A COMPARATIVE STUDY OF ELECTIVE COURSES CHOSEN BY SELECTED STUDENTS OF ATCHISON COUNTY COMMUNITY HIGH SCHOOL

by

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INTRODUCTION

Events at the national and international level over the past two decades have emphasized the need for obtaining answers to a number of questions about American education. A basic question is concerned with the courses and programs of study actually pursued by high school pupils of various academic abilities.

Information concerning the offerings and enrollments of high schools has been gathered periodically for the last 70 years.² Such data have revealed the percentage of high school students enrolled in specific subjects, or subject matter areas at any one period. They do not indicate the distribution or pattern of subjects pursued by pupils during their high school careers. The survey, "What High School Pupils Study," published by the U. S. Office of Education, was designed to gather this data.³

A study at the national level was conducted by the U.S.O.E. to help school and lay leaders answer some of the questions most frequently asked of them regarding programs being conducted by our high schools. Among these common inquiries are: Do academically able pupils spend their time

LEdith S. Greer, and Richard M. Harbeck, What High School Pupils Study, U. S. Office of Education, Department of Health, Education and Welfare, (Washington: Government Printing Office, 1962) pp. 1-5.

² Ibid.

³Hereafter referred to as the U.S.O.E. survey.

in appropriate subjects in our high schools? What are the academic choices of the able student? The less able? How do boys and girls compare in their choices?

Information in these areas on a national scale may help administrators and teachers in the evaluation and improvement of their own school programs in terms of pupil academic abilities. It may also encourage studies at the state and local level in determining curriculum offerings and what choices the students are making.

In an ever changing society, one in which knowledge is doubling every 12 to 15 years, it is necessary to frequently add or take away from the curriculum. A major problem of our curriculum today seems to be in determining what to offer. If education is a factor in both social and technological change, then our educational system must constantly be aware of its offerings and make changes to meet the demands of a changing society.

In our high school today, the academically talented and the low ability students seem to be concerns of our school system. We find in both groups individuals doing poor work in respect to their ability. In many cases this problem could be alleviated by a more realistic elective offering to both the upper and lower groups. Communities should become aware of the needs of youth in our ever changing society and provide school systems that will meet the needs of our youth.

The concern whether Atchison County Community High School 4 students are making comparable choices to other high school students of our nation prompted this study. Also influencing this study were the findings and recommendations of Dr. Conant 5 which will be used later in the study for making comparisons.

A.C.C.H.S., located in Effingham, Kansas, had an average enrollment of 380 students during the three-year period of this study. Nearly 100 per cent of these students came from rural areas. The average student graduates with 20 units of high school credit completed in grades 9 through 12. Since a substantial number of these units are elective, the choices that were made was a major concern of this study.

PURPOSE OF THE STUDY

The purposes of this study were as follows:

- To determine what electives were chosen by A.C.C.H.S. students that graduated in 1965, 1966, and 1967, and how often they were chosen.
 - (a) What academic electives were chosen by the upper 15 per cent of the boys and girls?
 - (b) What academic electives were chosen by the lower 15 per cent of the boys and girls?

⁴Hereafter referred to as A.C.C.H.S.

James B. Conant, <u>The American High School Today</u> (New York: McGraw-Hill Book Company, 1959) pp. 1-141.

- (c) What non-academic electives were chosen by the upper 15 per cent of the boys and girls?
- (d) What non-academic electives were chosen by the lower 15 per cent of the boys and girls?
- To compare choices of academic and non-academic electives of the upper and lower groups to the recommendations of Dr. Conant.
- To compare choices of academic and non-academic electives of the upper and lower groups with a U.S.O.E. survey.⁷

COLLECTION OF DATA

In determining the upper and lower 15 per cent of the students, it was decided to follow the criterion set by Dr. Conant in order that comparisons on a national scale would be possible. This was the upper and lower 15 per cent of the students as measured by a national intelligence test.

The Differential Aptitude test was administered to all students at their freshman level. A Verbal Reasoning plus Numerical Ability score was obtained for each student. The Verbal Reasoning plus Numerical Ability score based on national percentiles was obtained from the student's cumulative file and recorded. Using these test scores, the upper

⁶Conant, loc. cit.

⁷U.S.O.E., <u>loc</u>. <u>cit</u>.

15 per cent and the lower 15 per cent in respect to national norms for each class was determined.

A list was made of the upper 15 per cent and the lower 15 per cent of the students. A tabulation of elective subject choices was made from the cumulative file for the four year high school program of each student.

From these tabulations charts were made indicating both the academic electives chosen and the non-academic electives chosen. Using these charts, conclusions were drawn and compared to those of Conant⁸ and the U.S.O.E.⁹ survey.

REVIEW OF THE LITERATURE

There have been many books written over the years about changing the curriculum and how we can improve our schools. "The practice of education has been the subject of vigorous controversy in the United States during the past few years. There have been more changes and more proposals for changes and experimentation than in any other comparable period."

Criticism of American education has greatly increased

⁸Conant, Loc. cit.

⁹U.S.O.E., <u>loc. cit</u>.

^{10&}lt;sub>Harl R.</sub> Douglass, <u>Trends and Issues in Secondary Education</u>, (Washington, D.C.: The center for Applied Research in Education, Inc., 1962) pp. 1-11.

since the launching of Sputnik I and II in 1957 and 1958 by the Russians. Some groups, such as the "Council for Basic Education," with such intellectuals as Arthur Bestor and Mortimer Smith, criticized secondary schools for not developing the intellectual traits of our young people. These critics were opposed to what they understood to be progressive education, permissive education, and education for life adjustment. Another group, which includes the National Association of Secondary-School Principals, The National Education Association Department of Elementary School Principles, and the National Education Association Department of Rural Education, was greatly concerned about the contribution of education to national security.

Critics from both groups argued that more adequate provisions should be made for the education of students of superior academic capacity. The increased attention to the education of bright children stimulated a corresponding concern for the education of the less able student. It is hoped that the education of the less able will not be neglected but improved. 12

It is generally accepted that the program of the school must be fluid and flexible in order to keep in harmony with the conditions in American life for which young

ll Ibid

¹² Ibid.

people are being prepared. To a certain degree, the school programs have always lagged behind the present and the probable future conditions in life in the United States. In recent years socio-economic conditions have undergone a very accelerated rate of change. These new conditions and new trends may be found in every area of living. Many changes in our homes today have influenced the education of our young people. More divorces and broken homes have greatly decreased the educational influence of the home. More and more mothers are working outside of the home. More time is also being spent by the parents outside the home for business and social reasons. As a result, parents are unable to pass on certain valuable knowledge, ideals, and skills previously transmitted from one generation to another. 13

Many other factors that are influencing change are changes in leisure activities, increase in juvenile delinquency, trend toward softer living, population increase, rapid increase in amount of knowledge, improved transportation and communications, and many others. As a result, in the past few years a greatly increased and variety of "action research" and controlled experimentation in education have been carried out to seek solutions to problems of education. Special emphasis has been given to materials and activities that pertain to students of superior and those of

¹³ Ibid.

inferior academic ability. Guidance and counselling, public relations, audio-visual machines, and many others have been emphasized. In view of what has been done in research and experimentation an important question still remains to be answered. Is high school education meeting the challenge of the times?

Alberty and Alberty raised several questions in respect to American high schools and offered answers to these questions. "What progress have we made in providing a high school education for all American youth?" In spite of many shortcomings, the holding power has steadily increased. It has been estimated that in 1910 only 28 per cent of the ninth grade reached the 12th grade, in 1950 the percentage reached 70. However, if the trend toward higher academic requirements for all students continues and ways are not found to overcome the shortage of classroom facilities and curriculum offerings, the holding power of the high school is not likely to increase in the forseeable future. 16

Do high schools carry on their programs in the light of a consistent, well-developed philosophy or set of purposes? The conclusion seems to be that all too often formulations made by local districts are not implemented in

¹⁴ Ibid.

¹⁵Harold B. Alberty and Elsie J. Alberty, <u>Reorganizing the High School Curriculum</u>, (New York: Macmillan Company, 1962) pp. 5-15.

^{16&}lt;sub>Ibid</sub>.

practice. School programs as a rule are not developed and changed in light of a consistent, guiding philosophy or set of purposes. 17

To what extent has the high school curriculum kept pace with the new demands made on it by the changing socioeconomic scene and the new concept of adolescent needs? 18 The time-honored, well-established academic field represents an accepted logical organization of knowledge and is still a very powerful influence in curriculum and consumes a large part of the student's time. Very frequently the academic subjects crowd out the more practical subjects simply because they have greater prestige with parents, teachers, and particularly with the colleges. Present day demands for "toughness." rigorous mental discipline, and the like, are tending to entrench these subjects even more deeply. While this trend toward the academics has been in progress for some time, it has been greatly accelerated by the intense competition with the Soviet Union which allegedly has a "tough" academic program, even though the Soviet Union is currently stressing work experiences. At any rate the superiority of the European system of education has been widely proclaimed by such critics as vice-admiral Hyman G. Rickover. 19

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹Ibid.

While vocational and so-called practical subjects are still being stressed and to some extent expanded, such courses are frequently quite divorced from general culture and citizenship training. In many smaller schools, and some of the larger ones, the student must choose between classical or modern languages, and home economics and industrial arts. The absurdity of such a program is self-evident.²⁰

Schools have not by and large given much attention to personal living, including health education and face-to-face relationships of adolescents, nor to participation of the student in the socio-economic life of the community. The old issues as to whether the curriculum should be organized in terms of the problems, interests, and needs of students or in terms of preparation for adult life is still a very lively one. Our present practices indicate that the latter point of view is common.

According to Alberty and Alberty, the emphasis on formal subjects may result in a program which pushes into the background the persistent problems of the adolescent and widens the gap between the learner and the culture.

What do students take if given a choice? Dr. Conant stated, "There is no reason why within a comprehensive high school, well supported by the community, a boy or girl who has academic ability cannot receive a good education."21

^{20&}lt;sub>Ibid</sub>.

²¹ Conant, loc. cit.

In his study Conant found that high schools can be improved without radical alteration. More emphasis should be placed on foreign language and science for girls. Dr. Conant found the academically talented student not being challenged and his academic choices often emphasize science and mathematics to the exclusion of English and social studies. Students have a tendency to avoid the "tough" courses and follow the path of least resistance. A good counselling system is of extreme importance if needs of all students are to be met. A good counselling system offers guidance and direction that will be challenging to the top students and will not place the lower students in areas that could be termed "dumping grounds." All too often vocational courses are used in this manner. In his most recent study, Conant found many schools greatly improving in respect to his earlier recommendations. 22

Education, as it is conceived in our American democracy, is a two-pronged responsibility: First, it is the development of the individual into the best person he is capable of becoming; second, it is the development of the individual into a responsible, contributing member of a democratic society.²³

On the basis of this definition there are some general assumptions and there are also some beliefs regarding desirable personal and social developments upon which Kansas

^{22&}lt;sub>J</sub>ames B. Conant, <u>The Comprehensive High School</u>, (New York: McGraw-Hill Book Company, 1967) pp. 1-91.

Adel F. Throckmorton, A Curriculum Guide for the Secondary Schools of Kansas, (Published by the State of Kansas, 1960) p. 10.

public education is built. Public education should strengthen our culture and strengthen democracy; it should be for all youth and should make life more worth living. In addition to acquiring the basic skills, each individual needs vocational or professional competence. He needs to develop to the best of his abilities, skills which will help him strive to make his best contribution to society. ²⁴

If an educational system is to carry out the above purposes it must make every effort to help students understand their abilities and aptitudes and to provide the student with opportunities to develop his abilities.²⁵

To do this a school must offer programs for all students, programs that are flexible and can be adapted to meet the needs of the individual whether he is a top student or a student of low academic ability.

FINDINGS OF THE STUDY

<u>Academic Electives Selected by the Upper 15 Per Cent of the Groups Studied</u>

Several questions were set forth to be answered by this study, one major question being, "What were the choices of academic electives of the upper 15 per cent of A.C.C.H.S. students graduated in the years 1965, 1966, and 1967?" These findings are summarized in Table I.

²⁴Ibid.

²⁵ Ibid.

TABLE I

CHOICES OF ACADEMIC ELECTIVES MADE BY THE UPPER
15 PER CENT OF A.C.C.H.S. STUDENTS IN
1965, 1966, AND 1967

Subjects			umber boys in tudy	Number boys taking sub- ject	Per	Number girls in study	Number girls taking sub- ject	Per
Mathematics*	3	yr yr	26 26	24 15	92.3 57.7	26 · 26	19	73.0 34.6
Algebra II . Geometry Math IV			26 26 26	19 5 15	73.0 19.2 57.7	26 26 26	9 10 9	34.6 38.4 34.6
Science**	3	yr yr	26 26	22 11	84.6	26 26	3	11.5
Biology Chemistry Physics Space Science Earth Science			26 26 26 26 26	21 18 16 1	80.7 69.2 61.4 3.9 19.2	26 26 26 26 26	24 15 4 0	92.3 57.7 15.3 0
Social Studies***	3	yr yr	26 26	11	42.3	26 26	0	0
Consumer Ec. World Geog.			26 26	3	11.5	26 26	0	0
Foreign Language	3	yr yr	26 26	10	38.4 23.0	26 26	20 14	76.9 53.8
French I French II German I German II			26 26 26 26	5 4 5 2	19.2 15.3 19.2 7.7	26 26 26 26	17 13 3 1	65.3 50.0 11.5 3.8

^{*}Two units of mathematics required. Third year course was considered as an elective.

^{**}Two units of science required.

^{***} Two units of social science required.

In Table I it was of interest to note that 92.3 per cent of the boys and 73 per cent of the girls had three or more years of mathematics, although only two years were required. It was of further interest to note that 57.3 per cent of the boys took all four years of mathematics. In contrast to this, only 34.6 per cent of the girls took four years of mathematics.

Algebra II was chosen by 73 per cent of the boys and 34.6 per cent of the girls as their third year elective in comparison to 19.2 per cent of the boys and 38.4 per cent of the girls choosing geometry the third year. Math 4 was the only fourth year mathematics course offered.

A similar trend was true in science; 84.6 per cent of the boys took three years of science in contrast to 11.7 per cent of the girls. None of the girls had four years of science in comparison to 42.3 per cent of the boys taking all four years. It was of interest to note that no girl taking four years of science was in part due to a general science ninth-grade requirement for boys and not for girls during the period of this study. In fact, girls could not take general science in the ninth grade.

The science elective most frequently chosen was biology, with 80.7 per cent of the boys and 92.3 per cent of the girls choosing this as their science elective. Chemistry was taken by 57.7 per cent of the girls and 69.2 per cent of the boys, while physics was the choice of 61.4 per cent of the boys and 15.3 per cent of the girls.

Four years of English was a requirement for all students for the years studied.

In the field of foreign language, 38.4 per cent of the boys and 76.9 per cent of the girls took at least one year. The number electing two years fell off rather sharply-23 per cent of the boys and 53.8 per cent of the girls. Two years was the maximum offering at A.C.C.H.S.

French was chosen more often than German; 19.2 per cent of the boys and 65.3 per cent of the girls chose French in comparison to 19.2 per cent of the boys and 11.5 per cent of the girls who chose German.

As shown in Table I, 42.3 per cent of the boys and none of the girls took at least three years of social studies. Although a maximum of four years was possible, neither the boys nor the girls chose four years of social studies.

In the social studies area, consumer economics was chosen by 11.5 per cent of the boys and no girls; world geography was chosen by 30.7 per cent of the boys and none of the girls. The boys showed a significant frequency of choosing a third year social studies elective in comparison to the girls.

Academic Electives Selected by the Lower 15 Per Cent of the Groups Studied

The academic electives chosen by the lower 15 per cent of A.C.C.H.S. students during the years 1965, 1966, and

1967 are shown in Table II.

As shown in Table II, only one boy of this lower group took three years of mathematics and none of the girls took more than the required two years.

In the field of science, 68.4 per cent of the boys took three years while none of the lower 15 per cent of the girls had three years. Not one of the lower group took four years of science. The rather significant number of boys in comparison to girls who took three years of science was caused, in part, by the school requirement of general science for boys at the ninth grade level.

Biology appeared to be the most popular choice for the lower group. All of the lower boys and 71.4 per cent of the lower girls chose biology as their science elective.

Of the lower group, 89.4 per cent of the boys and 28.6 per cent of the girls had three years of social studies. However, only 4.7 per cent of the girls had four years of social studies in comparison to 31.6 per cent of the lower boys taking four years of social studies.

Consumer economics was the choice of 68.4 per cent of the boys and 28.6 per cent of the girls. World geography was chosen by 52.6 per cent of the boys and 7.1 per cent of the girls.

All of the lower group took four years of English as a requirement. It was of interest to note that 7.1 per cent of the girls and 10.5 per cent of the boys had one year of a

TABLE II
CHOICES OF ACADEMIC ELECTIVES MADE BY THE LOWER

CHOICES OF ACADEMIC ELECTIVES MADE BY THE LOWER 15 PER CENT OF A.C.C.H.S. STUDENTS IN 1965, 1966, AND 1967

Subjects			umber boys in tudy	Number boys taking sub- ject	Per cent	Number girls in study	Number girls taking sub- ject	Per cent
Mathematics*	3	yr yr	19 19	1 0	5.3	14	0	0
Algebra II Geometry Math IV			19 19 19	0 1 0	0 5.3 0	14 14 14	0 0 0	0 0
Science**	3	yr yr	19 19	13	68.4	14	0	0
Biology Chemistry Physics Space Science Earth Science			19 19 19 19	19 0 0 0 0	100.0 0 0 0 68.4	14 14 14 14 14	10 0 0 0	71.4 0 0 0
Social Studies***	3	yr yr	19 19	17	89.4 31.6	14 14	4	28.6 7.1
Consumer Ec. World Geog.			19 19	13 10	68.4 52.6	14 14	4	28.6 7.1
Foreign Language	1 2	yr yr	19 19	2	10.5	14 14	1	7.1 7.1
French I French II German I German II			19 19 19	2 0 0 0	10.5	14 14 14 14	1 0 . 0	7:1 7:1 0 0

^{*}Two units of Mathematics required. Third year course was considered as an elective.

^{**}Two units of science required.

^{***}Two units of social science required.

foreign language. One of the girls and none of the boys had two years. French was the choice of both the girls and boys taking foreign language.

Non-Academic Electives Selected by the Upper 15 Per Cent of the Groups Studied

The non-academic electives chosen by the upper 15 per cent of A.C.C.H.S. students are shown in Table III.

Typing was the choice of 92.3 per cent of the boys and 96.1 per cent of the girls in the upper group. Shorthand was taken by 53.8 per cent of the girls and none of the boys, while 19.2 per cent of the boys took bookkeeping and 65.3 per cent of the girls took bookkeeping. Secretarial practice was taken by 38.4 per cent of the upper girls. No boys took secretarial practice.

In the field of art, 19.2 per cent of the boys and 30.7 per cent of the girls had at least one year; only 3.9 per cent of the boys and 7.7 per cent of the girls chose two years.

It was of interest to note that 50.0 per cent of the boys had one year of shop and 7.7 per cent had four years of shop.

Music was chosen by 57.7 per cent of the boys and 100 per cent of the girls for at least one year. Of the girls, 76.9 per cent had four years of music while only 15.3 per cent of the boys had four years.

The study revealed that 100 per cent of the girls

TABLE III

CHOICE OF NON-ACADEMIC ELECTIVES MADE BY THE UPPER 15 PER CENT OF A.C.C.H.S. STUDENTS IN 1965, 1966, AND 1967

Subjects		Number boys in study	Number boys taking sub- ject	Per cent	Number girls in study	Number girls taking sub- ject	Per cent
Shorthand		26	0	0	26	14	53.8
Bookkeeping		26	5	14.3	26	17	65.3
Typing		26	24	92.3	26	25	96.1
Secretarial Practice		26	0	0	26	10	38.4
Art	1 yr 2 yr		5 1	19.2	26 26	8 2	30.7 7.7
Shop	1 yr 2 yr 3 yr 4 yr	26	13 8 3 2	50.0 30.7 11.5 7.7	26 26 26 26	0 0 0	0 0 0
Music	1 yr 2 yr 3 yr 4 yr	26	15 9 5 4	57.7 34.6 19.2 15.3	26 26 26 26	26 24 22 20	100.0 92.3 84.6 76.9
Home Ec.	1 yr 2 yr 3 yr 4 yr	26	. 0	0	26 26 26 26	26 10 2 0	100.0 38.4 7.7 0
Home Ec. Boys		26	6	23.0	26	0	0
Vocational Agriculture	1 yr 2 yr 3 yr 4 yr	26	12 12 11 10	46.1 46.1 42.3 38.4	26 26 26 26	0 0 0	0 0 0
Driver Education		26	8	30.7	26	19	73.0

took home economics for at least one year and 7.7 per cent took home economics for three years; no girl in the group had four years of home economics. Twenty-three per cent of the boys chose home economics for boys.

The upper 15 per cent of boys taking at least one year of vocational agriculture was 46.1 per cent; 38.4 per cent had all four years.

Driver education was taken by 30.7 per cent of the boys and 73.0 per cent of the girls.

Non-Academic Electives Selected by the Lower 15 Per Cent of the Groups Studied

Table IV summarizes the findings of electives chosen by the lower group.

In the field of business education, 95 per cent of the boys in the lower 15 per cent and 92.8 per cent of the girls in the lower group chose typing; 10.5 per cent of the boys took bookkeeping and no boys took shorthand; while 92.8 per cent of the girls took bookkeeping and 78.5 per cent took shorthand. Secretarial practice was chosen by 71.4 per cent of the girls.

Art was chosen by 31.6 per cent of the boys for one year, and 15.7 per cent had two years of art. This compared to 64.3 per cent of the girls who took art for one year and 35.7 per cent who took art for two years.

A majority of the boys selected shop all four years.

Of the lower group, 89.4 per cent had at least one year and

TABLE IV

CHOICE OF NON-ACADEMIC ELECTIVES MADE BY THE LOWER
15 PER CENT OF A.C.C.H.S. STUDENTS IN
1965, 1966, AND 1967

Subjects			Number boys in study	Number boys taking sub- ject	Per cent	Number girls in study	Number girls taking sub- ject	Per cent
Shorthand			19	. 0	0	14	11	78.5
Bookkeeping			19	2	10.5	14	13	92.8
Typing			19	18	95.0	14	13	92.8
Secretarial Practice			19	0	0	14	10	71.4
Art	1 2	yr yr	19 19	6	31.6 15.7	14 14	9	64.3 35.7
Shop	1234	yr yr yr yr	19 19 19	17 17 16 15	89.4 89.4 84.2 78.9	14 14 14 14	0 0 0	0 0 0
Music	1234	yr yr yr yr	19 19 19	14 9 5 2	73.6 47.3 26.3 10.5	14 14 14 14	14 8 4 2	100.0 57.1 28.6 14.3
Home Ec.	1234	yr yr yr yr	19 19 19	0 0	0 0 0	14 14 14 14	14 13 7 0	100.0 92.8 50.0
Home Ec. Boys			19	3	15.7	14	0	0
Vocational Agriculture	1234	yr yr yr yr	19 19 19	3 3 2 1	15.7 15.7 10.5 5.3	14 14 14 14	0 0	0 0 0
Driver Education			19 (16	84.2	14	13	92.8

78.9 per cent took shop all four years.

All of the girls had at least one year of music compared to 73.6 per cent of the boys. Only 10.5 per cent of the boys had four years, while 14.3 per cent of the girls took four years of music.

Home economics for boys was chosen by 15.7 per cent of the lower group of boys. All of the girls had at least one year of home economics; 50 per cent had three years and none had four years.

Two years of vocational agriculture was taken by 15.7 per cent of the boys. Only 5.3 per cent took four years.

Of the lower group, 84.2 per cent of the boys and 92.8 per cent of the girls chose driver education.

COMPARISON OF ELECTIVE CHOICES OF A.C.C.H.S. STUDENTS WITH DR. CONANT'S RECOMMENDATIONS AND THE U.S.O.E. SURVEY

Table V summarizes the U. S. Office of Education's survey of 1962 high school graduates showing the per cent of students taking a subject as well as the number of years the subject was taken. The recommendations of Dr. Conant shown in Table V indicate the number of years all students should take a subject and the number of years that the talented should be encouraged to take certain subjects. The findings of the study of the Atchison County Community High School students were compared with Dr. Conant's recommendations and the U.S.O.E. survey.

In the academic area, both studies shown in Table V

TABLE V
SUMMARY OF FINDINGS AND RECOMMENDATIONS OF STUDIES MADE BY THE U.S.O.E.26 AND DR. CONANT27

Subjects	survey	0.E. of 1962 aduates	Dr. Conant's recommendations			
	Per cent	Number yrs	Number yrs All students	Number yrs Talented		
Mathematics	72 42 20	1+ 2+ 3+	1	4		
Science	72 35 13	1+ 2+ 3+	1	3		
Social Studies	82 42	2+ 3+	3-4	3		
English	60	4	4	4		
Foreign Language	50 15	l½ to 2 2+		4 of same language		
Industrial Arts	boys 62 girls 7	some cr.	available for those desiring saleable ski	ing		
Home Economics	girls 68 boys 7	some cr.	available for those desiring saleable ski	ing		
Music	44	some cr.	All students	5		
Art	23	some cr.	All student:	5		
Business Education	81	some cr.	for those de saleable sk	esiring ills		

^{26&}lt;sub>U.S.O.E., loc. cit.</sub>

^{27&}lt;sub>Conant, loc. cit.</sub>

indicated more than one year of mathematics for the bright student. Conant recommended four years and the U.S.O.E. survey showed 42 per cent graduated in 1962 with more than two years of mathematics.

The A.C.C.H.S. students studied all had two years of mathematics and of the upper 15 per cent, 57.7 per cent of the boys and 34.6 per cent of the girls had taken four years. Of the lower 15 per cent, only one boy and no girls had three years of mathematics.

The recommendations for science as shown by Conant were three years for the bright students and one year for the rest of the students. The upper group of boys at A.C.C.H.S. compared favorably with 84.6 per cent taking three years of science while the girls were weak with only 11.7 per cent taking three years. According to the U.S.O.E. survey, 72 per cent of the 1962 graduates had more than one year and 35 per cent more than two years. The A.C.C.H.S. graduates studied compared favorably with a majority of students receiving two or more years of science.

The most unfavorable comparison was in the social studies. U.S.O.E.'s findings indicated 62 per cent of the 1962 graduates had more than two years of social studies; Conant recommended three years for all. The only group of A.C.C.H.S. students that compared favorably was the lower group of boys with 89.4 per cent taking three years, but only 31.6 per cent took more than three years.

All of the students studied at A.C.C.H.S. completed four years of English. The U.S.O.E. survey found 60 per cent of the high schools now offer four years of English. Dr. Conant recommends four years of English.

The upper group of girls of A.C.C.H.S., with 53.8 per cent taking foreign language for more than one year, compared favorably with the U.S.O.E. survey which showed 50 per cent having from one and one-half to two years of foreign language. The boys were weak in this area at A.C.C.H.S., falling to 23 per cent taking foreign language for two years. Conant recommended three years of one foreign language be available.

In the non-academic areas, Conant recommended art and music for all students, and choice of electives based on academic areas or saleable skills. 28 The U.S.O.E. survey showed 23 per cent of the 1962 high school graduates had some art and 62 per cent some industrial arts. Of the students studied 33.3 per cent had some art and 67.6 per cent of the boys had at least one year of shop. All of the girls and 64.4 per cent of the boys had credit in music. The U.S.O.E. survey found 44 per cent graduating in 1962 had some music.

Home economics was taken by all girls at A.C.C.H.S. for one year and 57.5 per cent of the girls studied took two

²⁸ Conant, op. cit., p. 48.

years. The U.S.O.E. findings indicated 68 per cent graduated in 1962 with some home economics credit. One-fifth of the A.C.C.H.S. boys studied took home economics for boys. Conant recommended home economics be available for those desiring saleable skills.

In business education, U.S.O.E. found 81 per cent having some credit, with typing the most popular; this was found true at A.C.C.H.S., where 94.1 per cent of the students studied had taken typing. Conant recommended business education be available for those desiring saleable skills.

RECOMMENDATIONS

The high school counselor should recommend that the academically talented students take challenging courses and, in addition, develop their special interests. The counselor should also recommend that the lower 15 per cent take courses that fit their special needs and interests.

It is recommended that each student should have an individualized program that meets his or her needs and interests. Each student should be counseled and advised to take a program that has worthy goals, but at the same time adheres to the policies of the school board.

It is further recommended that additional study be made of the curriculum to answer the following questions raised in this report:

This study indicated the lower group of boys took 3 to 4 years of shop. Should the counselor be concerned if

these courses are repetitious and overlapping instead of being based on a sequence?

It was found that all students at A.C.C.H.S. are required to take two years of mathematics. Are two years of mathematics for all students based on application or is there unnecessary repetition, particularly for the lower group? Are both groups taking the same kind of math the first two years?

The study indicated that boys in the upper per cent take more science and mathematics than the girls at A.C.C.H.S. Is the upper group of girls being challenged and encouraged to take mathematics and science?

Social studies was found to compare unfavorably at A.C.C.H.S. in respect to the other studies. Are four years of social studies available to all students?

The findings of this study indicate no students at A.C.C.H.S. had more than two years of one foreign language. Conant recommends three or four years of one language be available. Are three years of one foreign language needed at A.C.C.H.S.?

The study found a majority of both groups taking fine arts and industrial arts as electives. Are these offerings based on the idea of general education for all students as is recommended by Dr. Conant?

SUMMARY

Upper Group

A majority of boys had four years of mathematics while a majority of girls had three years of mathematics.

Over one-half of the boys had three years of science; less than one-fifth of the girls had three years.

Biology was the most frequently chosen science elective.

Over one-half of the girls took a foreign language in comparison to $36.4~{\rm per}$ cent of the boys.

Less than one-half of the boys and none of the girls took three years of social studies.

All the girls had some music; a majority of boys had some credit.

About one-fifth of the boys and one-third of the girls took art.

Half of the boys had one year of shop.

All girls had some credit in home economics.

Four years of vocational agriculture was taken by 38.4 per cent of the boys.

Over one-half of the girls and one-third of the boys took driver education.

Typing was taken by over 90 per cent of both boys and girls.

More than three years of business education was taken by 38.4 per cent of the girls.

Lower Group

Only one boy and no girls had three years of mathematics.

None of the girls and 68.4 per cent of the boys took three years of science.

Biology was most often chosen as the elective in science.

Foreign language was taken by 10.5 per cent of the girls and 71. per cent of the boys.

A majority of the boys and less than one-third of the girls had three years of social studies.

All the girls and 73.5 per cent of the boys took music.

Over half the girls and about one-third of the boys took art.

Shop was taken by 89.4 per cent of the boys, 78.9 per cent having had four years.

All girls had some home economics; half had three years.

Only 5.3 per cent of the boys had four years of vocational agriculture.

Over three-fourths of both boys and girls took driver education.

Typing was taken by over 90 per cent of both boys and girls.

Seventy-one per cent of the girls took over three

years of business education.

A.C.C.H.S. students compared favorably with the U.S.O.E. survey and the recommendations of Dr. Conant in the areas of mathematics and science for boys in the upper 15 per cent. Mathematics and science electives chosen by girls compared unfavorably. Foreign language choices compared more favorably in respect to girls than boys at A.C.C.H.S. Social studies was a weak area for both boys and girls.

In the non-academic area, art, music, and shop compared favorably with the U.S.O.E. survey, but not as general education as recommended by Dr. Conant. Home economics and business education compared favorably for girls; home economics for boys was weak at A.C.C.H.S.

It is recommended that an inventory be taken each year to determine what electives are being chosen by students of A.C.C.H.S., and to determine to some degree what changes may be necessary.

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A COMPARATIVE STUDY OF ELECTIVE COURSES CHOSEN BY SELECTED STUDENTS OF ATCHISON COUNTY COMMUNITY HIGH SCHOOL

bу

ALVIN PHILIP WEISS, JR.

B. S., Kansas State University, 1962

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY Manhattan, Kansas The major purpose of the study was to determine which electives were chosen by the upper 15 per cent and the lower 15 per cent of boys and girls at Atchison County Community High School. A second purpose was to compare the choices of academic and non-academic electives of both the upper and lower groups to the recommendations of Dr. Conant as reported in his book, The American High School Today, and with the subject choices of 1962 high school graduates as shown in a survey, What High School Pupils Study, published by the United States Office of Education.

In determining the upper and lower 15 per cent of the students it was decided to follow the criterion set by Dr. Conant in order that comparisons on a national scale would be possible. This was the upper and lower 15 per cent of the students as measured by a national intelligence test.

In the Atchison County Community High School, the Differential Aptitude test is given all students, and their rank is given in nationwide norms in terms of percentiles. A list was made of the students in the upper and lower 15 per cent. Using this list of students a tabulation was made of the academic and non-academic elective subjects chosen over the four years of high school.

From these tabulations, charts were made indicating the per cent choosing a subject as well as the number selecting this subject. Using these charts, comparisons were made with the national findings of Dr. Conant and the United States Office of Education survey.

The electives chosen by both the upper and lower groups were as follows: In the Atchison County Community High School for the academic years, 1965, 1966, and 1967, a majority of the boys in the upper group had four years of mathematics and a majority of the girls had three years. Over one-half of the boys and one-fifth of the girls had three years of science. Over one-half of the girls took a foreign language. Less than one-half of the boys and no girls had three years of social studies. In the lower group, only one boy and no girls took three years of mathematics. No girls and approximately 70 per cent of the boys took three years of science. Less than 10 per cent of the lower group had a foreign language. A majority of the lower group of boys had three years of social studies.

In the non-academic area, music was taken by a majority of both groups. Over 90 per cent of the students studied had typing and a majority had driver training. Secretarial training was taken by 71 per cent of the lower group of girls. One-half of the lower group of girls had three years of home economics. Four years of vocational agriculture was taken by about two-fifths of the upper group of boys, but only 5 per cent of the lower group of boys had four years. Over three-fourths of the lower group of boys had four years of shop.

The students studied at Atchison County Community

High School compared favorably to the recommendations of Dr. Conant and the United States Office of Education survey in the areas of mathematics and science for boys in the upper group. Girls in the upper group compared more favorably than boys in taking foreign languages. Unfavorable comparisons were found in the area of social studies for the upper groups of boys and girls. The lower group of boys compared favorably in the social studies taken. In the non-academic areas the comparisons were more favorable to the United States Office of Education survey than to the general education recommendations of Dr. Conant.