

THE ORGANIZATION AND CONTENT OF THE CURRICULA
OF
KANSAS HIGH SCHOOLS

by

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B. S. Kansas State Agricultural College

A THESIS

submitted in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

KANSAS STATE AGRICULTURAL COLLEGE

1928

TABLE OF CONTENT

INTRODUCTION	1
ACKNOWLEDGMENT	1
STATISTICS ON KANSAS HIGH SCHOOLS	2
A STUDY OF THE CURRICULA OF KANSAS HIGH SCHOOLS	11
The pupil enrollment by Subjects in the different size Schools	12
The Courses of Study offered in the different size High Schools	14
Discussion of the Curricula existing in Kansas High Schools	25
The Inefficiency of the Small High School	30
EDUCATIONAL OBJECTIVES OF THE HIGH SCHOOL CURRICULUM	33
Aims of Education	34
Pupil Activities and Experiences	39
Types of Education defined	41
General Education	42
Avocational Education	44
Vocational Education	46
Lines of Training to be used in the Basic General Program	47
VOCATIONAL EDUCATION	59
Vocational Guidance	61
Vocational Training	68
THE JUNIOR HIGH SCHOOL	71
The Aims and Functions of the Junior High	73
Advantages claimed for the Junior High	75
THE HIGH SCHOOL OF THE FUTURE	77
The Reorganization of the Small High School	80
BIBLIOGRAPHY	85

INTRODUCTION

No movement in recent years has been more prominent than the change that is taking place in secondary education. This movement is the result of the overthrow of the old doctrine of faculty psychology and mental discipline and the recognition of the psychology of "specific abilities". To start with pupil and the community means that the whole body of knowledge must be reorganized in the light of how it is to function in the life of the student.

The purpose of this study was to determine to what extent the curricula of Kansas high schools have been reorganized to conform with modern educational aims.

The material for this thesis was obtained from the Principals' Reports filed in the State Office of Public Instruction at Topeka. The curricula of all high schools in the state were studied.

ACKNOWLEDGMENT

The writer feels indebted to Professor C. V. Williams for his guidance in organizing the study. His ability to visualize educational aims is appreciated.

STATISTICS ON KANSAS HIGH SCHOOLS

Kansans are vitally interested in secondary education. No other state has such a high proportion of its population enrolled in secondary schools. In the last ten years, over 60 per cent of the school systems have erected new buildings. In the two years, 1923 and 1924, over \$15,000,000 was expended for new buildings.

Number of high schools in Kansas.-There are 731 high schools in the state with a combined enrollment of 88,198. There are 51 private and parochial schools, largely Catholic, and 37 small two or three year high schools. This leaves 648 regular public supported high schools in the state. This study is based upon these 648 schools, since the other schools present situations which are not typical of the regular public supported high schools.

A study of Table I reveals the fact that by far the larger number of high schools as well as the total enrollment are located in third class cities. It becomes apparent that any study of Kansas high schools must become largely a problem of dealing with rural high schools in which the environment of the pupil is rural. Therefore we must be careful, lest we make suggestions or recommendations that are applicable to large high schools only, which are very few in

number. Seventy-six per cent of all high schools are found in third class cities.

Table I-The number of high schools and enrollment, in Kansas, based upon type and size of school

Type of high schools	No. of schools	% of total No.	Enrollment in high school	No. of total enrollment	Enrollment per school
First class cities	14	1.9	17,101	* 19.4	1221
Second class cities	76	10.4	25,107	* 28.5	330
Third class cities	558	76.3	41,661	47.3	75
Private and parochial schools	51	7.	3,937	4.5	77
Small two or three year schools	32	4.4	392	.4	12
Total	731	100	88,198	100	120

* Includes ninth grade of those schools organized on 6-3-3 basis in order to make results comparable.

Grouping of schools made in this study.-In this study, the high schools were divided into groups based upon size of enrollment and location. Group I consisted of schools with an enrollment below 50; group II included schools with an enrollment between 50-99, and group III between 100-199. Group IV consisted of all schools with an enrollment above 200 except those in first class cities which are included in group V. Because all of the schools in group IV are found in second class cities with the exception of 17, this group

is called "second class cities". Group V is called "first class cities". It was believed that by making such groupings, one could more completely study school conditions existing in various kinds of schools over the state. Group I consists of 191 schools; group II-of 226 schools; group III-of 143 schools; group IV-of 74 schools; group V-of 14 schools.
*

Table II-The enrollment and number of high schools grouped according to size (does not include private schools and two-year high schools)

Grouping	No. of high schools	% of total high schools	Enrollment	% of total enrollment	Average enrollment per school
0-49	191	29.5	6,546	7.8	35
50-99	226	34.9	15,543	18.6	69
100-199	143	22.1	18,440	22.	129
Above 200 sec. class cities	74	11.4	26,239 [#]	31.2	355
First class cities	14	2.2	17,101 [#]	20.3	1222
Total	648	100	83,869	100	130

[#]Includes ninth grade of those schools organized on 6-3-3 basis in order to make results comparable.

*-There are 17 high schools in second class cities with an enrollment below 200. These were therefore included in group III. Likewise there were 15 schools in third-class cities with an enrollment above 200 which were included with group IV. Outside of this the group remain intact.

Enrollment and number of high schools in Group I to V.-

Small high schools predominate in Kansas. Table II indicates that over one-fourth of the high schools have an enrollment below 50, and more than one-third have an enrollment between 50-99. Eighty-six and five-tenths per cent of the schools in Kansas have an enrollment below 200 and enroll 48.4 per cent of the total high school enrollment. High schools in secondary class cities have the highest per cent of the total enrollment.

The holding power of different size high schools.- Table III is made up of the enrollment by years of each group of high schools and the per cent of enrollment for each year is based upon the freshmen enrollment. While it is conceded that the holding power of high schools calculated from the number of freshmen enrolled is not absolutely accurate, yet the results are comparable. This table was compared with the enrollment for 1924 and the results were similar.

This table reveals the different holding power of the various high schools. High schools with an enrollment from 50-200 graduate more of their freshmen than any other group. Schools in first-class cities are notoriously poor in retaining their students.

Taking the state as a whole only 55 out of every 100 freshmen will probably graduate. One-fifth of the freshmen

TABLE III

The Enrollment by Years of Different Sized High Schools. The
Per Cent in Each Column is Based upon the Freshman Enrollment.

Size of school	No. of schools	Freshman		Sophomore		Junior		Senior		Graduates		
		No.	%	No.	%	No.	%	No.	%	No.	%	
0-49	184	2031	100	1656	81	1396	68	1123	60	1185	58	
50-99	218	4511	100	3782	84	3324	71	3263	72	2796	62	
100-199	138	5421	100	4653	86	3962	73	3754	69	3369	62	
2nd class cities	73	8351	100	6781	81	5835	70	4917	58	4748	57	
1st class cities	14	6025	100	4417	73	3758	62	2898	48	2498	41	
Total	627	26,339	100	21,289	80	18,175	69	16,054	61	14,596	55	

drop out by the end of the first year. Approximately ten per cent of the seniors do not graduate. The per cent of students entering each year are 100, 80, 69, 61 and 55. These figures do not indicate as high a loss as ordinarily is thought, and is certainly better than the country taken as a whole.

Occupation of high school graduates in different size schools.-While it is realized that the occupation of graduates during their first year out of school is not permanent, evidence exists that such a criterion is fairly reliable. Tables IV, V and VI show interesting data as to the type of occupations high school graduates enter.

Of the total graduates, 53 per cent are girls and 47 per cent are boys. Twenty-eight per cent of the graduates enter colleges, of whom a slightly larger per cent are boys. The per cent that attend college varies from 54 per cent in the larger schools to 22 per cent in the smaller schools. This indicates that in the larger schools preparation for college is much more important than in the smaller schools. However, if we calculate the per cent who attend college based upon freshmen enrollment, the difference is much less.

It is interesting to note that in any group of high schools below 200, there are more boys who are engaged in farming than in any other occupation, even including those

TABLE IV

Occupations of High School Graduates, Boys and Girls Combined.
Given by Number and Per Cent of Total Number Employed in Each
Occupation.

	1st class		2nd class		100-199		50-99		0-49		Total	
No. of schools	7		53		113		189		169		531	
Total no. graduates	824		3104		2790		2379		1102		10,199	
Occupation	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
College	446	54.1	943	30.3	718	25	536	22.5	251	22.7	2894	28.37
Other colleges*	11	1.3	164	5.4	178	6.4	209	8.7	96	8.7	659	6.46
Trades	47	5.7	224	6.2	175	6.3	117	4.9	49	4.4	612	6
Farming	15	1.8	225	7.2	380	13.6	398	16.7	216	19.6	1224	12
Business	133	16.2	354	10.4	162	5.8	135	5.6	55	4.9	839	8.2
Teaching	13	1.6	281	9.3	352	12.6	304	12.7	96	8.7	1046	10.25
At home	97	11.6	594	18.1	631	22.6	563	23.6	313	28.4	2198	21.53
Unkown	62	7.5	319	10.3	193	6.9	117	4.9	36	3.2	727	7.14

*Commercial, barber, etc.

TABLE V

Occupation of Graduates, Boys and Girls Separated. Given
by Number and Per Cent of Total Number Employed in Each
Occupation.

		1st class		2nd class		100-199		50-99		0-49		Total	
No. of schools		7		53		113		189		169		531	
Total no. graduates	Boys	346	42%	1382	44.5%	1374	49%	1163	48.8%	524	47.5%	4789	47.6%
	Girls	478	58%	1722	55%	1416	51%	1216	51.1%	578	52%	5410	53.4%
Occupation		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
College	Boys	215	62	428	31	360	26.2	283	24.3	123	23.5	1409	29.42
	Girls	231	48.3	515	29.8	358	25.2	253	20.8	128	21.1	1485	27.44
Other colleges*	Boys	4	1.2	44	3.18	59	4.3	90	7.7	30	5.7	227	4.7
	Girls	7	1.5	120	7	120	8.5	119	10	66	11.4	432	8
Trades	Boys	30	8.7	155	11.2	141	10.3	92	7.8	34	6.5	452	9.4
	Girls	17	3.6	69	4	34	2.4	25	2.1	15	3	160	3
Farming	Boys	15	4.3	220	15.9	365	26.6	373	33.1	198	36.1	1171	24.5
	Girls	0	0	5	.3	15	1.1	25	2.5	8	1.4	53	1.1
Business	Boys	44	12.7	173	12.5	93	6.7	67	5.8	30	5.7	407	8.5
	Girls	89	19.1	181	10.5	69	5	68	5.6	25	4.3	432	8
Teaching	Boys	3	.9	24	1.7	38	2.6	47	4	8	1.5	120	2.5
	Girls	10	2.1	257	15	314	22.1	257	21.1	88	15.2	926	17.1
At home	Boys	13	3.8	182	13.1	221	16.1	151	13	84	16.1	651	14
	Girls	84	18	412	24	410	29	412	34	229	40	1547	28.6
Unkown	Boys	22	6.5	156	11.3	97	7.1	60	5.2	17	3.3	352	7.4
	Girls	40	8.4	163	9.4	96	6.8	57	5	19	3.3	375	6.9

*Commercial, barber, etc.

who attend college. Even when we include the large city schools we find that 24 per cent of the boys are found upon farms. This point should be kept in mind when one is analyzing the functions of the rural high schools.

A high per cent of girls graduating from schools with an enrollment below 200 are occupied as school teachers. As long as the one-room rural school continues, it appears that rural high schools can well afford to continue the Normal Training work. Many county superintendents have voiced the opinion that such teachers often succeed better than college graduates. Mr. Edgerton, one of the state high school supervisors, has voiced a similar opinion. The college graduate is not suited to the environment of the one-room school and often fails to make proper adjustments in the community whereas a local product often will prove successful.

If education is to be functional it must relate to everyday activities. The local community should color the educational activities. Because Kansas is largely rural, the school emphasis should be placed on agricultural training.

A STUDY OF THE CURRICULA OF KANSAS HIGH SCHOOLS

For this study the following classification of schools

was used :

Group	Size	Total No. of schools of this size
I	0-49	191
II	50-99	226
III	100-199	143
IV	Second class cities	74
V	First class cities	14

Group IV includes 17 third class cities with an enrollment above 200; while Group III includes 15 second class cities with an enrollment below 200.

In making this study it was found that the records of a few schools were either missing or incomplete. For this reason the number of schools studied is smaller than the total number of schools in each group. The number of schools studied is listed with each Table so that one can quickly determine the proportion of schools studied. The fact that a part of the school system in second class cities and all in the first class cities are organized on a 6-3-3 basis made it impossible to include them on a comparable basis with the other schools. Therefore the curricula of these

schools were not studied except to make a combined list of the subjects offered in 15 first and second class city high schools with an enrollment above 500 with a four-year high school. The records of many second class cities were incomplete which resulted in limiting group IV to 35 schools.

The Pupil Enrollment by Subjects in the Different Size Schools

A study was made of the pupil enrollment in the various school subjects in order to gain information as to what subjects were more popular in the different groups.

Table VI lists the pupil enrollment in different subjects in four of the groups. The relative rank of subjects in each group, naturally varies somewhat, but it is surprising how similar they rank. The enrollment of subjects in first class cities are not listed because they include only three years work and could not be used for comparison.

A careful study of Table VI reveals the fact that the largest enrollments (not including English, Constitution, and American History) are in Algebra, Geometry, Latin I, Home Economics, Typewriting I and Manual Training I. There is a conflict for supremacy between traditional preparatory college subjects and vocational subjects. Algebra and Geometry rank first because in most schools they are required

TABLE VI.

The Enrollment in High School Subjects by Size of Schools.
Ranked According to Total Enrollment in Each Subject.

Subjects	2nd class cities. 35 schools.	100-199. 111 schools.	50-99. 215 schools.	0-49. 171 schools.	1st & 2nd class cities. 15 schools.	Total 547 schools out of 648
English I	3198	4489	3494	1854	x	13,035
Algebra	2894	4213	3375	1875	x	12,357
English II	2508	3797	2298	1481	x	10,084
Geometry	2077	3307	2699	1426	x	9,509
Constitution	2070	2908	2339	1354	x	8,675
American History	1804	2545	2166	1007	x	7,522
General Science	1056	1956	2056	1178	x	6,246
Home Economics I	1386	1935	1788	571	x	5,680
Physics	845	1771	1708	850	x	5,174
Agriculture I	698	1626	1888	778	x	4,990
Latin I	1252	1464	1170	784	x	4,670
Physiology	560	1428	1653	645	x	4,295
Ancient History	1037	1190	1224	812	x	4,263
Manual Training I	1095	1207	1299	610	x	4,211
Typewriting I	1223	1434	956	447	x	4,060
Psychology	655	1300	1242	625	x	3,822
Bookkeeping I	992	1154	962	396	x	3,504
World History	543	1009	812	592	x	2,956
English IV	584	966	794	574	x	2,918
Home Economics II	643	1160	875	176	x	2,854
Com. Arithmetic	815	891	612	357	x	2,675
Economics	398	960	777	484	x	2,619
Modern History	681	934	614	278	x	2,507
Com. Geography	733	825	574	360	x	2,492
Biology	814	1389	595	415	x	2,213
Pen. & Spelling	682	930	418	158	x	2,188
Latin II	460	786	414	268	x	1,928
Sociology	240	623	642	300	x	1,805
Shorthand I	758	590	260	57	x	1,683
Spanish I	592	360	193	304	x	1,449
Manual Training II	394	510	393	151	x	1,448
Commercial Law	220	600	528	234	x	1,582
Physical Geography	101	484	361	412	x	1,358
Reviews(Nor. Tr'ng)	301	500	424	73		1,298
Algebra III(S.Geom.)	428	459	241	144	x	1,272
Community Civics	228	561	367	94	x	1,250
Voc. Ag. I, II & III	260	453	311	62	x	1,086
Typewriting II	398	452	158	28	x	1,036
Bus. Arithmetic	33	284	293	212		832
Public Speaking	226	281	197	47	x	751
Chemistry	499	96	89	30	x	714
Spanish II	245	161	50	102	x	558
French I	170	139	70	127	x	506
Botany	84	152	124	141	x	501
Mech. Drawing I	185	154	91	35	x	465
Shorthand II	203	128	16		x	347
Voc. Home Mak. I & II	156	71	21	22	x	270

of all students. The demand for vocational training is indicated by the large enrollment in Home Economics, Typewriting, and Manual Training. Since Manual Training has lost favor among educators because it does not "discipline the mind" nor is true vocational training, it would seem that there is a real need for vocational mechanical training in our schools to displace the superficial work taught in most of our Manual Training departments.

Table VI also reveals small enrollments in Home Economics, Typewriting, Manual Training, Chemistry, Book-keeping and Shorthand in the small high schools. Physics, Psychology, Agriculture and Physiology have a larger proportional enrollment in schools below the second class cities. Agricultural training has an important place in rural communities. However, most of the work in general agriculture is superficial. Often the Agricultural teacher has never lived on a farm nor studied agriculture. The need is for sound, practical, agricultural training.

The Courses of Study Offered in Different Size High Schools

The number of courses offered in different schools.-
Table VII indicates the number of courses offered in the different groups. Over 60 per cent of the schools with an

enrollment below 50 offer only one course of study. The larger the size of the school unit, the greater is the variety of courses offered.

Table VII-The number of courses offered in different schools grouped according to size

Size of schools	No. schools studied	One course offered	Two courses offered	Three courses offered	Four courses offered	Five or more offered
0-49	174	105	49	20	6	0
50-99	200	51	51	83	15	0
100-199	136	15	14	3	25	6
2 nd. class	35	5	6	7	14	3
1st. class-not included						

The popularity of different courses.- Table VIII shows that in every group the General course is offered more often than any other course. The three most popular courses are the General, College Preparatory and Commercial. The Normal Training course is found chiefly in high schools with an enrollment between 50-200. A few of the larger schools use majors and minors, as set up by the State Board of Education, for the basis of pupil selection of subjects.

Table VIII. The popularity of different courses

Size of school	No. of schools studied	Gen. course	Col. Prep course	Com. course	N.T. course	Voc. course	Ind. course	Others
0-49	174	135	97	22	13	2	0	6
50-99	201	159	142	67	68	20	7	14
100-199	136	120	119	73	59	27	11	7
Sec. class	35	28	27	22	15	9	3	4
First class-not included								

Tables IX to XV inclusive, consist of an analysis of the curricula of Kansas high schools. The required subjects as well as the elective subjects offered in each course are listed separately. English I, II and III and Constitution were omitted from the study because these subjects are required by the state.

Table IX lists the required and elective subjects of each course as found in the high schools in group 0-49. It will be noticed that 123 of the 174 schools studied offer a general course, 96 offer a College Preparatory course and 19 offer a Commercial course. Algebra ranks first as a required subject in each of the courses. One hundred and

TABLE IX (a)

An Analysis of the Curricula Offered in High Schools with an Enrollment from 0-49.

Required Subjects

No. of school offering each course from 174 schools studied.	General course		College Prep. course		Commercial course	
	123		96		19	
Required subjects	No. times required	Rank	No. times required	Rank	No. times required	Rank
Algebra	103	1	92	1	13	1
Geometry	91	2	89	2	9	2
American History	76	3	61	3	9	3
Physics	54	4	57	4	5	8
English IV	29	5	37	5	5	7
General Science	24	6	22	8	2	13
Ancient History	17	7	17	9	3	9
Agriculture	17	8	7	17		
Physiology	12	9	13	12	1	22
Biology	12	10	7	16	3	11
Latin	10	11	36	6		
Home Economics	10	12	5	19	1	19
Modern History	10	13	15	10		
Economics	9	14	5	22		
Physical Geography	8	15	5	23	1	18
Psychology	8	16	14	11	2	15
Manual Training I	7	17	4	24		
World History	7	18	10	13	1	20
Commercial Geography	6	19	8	14	2	14
Commercial Arithmetic	5	20	5	20	1	21
Manual Training II	5	21	2	29		
Latin II	4	22	27	7		
Sociology	4	23	3	27		
Home Economics II	4	24	2	28		
Commercial Law	4	25	3	26	1	23
Civ. Science	3	26	3	25		
French I	2	27	2	30		
Business Arithmetic	2	28	2	30	5	6
Mechanical Drawing	1	29				
French II	1	30	2	30		
Spanish I	1	31	6	18		
Spanish II	1	32	5	21		
Agriculture II	1	33				
Pen. & Spelling	1	34	1	37	3	10
Bookkeeping	1	35	2	32	9	5
Algebra III	1	36	8	15		
European History	1	37				
Chemistry	1	38	3	34		
Typewriting I	1	39	1	38	9	4
Typewriting II	1	40	1	40	2	16
Shorthand I					3	12

TABLE IX (b)

An Analysis of the Curricula Offered in High Schools with an Enrollment from 0-49.

Elective Subjects

No. of school offering each course from 174 schools studied.	General course		College Prep course		Commercial course	
	123		96		19	
Elective subjects Y	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank
Home Economics I	84	1	30	6	11	2
General Science	74	2	36	2	12	1
Physiology	71	3	40	1	10	3
Agriculture	68	4	31	4	9	9
Psychology	60	5	32	3	7	13
Economics	58	6	31	5	9	10
Latin	57	7	19	11	9	7
Manual Training I	57	8	23	9	10	4
Home Economics II	53	9	18	14	5	17
Ancient History	50	10	27	7	4	19
Physics	48	11	15	19	9	8
Commercial Geography	44	12	25	8	10	6
Modern History	40	13	23	10	4	20
Bookkeeping I	40	14	15	20	6	14
Commercial Law	39	15	18	13	10	5
Typewriting I	38	16	17	15	9	11
World History	36	17	11	25	3	26
American History	35	18	16	18	4	18
Commercial Arithmetic	35	19	17	17	8	12
Sociology	34	20	13	24		
English IV	33	21	14	21	2	28
Biology	31	22	14	23	3	24
Algebra III	29	23	17	16	2	30
Latin II	28	24	18	12	6	15
Geometry	26	25	6	32		
Physical Geography	26	26	13	22	6	16
Spanish I	20	27	9	26	2	30
Algebra	11	28	4	37	3	23
Manual Training II	14	29	4	31	3	25
Community Civics	14	30	5	29	2	29
Botany	14	31	6	28	1	31
Spanish II	13	32	8	27	2	30
Typewriting II	11	33	1	40	5	21
French I	9	34	1	40		
French II	7	35				
Mechanical Drawing	7	36	3	33		
Business Arithmetic	7	37	1	40	1	31
Reviews	6	38	2	38		
Latin III	4	39	3	35	1	31
Agriculture II	3	40				
Shorthand I	3	41			5	17
Pen. & Spelling	3	42			5	22

TABLE X (a)

An Analysis of the Curricula Offered in High Schools with an Enrollment from 50-99.

Required Subjects

General Course			College prep. course		Commercial course		Vocational course		Industrial course	
No. of schools offering each course from 204 schools studied			158		140		67		20	
Required subjects	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. req.	Rank
Algebra	123	1	135	1	56	1	15	3	6	6
American History	121	2	116	3	43	5	13	4	7	4
Geometry	108	3	132	2	43	4	7	8	6	8
Physics	87	4	95	4	32	6	10	5	6	3
English IV	27	5	37	7	6	16	3	15	2	12
Home Economics I	23	6	8	17	5	18	7	6	8	1
General Science	22	7	19	9	13	11	2	24	3	10
Agriculture	22	8	7	20	3	25	16	1	6	7
Ancient History	16	9	12	14						
Physiology	15	10	14	12	2	30	2	23		
Manual Training I	15	11	5	22	3	21	2	18	7	15
Latin I	14	12	60	5	6	15				
Biology	13	13	15	11	7	17	2	25	2	13
Sociology	12	14	8	18	2	30	3	16		
Psychology	11	15	12	13	3	26	2	22		
World History	9	16	18	10	4	22	2	19		
Civics Science	9	17								
Economics	9	18	5	23	4	24	3	14		
Typewriting I	9	19			43	3	2	17		
Home Economics II	7	20	2	30	2	29	7	7	8	2
Commercial Arithmetic	6	21	4	26	26	8	3	11	2	11
Modern History	6	22	8	16			2	20		
Physical Geography	5	23	5	21	2	28				
Bookkeeping	5	24			47	2	3	13		
Commercial Geography	4	25			12	14	3	12		
Latin II	3	26	56	6	4	23				
Commercial Law	3	27			20	10				
Business Arithmetic	3	28			5	19				
Manual Training II	2	29							5	9
Spanish I	2	30	11	15	3	27				
Pen. & Spelling	2	31	2	29	13	12				
Algebra III	2	32	35	8						
Chemistry	2	33	5	24						
Shorthand I	2	34			29	7				
Voc. Agriculture I	2	35							1	14
Voc. Agriculture II	2	36					16	2	1	14
French I	1	37	4	27						
Spanish II	1	38	7	19						
Botany	1	39								
Business Economy	1	40	3	20						
Jr. Business	1	41								
Trigonometry	1	42								

TABLE X (b)

An Analysis of the Curricula Offered in High Schools with an Enrollment from 50-99.

Elective Subjects

	General course		College prep. course		Commercial course		Vocational course		Industrial course	
No. of schools offering each course from 204 schools studied	158		140		67		20		8	
Elective subjects	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank
Home Ec. I	133	1	130	1	52	1				
Man. Tr'ng. I	115	2	92	4	39	2				
Physiology	109	3	90	6	29	8	8	4	7	1
Agriculture	104	4	95	2	38	3			2	13
Gen. Science	98	5	93	3	37	4	8	4		
Psychology	86	6	78	7	34	5	10	1	6	2
Home Ec. II	83	7	92	4	31	7				
Latin I	81	8	36	20	34	5	6	8	3	9
Economics	77	9	65	8	26	9	7	6	5	5
Typewriting I	70	10	64	10	17	13	6	8		
Bookkeeping I	67	11	65	8	19	21	6	8	4	7
Latin II	64	12	31	23	20	17	6	8	2	13
Ancient History	63	13	55	11	24	12	6	8	6	2
Physics	62	14	48	13	26	9	4	17	1	22
Com. Arithmetic	56	15	43	16	18	18	3	19	4	7
Com. Law	55	16	47	14	21	15	8	3	6	2
Modern History	51	17	40	18	18	18	6	8		
English IV	49	18	39	19	15	21	1	16	3	9
Sociology	49	19	43	16	21	15	7	6	3	9
World History	48	20	49	12	26	9	6	8	3	9
Biology	48	21	47	14	23	13	6	8		
Man. Tr'ng. II	47	22	36	20	13	27				
Geometry	45	23	8	35	15	21	9	2	2	13
Algebra III	45	24	36	20	14	25	6	8	5	5
Com. Geography	40	25	24	26	15	21			2	13
Algebra	33	26	5	40	12	28	4	17	2	13
Physical Geog.	33	27	22	27	6	35				
Amer. History	31	28	20	29	14	25	2	22	2	13
Social Civics	30	29	26	24	8	32	2	22		
Pen. & Spelling	29	30	23	25	17	20				
Com. Civics	24	31	21	28	8	32	2	22		
Shorthand I	22	32	21	28	11	31	3	19	2	13
Spanish I	19	33	8	37	8	32			2	13
Pub. Speaking	16	34	72	30	12	38	3	19	2	13
Mech. Drawing	15	35	11	32	5	37	2	22	3	9
Typewriting II	14	36	7	39	6	28				
Spanish II	14	37	5	40						
Bus. Arithmetic	13	38	10	33	6	35				
Botany	13	39	10	34						
French I	9	40	5	40	4	38				
Latin III	7	41	12	30						
Voc. Agri. I	7	42	9	35	3	36				
Voc. Agri. II	7	43	8	37	3	39				
French II	5	44	5	40						

TABLE XI (a)

An Analysis of the Curricula Offered in High Schools with an Enrollment from 100-199.

Required Subjects

	General course		College prep. course		Commercial course		Vocational course		Industrial course	
No. of schools giving each course from 136 schools studied	120		119		73		27		11	
Required subjects	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. times required	Rank
American Hist.	91	1	101	3	52	3	21	1	6	6
Algebra	85	2	112	1	49	4	18	2	8	2
Soc. Civics	76	3	68	7	21	12	7	7	8	13
Geometry	73	4	107	2	40	6	14	5	8	2
Physics	53	5	76	4	16	14	12	6	6	6
Biology	24	6	21	10	7	18	6	8	4	8
Latin I	13	7	72	5	4	19	1	18		
English IV	12	8	9	11	3	20				
Latin II	12	8	71	6	1	27				
Home Ec. I	6	10	5	17	3	20	6	8	9	1
Gen. Science	6	10	4	20	1	28	1	18	1	17
World History	6	10	7	13	1	28	2	17	1	17
Pen. & Spelling	5	13	4	20	31	9	1	18		
Algebra III	5	13	28	8	1	28				
Agriculture	5	13					3	14	2	13
Psychology	4	16	8	16						
Physiology	4	16	4	20						
Man. Training	4	18	4	20	3	20	4	11	7	4
Spanish I	4	18	9	11						
Ancient History	4	18	4	20	17	3	3	10		
Com. Arithmetic	3	21	2	28	36	7	1	18	2	13
Com. Geography	3	21	2	28	28	10			2	13
Spanish II	3	21	7	13						
Modern History	3	21	7	13	2	25	1	18		
Economics	3	21			12	15				
Pub. Speaking	3	21	1	33						
Sociology	2	27	1	33						
Home Ec. II	2	27					5	10	7	4
Chemistry	2	27	2	28						
Typewriting I	2	27			59	1	1	18		
Botany	2	27	4	20	1	28				
Latin III	2	27	25	9						
Commercial Law	2	27	1	33	24	11	1	18		
Physical Geog.	2	27	1	33						
Bus. Arithmetic	1	35			8	16				
German I	1	35	2	28	1	28				
Latin IV	1	35	2	28						
Man. Tr'ng. II	1	35					3	14	4	8
Bus. English	1				2	27				
Bookkeeping I					59	2				
Bookkeeping II					7	17				
Shorthand I					44	5				
Shorthand II					20	13			2	13
Voc. Ag. I			5	17			17	2	3	10
Voc. Ag. II			3	27			17	2	3	10

TABLE XI (b)

An Analysis of the Curricula Offered in High Schools
With an Enrollment from 100-199.

Elective Subjects

	General course		College prep. course		Commercial course		Vocational course		Industrial course	
No. of schools giving each course from 136 schools studied	120		119		73		27		11	
Elective subjects	no. time elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank
Home Ec. I	103	1	103	1	57	1	3	16	7	21
Gen. Science	87	2	85	2	49	2	7	2	15	6
Economics	82	3	73	6	47	4	2	25	16	2
Physiology	79	4	84	3	34	8	7	2	16	2
Home Ec. II	76	5	80	4	48	3	2	25	7	21
Man. Tr'ng. I	75	6	79	5	44	5	3	16	10	14
Psychology	70	7	65	8	34	8	8	1	11	11
Agriculture	68	8	72	7	37	6	4	12	8	19
Latin I	67	9	39	20	34	8	6	4	18	1
Latin II	67	9	10	34	29	15	5	7	16	2
English IV	63	11	63	9	36	7	6	4	16	2
Typewriting I	63	11	60	10	13	24	6	4	15	6
Bookkeeping I	60	13	54	12	13	24	4	12	13	9
Com. Arithmetic	59	14	41	18	20	19	3	16	12	10
Biology	58	15	58	11	34	8	4	12	10	14
Ancient History	57	16	53	14	33	12	5	7	7	21
Modern History	56	17	53	14	28	16	5	7	8	19
Sociology	53	18	54	12	24	18	5	7	11	11
Algebra III	52	19	44	17	16	21	3	16	15	6
Physics	52	19	39	20	30	13	4	12	10	14
Com. Law	49	21	45	16	30	13	1	32	9	17
World History	38	22	41	18	25	17	5	7	11	11
Geometry	37	23	7	41	14	23	1	32	9	17
Man. Tr'ng. II	31	24	31	22	17	20	2	25	1	40
Physical Geography	29	25	24	26	11	29	3	16	4	34
Pen. & Spelling	27	26	30	23	11	29	2	25	5	29
Algebra	25	27	3	44	10	34	1	32	6	27
Shorthand I	25	27	26	25	11	29	1	32	5	29
Com. Geography	24	29	29	24	16	22	2	25	7	21
Community Civics	23	30	19	29	11	29	3	16	5	29
Publ. Speaking	21	31	24	26	9	35			5	29
American History	19	32	17	30	11	29	3	16	4	34
Spanish I	18	33	21	28	13	24	2	25	7	21
Spanish II	14	34	16	31	8	36	3	16	6	27
Voc. Ag. I	14	34	8	36	12	27	1	32	1	40
Voc. Ag. II	14	34	7	41	2	24	1	32	1	40
Typewriting II	12	37	11	33	12	27	3	16	7	21
French I	11	38	8	36	5	38	1	32		
Mech. Drawing	10	39	12	32	5	38	2	25	3	26
Chemistry	9	40	8	36	8	36	1	32	2	39
Home Ec. III	8	41	8	36	4	40			5	29
Bus. Arithmetic	6	42	2	47	1	47			3	36
Botany	6	42	8	36	4	40				
German I	3	44	3	45	2	45				
Voc. Home Ec. I	3	44	2	47	1	47				

TABLE XII (a)

An Analysis of the Curricula Offered in High Schools
With an Enrollment Above 200, Mostly Second Class Cities.

Required Subjects

No. of schools offering each course from 35 schools studied	General course		College prep. course		Commercial course		Vocational course		Industrial course	
	28		27		22		9		3	
Required subjects	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. times required	Rank	No. times required	Rank
Algebra	18	1	24	1	14	6	3	4	3	1
Geometry	18	1	24	1	16	3	2	6	2	6
American History	18	1	16	4	10	10	4	3	1	7
Physics	13	4	19	3	8	13	3	4	3	1
Biology	7	5	7	8	6	14	2	6	1	7
Chemistry	7	5	5	10	6	14	2	6	1	7
World History	4	7	2	15	4	17	1	16		
Social Science	4	7	1	18	1	23			1	7
Sociology	2	9			1	23	1	16	1	7
Economics	2	9	2	15	4	17	1	16	1	7
Home Ec. I	2	9					5	2	1	7
Physiology	1	12			2	22	1	16	1	7
Latin I	1	12	15	5	1	23				
Man. Tr'ng. I	1	12							3	1
French I	1	12	4	11						
Spanish I	1	12	8	7						
Algebra III	1	12	4	11						
Typewriting I	1	12			18	1	1	16		
Shorthand I	1	12			16	3	0			
Voc. Agriculture I	1	12					2	6		
Pen. & Spelling	1	12			20	14				
Home Ec. II	1	12					1	16	3	1
General Science	1	12	2	15	1	23				
Ancient History			1	18			2	6	1	7
French II			3	13						
Latin III			3	13						
Latin II			13	6						
Spanish II			6	9						
Bookkeeping II					3	19				
Bookkeeping I					18	1				
Bus. Arithmetic					2	21				
Com. Arithmetic					16	3				
Commercial Law					9	12	2	6		
Commercial Geog.					10	10				
Bus. English					3	19				
Typewriting II					12	8				
Botany					3	19			1	7
English IV							2	6		
Agriculture							2	6		
Voc. Agri. II							2	6		
Voc. Agri. I							2	6		
Reviews							6	1		
Man. Tr'ng. II									3	1

TABLE XII (b)

An Analysis of the Curricula Offered in High Schools with
An Enrollment Above 200, Mostly Second Class Cities.

Elective Subjects

No. of schools offering each course from 35 schools studied	General course		College prep. course		Commercial course		Vocational course		Industrial course	
	28		27		22		9		3	
Elective subjects	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank	No. times elective	Rank
Home Ec. I	25	1	26	1	19	1				
Home Ec. II	24	2	22	3	18	2				
Latin I	23	3	12	15	16	3	6	1	2	1
Man.Training I	20	4	23	2	16	3	4	6		
Comm. Civics	20	4								
Gen. Science	19	6	17	5	13	6	4	6	2	1
Physics	18	7	14	11	12	7	4	6		
Algebra III	18	7	20	4	11	9	2	23		
Physiology	17	9	16	8	9	14	5	3		
Economics	17	9	13	14	15	5	4	6		
Typewriting I	17	9	17	5	7	18	5	3	2	1
Latin II	16	12	10	19	10	12	4	6		
Bookkeeping I	15	13	14	11	8	17	3	16	2	1
Biology	15	13	17	5	11	7	4	6		
Man.Training II	15	13	16	8	12	7	2	23		
Modern History	15	13	12	15	6	23	2	23	2	1
Pen.&Spelling	14	17	10	19	4	31	2	23	1	10
Psychology	14	17	14	11	7	18	4	6		
Anc. History	13	18	6	30	5	25	1	28	1	10
Com. Arith.	13	18	11	18	3	36	1	28	2	1
Agriculture	13	18	16	8	4	31	1	28	2	1
Shorthand I	13	18	10	19	9	14	4	6	2	1
World History	12	22	10	19	7	18	3	16		
Spanish I	12	22	9	24	10	12	4	6	2	1
English IV	12	22	10	19	7	18	6	1	1	10
Pub.Speaking	12	22	6	30	4	31				
Typewriting II	11	26	9	24	5	25	2	23		
Geometry	10	27	3	37	7	18	3	16		
Spanish II	10	27	4	34	5	25	4	6		
Sociology	9	29	12	15	11	9	3	16		
Chemistry	9	29	5	32	5	25	3	16	1	10
Com. Law			7	27	5	25				
Algebra	9	29	3	37	4	31	3	16		
Econ. Soc.			1	47	2	42				
Mech. Drawing	8	32	5	32	3	36	1	28		
French I	8	32	3	37	4	31	5	3		
Com. Geog.	8	32	7	27	2	41				
Amer. History	6	35	7	24	9	14	3	16		
Phy. Geog.	6	35	7	27	6	23			1	10
Botany	6	35	4	34	3	36	1	28		
French II	6	35	2	43	5	25	1	28		
Reviews	6	35	3	37	2	42				
Voc. Ag. I	4	41	1	47	2	42	1	28		
Shorthand II	4	41	2	43	3	36	1	28		
Bus. English	4	41	4	34	2	42				
Trig.	3	44	3	37	3	36				
Latin IV	2	45	1	47	1	50				

TABLE XIII

A comparison of the General Course as given in different size high schools. The subjects are stated in per cent of the number of times they are required, or offered as electives, in the General Course.

Required subjects					Elective subjects				
Size of school	0-49	50-99	100-199	2nd class cities		0-49	50-99	100-199	2nd class cities
Number of schools offering General Course	123	158	120	28	Subjects	123	158	120	28
Algebra	84%	78%	71%	18%	Home Economics	69%	84%	86%	92%
Geom.	74	68	61	64	Gen. Science	61	62	71	68
Am. Hist.	62	76	76	64	Physiology	58	69	66	64
Physics	45	51	44	43	Psychology	49	54	58	50
Eng. IV	24	17	10		Agri. I.	51	66	57	46
Gen. Sci.	20	74	5	4	Economics	48	50	60	61
Anc. Hist.	14	10	3		Latin I	46	51	55	82
Agri.	14	14	4		Man. Training I	46	73	62	64
Latin I	8	9	11	4	Home Ec. II	43	52	63	90
Biology	10	8	20	25	Amer. History	41	41	47	46
Home Ec. I	8	14	5	8	Physics	40	40	43	65
Mod. Hist.	8	3	2	4	Com. Geog.	36	25	20	29

TABLE XIV

A comparison of the College Preparatory Course as given in different size high schools. The subjects are stated in per cent of the number of times they are required, or offered as electives, in the College Course.

Required subjects					Elective subjects				
Size of school	0-49	50-99	100-199	2nd class cities	0-49	50-99	100-199	2nd class cities	
Number of schools offering College Course	96	140	119	27	Subjects	96	140	119	27
Algebra	96%	96%	93%	90%	Gen.Science	38%	66%	78%	67%
Geometry	92	94	90	90	Economics	33	46	59	48
Amer. History	64	83	85	59	Anc. Hist.	28	39	44	30
Physics	58	67	83	70	Com. Geog.	26	19	24	26
English IV	39	26	.08	7	Mod. Hist.	24	29	44	52
Latin I	38	43	60	56	Latin I	20	26	31	44
Gen. Science	24	13	.03	7	Latin II	19	21	33	37
Anc. History	18	8	7	4	Com. Law	19	33	37	26
Mod. History	16	6	5	11	Algebra III	18	26	36	74
World History	10	13	5	7	Am. Hist.	17	15	14	33
Com. Geog.	58		1		Biology	14	33	48	63
Algebra III	.08	20	23	15	Sociology	14	30	45	44

TABLE XV

A comparison of the Commercial Course as given in different size high schools. The subjects are stated in per cent of the number of times they are required, or offered as electives, in the Commercial Course.

	Required subjects					Elective subjects			
Size of school	0-49	50-99	100-199	2nd class cities		0-49	50-99	100-199	2nd Class cities
Number of schools offering Commercial Course	19	67	73	22	Subjects	19	67	73	22
Algebra	68%	84%	67%	64%	Gen.Sc.	63%	55%	67%	59%
Geometry	47	64	55	73	Latin I	47	51	47	73
Amer.History	47	61	71	45	Physics	47	39	41	55
Typewriting I	47	64	81	82	Econ.	47	39	64	68
Bookkeeping I	47	50	18	82	Latin II	32	30	40	45
Bus. Arith.	26	7	11	9	Agri.	47	57	51	18
English IV	26		4	19	Am.Hist.	21	22	15	41
Physics	26	48	22	33	Mod.Hist.	21	27	38	27
Anc.History	16		1	10	Algebra	16	18	14	18
Biology	16	10	10	27	Biology	16	34	47	50
Shorthand I	16	43	60	73	World Hist.	16	7	7	14
Gen.Science	11	19		15	Eng. IV	11	22	49	32

three of the schools offering a general course, require Algebra as a constant; ninety-two require it in the College course and 13 require it in the Commercial. It will be noticed that the required and elective subjects in the General and College Preparatory courses are much alike. Table X compares the courses offered in schools with an enrollment between 50-99; Table XI compares the courses in schools 100-199 and Table XII compares the courses offered in schools in second class cities.

Table XIII compares the content of the general courses as found in the different size schools. The number of times a subject is required or elective is stated in terms of per cent. Only the twelve leading subjects are included in the table. The content of the of the College Preparatory courses in different size schools are compared in Table XIV; likewise Commercial courses are compared in Table XV.

Discussion of the Curricula Existing in Kansas High Schools

A comparison of the different courses show that outside of Algebra, Geometry and American History, there is no consistency among required subjects. If there were any fundamental differences existing between various courses, there should be a noticeable difference between subjects offered.

Such is not the case. One is impressed with the vagueness and lack of direction of these courses. The whole curriculum fosters the spirit of indecision. There is no visible reason why a student should, for example, elect Biology, Advanced Algebra or any other subject. In most of the courses no guidance is indicated whereby the student can select subjects which will prepare him for his life's work.

This study also reveals the influence of college requirements upon the curricula. In spite of the fact that only one freshman out of seven will ever enter college, the curricula is permeated with the idea of college preparation. Practically no subjects are offered which will help prepare the other six freshmen for their life's calling.

Furthermore there is no consistency among the various curricula as to what are integrating subjects. General education is so mixed with other activities or subjects, that it is impossible to distinguish the integrating subjects. In practically all schools, no effort has been made to distinguish between general education, vocational education and avocational education, in spite of the fact that educators suggest that they be kept distinct.

The curriculum existing in our high schools today is similar to the traditional curriculum of a couple decades ago, a curriculum based on the theory of mental discipline. The fact that this theory has been discarded makes necessary

a new curriculum based on modern aims of education. As yet Kansas high schools have made little advancement toward this goal.

The Inefficiency of the Small High School

High cost of small schools.-It is an acknowledged fact that the cost per pupil in operation of small high schools is much higher than in larger schools in spite of the fact that they pay their teachers less. Loomis (1924) found the average cost per pupil in class A high schools of Kansas with from 200 to 500 pupils to be \$107, and in 45 non-accredited high schools with fewer than 25 pupils to be \$215 per pupil. This increase in expense results largely from the small enrollment in classes in small schools. The twenty-fourth Biennial report of the State Dept. of Public Instruction (1925) indicates that over 60 per cent of school costs are expended for the wages of teachers. Table XVI indicates the average size of classes in the different size high schools. These results are based upon the enrollment in ten standard subjects involving an enrollment over 78,970.

Table XVI.-Average enrollment per class in different size high schools

	Size of School			2nd class cities
	0-49	50-99	100-199	
No. of schools	171	167	111	35
Aver.enrollment per class	9.4	16.6	21.4	24.3

Limited offering of subjects.-Furthermore Tables XIII to XV show that the number of subjects offered in small schools is much more limited than in the larger schools. Particularly do they lack vocational subjects; very few schools with an enrollment below 50 offer more than 20 subjects. This means that the principle of individual difference cannot be recognized in the curriculum; every one must take practically the same subjects. Table VII shows that the majority of small schools have only one course of study. Wherever two or more courses are offered the contents are much alike.

Many educators assert that the chief purpose of education is the making of social contacts. If this is true, small schools are again at a disadvantage, because schools with an enrollment below 50 cannot provide many social contacts.

Teaching load.-A study was made of schedules in different size schools. The median daily teaching load in schools 0-49 in size, is six subjects. This does not include study hall supervision. The teaching load in first and second class cities, operating upon a five-period day, is slightly less than five classes per day. The teaching load in the schools between these two groups is approximately five and one-half classes per teacher.

Probably a greater weakness exists in the variety of subjects a teacher in a small school is expected to teach. For example, a teacher in one of these small schools taught Physics, Commercial Law, Latin, Advanced Algebra, Grammar and Agriculture. Not only does such a load entail many lesson preparations a day, but furthermore few teachers have the ability to successfully teach a variety of subjects.

The inefficiency of the smaller school, not only from the standpoint of economy, but also because of the limited number of subjects offered and the load placed upon the teachers, indicates that a large school unit is to be desired. Little progress can be made in enriching the curriculum in small schools.

THE EDUCATIONAL OBJECTIVES OF THE HIGH SCHOOL CURRICULUM

Anyone familiar with the type of curricula existing in Kansas High Schools of ten or twenty years ago will notice from a study of Tables IX to XV that the curricula of today is similar. For the most part little effort has been made to adjust the curriculum to modern day needs. The idea still persists that the aim of education is the mastery of subject matter courses.

The old type course of study has still a stronghold and only in the more progressive schools of Kansas is there a breaking away from it. The principle of individual differences cannot be recognized when all students are required to take nearly the same subjects. Bobbitt (1924) states that general education should be kept distinct from the rest of the curriculum. Curricula similar to those in Table IX to XV exist in many schools and show that for the most part the curricula of Kansas High Schools are still based on the psychology of mental discipline.

Since the old curriculum was built around the theory of mental discipline which now has been discarded, it is evident that a new curriculum must replace the old, built around the modern objectives of education. It is easy to make changes but merely shifting position is not necessarily

progress. There are more ways of going wrong than of going right. To build a new curriculum requires guiding principles which will lead in the right direction.

Education defined.-Dewey says education is life; Bobbitt(1924) says education is to prepare men and women for the activities which make up, or which ought to make up well rounded adult life and that it has no other purpose. Bobbitt further states,"to plan the route which a growing man must travel from infancy to the goals of his growth, his culture and his special abilities is an immeasurably more complicated task than the simple one of planning a thin steel line across the continent."

If we accept the definition of education as "preparation for complete living" our first task is to discover the fields of activity in which children and adults are most apt to find themselves engaged.

Aims of Education

What are the objectives of education? Three lists of educational objectives or aims have been set up which are widely recognized by modern educators. In the main they are similar.

Objectives set up by Inglis.-Inglis has set up three comprehensive objectives which clearly define the three

major fields of education:

1. Citizenship service which is placed first because it is of first importance to society.

2. Economic service which is placed second because it is one of the fundamental laws of our present social order that each normal individual must be able to carry his own economic load after the period of infancy has passed.

3. Leisure which is placed last because it is more largely an individual matter.

The Committee on the Reorganization of Secondary Education.—In 1918, this committee set up the seven cardinal principles of education. These principles have been widely used in modern curriculumbuilding:

1. Health
2. Command of fundamental processes
3. Worthy home membership
4. Vocation
5. Civic education
6. Worthy use of leisure
7. Ethical character.

Bobbitt's aims of education.—Bobbitt has compiled a list of ten educational aims. He stresses the need of scientific analysis in determining objectives and shows that as yet there has been no such analysis made of re-creative activities, hygiene or the rearing of children.

1. Language activities-social intercommunications
2. Health activities
3. Citizenship activities
4. General social-meeting and mingling with others
5. Spare time activities, amusements, recreations

6. Keeping one's self mentality fit
7. Religious activities
8. Parental activities, the upbringing of children, the maintainance of a proper home life
9. Unspecialized or non-vocational practical activities
10. The labor of one's calling

The three lists of objectives agree closely as to the aims of education. Bobbitt's classification is perhaps more complete and specific than that of the Committee on the Reorganization of Secondary Education. Bobbitt stresses the need of keeping one's self mentally fit by developing one's intellectual appreciation of the realities that make up the world of man's life-the ability to perform the mental activities involved in the proper exercise of the many functions which one should perform. He also specifically includes the unspecialized non-vocational practical activities by which he means the ability to make common repairs, care for one's clothing, and garden, etc.

To what degree does the curricula of Kansas high schools fulfill these objectives? To what degree is health education given; citizenship education; what training is given for the worthy use of leisure; for worthy home membership? To what extent is vocational training given; what training is given in unspecialized or non-vocational practical activities?

A study of the curricula of Kansas high schools as indicated in Tables IX to XV show that these important objectives are slighted, not only in the smaller schools but in the larger schools as well. Why are Kansas high schools

so slow to change their curricula to meet these widely accepted educational aims? Undoubtedly two factors are largely responsible: first, the enrollment and financial condition in many of our schools are too small to adopt a curriculum that will embody all these activities; second, many high school administrators lack the initiative and probably the knowledge to engage in the task of reorganizing their curriculum. Rather they are content to let the old traditional curriculum continue to exist. In a survey reported in the Sixth Year Book of the Dept. of Superintendence (1928) it was found that 255 out of 591 high school principals who have not undertaken any reorganization during the last five years in line with the "cardinal principles" gave as their reason; "The publication 'cardinal principles' has never been called to my attention". It is evident that if the school system in Kansas is to embody modern education objectives our administrators must have a thorough knowledge of the aims and activities which must be used to carry on these objectives.

The psychology of "Specific Abilities". - In the past we devoted ourselves to the task of mastering abstract subjects out of relation to man's life. We have not greatly concerned ourselves with what the pupil should do and experience by way of developing right attitudes toward life and affairs, or life-long recreational habits, sense of social

justice, good health habits and many other things which make up man's every day life.

Today we have shifted from theory of "faculty" psychology to the psychology of "specific abilities" and from subject-matter to children as the aim and purpose of education. The new psychology teaches us that mental ability is made up of "specific traits" and not of "general faculties"; that mental development is continuous and gradual; that objects, ideals etc, have no meaning other than as an individual experiences them; and that changes in traits are more quickly accomplished by direct than by indirect means. This new psychology has led to a new philosophy of curricula making, which aims at the cultivation of those habits and attitudes which seems desirable for all citizens of a democracy to possess. As Bobbitt says(1924) "Human life consists in the performance of specific activities. One must go out into the world of affairs and discover the particulars of which these affairs consist. These will be the objectives of the curriculum. They will be discovered by analytic survey. His task is not at all concerned with 'the studies'-later he will draw up appropriate studies as a means to achieve these objectives".

Pupil Activities and Experiences

The pupil's activities and experiences are the steps which make up his journey toward the goals of the objectives. The activities and experiences are the curriculum. What are the general types of activity and experience which will enable the pupil to achieve his several goals?

Bobbitt lists eight general types of activity:

Observation.-Man normally observes the world around him without any thought of learning. The observation is not merely visual but he also hears, smells, tastes and feels. It is the nature of man to thus observe. It is only a mode of living. It is folly to try to understand the world as it is without observation of the world as it is.

Performance of function.-The mind will not grow without exercise of function. One will not learn to saw a board until one saws a board. One will not learn to perform the functions of a good citizen by looking on. Our citizenship courses ordinarily assume that one can acquire civic abilities by talking about social rights and duties. The mind grows as it is exercised. One learns to do a thing by doing it.

Reading.-Language is an instrument of vision.

Man is untiring in viewing the world thru the medium of language. It has advantages over direct observation. It transcends the limitations of time and space and sense. It lifts the curtain upon the whole nation and all of its activities, and even the universe as far as man has been able to penetrate. It can make the long past live before one's eyes as clearly as the past of an hour ago.

Furthermore, thru language the mature can help the immature, the trained, the untrained, the competent, the incompetent. There is no influence greater than this for the upbuilding and maintainance of our civilization.

Man has come to live in a large world that is endlessly complex. He needs to see this world in a large way and a balanced way. Most of this observation must employ the medium of reading, when we have discovered what man should observe, we must next find the revealing readings. They must be very human; one must distinguish between "education as memorization of facts" and "education as growth of powers by means of exercise of function". The readings should provide abundance of exercise.

Pictures.-Pictures provide us with another means of observing things distant, past and otherwise in-

accessible to direct observation. While there are limitations to pictures yet they should be used abundantly to supplement language presentations.

Prolonging, repeating and intensifying one's experiences.-It is man's nature to think over his more vivid and significant experiences, to repeat them in his imaginations, to tell them to others and thus relive them many times. Each of these has its values in the curriculum.

Problem-solving.- One is ever dealing with problems. Where things are clear and understood, they are taken for granted and passed by. It is where things are not clear, that one gives his attention and his thought. Problem-solving will be a major type of pupil experience.

Generalization.- A large part of the problem solving will be making analysis and arriving at generalizations. Another part will be using the generalizations in the analysis of new situations.

Types of Education Defined

In devising a curriculum the curriculum-maker must keep in mind that there are three types of education namely; general, vocational and avocational.

General education.- General education is that portion of training which is of general need, whatever one's occupation or station in life, or the common integrating elements in the training of all persons.

Vocational education.- Vocational education is that training which develops specialized abilities called for by the specific activity. The abilities will be developed only in those who have chosen to go into the given occupation where these abilities are demanded. To prevent confusion, the objectives of vocational education should be drawn up strictly with a view to the vocation, and in no degree for general training purposes.

Avocational education.- Avocational education seeks to develop abilities in those fields in which an individual is interested as an avocation.

General education is the integrading education required of all, while vocational and avocational education must be based upon the idea of individual differences and must be elective. Any curriculum that a curriculum-maker sets up, must keep these three types of education separate and distinct from each other.

General Education

Because Bobbitt in "How to Make a Curriculum"(1924), has so well listed the basic facts regarding general

education, the major ones are listed below:

1. The general training needed today goes much beyond that needed a generation ago.
2. There should be but one curriculum of general training.
3. The basic lines should never be elective.
4. Each line of training should provide for such continuity of growth so that whenever a student drops out he will have had training along all lines.
5. Extras should not be permitted to displace any of the basic lines of training.
6. There will be no specialization within the field of the basic general training, but opportunities should be offered for specialized occupational courses as extras.
7. The extras of the general training can often be employed for foundations for specific occupational training to which certain students will be looking forward.
8. Never will a subject be placed in the general training for all simply because it is of specialized value for certain occupations.
9. Each occupational course should strictly confine itself to the matters involved in the particular occupation.

10. Boys and girls should early acquire familiarity with occupations and be expected early to make a choice of vocations, to plan their education so as to take care of both general and vocational training.

Bobbitt further lists the lines of training to be cared for in the basic general program:

1. English language, reading, oral and written expression.
2. Citizenship attitudes, judgments and activities. Social studies.
3. Literature, English and general.
4. The several science fields.
5. Everyday mathematics.
6. Physical training, hygiene, sanitation (health habits).
7. Unspecialized practical arts.
8. Musical appreciation and judgment.
9. Art appreciation and judgment.

Avocational Education

Avocational education is training upon the play level in those activities which interest the individual, and which at the same time is not general training or vocational training. It is important that this distinction be kept in mind; for example, it is recognized that a

certain amount of music should be included in the general education of all. Beyond this, music becomes elective. If a boy desires to play an instrument in the band it becomes avocational training since we recognize the fact that everyone should not be required to play an instrument. Avocational interests may often lead to vocational interests. If the boy decides upon playing an instrument as a life profession then it becomes vocational.

Every boy and girl should develop one or more avocational interests. Avocation must be a matter of individual choice. Some people are so endowed that they can be brought to high and delicate appreciations and interests while others will attain a lower level, while others even with great effort can accomplish relatively little. Some students will develop several worthwhile avocation interests while others will develop practically none. Avocational activities should be considered consumer education. A certain portion of the student's time in each year in the junior and senior high school should be set aside for avocational and cultural activities.

The following is an incomplete list of avocational activities;

1. The several types of musical activities.
2. Dramatics, public speaking and debate.
3. Art, literature and reading, and foreign languages.

4. Physical activities.

Vocational Education

Vocational education is specialized training given to those who have made a definite choice to enter a definite occupation.

1. Vocational education should train an individual for what is needed in the vocation that he is entering.

2. Vocational education should be intensive and thorough. It is not to be toyed with by those who are not taking it seriously.

3. It should include all the information and skills needed to succeed in a definite occupation. The training should be long enough to achieve the approved standard of occupational efficiency.

4. Vocational training should come toward the close of the school career. One should not finish his vocational training and then go back to general training.

5. It is preferable that general education and vocational training run parallel toward the close of the school career. The vocational training will tend to motivate the general training and tend to tie up the general training with his vocational interests.

6. Boys and girls who postpone their occupation training until late should early acquire familiarity with occupations; be expected early to make a choice of vocation, and plan their education so as to take adequate care of both general and vocational training.

7. When a student finds he must leave school prematurely, he should have available vocational training, whether he leaves during the junior or senior high schools.

The organization and administration of vocational education is so complex that it is discussed separately.

Lines of Training to be Used in the Basic General Program and How They are to be Used

The day will some time arrive when a subject matter course will be largely unknown. Teaching will largely be performed through projects and problem solving. Such methods as the Dalton or Winnetka plan have much to commend them. Several large school systems, notable Des Moines, Iowa, are radically breaking away from the formal class room recitations and are adopting methods similar to the Dalton or Winnetka plan.

The Dalton and Winnetka plans are based upon individualized instruction through methods which involve the abandonment of the typical class organization. Under the Dalton plan, subject matter is organized into a series of

related "jobs" each of which can be completed in a month's time. Each job consists of 20 units of work, all of which must be completed before another job can be contracted. Freedom is allowed the pupil so that he can continue to work without interruption on problems which are absorbing his attention at any given time. Students are encouraged to work together and once or twice a week socialized group discussions are held.

The Winnetka plan has been largely limited to the elementary grades. The basis of the Winnetka plan is the achievement unit which takes the place of the time unit. When a pupil has completed an "achievement unit" he is given a standardized achievement test, which if passed successfully enables the student to contract for the next achievement unit. A certain number of achievement units are required to cover the minimum essentials of each grade. Socialized activities take the form of class discussions, group projects, special reports, dramatizations, and other forms. Probably no other plan provides an equal opportunity for pupil advancement based upon the individual capacities of the children.

With the trend in education definitely away from the mastery of subject matter courses, we will in time see more and more of individualized problem-solving and project work inaugurated into the school curriculum.

Douglass (1927) aptly puts it, "Admittedly the conception of education as the assimilation of racial inheritance is sound; and the necessity for classifying that culture is unquestionable. The question at issue is whether the nature of the learner is such that some other arrangement would render assimilation more rapid and more certain. Educational theory answers this question in the affirmative, and turns to the project for the solution of the problem of method.xxxxxxxx. So far as we can now see, it may prove desirable to give drill to fix those essentials not sufficiently ingrained by project teaching, and training in subject-matter prerequisite to later projects. It seems inevitable however, that the main line of approach will be through the project.xxxxxxxx. Teaching is no longer regarded merely as broadcasting information and testing to see if it has been assimilated. Students should not only have the information and skill to carry an enterprise to completion; they must also have the disposition to act when directions are removed and restraints lifted.xxxxxxxx. Ideals, attitudes and points of view must be recognized as a part of the curriculum."

Lines of training:-

English

Mathematics

Social Science

Natural Science

Foreign language

Physical development

Avocational and unspecialized practical
activities

Vocational courses

English expression and reading and literature.- Much criticism has been voiced upon the inefficiency of English instruction. More time is given the English training than any other, yet the attainment is unsatisfactory. English teachers have failed to make their teaching functional.

Language is used in the community mainly for three purposes: It is a necessary instrument of thought; it is the instrument of expression; it is the instrument employed in receiving the thoughts of others. Language-power depends upon thought-power. They are twin factors which must grow up together.

Language, then, must be taught as it functions in everyday life in the community. Language study must develop the vocabulary, which necessarily must spring up from vital experience with a multitude of things. Secondly, language study must develop a feeling for the grammatical relationships and sequences in the make-up of the sentence. A third need is thought language (or the thought) must be clear, ordered and sequential. Language study then, must be based upon these objectives.

Reading and literature are usually included with the English courses. How should they function? They should widen the range of one's observations and the range of one's participation in the affairs of men; they should elevate one's thoughts, awaken one's interest, enable one to see with the eyes of those who have seen most clear; they should enable one to live. Our age demands width of vision over all the world and this contact comes mostly through the vision of reading. A piece of literature is a language-window through which one looks out on the human drama. Vital as are these activities in the affairs of men, they have been taught ineffectively. Literature and reading become repulsive to many students due to the way they are taught.

Briefly, the aims of English studies should strive to enable us to think, speak, and write effectively and properly, to read rapidly, to understand and enjoy good reading and literature. If English is to be taught functionally we must realize that all teachers must insist upon proper English being used while the pupils are under the teacher's direction.

Mathematics.- Probably no subject has been so abused in general education as mathematics. The old theory that mathematics (algebra and geometry) disciplines the mind still predominates in most Kansas high schools as algebra

and geometry are required of all students in the majority of schools. The major criticism of mathematics teaching as required in general education in these high schools is the colossal failure to develop habits of quantitative-mindedness. Those who have climbed the steps of algebra and geometry appear to think as vaguely in the field of civics and economics as those who have not had it. The results are disappointing. Teachers have assumed that a study of quantity and of quantitative relations in the abstract will in some magical way give one power to see the quantitative aspects of everything.

Rather, we need to train for mathematics that function in community life, not solely for solving problems but also of seeing things in a quantitative way and to think in quantitative terms. Except for the alphabet of the field, the way to learn mathematics is to use it. Certainly algebra and geometry should not be required in general education. In no field has there been greater changes in the last few years than in the field of mathematics and an effort has been made to offer mathematics that will function in the everyday world.

Social science.— In spite of the fact that social studies have been urged from every side, very little scientific analysis as to the objectives and activities which comprise the social studies has been made. We do

not know what a good citizen is like, nor the activities he must use in order to be a good citizen. In fact there is much disagreement. No study is in so much confusion as the social studies. How much history, civics, sociology, economics, geography, should be included in general education? How should they be taught? Certainly the real motive of history instruction has been largely obscured by the drudgery of remembering names and dates. We need a knowledge of history in order to better gage the future. Never before have we needed more activities to develop the ability to think, feel, and act as a loyal member of a large social group. To what amount and where in the curriculum will the social studies finally occupy is hard to foretell. As we proceed we can more definitely decide what is to be kept and what is to be omitted.

Natural science.— In spite of the importance of science in everyday life, it has not occupied the place in the curriculum that it should have had, neither has it been entirely successful in the high school. The failure has not been due to science as it is, but as it has been taught.

We live in the midst of a bewildering maze of mechanical appliances, one is called upon to deal with innumerable chemical creations, in matters of health we are concerned with bacteriology and biology. These are

examples. It is evident that in a scientific age, citizens as consumers, use science rather abundantly. The width and complexity of the science program should be dictated by the width and nature of man's environment. It calls for a balanced amount of all the science, and not for specialized technique but for vision.

Applied science should be developed in connection with all practical activities which require it for guidance.

In the junior high school there is need for the revelation of science to the adolescent boy and girl in order to promote education and vocational guidance. Many changes are taking place in science teaching especially in the junior high school. Science for the consumer is a very different thing from science for the specialized investigator. Consumers science should occupy an important position in general education.

Foreign language, including Latin.— What amount of Spanish, German, French, Russian, or Japanese does the average citizen use in his community life? If these languages are used every day by the average citizen, then they should become a part of general education. But they are not used, either as an instrument for one's speech, written communication, or leisure, or for getting at the learning of the world. Those who think of foreign

language as developing culture must first analyze in which way these languages are functioning in community living. Certainly culture is not culture unless it is functioning.

No one can recommend Latin or foreign languages because it disciplines the mind unless he admits the theory of faculty psychology a theory discarded by psychologists themselves. Latin enthusiasts claim that Latin functions in intellectual vitality and endurance. The student who sets out to explore any foreign language should do so of his own choice. In the spirit of adventure he should set out with eager anticipations for intellectual experiences.

It is also claimed that Latin helps English to function better because half of the common English words are forms in order to make the living forms function. Beneath this assumption however, is the further one that one can easily learn the meanings of Latin words without tracing their pre-Latin genealogy but one cannot similarly learn the meaning of English words without knowing their pre-English history. The skill we need in handling English prefixes and suffixes, and the knowledge to know the root-form of many words can be more easily learned as elements of the English tongue as it is to learn them as elements of an alien tongue.

The argument that Latin is needed in professional work is irrelevant. If the argument can be proved then it simply means that Latin is needed in the vocation or profession, it presents no reason why it should be a part of general education.

Physical development and maintainance.- Over 65 years ago Herbert Spencer stressed the importance of health education in our public schools. Even today, the average Kansas high school gives no instruction in healthful living. Yet good health is the most important asset a person can have. Why it is that educators have been so slow to include health education in their curriculum is hard to understand.

A few years ago the formal gymnastic training idea swept over the country only to fall into disfavor. Happily today there is a concerted action to include health education in the curriculum of our larger schools. What activities can we teach children that will function in later life? We need to find out what habits, activities, physical behavior, hygienic information is used by people who have been eminently successful in their development and maintainance of physical powers. We need to locate the ways in which the health of the individual tends to go wrong and then to discover what will help to counteract these deficiencies. Our health program must

include something more than physical education twice a week.

Unspecialized practical activities.- Most of the productive work of the world is done through specialized occupations. Much of our food and clothing is prepared by specialists. We live in such an age of specialization that the unspecialized practical activities have been overlooked by educationalists. We have come to think that every nail must be driven by a carpenter, every loose wire must be repaired by the electrician .

Reasons why unspecialized abilities should be developed:

1. Beyond a certain point specialization is not economical. When it is but the work of a minute to replace the electric wire which has jolted loose, it does not pay to use the services of a specialized mechanic.

2. The individual who must depend upon others for every thing is helpless in unforeseen emergencies.

3. Specialized services tend toward inefficiency if they are not supervised by those who have some understanding of the matter.

4. It is not good for man to be too much of a specialist, to be fully developed he should continue throughout life this diversity of experiences in many fields. Unspecialized activities tend to break up the sedentary life of the specialist.

Practical arts for women.- This era of specialization has brought with it the specialization of the activities of the home. How much of family sewing, food preparation, laundry work, gardening, painting, training of children should women do?

One of the deplorable failures of modern education has been the inability to teach girls to cook, sew, care for the home and family life, how to handle budgets, how to dress, and many other activities. It is said that 85 per cent of women eventually become housekeepers. If this is true then many of these home activities should be included under general education but only so far as it relates to the home, as consumers education.

Drawing, design, music, dramatics, art, public speaking, debate. These lines of training cause much confusion as to what extent they should be included in general education. To a certain degree all students should participate in these activities. These activities are needed to help one to develop the worthy use of his leisure time, furthermore they are needed to develop consumers knowledge in various activities. To be able to select clothes, one needs some knowledge of design; to be able to present one's views orally one needs training in public speaking.

Careful analysis need be made to determine to what extent these lines of training should be general and to what extent they should be available for the development of avocational and cultural interests.

VOCATIONAL EDUCATION

Nothing is more appalling than to see the public schools turn out millions of boys and girls into the world possessed with no salable skill or knowledge. General education is important and necessary, but no school can consider its task well done until boys and girls are equipped to make a livelihood.

As long as the theory of mental discipline held sway vocational education was not deemed necessary. "But we can no longer educate individuals upon the fallacious assumption that training acquired in one line of activity can be transferred to a different line," says Payne (1925). Only about 25 per cent of the total number of adolescents in our country are in the public schools. One explanation for this small number is the academic-type curriculum offered in our secondary schools. Since less than 20 per cent of our high school population enters college, it means that the other 80 per cent find very little in the prevailing curriculum which pertains to their life needs and plans. Proctor (1925) says, "The dawning recognition

of this fact has in recent years brought about a marked change in the philosophy of curriculum-making for secondary schools." Miller (1928) says, "There is a growing conviction that is well defined in the public mind that we ought to do something beyond what we have done for the 93 per cent who leave the schools before reaching college age." Payne (1925) says, "Our democracy demands every type of individual can secure that form of education and training which will develop his capacities to the utmost. No individual should be allowed permanently to sever connections with the public school system until he has been placed in possession of some marketable skill or knowledge."

The realization of the importance of vocational training has, during the last decade, lead to a tremendous development of vocation education in our public school system. This movement has been greatly augmented by the passage of the Smith-Hughes Vocational Act which provides federal aid for vocational training. The larger schools have been quickest to fall in line while many of the smaller schools have done nothing. Many of the smaller schools cannot offer vocational work because of their limited facilities.

Vocational education has been defined as any form of education which fits an individual to pursue effectively

and happily a recognized profitable employment. Vocational training is usually thought of as training below college rank. Vocational education divides itself into two major fields - vocational guidance, and vocational training.

Vocational Guidance

No system of vocational training can be complete without vocational guidance. Before we can give a boy vocational training we must be sure that he has the ability and aptitudes to succeed in a given field; furthermore, the boy must know what field he wishes to enter before he can be given training; and before a boy can select a definite field he must have a knowledge of the various conditions peculiar, not only of one field but of all the fields in which the boy may be interested. No boy can decide that he wants to be a carpenter until he has an intimate knowledge of carpentry as an occupation and has experienced some of the actual work that a carpenter does. The same is equally true of any other field that a boy may be thinking of entering for a life work.

Vocational guidance defined.- Vocational guidance then, is "A systematic effort based on knowledge of the occupations and personal acquaintance and study of the individual, to inform, advise, or cooperate with a person

in choosing, preparing for, entering upon, or making progress in his occupation," Brewer (1919).

Vocational guidance is one phase of life guidance. We must remember that in a modern curriculum which centers around the pupil, life guidance is an intergral part. Life guidance includes health guidance, educational guidance, moral guidance, civic guidance, and vocational guidance.

Vocational guidance is a new movement in our civilization made necessary by the complexity and specialization of modern civilization. A guidance system to function must extend from primer to placement and on through job experiences until supervision becomes unnecessary.

A guidance system should make use of standardized intelligence tests, physical and medical reports, school memoranda of former teachers, the advice of parents, social surveys, government and firm reports respecting various industries in the several fields of activity.

The three chief kinds of guidance now being used:

Diagnostic and directive.- The kind of guidance attracting the most attention at the present time is the diagnostic and directive in which the individual and all his capacities, and the environment in which he finds himself, are diagnosed and advice given to him

on the basis of such diagnoses. Intelligence tests, special ability tests and surveys are used to help diagnose the individual. The counselors, in order to advise the individual should have at hand a great deal of classified information concerning the requirements, limitations and possibilities of a wide variety of vocations.

Self-guidance.- This system consists primarily in exposing the individual to a large amount of occupational information which the student can use to assist him in making a choice of a vocation.

Self-discovery.- One of the major functions of the junior high school is exploratory, wherein the pupil by means of self-discovery, tryouts and diversified experiences, will be able to find himself and make his choice of vocation. This has lead to the establishment of various tryout courses in the junior high school. So far these tryout courses have largely been confined to industrial education but undoubtedly tryout courses in other types of vocational education can be included. A guidance program should employ all three types of guidance.

Guidance in elementary grades.- In the elementary grades guidance should be educational. Much occupational information can be given the pupils unconsciously. McCracken and Lamb (1919) have suggested the

organization of occupational information throughout the grades. In the fourth grade the food producing occupations covering production, transportation, and preparation of food products, are stressed. In the fifth grade, the clothing, textile, shoe and other phases of the clothing industry are studied. In the sixth grade the building trades are largely emphasized. This information is imparted to the students in connection with regular school subjects, selected readings, projects, excursions, and occupational films.

Guidance in the junior high school.- Vocational guidance begins in the junior high school and continues on through placement and job experiences. The pupil should understand the functions of the junior high school and know that through this self-discovery period he is expected to make his choice of a vocation. Occupational information which becomes conscious for the first time in the junior high school should be given throughout the junior high school period.

The vocational guidance director must keep a carefully filed record of each pupil as to his mental, physical, and health abilities, his special aptitudes and abilities, his interests and his environment in order that he may advise and assist the pupil to make a choice to which he is fitted and can achieve success. The advisor can be

of much assistance particularly to help pupils refrain from making choices for which they lack the ability or otherwise cannot meet the requirements. While it is true that we should urge pupils with high abilities to seek higher education, let us not forget that the carpenter with high ability can rise to be the contractor, or the farmer with high ability can become a most valuable farm leader. In nearly every occupation there are paths where those who have a deep seated interest and high ability can rise to a position of influence and value. The overcrowded professional field and the need in industry for leaders suggest that more satisfaction may come to one through the channels of industry and agriculture. Psychology teaches us that we learn best and like best those activities for which we have the greatest inherent capacity and ability.

Tryout courses as a method of guidance.- Tryout courses in the junior high school if properly taught suggest many possibilities as an aid for self-discovery. For the most part, tryout courses are largely limited to the industrial field. The Russell-Bonser, the Ettinger, the Gary and the Pittsburg combination plans are the four common types of organization for tryout courses. In the Russell-Bonser plan, there is one general shop with one teacher, equipped for performing operations and carrying

on projects in various vocations such as concrete work, plumbing, woodworking, etc. This type of organization is undoubtedly more suitable for the small community.

It must be remembered that these tryout courses in no way resemble the ordinary manual training course still in vogue. The purpose of these courses is to bring boys in contact with concrete experience and information on conditions and processes encountered in present day occupations, as well as with the materials, tools, and methods of manipulation in the activities represented at the school. The atmosphere of the commercial plant should be stressed. The occupations emphasized are usually mechanical drawing, forging, electrical construction, machine shop practice, woodworking, automobile construction, printing, sheep metal work.

It is generally realized that reliable information is needed with which to judge the industries such as the nature of the work, the qualifications, training, possibilities and remuneration. This information should be obtained in connection with the tryout course. Furthermore, as Edgerton (1922) says, "The number of great type industries and their important processes of production are small to a surprising degree which suggests that these studies should follow type activities."

The value of tryout courses as reported by Edgerton are:

1. Contributing to the general experience, all-round development, and industrial intelligence of the pupils.

2. Aiding in the intelligent selection of industrial occupations.

3. Enriching the school experience of the pupil through concrete situations.

4. Preparing for entrance into industrial vocations in the schools.

A suggested plan for tryout courses for Kansas high schools.-

1. Discover the more common industrial occupations in the community.

2. Convert the manual training shop into a general shop adding what equipment is needed.

3. In the seventh grade those who elect the course will be routed through each of the occupations listed for one period per day. This is known as an exploratory course. The pupil explores the different types of occupations.

4. In the eighth grade a pupil elects one course each semester representing different types of occupations in which he is most interested. These courses

are known as tryout courses. The student "tries out" his choice of vocations.

5. In the ninth grade a pupil pursues for a full year his choice of occupation, known as a pre-vocational course. The pupil does preliminary vocational work along his occupational choice.

6. If he is undecided he goes back to the eighth grade plan.

While one of the chief functions of tryout courses is to permit the student to explore for himself, another important function is to analyze the pupil's behavior and abilities.

Vocational Training

When we, through education and vocational guidance have analyzed the individual and the job, and have enabled the individual to make a desirable choice, we must next train the individual for the occupation he has selected.

"All curricula should be so organized that every student is fitted for some definite activity by the end of high school or before. This activity may be entrance to college or effective entrance to apprenticeship, or practice in some vocation," says Payne (1925). Our present day general curriculum must be replaced by a curriculum consisting of integrating subjects for all, plus group

electives in the vocational or pre-professional fields. Such a curriculum recognizes the important principles of individual difference and definite personnel (job) requirement.

Types of vocational schools.- The curriculum of the future must recognize three kinds of vocational schools.

1. The lower vocational school organized for those who at the close of the compulsory school age are still in the elementary grades or seventh grade, and who are getting ready to drop out. They should be given such training as shall for their ability.

2. The middle vocational school organized for those who intend to go no further than the junior high school or tenth grade. This training will be on a higher level than that in the lower vocational school. The student should be started on his vocational training when it is indicated he intends to leave school in the near future.

3. The upper vocational school, organized for those who complete the senior high school. The training in this school should parallel the integrating subjects in order that the integrating subjects may become more meaningful and functional.

The fact that 70 per cent of the school children never reach the tenth grade indicates that there is a

definite need for the lower and middle vocational schools. A large number in this group represent those who have not the ability to go on while another large group consist of those who for financial reasons cannot go. It is important that this group is trained to do some task well.

We must also remember that the trade preparation and the trade extension classes of our part-time school are an integral part of our educational system for those who are already on the job but seeking further training.

Vocational training in type industries.- There are over 17,000 occupations listed in the census. It is obvious that any school cannot give complete training in each of these occupations. They should not attempt it. However, the problem is not as complicated as it might first appear. As Edgerton (1922) states, "The number of great type industries and their processes of production are small to a surprising degree." It is possible to group a large number of similar occupations together wherein the skill and information are much alike and can be trained in a unit.

The curriculum recommended by the Chanute Survey provides group electives whereby students take training along industrial lines.

THE JUNIOR HIGH SCHOOL

The Junior high school movement is growing in Kansas. It is firmly intrenched in all the first class cities and in a majority of the second class cities. Only a small per cent of the schools in third class cities, however, have adopted the Junior high school.

Table XVIII Junior High Schools in Kansas

Size of school	Total no. schools	6-3-3	6-2-4	Other types
First class cities	26	26	0	0
Second class cities	57	23	31	3
Third class cities	23	11	12	0
Total	106	60	43	3

The 6-3-3 type of organization is far more numerous than any other type. Particularly is this true in the eleven first class cities, where every junior high school is organized on the 6-3-3 plan.

The 6-2-4 type is somewhat more common in the second class cities than the 6-3-3 type. Undoubtedly the reason for this large number of the 6-2-4 school is that the jun-

ior high school is in a state of evolution which will eventually settle into the 6-3-3 plan. Many of the second class cities have not the financial backing to build a new junior building which is probably the major reason for the majority of the 6-2-4 plan at present.

As yet the junior high school has made little headway in the rural high schools. Possibly one of the major factors that has held down the junior high school movement is that a large per cent of the high school students finish in the eight-year country schools. As long as the majority of these students finish the eighth grade in the country schools, there is little incentive to organize a junior high school in spite of its valuable features.

Another important factor is that the enrollment in a majority of these high schools is so small that a junior high school cannot be economically set up.

The tendency of the junior high school movement over the country as a whole is decidedly for the 6-3-3 type of organization that little needs to be said to support it. All the first class cities of Kansas have accepted the three-year junior high school. One of the major purposes of the junior high school is to take care of the adolescent child. A two year period is too short to include the period of adolescence. Douglass (1927), "The 6-2-4 division is to be regarded as merely a transitional stage. The 6-3-3

plan has practical national acceptance among public school superintendents".

The Aims and the Functions of the Junior High

The beginning of the junior high school movement can be traced back to 1888 when President Elliot of Harvard took a position that secondary education should dip down to include the last two years of the elementary school in order to gain time and to increase the efficiency of instruction. After much discussion and experimentation, the first junior high schools emerged shortly before 1910. Since 1916 the junior high school has spread rapidly. "We may safely say that the nation is committed to the policy of reorganizing its schools upon the junior high school basis". Douglass. Briggs (1920) after a long study has summed up the function of the junior high school as follows: Clearly the intermediate period of education shall attempt five things.

First, to continue and in a diminishing degree, common integrating education.

Second, to ascertain and reasonably to satisfy, pupils important immediate and future needs.

Third, to explore by means of material in itself worth while, the interest, aptitudes and capacities of pupils.

Fourth, to reveal to them the possibilities in the major fields of learning.

Fifth, to start each pupil on the career, which as a result of the exploratory courses, he, his parents and the school most likely is to profit him and the state.

Davis (1924) commenting on Briggs' statement of function, thinks that the third function is the most important. Proctor (1925) has listed four functions of the junior high school:

1. Adjustive. Adjust, through guidance, the content and methods of teaching to the abilities of the children,

2. Exploratory. In addition to utilizing tests, experience will be provided for the actual trying out of the abilities, in the various occupational fields and recreational and avocational activities.

3. Preparatory, For those who will complete their in-school education with the junior high school, forms of basic occupational training will be provided.

4. Integrating. This function provides for the continuance of training in those common fields of experience.

One of the chief recognized functions of the junior high school is to provide experiences which the pupil explores to determine his interests, aptitudes and capacities. Out of this experience should come the choice of avocational and recreational interests, and what is more important, the choice one's vocation will be. It is difficult to see how the function of exploration can success-

fully operate without an organized guidance system.

The value of an early choice of a vocation is recognized; it motivates the interests of the student, it relates the experiences with what he expects to do in the future.

A large per cent of our population including college graduates, go thru life without ever having known just what they wanted to do. A well organized guidance system should be able to assist students to make an early choice of vocation. Certainly a scientific guidance system should be able to assist a person in making a successful choice of a vocation than the student unguided and ignorant, can make for himself.

To what extent are the junior high schools of Kansas functioning as indicated by Briggs or Proctor? This question is not a part of this study; however, the writer is acquainted with several junior high schools that are such in name only. Many junior high schools offers a narrow curriculum with practically no electives. The junior high school offers wonderful educational opportunities which school administrators should be eager to grasp.

Advantages Claimed for the Junior High

1. It offers a program of studies decidedly greater in scope and richness of content than that of the tradition-

al elementary school; it avoids the repetition of studies characterized by the 8-4 plan.

2. It is a separate school which can deal directly with the peculiarities of a stage in the life of the adolescent.

3. The adolescence period is one characterized by an awakened interest, hero worship, high idealism, and above all, the development of the life-career motive; hence the psychological period for offering an enriched curriculum, whereby the student can explore his interests, aptitudes and abilities.

4. Provides the opportunity for testing out individual aptitudes in academic, prevocational and vocational work.

5. Provides departmental teaching and promotion by subjects.

6. Provides a "bridge" over the gap existing between the elementary grades and senior high school.

7. Increases the holding power of the schools by making the work more interesting and recognizing the principle of individual difference.

If, as Douglass says, the nation is committed to the policy of reorganizing its schools upon the junior high school basis, a serious educational problem confronts us, the universal adoption of the junior high school organization through out Kansas.

THE HIGH SCHOOL OF THE FUTURE

Tables IX to XIV indicate the fact that the curricula in the great majority of Kansas high schools do not embody modern educational aims. There is no guidance in their program. The change in the conception of education which has occurred during the last two decades, demands a reorganization of the curriculum which as yet is not evidenced in many Kansas high schools.

Not only has the conception of secondary education expanded during the last quarter of a century from a four-year to a six-year institution, but its curriculum is being revised and its objectives are being restated in terms of new social needs. Everywhere there is a challenging of old aims and purposes and objectives, and a marked tendency to reshape the school to make of it an instrument expressive of a larger democracy. In particular has the center of gravity in instruction been shifted from subject-matter to the pupil and his needs.

Although this reorganization movement has been too recent to permit the crystalization of all aims, purposes and functions of secondary education, still, the major movements have become so well defined, that we should unite our effort in attempting to reorganize secondary education in Kansas

along modern lines.

We must recognize the fact that our ideas of education are radically different from those of a quarter of a century ago. Furthermore, the enrollment in our high schools has expanded by leaps and bounds. No longer is college preparation the major goal of the students. In Kansas, approximately only one freshman out of six will enter college and less will finish. What are we offering for the five who never enter college? The only basis for complete emphasis upon college-preparatory subjects is the theory of formal discipline-a theory which all leading educationlists have abandoned.

In many typical Kansas communities much Latin and higher Mathematics is required of all students, and yet no real Agricultural or Homemaking courses are offered. Proctor voices his opinion: "It is our business to seek to adjust our program of study and our method of teaching to the peculiar needs of all the children who enter our schools so that each one has had a chance to become intelligent to the full extent of his nature endowment".

Roemer(1922) states, "Modern people are demanding that high schools be reorganized to meet the needs of modern times and that the community needs should color the activities of the high school. The traditional offering of a fixed high school course largely to meet college requirements

should no longer be our aim. College Preparatory should be only one of the functions". The State Board of Education of Kansas has recognized this new need and has set up new requirements which require definitely a major in English and a minor in Social Science. The other major and minor, and the free electives are permitted to be chosen by the pupils of the school.

Even in the first class cities the schools have not as yet, fully adopted their curriculum to modern day objectives. Many still retain the old traditional curriculum; several are offering the selection of courses upon the basis of majors and minors which by itself certainly does not offer guidance. However, it is the problem of the reorganization of the small school system, which in the main confronts us.

The people of Kansas democratically realize that certain minimum essentials of secondary education should be provided for all. These minimum essentials include health activities, social and civic activities, avocation activities and vocational training. In small schools the limited enrollment makes the cost prohibitive to undertake a program which will provide these essentials. For example, how many of the small schools can economically provide a competent health instructor and provide physical examinations.

The Reorganization of the Small High School

The Kansas Rural High School law provided the opportunity for numerous small high schools to spring up over the state. These small schools have made possible a high school training to many for whom otherwise it would have been improbable. However this training has been limited in extent.

Is there not some method whereby we can maintain a school system wherein the children will remain at home and at the same time provide a school unit of sufficient size to carry on a full program? The writer believes there is such a method. It is the disorganizing of the smaller schools and transporting the students from their high school to the larger unit which shall be composed of several smaller units. The coming of good roads and the automobile have shortened distances tremendously.

High cost of small schools.- It has long been known that the educational cost per pupil is much greater in the small school than in the larger units in spite of the fact that the larger schools have far better equipment and better teachers. Table XVI showed that the enrollment per class was nine in schools below 50 in size while second class cities averaged 24 students per class. Wheat (1924) from a study on school costs concludes; " Small size of classes

maybe taken invariably to indicate that a community is paying a high price for instruction; conversely, large classes indicate that a community is buying instruction at low rates." Smart (1927) in a study made among schools in north east Kansas found that the pupil cost per year in small schools was more than double that of larger high schools and recommended the discontinuance of small expensive high schools. In a survey made in Brown County he showed that the higher pupil cost in the smaller high school was sufficient to pay for their transportation to Hiawatha and at the same time offer the students much better educational opportunities. The small high school should be merged into larger units.

It must be made clear that this plan does not include consolidation of the elementary grades. Rather, it includes organization of a junior and senior high school. The busses would pick up these students at the site of the old high school or along the main road which the bus will travel. Under such a plan the transportation charges will be relatively low. The pupils under such an arrangement can stay at home and at the same time obtain superior educational facilities. Eventually such a plan would probably culminate in the consolidation of the grades. The result will be an efficient, economical school unit.

What should be the minimum size school.--There are

three factors which will influence what should be the minimum size school;

1. The density of the population
2. The valuation of the district
3. The pupil enrollment in the school.

While all three factors must necessarily be considered, the chief determining factor is the pupil enrollment in the school (also number of children in the country). It is hard to conceive of how a senior high school (3 years) with an enrollment below 100 can efficiently operate. Certainly the minimum cannot be much less than 100. When the enrollment exceeds 100 the size of the classes reach the maximum, and there are sufficient students to warrant specialized offerings. By alternating subjects, there is no reason why a school with an enrollment of 150 in the junior work, and 100 in the senior high school cannot efficiently provide an adequate educational program. However, schools with an enrollment in the senior high school between 200 and 300 would be more desirable wherever possible.

Location of Reorganized Units.-Where should such schools be located? Any plan to reorganize the school system must be carefully made as the results of such moves are long lasting. Many small communities feel that the school is the center of the community; likewise many large towns willingly are selfish enough to seek advantages which

are not for the best. Fairness to all is important.

It is always difficult to foretell the future. In a majority of small communities the population is not increasing and in many it is declining. Good roads and automobiles will undoubtedly result in further decline. Therefore a school located in a town of 100-200 is of little value. Above all we must remember that the move is being made for the benefit of the rural people; they are the ones who are to profit by such a reorganization. Large cities tend to kill the rural atmosphere. Above all we must preserve that rural community spirit. For this reason it seems that it would seldom be advisable to locate a school unit in a city with a population above 2500.

Wherever such a school is organized it should be organized upon the principle that it is to become the community center for the community that it serves. An efficient school, properly functioning, can serve its patrons wonderfully in a social way. It is difficult to estimate what should be the maximum area included within the district. Arbitrarily, it seems that a radius of ten miles from the center should be the maximum extent to the school and community boundary.

It is important that under this plan, that the taxes be distributed equally. It is not right for the rural taxpayer to pay two-thirds of the taxes if they furnish but one-third the enrollment. The tax rate should be propor-

tioned upon the enrollment within the city limits compared with those enrolled from outside the city limits. Furthermore, the land owner living eight miles from the school should not pay quite the same rate for the support of the schools as those living nearby.

The school system existing in Kansas today are so varied that progress is difficult. We have rural high schools, city high schools, Barnes high schools, community high schools and other kinds. The State School Code Commission appointed in 1925 recognized the situation and recommended that a plan be adopted whereby school districts can be reorganized and be put under one system except for the one-room schools. It will be a mark of progress if Kansas will adopt their recommendations as it will permit our secondary schools to be organized into larger units and thereby make possible the enrichment of the school curriculum.

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