ju	Railroad Station
	(in miles)		
Soon Chon Agricultural High School	0.0		2.0
Kwang Ju Agricultural High School		0.0	1.0
Kwang Yang Agricultural High School	7.5		7.5
Koo Rei Agricultural High School	17.5		2.5

Soon Chon Agricultural High School and Kwang Ju Agricultural High School are both located within large cities. Each of these cities is recognized as educational centers for the region. Students in these schools may have more chances than do students in the other two schools to be associated with urban culture.

Kwang Yang Agricultural High School is located only 7.5 miles west from Soon Chon City. Students in this school do have a somewhat more

limited opportunity to observe and experience urban influences.

Koo Rei Agricultural High School located a distance of 17.5 miles from Soon Chon City and 2.5 miles from a railroad station is the school farthest from a large city. With the common transportation being by bus and train, there is only a very limited opportunity for students to have educational experiences except at school. Students in these schools are more influenced by the predominately rural environment in which they live.

TABLE V

## SCHOOL EXPENDITURES FOR SCHOOL FARM PRACTICE

School	Number of Students	Expenditures	
		Per student	Total
Soon Chon Agricultural High School	345	\$4.06	\$1,400.00
Kwang Ju Agricultural High School	630	\$1.60	\$1,010.00
Kwang Yang Agricultural High School	260	\$1.42	\$ 368.00
Koo Rei Agricultural High School	145	\$2.04	\$ 296.00

As evidenced by Table V, Soon Chon Agricultural High School spent more money per student on school farm practice than any of the other schools, while Kwang Yang Agricultural High School spent the smallest amount of money for the farm practice of each student enrolled.



TABLE VI

RELATIONSHIP OF TOTAL SCHOOL EXPENDITURES TO EXPENDITURES  
FOR SCHOOL FARM PRACTICE

School	Total School Yearly Expenditure	Expenditure on School Farm	Per Cent Expenditure
Soon Chon Agricultural High School	\$ 62,600.00	\$1,400.00	2.23%
Kwang Ju Agricultural High School	\$101,500.00	\$1,100.00	0.99%
Kwang Yang Agricultural High School	\$ 36,800.00	\$ 368.00	1.00%
Koo Rei Agricultural High School	\$ 14,106.00	\$ 296.00	2.22%

As we see in this table, Soon Chon Agricultural High School spent a higher percentage of the budget for student farming practice, while Kwang Ju Agricultural High School spent the lowest percentage.

TABLE VII

SCHOOL EXPENDITURES PER STUDENT ENROLLED

School	Number of Students	Total School Budget	Expenditures Per Student
Soon Chon Agricultural High School	345	\$ 62,600.00	\$182.00
Kwang Ju Agricultural High School	630	\$101,500.00	\$161.00

(Continued on following page)

TABLE VII

(Cont'd)

Kwang Yang Agricultural High School	260	\$ 36,800.00	\$140.00
Koo Rei Agricultural High School	145	\$ 14,006.00	\$ 97.00

As we see from Table VII, Soon Chon Agricultural High School spent \$182.00 per year per student which is almost two times the per pupil expenditures for Koo Rei Agricultural High School. This difference may have a considerable influence on the quality of the school program.

TABLE VIII

## RATE OF STUDENT TUITION PAYMENTS

School	Payment per student per year to school
Soon Chon Agricultural High School	\$45.60
Kwang Ju Agricultural High School	\$62.40
Kwang Yang Agricultural High School	\$40.00
Koo Rei Agricultural High School	\$44.00

From Table VIII, it is evident that Kwang Yang Agricultural High School gets less tuition money than any other school; Kwang Ju Agricultural High School gets more money than any of the other schools. The living cost in the city is higher than in the rural areas.

TABLE IX

## FAILURE OF STUDENTS TO PAY TUITION CHARGES

School	Number of Students	Number Failing To Pay	Per Cent of Failure
Soon Chon Agricultural High School	345	3	0.87%
Kwang Ju Agricultural High School	630	93	11.76%
Kwang Yang Agricultural High School	368	1	0.38%
Koo Rei Agricultural High School	296	5	3.45%

From this table we see the Kwang Yang Agricultural High School has the least number of students failing to pay tuition charges while the Kwang Ju Agricultural High School has many students failing to pay the school expenses. In connection with Table IX, it seems suggested that the number of failures are in direct proportion with the school expenses.

TABLE X

NUMBER OF VOCATIONAL AGRICULTURE CLASS MEETINGS IN  
RELATION TO TOTAL CLASSES HELD EACH WEEK

School	Total classes meeting per week	Vocational Agriculture classes meeting per week	Per cent
Soon Chon Agricultural High School	39	18	46.1%
Kwang Ju Agricultural High School	39	12	30.8%
Kwang Yang Agricultural High School	39	16	41.0%
Koo Rei Agricultural High School	39	11	28.2%

From Table X we see that in Soon Chon Agricultural High School, nearly fifty per cent more time is devoted to teaching vocational agriculture, while the Koo Rei Agricultural High School provides the least amount of time for agriculture classes each week. If teaching is effective there must be a variety of methods used, including demonstration, farm practice, and laboratory work. The larger amount of time allocated for agricultural studies should also provide for more effective use of a variety of teaching methods.

TABLE XI

## SIZE OF SCHOOL FARMS OF THE FOUR SCHOOLS IN STUDY

School	Farm size (acres)	Area per student (acres)
Soon Chon Agricultural High School	29.20	0.080
Kwang Ju Agricultural High School	2.13	0.003
Kwang Yang Agricultural High School	1.33	0.005
Koo Rei Agricultural High School	4.00	0.028

Since Korean farmers have only very small farms, it seems difficult for them to share their own farms for their children's farming practice. Therefore, the school farm is often the only place for the students to experience a great deal of actual farming practice. Soon Chon Agricultural High School has the largest school farm area per student, while Kwang Ju Agricultural High School has the smallest farm area for student farming practice. The investigator believes this to be a very important factor influencing student interest and achievement.

TABLE XII

## KINDS AND NUMBER OF LIVESTOCK FOUND ON THE SCHOOL FARMS

School	Dairy Cattle	Korean cow or ox	Swine	Poultry	Rabbits and others
--(head)--					
Soon Chon Agri- cultural High School	3	1	2	30	50
Kwang Ju Agri- cultural High School	0	1	5	85	42
Kwang Yang Agri- cultural High School	0	0	1	6	0
Koo Rei Agri- cultural High School	0	0	3	27	0

From this table we see the Soon Chon Agricultural High School is the only school with dairy cattle, while only two schools have Korean cows or oxen.

The Korean cow plays a large role in farming in Korea and a school operating a farm without a cow or ox is very handicapped in that without the Korean cow or other means of power, it follows that farming operations will be very difficult. For many boys, the livestock on the school farm provides a big advantage for creating interest and understanding. Many farmers have very little livestock on their own home farms and even though they have some animals of their own, it is very seldom that any of the animals belong to the boys. Under such conditions, boys have little, if any, enthusiasm for the animals.

Schools need to have an adequate number of farm animals for the students to study.

TABLE XIII

PRODUCTION OF LIVESTOCK ON SCHOOL FARM DURING THE  
CURRENT SCHOOL YEAR

School	Dairy cattle	Korean cow or ox	Swine	Poultry	Rabbits and others
Soon Chon Agri- cultural High School	1	1	14	300	100
Kwang Ju Agri- cultural High School	0	0	0	200	11
Kwang Yang Agri- cultural High School	0	0	0	90	0
Koo Rei Agri- cultural High School	0	0	0	112	0

A comparison of the livestock production on school farms indicates that the Soon Chon Agricultural High School has excellent production compared with the other schools. This means that if proper use is made of the existing facilities, students attending this school have a much greater opportunity to attain skills in managing livestock, and they probably will learn more about milking and treatment of animals than will the students attending schools with more meager facilities.

TABLE XIV

## AVERAGE NUMBER OF DIFFERENT KIND OF LIVESTOCK ON STUDENTS' HOME FARMS

School	Korean cow or ox	Swine	Chickens	Miscellaneous
	--(head)--			
Soon Chon Agricultural High School	1.04	1.33	13.0	3.0
Kwang Ju Agricultural High School	0.90	1.81	17.5	3.1
Kwang Yang Agricultural High School	0.77	0.90	6.8	1.4
Koo Rei Agricultural High School	0.95	0.95	1.4	0.5

We discover from examining these data presented in Table XIV that there are two definite tendencies in the distribution of kinds of livestock; namely, the types of livestock needing more concentrate feeds are more plentiful in the large city areas. Swine, chickens, and other livestock (except cattle) are found in greater numbers on farms near Soon Chon and Kwang Ju where garbages and waste feeds are more easily obtained. The Korean cattle, general subsisting on grass, are more

generally scattered, showing a slightly higher number in the mountain areas of Soon Chon, Kwang Yang and Koo Rei. These factors have some possible influence on the kind of livestock suitable for school farms and their consequent availability for student study. Students who live in Kwang Ju and Soon Chon have more chances to become associated with more kinds of livestock than do the students attending the other two schools.

TABLE XV

AGRICULTURAL REFERENCES FOR TEACHERS  
FOUND IN THE HIGH SCHOOLS STUDIED

School	References Total Volumes	Periodicals and Magazines Number
Soon Chon Agricultural High School	150	2
Kwang Ju Agricultural High School	103	4
Kwang Yang Agricultural High School	5	1
Koo Rei Agricultural High School	23	0

Adequate references for teacher's use are most indispensable for the proper education of students. While many school libraries are somewhat recovered from war damage, in general, conditions are poor.

There is a tendency for educators to neglect the replenishment of libraries. It is also a deplorable fact that a high percentage of the



the books are very old and obsolete. A high percentage were written during the Japanese occupation by Japanese authors and largely about Japanese conditions. They are very inadequate and unsatisfactory. Teachers find them ridiculous at times. There is inadequate use made of periodical magazines, for instance, Kwang Yang Agricultural High School does not subscribe to any periodical magazine; we wonder how they could secure new information in this rapidly changing world.

TABLE XVI

## AUDIO-VISUAL EQUIPMENT IN THE HIGH SCHOOLS STUDIED

School	Type of Equipment				
	Movie Projector	Slide Projector	Record Player	Camera	Tape Recorder
Soon Chon Agricultural High School	0	1	1	0	0
Kwang Ju Agricultural High School	1	1	1	0	1
Kwang Yang Agricultural High School	0	0	0	0	0
Koo Rei Agricultural High School	0	0	0	0	0

Audio-visual aids, wisely selected and intelligently used, arouse and develop intense and beneficial interest and in this way motivate the pupil's learning. Properly motivated learning means improved attitudes, greater permanency of impressions, enriched experiences, and ultimately, more wholesome living.

The things that are new about this type of education is that the number of visual and auditory aids in electrical engineering have opened up greater possibilities for their use.

For example, within the last few years, new forms of visual and auditory aids have appeared. Among these are the motion picture, radio, filmstrip, television, phonograph, disc, wire, and tape recorders, Opaque projector, and sound slide film.<sup>1</sup>

From Table XVI, we see that all schools have very poor inventories of audio-visual equipment. Only Kwang Ju and Soon Chon Agricultural High Schools have even limited audio-visual equipment, but with the other schools having little if any equipment, audio-visual equipment is needed to secure a clearer understanding; to motivate learning experiences; and to help secure more permanent retainment.

TABLE XVII

ORGANIZATIONS AND RESOURCES RELATED TO STUDENT STUDY IN  
VOCATIONAL AGRICULTURE EDUCATION IN THE SCHOOLS STUDIED

Question asked:	School response:			
	Soon Chon	Kwang Ju	Kwang Yang	Koo Rei
Do you have 4-H club, or FFK (FFA in U.S.), or other similar organizations?	Yes	Yes	Yes	No
Are there convenient places to visit to help students in a study of agriculture?	Yes	Yes	No	No
Do you have any livestock or agricultural show or judging contest in your school or region?	No	No	No	No

Resources such as the Agricultural Research Center or the terminal livestock market and youth organizations such as the 4-H Clubs or FFK (FFA), as well as agricultural shows or judging contests are very beneficial for securing and maintaining student interest. Only two

<sup>1</sup>Harry C. McKown and Alvin B. Roberts, Audio-Visual Aids to Instruction, (New York, 1949), p. 36.

schools have youth organizations, and more places to visit to assist in student study are need. (To the writer's knowledge, as yet the FFK hasn't been organized in Korea.)

TABLE XVIII

## INDICATIONS BY STUDENTS OF MAJOR PROBLEMS FOR LIVESTOCK RAISING

School	Number of answers	Reason given:		
		No interest	A technical problem	A financial problem
Soon Chon Agricultural High School	45	6	6	33
Kwang Ju Agricultural High School	48	1	7	40
Kwang Yang Agricultural High School	39	5	10	24
Koo Rei Agricultural High School	39	5	6	28
Totals	171	17	29	125

From Table XVIII, we see that 125 students out of 171 (67%) answered the major problem for the livestock raising is a financial problem; therefore, it is evident that high school students recognize the difficulty of financing livestock enterprises.

TABLE XIX

PERCENTAGE OF STUDENTS RECOGNIZING FINANCING AS A MAJOR PROBLEM  
IN LIVESTOCK WORK

School	Total number of student responses	Students indicating financing*	
		Number	Per cent
Soon Chon Agricultural High School	45	33	73.00
Kwang Ju Agricultural High School	48	40	83.00
Kwang Yang Agricultural High School	39	24	62.00
Koo Rei Agricultural High School	39	28	72.00

\*Financing refers to land rental or purchase for housing, building, costs, animal purchase, and feed purchase.

TABLE XX

INDICATIONS BY HIGH SCHOOL STUDENTS OF ADEQUATE TEXTBOOKS  
FOR STUDYING LIVESTOCK RAISING

School	Total number reporting	Textbook and other reference		Textbook only		Others only	
		No.	Per cent	No.	Per Cent	No.	Percent
Soon Chon Agricultural High School	45	23	51	22	51	0	0
Kwang Ju Agricultural High School	48	31	60	14	29	3	1
Kwang Yang Agricultural High School	39	9	23	30	77	0	0
Keo Rei Agricultural High School	39	7	17	28	72	0	0

Although it is said that teaching only by means of a textbook is impossible in teaching a vocational course, it is also very difficult to do effective teaching without adequate references for the students to use. In Table XX, it is evident that two of the high schools studied do provide students with a limited, but helpful number of textbooks on livestock raising.

In these schools, however, only 50 to 60 per cent of the students reported having the use of a textbook. The references and textbooks are altogether limited in these high schools and the students might be expected to be far more interested if they had good references for their use.

The references, such as professional books and bulletins, magazines, catalogues and daily market reports and other materials are very important for the vocational agricultural education. Paul W. Chapman has stated:

The more thought and study we give to the matter, the sooner we reach the conclusion that the most valuable and worthwhile things we can do for OUR STUDENTS IS TO HELP THEM FORM HABITS WHICH WILL FUNCTION IN KEEPING THEIR FEET IN THE RIGHT PATHWAY AFTER THEY HAVE LEFT OUR CLASSROOMS, LABORATORIES, AND SHOPS. Is there any habit more important than that of reading the literature pertaining to one's job?<sup>2</sup>

Without the proper books, how will we develop proper reading habits? This should be a question foremost in the minds of Korean educators.

After grading the examination papers covering livestock raising from students in the four schools, the writer felt that there was ample evidence that the factors under study are undoubtedly related to the student study interest and learning.

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<sup>2</sup>Taken from an address by Paul W. Chapman, State Director of Voc. Educ., Athens, Ga., delivered before the Agri. Edu. Sec. of the American Voc. Association.

TABLE XXI

AVERAGE SCORE MADE BY STUDENTS IN FOUR KOREAN HIGH SCHOOLS  
ON EXAMINATION COVERING LIVESTOCK RAISING

School	Average Score	Difference
Soon Chon Agricultural High School	82.8	11.5
Kwang Ju Agricultural High School	71.3	27.4
Kwang Yang Agricultural High School	43.9	5.7
Koo Rei Agricultural High School	38.2	

Robert J. Havighurst states that "the term EDUCATION has been given a very wide meaning in recent years. All environmental factors which influence the growth and development of human individuals."<sup>3</sup>

Considering the effect of urban vs. rural location of the schools on scores made by students on the examination, data in Table XXI reveals a striking fact. The two urban located schools, Soon Chon and Kwang Ju, show an average difference of student scores of 11.5 points while the difference between the two rural schools was 5.7 points. The great difference in points, however, did occur between the lowest urban school and the highest rural situated school.

It is well to consider the fact that the schools with students making the highest score was also the school with by far the best school farm and facilities.

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<sup>3</sup>Robert J. Havighurst, Preface of the Environment and Education, Committee on Human Development, University of Chicago, March, 1942.

It should also be noted that the two schools with the best scores also had a more plentiful supply of textbooks and reference materials.

The community in which the teacher works sets the educative environment through which he must work. Educative environment, as the expression is here used, includes all the surroundings or conditions external to the learners that influence their learning. The environment is much more than the crop and animal enterprises of the community. The schoolrooms, equipment, library, daily and yearly schedule total curriculum offerings, and their quality, and the farms with their equipment, livestock, and practices, are all part of the educative environment. Farm-family relationships are a part of the educative environment, as are community relationships and even the season of the year in which the learning may take place. The soil, degree of success in farming, quality of farm life, and the like are a part of the environment. Obviously, the practice the learners are to get in agriculture must be where the learners are, and to a great extent, with what the learners have.<sup>4</sup>

It is very important that the educators in Korea endeavor to provide a more favorable environment for the student interest and study.

TABLE XXII

## INTEREST AND SELECTIVITY INFLUENCING FACTORS UPON STUDENT ACHIEVEMENT

Number of Students	Interested Students	Un-interested Students	Per Cent		Ave. grade	
			Int.	Unint.	Int.	Unint.
171	154	17	90	10	56.8	52.3

We see in Table XXII, that the uninterested students did not score as well as the students who were interested in livestock raising.

<sup>4</sup>Carsie Hammonds, Teaching Agriculture, New York (1950), pp. 66-67.

Interests play an important part in determining the activities in which people engage and their feelings while engaged in these activities. Interest is a compelling force in shaping the lives of people. We need only to witness its triumphs in art and invention and its achievements in the professions, in farming, in homemaking, in school studies, indeed in every kind of work activity.... Interests are the "inner springs" of thought and action; they are a natural justification for effort.<sup>5</sup>

TABLE XXIII

## SELECTIVITY AND ACHIEVEMENT

		Per cent	Average Grade
Number of Students	171		
Self-selected students on study course	138	80.7	59.5
Selected by teachers or parents	33	19.3	55.2

There is no justification for a course that does not meet the needs of the students. The course is for the students. Until we consider them and their needs we do not know whether certain learnings can be secured, nor do we know whether they should be. Apparently, all teachers give some attention to this factor in constructing their courses of study.

. . . . We must also consider the knowledges, abilities, and **attitudes** the learners possess - their schooling and farm experience, what they are interested in or can be caused to be interested in, and the like.<sup>6</sup>

We see from Table XXIII that the self-selected students made a grade of 59.5 while the other group made a grade of 55.2; these data show us that there is no achievement where there is no self-selectivity.

<sup>5</sup>Ibid, pp. 157-158.

<sup>6</sup>Ibid, p. 65.



## FACTORS AFFECTING VARIATION OF STUDENT INTEREST

The writer noticed from the students' answers that 138 boys out of 171 chose the vocational agriculture course by their own interest, but, after enrolling in this school they lost their interest in this course. On the contrary, 45 boys chose this course without any interest because their parents or teachers wished them to do so. After enrolling in this school, 39 of this group became interested in the vocational agriculture curriculum.

Thirteen boys explained that they attributed mostly interest and selection to their parents' good judgment and assistance, while 26 boys explained they became interested through their teacher's good teaching and advice.

From this study, we can recognize that the students' interest has a variation depending upon their relationship to parents-teachers, and also their present and past experiences. We also recognize the good teaching and good advice of teachers has a large influence upon the development of the students' interest. Since it was found that 26 students out of 45 became interested by their teacher's good advice rather than by their parents' assistance, the teachers should be challenged by this finding.

New interests can be developed and taught; they can be "created by design". Under the skillful teaching of a dedicated teacher, students can even learn to like what they now may dislike. Most educators agree to the basic fact that effective instruction should result in the development of desirable attitudes, interests, ideals, appreciations, understandings, habits, and abilities.

TABLE XXIV

INDICATIONS OF SOURCE AND EXTENT OF STUDENT INTEREST  
IN VOCATIONAL AGRICULTURE

Statement of Student	Interested at <u>time of enrolling</u> number	Lost interest <u>after enrolling</u> number per cent	
I enrolled in vocational agriculture by my own choice.	138	8	5.8
I enrolled in vocational agriculture largely by my parents decision or teacher's decision.	33	9	27.0
I had no interest in vocational agriculture before I enrolled, but now I have interest. It was derived by my parents good assistance.	13	0	0.0
I had no interest in vocational agriculture before I enrolled, but now I have interest. It was derived by my teacher's good advice and teaching.	26	0	0.0

OTHER FACTORS POSSIBLY RELATED TO STUDENT INTEREST,  
ATTITUDE, AND ABILITY DEVELOPMENT

In this study no attempt was made to evaluate teachers abilities, but some investigation was made with regard to their ideas, conditions, attitudes, and educational procedures. Responses to selected questions were secured from vocational agriculture teachers in each of the four schools. These responses were as follows:

A. No school provides additional salary for the extra service rendered by the vocational agriculture teacher who does not observe holidays which other types of teachers have throughout the year. This creates dissatisfaction of the teacher for his job and such dissatisfaction does not promote improved instruction.

The writer observed that in the state of Oklahoma, vocational agriculture teachers are rewarded by two months of additional salary above that received by other teachers. These Oklahoma teachers, when asked, told the writer that they feel some of their most effective work is done after school hours and during the summer days.

B. Farming programs planned by teacher only. From four teachers, the investigator received replies that indicate that the supervised farming programs were planned by the teacher only. Although the farms do belong to the school, they exist only for the purpose of helping students; therefore, the students should be given an opportunity to have a positive and cooperative part in planning the farming program. By doing this, they may realize the importance of planning in a farming business, and may be much more responsible and appreciative of the value of providing students opportunity for planning -- only by having a part in planning will they realize the value of proper planning and what it involves.

Teaching student-planning does not mean that a teacher abdicates and turns the planning of the course over to the students. He always has a part in the planning of a group, and he gives the group as much responsibility as it is capable of accepting. The younger the students, the more responsibility the teacher must accept. Planning should be restricted, within reason, to the framework of vocational agriculture. The more experience students have in planning, the more responsibility they can accept in the development and progress of a course.

C. Livestock on the school farm for student study. Replies were secured from students about the utility and value of livestock on the school farm for student study. Data from these replies were summarized in Table XXVI.

TABLE XXV.

STUDENT RESPONSES AS TO THE VALUE AND UTILITY OF  
LIVESTOCK ON THE SCHOOL FARM

Response	Students responding	
	Number	Per Cent
Very beneficial for study	65	38.0
A little beneficial	89	52.0
Not beneficial	17	10.0
Total	171	100.0

We see in Table XXV that 62 per cent of the students stated that the livestock on the school farm used for their study was of little or no benefit. Since most students do not have livestock on their home farms, the animals on the school farm are almost the only teaching materials for student study. Teachers should recognize the significance of the school farm livestock for student study.

D. Livestock enterprise on student's home farm. All but 25.5 per cent of the students reported they either did not have livestock on the farm or could not make money from raising livestock. Table XXVII shows that 47.7 per cent of the students neither made money nor lost money and that 24.1 per cent of them did not have livestock on the home farm. Ten per cent of the students actually lost money on their livestock enterprises.

The relatively high rate of losing and failing to make money tended to cause many students to lose interest in raising livestock. This also caused some of them to lose interest in trying to learn more information about livestock.

TABLE XXVI

NATURE OF INCOME RELATED TO LIVESTOCK AS REPORTED BY  
ONE HUNDRED SEVENTY-ONE STUDENTS

	Number	Per Cent
Students answering the question	171	100.0
Students earning money	44	25.73
Students reporting no earnings and no losses	82	47.95
Students losing money	4	2.34
Students raising no livestock	41	23.98

ANALYSIS OF THE STUDENTS TEST PAPERS

The writer gave a test at four schools about livestock raising to secure data to indicate the information each student had. These questions were divided into four main parts, i.e.,

1. Poultry . . . . . 5 questions
2. Swine . . . . . 2 questions
3. Cattle. . . . . 6 questions
4. Miscellaneous . . . . . 7 questions

TABLE XXVII

RESULTS OF TESTS GIVEN STUDENTS IN FOUR AGRICULTURAL HIGH SCHOOLS  
TO ASCERTAIN THE DEGREE OF KNOWLEDGE OF CERTAIN TOPICS  
RELATED TO AGRICULTURE

Questions asked	Number of correct answers				Total
	Soon Chon 45 students	Kwang Ju 48 students	Kwang Yang 39 students	Koo Rei 39 students	
<b>POULTRY:</b>					
1. White Leghorns are raised for eggs, meat, dual-purpose.	44	48	35	36	163
2. Protein is fed for eggs, meat, health.	40	46	10	25	121
3. Fish meal contains more fat, protein, carbohydrate.	39	44	12	17	112
4. A chicken's body temperature is 32°, 35°, 39° centigrade.	45	44	17	28	134
5. Chickens need grain in the evening, noon, morning.	38	5	17	11	71
<b>SWINE:</b>					
1. The number of days swine are pregnant is 150, 120, 114 days.	45	48	34	18	145
2. The first generations of a cross of a Korean female pig with the Berkshire male is colored all black, black and white, six white points.	2	8	5	1	16
<b>CATTLE:</b>					
1. Giving salt to cattle is necessary, not necessary, harmful.	43	48	31	28	150
2. The word "ensilage" means: a toxic medicine, good cattle feed, name of a rabbit family.	42	48	18	21	129

TABLE XXVII (Cont'd)

3. Many farmers in Korea boil the cattle feed during the winter time. This takes too much wood, some useful nutrition is lost, should not boil.	30	48	30	14	122
4. In winter many farmers wrap the cow's body with a straw mat. They should not do this.	42	10	9	6	67
5. The Korean cow works very nicely, but she has a small body. It is necessary to cross-breed with the Holstein-Friesians.	20	11	14	11	56
6. Hay is one of the most important cattle feeds. It is necessary to keep the grass growing in the mountain area of my village. True or False.	42	48	39	34	163
<b>MISCELLANEOUS:</b>					
1. The word "alfalfa" means disinfectant, a good feeding grass, a medicine.	44	47	32	7	130
2. Pigs and chickens are very beneficial in our country; it is necessary to increase the number infinitely.	41	10	4	0	55
<b>FILL THE BLANK SPACES WITH THE CORRECT WORD OR WORDS:</b>					
3. Livestock raising is necessary not only to provide the <u>meat</u> needed, but also the <u>farm manure</u> .	a.38 b.32	46 46	8 9	17 1	109 88
4. To increase the farmers income, it is necessary to develop an adequate <u>side line</u> .	39	47	14	12	112

TABLE XXVII. (Cont'd)

5. Legumes are necessary not only for the <u>legume hay</u> , but also for the <u>soil-nitrogen</u> .	a.36	47	19	23	125
Farmers should <u>promote</u> legume planting.	b.39	25	20	24	108
	c.21	24	32	17	94
6. In our country, <u>zarnen</u> is the best milk goat, and the <u>Holstein-Fresian</u> is the most important milk cow.	a.38	40	1	1	80
	b.40	47	16	20	123
7. When a farmer runs a farm with a crop only, we call it " <u>Plane farming system</u> " and if he has livestock too, we call it " <u>Solid farming system</u> ."	a.44	10	1	0	55
	b.38	11	1	0	50
TOTALS	930	856	428	371	2,585
*Average Points	82.8	71.3	43.9	38.2	60.4

\*Average points = means correct number X four (four points for each correct answer).



## CHAPTER III

### SUMMARY AND RECOMMENDATIONS

#### 1. Educational Policy on Vocational Agriculture Education.

Seventy per cent of the Korean population is occupied by farming, and forty-five per cent of her exports are made up of farm products. Agricultural education, therefore, is one of the most important phases of education in Korea.

The government tried to keep the ratio of academic high schools to vocational high schools at three to seven. The vocational high schools include fishery, commercial, and technical high schools. But, in practice, the situation has not yet come into being. At present there are only 142 agricultural high schools or 23.1% of the total, while 48 per cent of all schools are general academic schools. The high cost of national defense has made it difficult for the Korean government to finance needs of the farm people and to finance a proper system of vocational education. Vocational agriculture needs to be given a lot more emphasis in Korea if the food needs of the people are to be met.

#### 2. Opinions of Educators in Korea.

Leaders in vocational agricultural education have several different ideas. Some of them have been educated in the Japanese age and they are thinking of trying to keep the tradition of the typical agricultural high school which allows them to exercise their totalitarian

ideas in every field, even including the students' right of selectivity. On the other hand, some educators are thinking of abolishing the traditional way and giving more chances to the students for self-selectivity and emphasizing farm practice for the students rather than the college preparatorial education. At any rate, many educators are bewildered because of their misconception of democracy.

### 3. Student's tendencies.

There are two main kinds of enrollees in the agricultural high school: (1) those who have enthusiasm for the agricultural courses being the primary composers of most classes, and (2) boys who enrolled, but who have no interest for agricultural study. Most of this latter group of boys enrolled after they failed an entrance examination of the general academic high school. Most of them have no interest in agricultural study; sometimes they are grumblers in the class looking for chances to be enrolled in the academic high school. In many cases, they are detracting in the class. Though they do not number many, they disturb their classmates very much.

There also is a third group of boys who remain neutral. These are a small group, but since they have no enthusiasm they cause less interest in class and should not be enrolled in vocational agriculture.

In Korea, the college entrance examination interfered with the boy's academic enthusiasm for the vocational high school. Therefore, most boys put aside the vocational courses and are driven to study more academic courses. This attitude on the part of the students creates many difficulties for the vocational education teachers.

#### 4. Parents' Attitudes.

Most parents who send their boys to the agricultural high schools are not well-educated. They are ranked less than middle-class in the community. Therefore, they have a strong desire to have a more increased income and improved living conditions. Consequently, only very few parents are thinking their boys will be engaged on the farm. Most of them are dreaming that their boys will be employed in good organizations after graduating from the agricultural high school. These factors also help to create the academic situation within the agricultural high school.

#### 5. Summary and Conclusions.

This study indicates that there are three major factors which influence student learning and achievement in the agricultural high schools of Korea. These are identified as: (1) environment of home, school and community; (2) the teaching methods used and the interest of the teacher; and (3) the student's own attitude and interest. While all of these factors are important, this study indicates that student interest is largely dependent upon the interest and skill of the teacher, combined with a situation in which adequate facilities are present and the environment favorable.

As stated by Kwang Man Kouh<sup>1</sup>, "some parents are complaining of the uselessness of vocational education without adequate facilities." This statement is increasingly true; recently many vocational high schools in Korea have encountered many managerial difficulties such as lower enrollments and decreased support, but on the other hand, some schools

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<sup>1</sup>Kwang Man Kouh, p. 3.

receiving assistance from the International Cooperative Administration and other organizations have enough rooms and adequate facilities.

These schools have a surplus of students. This indicates that many students do prefer to take vocational education rather than the strictly academic course provided they have an adequate educational environment.

In 1956, the writer visited five agricultural high schools which were then ranked first place in each province. One of them had much elementary farming equipment such as Korean hoes, hand hoes, spades, and some small equipment for the students' farming practice, but lacked more modern equipment or machinery with which the students like to work and which makes farm work easier. The equipment was plentiful, but it was old and primitive. How can a soldier win in the modern warfare without scientific arms?

Data presented in this study show that Soon Chon Agricultural High School has more animals and facilities for student study than the other three high schools studied. Many students have too few animals, and these animals are their parent's property; therefore, the students have little responsibility or interest in these animals. As a result student interest is low. Data presented also show that some schools spend too small a portion of money for their farming practice facilities. Soon Chon and Koo Rei Agricultural High Schools spend only approximately two per cent of the entire school budget for farming practice, while 25 to 30 per cent of the school time is spent on vocational courses. If properly taught, vocational courses need more money than do many other courses, but actually far too little money is spent on the vocational courses.

Since the vocational agriculture teachers are responsible for the total farming program or school farms, they have to work longer hours, have little if any vacation, be responsible for all crops and animals, and all equipment on the school farm. As teachers, they carry heavier burdens and much more responsibility than other teachers. However, they get the same salary as other teachers; this situation should be corrected.

Plans for farming on the schools farms are made by teachers only. Since planning is one of the important contributions to learning, it is not good that all students are excluded from planning. Students participation in developing farming plans, should stimulate far more interest in vocational agriculture. Teachers should be helped to see the importance of this problem.

The textbooks used in Korea were written in such a manner as to provide only general information; thus, they do not provide information on many problems arising from geographical differences or more local situations. Teachers should recognize this fact and should develop local teaching plans designed to meet the needs of students and farmers within their respective areas.

Teaching only from the textbook limits the learning activities and leads mostly to only academic teaching, disregarding the practical phases of teaching vocational agriculture. Students have much difficulty in learning. The vocational approach is to learn to do by doing.

In the test prepared by the writer and taken by students, stress was placed on practical experience rather than theory alone. The Soon Chon Agricultural High School boys made the highest grades on these tests. Data presented in this study show that Soon Chon Agricultural

High School boys have far better conditions for their study than other schools studied. We might conclude that the better conditions assisted the Soon Chon students in learning.

The writer observed that in the United States, the Future Farmers of American and 4-H Club organizations are contributing very much to student interest and learning. The FFA is the national organization for boys studying vocational agriculture in public secondary schools under the provisions of the National Vocational Education Acts. This organization is to develop agricultural leadership, cooperation, citizenship, and patriotism as well as many other good purposes. Doing the activities of farming and leadership in FFA work keeps student interest high and makes students proud they are studying vocational agriculture.

In this work, they improve the rural home and its surroundings and a good school supervised farming program strengthens the work. We must take advantage of this approach and make it a part of the vocational agriculture program in Korea.

Through this study, we realize that the successful program of vocational agriculture is based upon providing adequate facilities, references, and actual farming and leadership experiences which will interest and challenge the student. Teachers must be helped to see that (1) they must work closely with the individual student to develop leadership and to provide good practice in farming; (2) they must use a variety of teaching methods including a student organization like the Future Farmers of Korea; (3) they must work very closely with the parents of the students and help students and parents to a better relationship; and (4) they must help the student to have an interest and pride in the school farm and in his own farm.

6. Recommendations for improving the vocational agricultural education program in Korea.

A. Agricultural problems are different from area to area; therefore, each school should develop its own teaching plan to meet the needs of farming in its community. The required use of the same textbooks throughout the country should be abolished.

B. Improved facilities and increased budget allowance for farming practice in the school farm should be immediately accomplished.

C. The right of students to make their own choice of a course of study, depending upon their own interests. More attention should be given to student counseling.

D. Special study should be made to increase the parent's interest in their son's study of vocational agriculture. Both teachers and administrators should arrange for meetings with parents and students.

E. Metal and woodworking farm shops are urgently needed for every agricultural high school, to develop skills in farm equipment construction and repair. Each student should be encouraged to make some application to his home farm.

F. Students should have a part in the development of plans both for the school farm and their home farm.

G. The organization of local units of Future Farmers of Korea should be immediately accomplished. 4-H Club work should also be developed in the elementary schools.

H. All students should not be expected to complete advanced work in higher mathematics, physics, and chemistry, but rather a working knowledge of science should be a part of the learnings in vocational agriculture.

I. Vocational Agriculture teachers should have special training courses to help them understand and use a variety of methods in teaching.

J. Much more attention should be given to providing experience for students with livestock. The school farm should be stocked with sufficient livestock to provide for better teaching.

K. Some way should be found to compensate the teachers of vocational agriculture for the additional labor and longer hours which they perform.

L. All people in Korea should become acquainted with the idea that education is the most important way to develop the national and that more money spent on schools will develop a more highly skilled and happier people.

#### Supplementary recommendations.

The writer would like to suggest the adoption of the following suggestions for the educational system of his country as early as is possible. These recommendations were developed after making personal visits and observations in schools of the state of Oklahoma, U.S.A.

A. Agricultural high schools should not be separated from general high schools because good students lose their chances for freedom of choice of a course of study and interest may be lost.

B. Each of the Korean provincial agricultural colleges must be strengthened and should have a well developed agricultural education course for teacher training to meet the needs of vocational agriculture teachers for all high schools.

C. Local junior colleges should be organized with locations in the center of each 10 to 12 high schools. The program in these junior colleges should place primary emphasis on the practical farm training



and work with adult and young farmers who are not in schools. They should train the vocational agriculture teachers who will teach in the one or two year high schools which are a part of the local elementary school. These one and two year high schools also provide some vocational education in agriculture for boys not in high school.

D. To improve our living conditions, every agricultural college should develop life betterment courses including instruction on improvement of housing, food production and preservation, fuel conservation and use, water sanitation, and farm use of electricity.

E. Every agricultural college should be concerned about how we can use more of the nation's land area, even the mountains or tidelands, for more production of livestock and food products.

F. Korean agricultural educators should be concerned about the livestock raising on the mountain side which includes around 75 per cent of the Korean territory.

The writer is interested in the following statements which, as described by UNCRA, are concerned with the agricultural education in Korea.

There is an immediate need for strengthening technical education and restoring educational facilities to meet the requirements for trained men.

The need for four year college graduates is limited, but a larger number of agricultural technicians with two-year training will be invaluable. Special short courses should be offered to train extension workers. Refresher courses should be available to all types of agricultural workers. The Food and Agricultural Organization (FAO) and the United National Korean Reconstruction Agency (UNKRA) MISSION recommended that efforts be centered on the development of one strong national college of agriculture for thorough training of the college graduates needed in Korea. Existing provincial

colleges should be converted into two-year technical agricultural institutes which should place primary emphasis on practical farming and extension problems.<sup>2</sup>

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<sup>2</sup>An economic program for Korean Reconstruction prepared for the United Nations' Korean Reconstruction Agency, p. 263.

## A SELECTED BIBLIOGRAPHY

- "A Critical Analysis of Korean Education," by Kwang Man Kouh.  
Phi Delta Kappan, (December, 1957).
- An Economic Program for Korean Reconstruction. Prepared for the  
United Nations Korean Reconstruction Agency. (1958).
- Environment and Education. Preface, A Supplementary Educational  
Monographs. Number 54, Chicago: The University of Chicago,  
March, 1942.
- Hammonds, Carsie. Teaching Agriculture. New York: McGraw-Hill  
Book Company, Inc., 1950.
- Korean Economic Almanac. Bank of Korea, 1957.
- McKown, Harry C., and Alvin B. Roberts. Audio-Visual Aids to  
Instruction. New York: McGraw-Hill Book Company, Inc.,  
1949.
- Phipps, Lloyd A. Handbook on Teaching Vocational Agriculture.  
Danville, Illinois: The Interstate Printing Company, 1956.
- Schorling, Raleigh, and Howard T. Batchelder. Student Teaching  
in Secondary Schools. New York: McGraw-Hill Book Co.,  
Inc., 1956.

APPENDIX

QUESTIONNAIRE

(To school administrators)

1. Name of school.
2. Location
3. Number of school staff \_\_\_\_\_ Voc. Agriculture teacher \_\_\_\_\_
4. Number of students
5. Year established
6. Number of graduates
7. Budget per year (1957)
  - From government \$ \_\_\_\_\_ (hwan)
  - From P.T.A. \$ \_\_\_\_\_ (hwan)
  - Total \$ \_\_\_\_\_ (hwan)
8. Budget used for school farm practice \$ \_\_\_\_\_ (hwan)
  - Per cent of school budget \_\_\_\_\_%
9. Expenditure for per student \$ \_\_\_\_\_ (hwan)
10. Payment per student per year \$ \_\_\_\_\_ (hwan)
11. Dropped from school for failure to pay fees \_\_\_\_\_
12. Number vocational agriculture class meetings \_\_\_\_\_
13. Size of school farm area: Rice paddy \_\_\_\_\_ acres (Chongbo)
  - Dry paddy \_\_\_\_\_ acres (Chongbo)
  - Forestry \_\_\_\_\_ acres (Chongbo)
14. Number of livestock on school farm: Dairy cows \_\_\_\_\_
  - Korean Cows \_\_\_\_\_
  - Swine \_\_\_\_\_
  - Poultry \_\_\_\_\_
  - Miscellaneous \_\_\_\_\_

15. Production per year (1957): Dairy calves \_\_\_\_\_  
 Korean calves \_\_\_\_\_  
 Pigs \_\_\_\_\_  
 Chickens \_\_\_\_\_  
 Miscellaneous \_\_\_\_\_

(To Vocational Agriculture teachers)

1. How many references for vocational agriculture does your school have?
2. How many periodicals does your school get?
3. Do the vocational agriculture teachers get more salary than other teachers? Yes \_\_\_\_\_ No \_\_\_\_\_ How much more \_\_\_\_\_.
4. Farming plans made by:
 

Students	_____
Teachers	_____
In consultation with students	_____
5. Do your students understand the management of the school farm and know the results secured? Yes \_\_\_\_\_ No \_\_\_\_\_
6. School farming programs planned:
 

Every day	_____
Once a week	_____
Once a month	_____
Once a year	_____
7. Star farmer visiting and observation with the boys?
 

Frequently	_____
Occasionally	_____
Never	_____

8. Student Farming practice emphasized for:      Understanding \_\_\_\_\_  
   Discipline \_\_\_\_\_  
   Both \_\_\_\_\_
9. Does the vocational agriculture teacher take the professional field trips more than the other teachers?    Yes \_\_\_\_\_ No \_\_\_\_\_
10. Are crops and livestock on your school farm much better than the farmers?      Much better \_\_\_\_\_  
   Almost same \_\_\_\_\_  
   Worse than farmers \_\_\_\_\_
11. Farmers and parents visit school farms:      Frequently \_\_\_\_\_  
   Occasionally \_\_\_\_\_  
   Never \_\_\_\_\_
12. Have you ever tried to become well acquainted with your community?  
Yes \_\_\_\_\_ No \_\_\_\_\_
13. Does your school have any organizations such as:  
   4-H Club      Yes \_\_\_\_\_ No \_\_\_\_\_  
   FFK (FFA)      Yes \_\_\_\_\_ No \_\_\_\_\_
14. Do you have any show or livestock judging contest in your school or region?    Yes \_\_\_\_\_ No \_\_\_\_\_

## APPENDIX B

## THE THREE YEAR CURRICULA OF AGRICULTURAL HIGH SCHOOLS IN KOREA

Required subjects: Total hours of classwork  
for three years

Civic Science (government, citizenship and economics) . . . . .	245
Morals and Ethics. . . . .	105
Korean history . . . . .	105
Mathematics. . . . .	140
General Science. . . . .	140
Health Science . . . . .	105
Music. . . . .	140
Art. . . . .	385
Korean Language. . . . .	315
Vocational subject . . . . .	

Elective subjects:

Academic courses

Korean language. . . . .	315
Foreign History. . . . .	105
Geography . . . . .	105
Analytical geometry. . . . .	105-210
Geometry . . . . .	70-140
Physics. . . . .	140
Biology. . . . .	140
Geology. . . . .	140
Military Training. . . . .	420
Health Science . . . . .	
Music. . . . .	} 0-210
Art. . . . .	
Philosophy and Education . . . . .	210
English. . . . .	} 0-525
French . . . . .	
German . . . . .	
Chinese. . . . .	
Special Activities . . . . .	210

Vocational courses

Soil and Fertilizer Use	Forest Conservation
Crops Production	Soil Conservation
General Animal Husbandry	Animal Husbandry
Laboratory and Field Practice	Livestock Breeding
Horticulture	Processing Animal Production
Processing Farm Production	General Veterinary Problems
Entomology	Geology
Genetics	Farm Machinery Operation and Use
Farm Shop and Mechanics	Use of Steel Materials in Agriculture
Forestry	Clinic and Disease Control of Animals



Sericulture  
Farm Management  
General Agriculture  
Forestation

Vaccinating Animals  
Animal Pathology  
Garden Management  
Floriculture

VITA

Hyung Yull Park

Candidate for the Degree of

Master of Science

Report: FACTORS ASSOCIATED WITH STUDENT INTEREST AND BEHAVIOR IN  
AGRICULTURAL COURSES TAUGHT IN FOUR HIGH SCHOOLS  
OF CHOLLA NAM DO PROVINCE, KOREA

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Nam-Do, Korea, September, 1941 to July, 1945.  
Teacher of Soon Chon Agricultural High School and other  
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Principal of Kohung Agricultural High School September,  
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Principal of Soon Chon Agricultural High School, December  
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Organizations: Member of Korean Teacher's Association;  
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