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A COMPARISON OF SCHOLARSHIP RATINGS OF HIGH SCHOOL
GRADUATES WHO PARTICIPATE AND THOSE WHO DO NOT
PARTICIPATE IN EXTRA-CURRICULAR
ACTIVITIES

Being

A Thesis presented to the Graduate Faculty
of The Fort Hays Kansas State College in partial
fulfillment of the requirements for the Degree of
Master of Science.

by

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Wartburg College, 1926

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CHAPTER ONE

INTRODUCTION

' The ultimate criteria for judging the value of education lie in their effect upon individual and social development. The curriculum for producing this value has varied from time to time. Differences of opinion as to what constitutes a desirable program of studies best adapted to both the individual and society often prevail. This program of studies, the course to be run, has varied from one designated as purely mental, physical, or social, to one that is inclusive of all of these. For convenience we now classify all the activities of the school into two groups: the curricular, that is the formal subjects; and the extra-curricular, by which is meant the activities in which pupils participate in addition to the subject matter fields. The contention is often made that extra-curricular activities hinder the scholastic attainment of the participant. The writer of this thesis became interested in discovering, if possible, the relation between scholarship ratings of high school graduates who participate and those who do not participate in extra-curricular activities.

The specific problem of this thesis is, "A COMPARISON OF SCHOLARSHIP RATINGS OF HIGH SCHOOL GRADUATES WHO PARTICIPATE AND THOSE WHO DO NOT PARTICIPATE IN EXTRA-CURRICULAR ACTIVITIES." The scope of extra-curricular activities varies with the size of the school and its equipment. It is therefore necessary in this study to limit extra-curricular activities to these particulars: athletics, music, clubs, debate, and dramatics, in order to have a definite basis for comparison.

PREVIOUS STUDIES IN THE FIELD

Much material dealing with extra-curricular activities is available, although nothing seems to have been written on this subject pertaining to the particular geographic area; namely, high schools in Southwest Kansas, with which this thesis deals. Comparisons of athletic groups with other groups in scholarship and mental ability are fairly numerous, but little available material can be found regarding similar investigation of other extra-curricular groups. This thesis differs also from others in this field in its treatment of the data; namely, graduating classes over a period of five years classified as participating or non-participating in athletics, music, debate, dramatics, and clubs.

Several studies which are somewhat related to this particular thesis were made by Crawford, Mortenson, and Tremper.

The study by Crawford was made from the data secured from three high schools of Illinois. The general intelligence tests were used to obtain the I Q for each student. For the sake of comparison the subjects were grouped into four major and one minor division. (1) All non-participating boys versus participating boys. (2) All non-participating girls versus all participating girls. (3) Participating girls during participating semesters versus the same girls during non-participating semesters. (4) Participating boys during participating semesters versus the same boys during their non-participating semesters. One minor comparison was made with a select group of non-participating and participating girls in an effort to get a more homogeneous group in respect to general intelligence.

The results of these comparisons indicate a very slight superiority in scholarship for the participating group. The difference, however, is too small to be significant in concluding that participation in extra-classroom activities is the major cause of the excess. The correlation between ability and scholarship is also slightly in favor of the par-

ticipating group.¹

The general purpose of the study by Mortenson was to discover if there was a difference in mental ability and in achievement between the participants and the non-participants in extra-curricular activities. The information assembled gave the following data: chronological age, sex, average school mark, school year, Pressey Classification score, and indicates participation in forensics, school publications, music, dramatics, and athletics. Evidence taken from every phase of the study indicated that the participants in extra-curricular activities were superior in achievement and mental ability to the non-participants.²

In the study by Tremper the students are divided into two groups, namely, those who have not participated in any major extra-curricular activity since entering high school and those who have participated at least one semester or more since entering high school.

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1. Crawford, C. E. The Effect of Participation in Extra-Classroom Activities on Scholarship of High School Pupils. Masters Thesis, 1929, University of Illinois.
 2. Mortensen, A. H. Scholarship of Participating and Non-Participating Students in Extra-Curricular Activities in Certain Secondary Schools of South Dakota. Masters Thesis, 1936, University of Colorado.

The scholarship status of each student is determined by taking the arithmetic mean of the final marks of all regular subjects for each semester. The mean marks for the different semesters were then combined and the arithmetic mean determined in the same manner. The general intelligence of the students was determined by the use of the Terman Group Test of the Mental Ability.

In general, the conclusion in this study was that participating in extra-curricular activities does not affect the curricular performance to any material extent, and such effects as are discernable even seem to be favorable to participation.¹

METHOD OF PROCEDURE

This study is confined to an arbitrary geographical area within a reasonable distance of Holcomb, Kansas, at which place the writer is employed as a high school teacher, and covers a period of five years, from 1932 to 1936, a period of years during which the records were available and complete.

The data for this study were obtained directly from the school records in the office of the princi-

1. Tremper, Geo. N. The Effect of Participation in Extra-Curricular Activities on the Scholarship of the Participant. Masters Thesis, 1928, University of Illinois.

pal of the respective high schools. The writer in person and by letter asked for and was kindly granted access to the school records by the principals of the high schools. A personal investigation of each graduate's record of grades and participation in activities was made and the data tabulated. The facts thus gathered are the foundation for the comparison in this study.

In the schools in which records of extra-curricular participation of each student were not complete, the writer consulted the school annuals, the principal, and the teachers in the departments concerned. The information obtained is as complete as possible under the systems of recording used in these schools. Most of the schools concerned have a good record of student participation. The school marks, which are the basis for determining each student's scholastic achievement, represent the scholarship rating of each student as interpreted by the individual instructors.

The data for this thesis were gathered through the use of a questionnaire. The information reveals the scholarship, sex, and the extra-curricular participation of each graduate in football, basketball, track, baseball, softball, orchestra, band, glee club, chorus, debate, dramatics, and clubs.

This thesis is so organized as to make a comparison of the scholastic achievement of participating and non-participating students in extra-curricular activities according to graduating classes, sex, and number of activities entered. For the purpose of comparison the activities are divided into three groups: group I, including football, basketball, track, baseball, and softball; group II, including orchestra, band, glee club, and chorus; group III, including debate, dramatics, and clubs.

DEFINITION OF TERMS

In order that the discussion may be more clear, it seems proper to define the following terms used in this study:

1. The students participating in extra-curricular activities will be called participants, and those not participating will be called non-participants.

2. The term class will be used to designate the graduates in a certain year; namely, class of 1936, meaning the graduates in the year 1936.

3. The scholastic rating will be known as the grade made by the pupil; namely, the student's algebra grade was B, meaning his scholastic rating in this subject was B.

Schools differ in grading methods; therefore, in order to reduce the grades to some uniform unit,

the grades are given the following values: 1, 95-100; 2, 90-94; 3, 85-89; 4, 80-84; and 5, 75-79. In order to have, as far as possible, a fair method of comparison the grading systems of the various schools were studied and the grades reduced to a common unit of value. Wherever a variation occurred a fair compromise was attempted. The whole procedure was an attempt to establish a common ground which would make possible a good analysis and comparison. For each school in this study, the grades, whatever system was used, were interpreted in percent according to the percentage value given the number or letter by each school.

CHAPTER II

A COMPARISON OF PARTICIPATING AND NON-PARTICIPATING STUDENTS

In chapter II the data were obtained from the school records of seven high schools in Kansas, namely, Garden City, Sublette, Syracuse, Lakin, Holcomb, Deerfield, Pierceville; and comprise the scholastic and extra-curricular activity records of 842 graduates for a five-year period, from 1932 to 1936.

According to the standards set by the Kansas State Board of Education, the high schools are classified into A, B, and C groups. The schools used in this study, with a statement of their approximate annual enrollment, are representative of each of these groups, which include Class A: Garden City, 328; Sublette, 107; Syracuse, 135; Lakin, 83; Holcomb, 80; Class B: Deerfield, 70; Class C: Pierceville, 35.

This study disclosed that within this five-year period Garden City graduated 377 students, Sublette, 94, Syracuse 131, Lakin 101, Holcomb 74, Deerfield 34, and Pierceville 31. The total number of graduates from all schools for the respective years were: 1932, 167; 1933, 189; 1934, 135; 1935, 191; and 1936, 160.

TABLE I. SCHOOLS AND THE GRADUATES BY YEARS

School	Enroll- ment	1932	1933	1934	1935	1936	'32-'36
Holcomb	80	18	18	10	14	14	74
Lakin	83	18	25	19	22	17	101
Sublette	107	18	19	16	26	15	94
Syracuse	135	26	38	13	23	31	131
Deerfield	70	6	5	5	7	11	34
Pierceville	35	8	3	9	4	7	31
Garden City	328	72	81	64	95	65	377
Total	838	166	189	136	191	160	842

Note: Table I reads from left to right: Holcomb, with an enrollment of 80, graduated 18 students in 1932, 18 in 1933, 10 in 1934, 14 in 1935, 14 in 1936; a total of 74 during the five-year period.

A. Total Participation in Extra-Curricular Activities

The number of graduates during the five-year period from 1932-1936 was 842. Of this number 696 were participants and 146 non-participants. Among the boys there were 321 participants and 64 non-participants. The girls had 375 participants as compared to 82 non-participants. The large number of participants can be attributed to the size of the schools concerned in this study.

In the athletic activities 444 students participated. Basketball heads the list in this group with 223 participants, which is 26.48 percent of the students included in this study; football ranks second with 106, which is 12.59 percent. The difference in amount of participation can be attributed, in part, to the following factors. All schools sponsored basketball and in two schools the girls participated in this sport, while only three schools sponsored football. Track, baseball, and softball were sponsored somewhat irregularly because of the lack of interest and weather conditions in Southwest Kansas. In some schools these activities were dropped from the program and in others initiated during the time of this study.

The music group shows the largest number of participants with 995. Glee club and chorus are leaders

in this group with 478 and 300 participants respectively. Orchestra and band participation requires a certain amount of financial cost and a period of training which would bar some students from these activities. The order of rank and percentage in this music group is as follows: Glee club, 56.89 percent; chorus, 35.62; orchestra, 13.90; band, 11.98. Glee club and chorus are sponsored by all schools while orchestra and band are not. Several of the schools sponsor either orchestra or band but not both.

Dramatics and clubs are participated in more than is usually thought. Junior and senior plays in the smaller schools give an opportunity for dramatic participation to a large number of members in these classes. Debate is not sponsored by all the schools and is in itself limited to a small number of participants. The order of rank and percentage of participation is: Dramatics, 34.61 percent; clubs, 26.60; and debate, 4.63.

TABLE II. TOTAL PARTICIPATION IN EXTRA-CURRICULAR
ACTIVITIES

Activities	Participants		Non-Participants	
	Number	Percent	Number	Percent
Football	106	12.59	736	87.41
Basketball	223	26.48	619	73.52
Track	19	2.26	823	97.74
Baseball	83	9.86	759	90.14
Softball	13	1.54	829	98.46
Total	444			
Orchestra	117	13.90	725	86.10
Band	100	11.88	742	88.12
Glee Club	478	56.89	364	43.11
Chorus	300	35.62	542	64.38
Total	995			
Debate	39	4.63	803	95.37
Dramatics	292	34.61	550	65.39
Clubs	224	26.60	618	73.40
Total	555			

Note: Table II reads from left to right: Football, 106 participants, 12.59 percent of all students; 736 non-participants, 87.41 percent.

B. Scholarship of Participants and Non-Participants
According to Graduating Classes as Indicated by
Grades

This thesis is concerned with the graduates in the classes of 1932, 1933, 1934, 1935, and 1936. All of the students were graduated from high school, therefore no average grade is a failure. For the purpose of comparison the grades are ranked in five groups, namely, 1, including average grades 95-100; 2, 90-94; 3, 85-89; 4, 80-84; 5, 75-79. The average grade of each student, for the four-year period, has been computed from his scholastic record, and ranked in one of the above groups.

In order to discover, if possible, any variation in the results of participation in different groups of students, each graduating class is surveyed separately.

The scholastic achievement of the class of 1932 is indicated in Tables III to VII. This class consists of 146 participants and 21 non-participants. The mean of the grades of the participants is 3.00 as compared with the mean of 2.9 for the non-participants. A comparison of these means shows a slight advantage in favor of the non-participating group.

Table IV indicates the scholastic achievements of

participants in athletics. The means of the grades of basketball participants are superior to baseball, football, or track participants. The mean for each athletic activity is as follows: basketball, 2.95; baseball, 3.33; football, 3.71; track, 3.86. Softball was not sponsored during the time of this class by any of the schools. Track was sponsored by only two schools. The mean of the basketball participants is superior to the mean of the participating group; but it is slightly inferior to the mean of the non-participating group.

The music group has the largest number of participants in this class. The mean of the grades of orchestra and band participants are superior to the mean of the participants in glee club and chorus. The participants in orchestra and band have means superior to both the participant and the non-participant groups. The participants in chorus are inferior in scholastic achievement to the participants in the other activities of this group. It is interesting to note that 106 students participated in glee club as compared with 19 in orchestra and 16 in band.

Debate, clubs, and dramatic participants as indicated by Table VI rank high in scholastic achievement. Debate, with only 9 participants has a mean of 2.33; clubs have a mean of 2.88; and dramatics, 2.92. Both debate and club participants are superior in scholastic achievement to the participating and non-participating group.

TABLE III. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS IN CLASS OF 1932

Grades	Participants		Non-Participants	
	Number	Percent	Number	Percent
1	11	7.53	1	4.76
2	35	23.97	6	28.57
3	56	38.36	9	42.86
4	30	20.55	4	19.05
5	14	9.59	1	4.76
Total	146		21	
Mean	3.00		2.91	

Note: Table III reads from left to right: Grade 1 was made by 11 participants, 7.53 percent of all participating students; and 1 non-participant, 4.76 percent of all non-participating students.

TABLE IV. GRADES OF PARTICIPANTS IN ATHLETICS IN
CLASS OF 1932

Grade	Football		Basketball		Track		Baseball		Softball	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	0	.00	1	2.38	0	.00	0	.00	0	.00
2	3	21.43	10	23.81	0	.00	2	13.33	0	.00
3	2	14.29	23	54.76	3	42.86	7	46.67	0	.00
4	5	35.71	6	14.29	2	28.57	5	33.33	0	.00
5	4	28.57	2	4.76	2	28.57	1	6.67	0	.00
Total	14		42		7		15		0	
Mean	3.71		2.95		3.86		3.33		0.00	

Note: Table IV reads from left to right: Grade 1 includes no football participants; 1 basketball participant, 2.38 percent; no track, no baseball, and no softball participants.

TABLE V. GRADES OF PARTICIPANTS IN MUSIC IN CLASS
OF 1932

Grades	Orchestra		Band		Glee Club		Chorus	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	3	15.80	1	6.25	7	6.61	3	5.26
2	7	36.84	6	37.50	24	22.65	8	14.04
3	7	36.84	6	37.50	45	42.43	23	40.35
4	1	5.26	3	18.75	18	16.98	14	24.56
5	1	5.26	0	.00	12	11.33	9	15.79
Total	19		16		106		57	
Mean	2.47		2.69		3.04		3.32	

Note: Table V reads from left to right: Grade 1 includes 3 orchestra participants, which is 15.8 percent; 1 band, 6.25; 7 glee club, 6.61; and 3 chorus, 5.26.

TABLE VI. GRADES OF PARTICIPANTS IN DEBATE, DRAMATICS,
AND CLUBS IN CLASS OF 1932

Grades	Debate		Dramatics		Clubs	
	Number	Percent	Number	Percent	Number	Percent
1	1	11.12	3	5.00	7	9.59
2	4	44.44	15	25.00	21	28.77
3	4	44.44	28	46.67	22	30.14
4	0	.00	12	20.00	20	27.39
5	0	.00	2	3.33	3	4.11
Total	9		60		73	
Mean	2.33		2.92		2.88	

Note: Table VI reads from left to right: Students making grade 1 includes 1 debate participant, 11.12 percent; 3 dramatic participants, 5.00; and 7 club participants, 9.59 percent.

TABLE VII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS
ACCORDING TO ACTIVITIES IN CLASS OF 1932

Activities	Participants		Non-Participants	
	Number	Grade	Number	Grade
Football	14	3.71	153	3.00
Basketball	42	2.95	125	3.01
Track	7	3.86	160	2.96
Baseball	15	3.33	152	2.96
Softball	0	.00	0	.00
Total	78		590	
Orchestra	19	2.47	148	3.06
Band	16	2.69	151	3.03
Glee Club	106	3.04	61	2.92
Chorus	57	3.32	110	2.83
Total	198		470	
Debate	9	2.33	158	3.03
Dramatics	60	2.92	107	3.04
Clubs	73	2.88	94	3.09
Total	142		359	

Note: Table VII reads from left to right: Football includes 14 participants whose average grade is 3.71; 153 non-participants with an average grade of 3.00.

As indicated in Table VIII, the mean for the participating group in the class of 1933 is 3.01 as compared with 3.13 for the non-participating group. The difference in scholastic achievement between these groups is in favor of the participants by .12.

In the athletic group, as shown by Tables IX and XII, basketball participants are superior in scholastic achievement to baseball and football. There are no participants in softball or track in this class. The mean of all athletic participants is below the means for both the participating and the non-participating groups.

The music group, as indicated in Tables X and XII, has 225 participants as compared with 98 in athletics and 122 in debate, dramatics, and clubs. The mean of participants in orchestra is 2.83, which is superior to both the participant and non-participant groups. The ranking of the remaining groups in music is as follows: glee club, 3.05; chorus, 3.24; band, 3.59. Glee club, which has the largest number of participants ranks above the non-participating group.

Tables XI and XII indicate that the scholastic achievement of participants in debate, dramatics, and clubs are superior to the participating and the non-participating groups. The mean of the participants in debate is 2.18 as compared with 3.13 for non-participants.

TABLE VIII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS IN CLASS OF 1933

Grades	Participants		Non-Participants	
	Number	Percent	Number	Percent
1	6	3.95	0	.00
2	37	24.34	9	24.32
3	61	40.13	17	45.95
4	33	21.91	8	21.62
5	15	9.87	3	8.11
Total	152		37	
Mean	3.01		3.13	

Note: Table VIII reads from left to right: Students making grade 1 includes 6 participants, or 3.95 percent; and no non-participants.

TABLE IX. GRADES OF PARTICIPANTS IN ATHLETICS IN
CLASS OF 1933

Grades	Football		Basketball		Track		Baseball		Softball	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	0	.00	2	4.17	0	.00	0	.00	0	.00
2	1	3.57	6	12.50	0	.00	2	9.09	0	.00
3	13	46.43	26	54.17	0	.00	14	63.63	0	.00
4	6	21.43	11	22.91	0	.00	3	13.64	0	.00
5	8	28.57	3	16.25	0	.00	3	13.64	0	.00
Total	28		48		0		22		0	
Mean	3.75		3.15		0.00		3.32		0.00	

Note: Table IX reads from left to right: Grade 1 includes no football participants, 2 basketball participants or 4.17 percent, no track, no baseball, and no softball participants.

TABLE X. GRADES OF PARTICIPANTS IN MUSIC IN CLASS
OF 1933

Grades	Orchestra		Band		Glee Club		Chorus	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	2	6.90	1	3.70	4	3.74	3	4.84
2	9	31.03	4	14.81	29	27.10	13	20.97
3	12	41.38	7	25.93	40	37.38	21	33.87
4	4	13.79	8	29.63	25	23.37	16	25.81
5	2	6.90	7	25.93	9	8.41	9	14.51
Total	29		27		107		62	
Mean	2.83		3.59		3.05		3.24	

Note: Table X reads from left to right: Grade 1 was made by 2 orchestra participants, 6.9 percent; 1 band participant, 3.7 percent; 4 glee club participants, 3.74 percent; and 3 chorus participants, 4.84 percent.

TABLE XI. GRADES OF PARTICIPANTS IN DEBATE, DRAMATICS,
AND CLUBS IN CLASS OF 1933

Grades	Debate		Dramatics		Clubs	
	Number	Percent	Number	Percent	Number	Percent
1	1	9.09	3	4.76	5	10.42
2	7	63.64	14	22.22	17	35.42
3	3	27.27	31	49.22	12	25.00
4	0	.00	9	14.28	11	22.91
5	0	.00	6	9.52	3	6.25
Total	11		63		48	
Mean	2.18		3.01		2.79	

Note: Table XI reads from left to right: Grade 1 includes 1 debate participant, 9.09 percent; 3 dramatics participants, 4.76 percent, and 5 club participants, 10.42 percent.

TABLE XII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS ACCORDING TO ACTIVITIES IN CLASS OF 1933

Activities	Participants		Non-Participants	
	Number	Grade	Number	Grade
Football	28	3.75	161	2.99
Basketball	48	3.15	141	3.08
Track	0	.00	0	.00
Baseball	22	3.32	167	3.07
Softball	0	.00	0	.00
Total	98			
Orchestra	29	2.83	160	3.15
Band	27	3.59	162	3.02
Glee Club	107	3.05	82	3.16
Chorus	62	3.24	127	3.03
Total	225			
Debate	11	2.18	178	3.16
Dramatics	63	3.01	126	3.11
Clubs	48	2.79	141	3.21
Total	122			

Note: Table XII reads from left to right: football includes 28 participants whose average grade is 3.75, and 161 non-participants whose average grade is 2.99.

The class of 1934, as shown in Tables XIII - XVII, indicates a slightly higher mean for participants than for non-participants, namely, 3.26 to 3.31. Although the mean for the participants in this class is only higher by .05 as compared with .12 for the class of 1933, it, nevertheless indicates a tendency in favor of the participants. In the athletic group, Tables XIV and XVII, the baseball and basketball participants rank higher in achievement than either the total participants or non-participants. It is interesting to note that the football participants in this class as in the classes of 1932 and 1933 have a much lower mean than the non-participating students.

Tables XV and XVII show the mean grade of achievement in music activities as follows: glee club, 2.94; chorus, 3.02; orchestra, 3.13; band, 3.56. The mean of the orchestra participants, although higher than the mean for the total participants, is lower than the mean of the glee club participants. In the classes of 1932 and 1933 the mean of orchestra participants was higher than the mean of any activity in the music group. The band participants rank lower than the non-participating students. As indicated in Tables XVI - XVII the mean grade of participants in debate, dramatics, and clubs, is superior to the mean of any

other group. The mean grade of debate participants is 1.60 as compared with the mean of 3.26 for all participants and 3.31 for non-participants. Dramatic and club participants also have a considerably higher mean than other participant and non-participant groups. It is evident that there is a tendency in this class toward higher achievement among participants than non-participants.

TABLE XIII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS IN CLASS OF 1934

Grades	Participants		Non-Participants	
	Number	Percent	Number	Percent
1	6	5.50	1	3.85
2	29	26.61	4	15.38
3	40	36.70	10	38.46
4	25	22.94	8	30.77
5	9	8.25	3	11.54
Total	109		26	
Mean	3.26		3.31	

Note: Table XIII reads from left to right: Those making grade 1 includes 6 participants, 5.5 percent; and 1 non-participant, 3.85 percent.

TABLE XIV. GRADES OF PARTICIPANTS IN ATHLETICS
IN CLASS OF 1934

Grades	Football		Basketball		Track		Baseball		Softball	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	1	6.25	1	3.13	0	.00	0	.00	0	.00
2	2	12.50	10	31.25	0	.00	3	27.27	0	.00
3	5	31.25	12	37.50	0	.00	6	54.55	0	.00
4	6	37.50	7	21.87	0	.00	2	18.18	0	.00
5	2	12.50	2	6.25	0	.00	0	.00	0	.00
Total	16		32		0		11		0	
Mean	3.38		2.97		0.00		2.91		0.00	

Note: Table XIV reads from left to right: Grade 1 was made by 1 football participant, 6.25 percent; 1 basketball participant, 3.13 percent; no track, no baseball and no softball participants.

TABLE XV. GRADES OF PARTICIPANTS IN MUSIC IN CLASS
OF 1934

Grades	Orchestra		Band		Glee Club		Chorus	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	0	.00	0	.00	4	5.88	1	2.38
2	5	31.25	3	33.33	22	32.35	13	30.95
3	7	43.75	1	11.11	21	30.88	15	35.72
4	1	6.25	2	22.23	16	23.54	10	23.81
5	3	18.75	3	33.33	5	7.35	3	7.14
Total	16		9		68		42	
Mean	3.13		3.56		2.94		3.10	

Note: Grade 1 includes no orchestra and no band participants; 4 glee club participants, 5.88 percent; and 1 chorus participant, 2.38 percent.

TABLE XVI. GRADES OF PARTICIPANTS IN DEBATE, DRAMATICS,
AND CLUBS IN CLASS OF 1934

Grades	Debate		Dramatics		Clubs	
	Number	Percent	Number	Percent	Number	Percent
1	2	40.00	5	10.87	2	5.88
2	3	60.00	19	41.30	13	38.24
3	0	.00	14	30.44	9	26.47
4	0	.00	8	17.39	8	23.53
5	0	.00	0	.00	2	5.88
Total	5		46		34	
Mean	1.60		2.54		2.85	

Note: Table XVI reads from left to right: Grade 1 was made by 2 debate participants, 40 percent; 5 dramatic participants, 10.87 percent; and by 2 club participants, 5.88 percent.

TABLE XVII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS ACCORDING TO ACTIVITIES IN CLASS OF 1934

Activities	Participants		Non-Participants	
	Number	Grade	Number	Grade
Football	16	3.38	119	3.03
Basketball	32	2.97	103	3.11
Track	0	.00	0	.00
Baseball	11	2.91	124	3.09
Softball	0	.00	0	.00
Total	59			
Orchestra	16	3.13	119	3.07
Band	9	3.56	126	3.04
Glee Club	68	2.94	67	3.21
Chorus	42	3.02	93	3.10
Total	135			
Debate	5	1.60	130	3.13
Dramatics	46	2.54	89	3.35
Clubs	34	2.85	101	3.15
Total	85			

Note: Table XVII reads from left to right: Football includes 16 participants whose average grade is 3.38, and 119 non-participants whose average grade is 3.03.

According to Tables XVIII - XXII the mean grade of the participants in the class of 1935 is 3.14 as compared to 3.31 for the non-participants. As indicated in the classes of 1933 and 1934, a tendency toward superior achievement among participating students is evident.

In the athletic group, Tables XIX and XXII, the mean grade for each activity is as follows: track with 5 participants has a mean grade of 2.80; basketball with 53 participants, 3.26; softball with 3 participants, 3.33; football with 26 participants, 3.38; and baseball with 20 participants, 3.50. Basketball, with the largest number of participants ranks higher than the non-participant group; while football again is slightly lower. The small number of track and softball participants somewhat limits the value of these activities for comparison. The fact that the mean grade of baseball participants is the lowest in the athletic group in this class indicates a tendency to variation of achievement among different groups of students.

It is interesting to note in studying Tables XX and XXII that the participants in all the music activities have a higher mean grade than either the activity or the non-participating group. The orchestra participants have the highest mean grade, 2.67;

while glee club is lowest with 3.04. Orchestra participants have a mean grade .64 higher than non-participants. The 107 glee club participants have a mean grade of 3.04, which is .27 higher than the mean grade for non-participants.

Tables XXI and XXII indicate a mean grade higher for debate, dramatics, and club participants than for non-participants. Debate ranks highest of all activity participants with a mean grade of 2.60; while dramatic participants rank lower than club participants.

TABLE XVIII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS IN CLASS OF 1935

Grades	Participants		Non-Participants	
	Number	Percent	Number	Percent
1	11	6.92	1	3.13
2	38	23.90	10	31.25
3	54	33.96	6	18.75
4	39	24.53	8	25.00
5	17	10.69	7	21.87
Total	159		32	
Mean	3.14		3.31	

Note: Table XVIII reads from left to right: Students making grade 1 includes 11 participants, or 6.92 percent; and 1 non-participant, or 3.13 percent.

TABLE XIX. GRADES OF PARTICIPANTS IN ATHLETICS IN
CLASS OF 1935

Grades	Football		Basketball		Track		Baseball		Softball	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	2	7.69	2	3.75	1	20.00	0	.00	0	.00
2	5	19.23	6	11.32	1	20.00	2	10.00	0	.00
3	5	19.23	26	49.06	1	20.00	8	40.00	2	66.67
4	9	34.62	14	26.42	2	40.00	8	40.00	1	33.33
5	5	19.23	5	9.45	0	.00	2	10.00	0	.00
Total	26		53		5		20		3	
Mean	3.38		3.26		2.80		3.50		3.33	

Note: Table XIX reads from left to right: Grade 1 includes 2 football participants, 7.69 percent; 2 basketball participants, 3.75 percent; 1 track participant, 20 percent, and no softball participants.

TABLE XX. GRADES OF PARTICIPANTS IN MUSIC IN CLASS
OF 1935

Grades	Orchestra		Band		Glee Club		Chorus	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	2	8.33	2	6.90	9	7.47	7	8.64
2	10	41.67	12	41.38	26	24.30	25	30.86
3	8	33.34	4	13.79	37	34.58	26	32.10
4	2	8.33	9	31.03	26	24.30	15	18.52
5	2	8.33	2	6.90	10	9.35	8	9.88
Total	24		29		107		81	
Mean	2.67		2.90		3.04		2.90	

Note: Table XX reads from left to right: Those making grade 1 includes 2 orchestra participants, 8.33 percent; 2 band participants, 6.90 percent, 9 glee club participants, 7.47 percent; and 7 chorus participants, 8.64 percent.

TABLE XXI. GRADES OF PARTICIPANTS IN DEBATE, DRAMATICS,
AND CLUBS IN CLASS OF 1935

Grades	Debate		Dramatics		Clubs	
	Number	Percent	Number	Percent	Number	Percent
1	0	.00	3	5.26	3	6.82
2	2	40.00	10	17.55	16	36.37
3	3	60.00	30	52.63	15	34.09
4	0	.00	11	19.30	5	11.36
5	0	.00	3	5.26	5	11.36
Total	5		57		44	
Mean	2.60		3.02		2.84	

Note: Table XXI reads from left to right: Grade 1 includes no debate participants; 3 dramatic participants, 5.26 percent; and 3 club participants, 6.82 percent.

TABLE XXII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS ACCORDING TO ACTIVITIES IN CLASS OF 1935

Activities	Participants		Non-Participants	
	Number	Grade	Number	Grade
Football	26	3.38	165	3.08
Basketball	53	3.26	138	3.06
Track	5	2.80	186	3.13
Baseball	20	3.50	171	3.08
Softball	3	3.33	188	3.12
Total	107			
Orchestra	24	2.67	167	3.19
Band	29	2.90	162	3.16
Glee Club	107	3.04	84	3.75
Chorus	81	2.90	110	3.28
Total	241			
Debate	5	2.60	186	3.13
Dramatics	57	3.02	134	3.16
Clubs	44	2.84	147	3.20
Total	106			

Note: Table XXII reads from left to right: Football includes 26 participants, whose average grade is 3.38; and 165 non-participants, whose average grade is 3.08.

The participant group in the class of 1936 (Tables XXIII - XXVII) has a higher mean grade by .17 than the non-participant group. The tendency toward superior scholastic achievement in the participant group has been indicated in the classes of 1933, 1934, 1935, and 1936. In the class of 1932 the scholastic achievement was greater in the non-participating group by .10.

According to Tables XXIV and XXVII the mean grade of track participants ranks highest with a mean grade of 2.71; while softball participants rank lowest with 3.50. It is interesting to note that in this class football participants, with a mean grade of 3.23, rank higher by .02 than basketball with 3.25.

The music participants (Tables XIV and XXVII) have a mean grade higher than that of the athletic participants. Orchestra participants with a mean grade of 3.07 rank below both glee club and chorus participants in this class. The difference between the mean grade of orchestra and chorus participants is .08, and between orchestra and glee club participants .04.

As indicated by Tables XXII and XXVII, debate, dramatic, and club participants have a higher mean grade than both the athletic and music participants,

and the non-participants. Debate participants have a mean grade of 2.44, which is considerably higher than the mean for the non-participating group.

TABLE XXIII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS IN CLASS OF 1936

Grades	Participants		Non-Participants	
	Number	Percent	Number	Percent
1	8	6.15	1	3.33
2	29	22.31	8	26.66
3	42	32.31	7	23.33
4	44	33.85	10	33.34
5	7	5.38	4	13.34
Total	130		30	
Mean	3.10		3.27	

Note: Table XXIII reads from left to right: Students making grade 1 includes 8 participants, 6.15 percent; 1 non-participant, 3.33 percent.

TABLE XXIV. GRADES OF PARTICIPANTS IN ATHLETICS IN
CLASS OF 1936

Grades	Football		Basketball		Track		Baseball		Softball	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	1	4.55	1	2.08	0	.00	0	.00	0	.00
2	3	13.64	12	25.00	2	28.57	2	13.33	3	30.00
3	4	18.17	14	29.17	2	28.57	8	53.33	1	10.00
4	11	50.00	16	33.33	3	42.86	5	33.34	4	40.00
5	3	13.64	5	10.42	0	.00	0	.00	2	20.00
Total	22		48		7		15		10	
Mean	3.23		3.25		2.71		3.20		3.50	

Note: Table XXIV reads from left to right: Students averaging grade 1 includes 1 football participant, 4.55 percent; 1 basketball participant, 2.08 percent; no track, no baseball, and no softball participants.

TABLE XXV. GRADES OF PARTICIPANTS IN MUSIC IN CLASS
OF 1936

Grades	Orchestra		Band		Glee Club		Chorus	
	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent	Num ber	Per cent
1	2	6.90	2	10.53	6	6.66	6	8.82
2	6	20.69	2	10.53	20	22.23	18	26.47
3	9	31.03	6	31.57	31	34.44	16	23.53
4	12	41.38	9	47.37	31	34.44	27	39.71
5	0	.00	0	.00	2	2.23	1	1.47
Total	29		19		90		68	
Mean	3.07		3.16		3.03		2.99	

Note: Table XXV reads from left to right: Students averaging grade 1 includes 2 orchestra participants, 6.9 percent; 2 band participants, 10.53 percent; 6 glee club participants, 6.66 percent; and 6 chorus participants, 8.82 percent.

TABLE XXVI. GRADES OF PARTICIPANTS IN DEBATE, DRAMATICS,
AND CLUBS IN CLASS OF 1936

Grades	Debate		Dramatics		Clubs	
	Number	Percent	Number	Percent	Number	Percent
1	2	22.23	2	3.03	1	4.00
2	4	44.44	19	28.79	9	36.00
3	0	.00	26	39.39	8	32.00
4	3	33.33	17	25.76	7	28.00
5	0	.00	2	3.03	0	.00
Total	9		66		25	
Mean	2.44		2.97		2.84	

Note: Table XXVI reads from left to right: Grade 1 includes 2 debate participants, 22.23 percent; 2 dramatic participants, 3.03 percent; and 1 club participant, 4 percent.

TABLE XXVII. GRADES OF PARTICIPANTS AND NON-PARTICIPANTS ACCORDING TO ACTIVITIES IN CLASS OF 1936

Activities	Participants		Non-Participants	
	Number	Grade	Number	Grade
Football	22	3.23	138	3.07
Basketball	48	3.25	112	3.08
Track	7	2.71	153	3.13
Baseball	15	3.20	145	3.12
Softball	10	3.50	150	3.11
Total	102			
Orchestra	29	3.07	131	3.14
Band	19	3.16	141	3.13
Glee Club	90	3.03	70	3.26
Chorus	58	2.99	102	3.21
Total	196			
Debate	9	2.44	151	3.17
Dramatics	66	2.97	94	3.24
Clubs	25	2.84	135	3.19
Total	100			

Note: Table XXVII reads from left to right: Football includes 22 participants, whose average grade is 3.23; and 138 non-participants, whose average grade is 3.07.

In summary, as indicated by Table XXVIII, the mean grade of all participants is 2.99 as compared with 3.12 for all non-participants of all classes in all activities. The final results, obtained by comparison of the participants in each activity with all other students not participating in that activity, indicate that the participating students have a .13 higher mean grade than non-participants. The athletic group indicates a mean grade of 3.28 for participants as compared with 3.07 for the non-participants. Athletic participation in this study seems to be unfavorable to high scholastic achievement. Football, with a mean grade of 3.49, has the lowest mean grade of any activity. The music group participants rank higher in achievement than the non-participants. Orchestra participants are excelled in scholarship only by the participants in debate. As a group debate, dramatic, and club participating students excell any other participating and non-participating groups. The mean grades of these activities are in order of rank as follows: debate, 2.23; clubs, 2.85; and dramatics, 2.89.

In Table XXIX, the students who participated in no activities are compared with all other students in each of the graduating classes. The mean grade of the participants is 3.10 as compared with 3.18 for the non-participants.

TABLE XXVIII. MEAN GRADES OF ALL PARTICIPANTS AND
NON-PARTICIPANTS OF ALL CLASSES IN ALL ACTIVITIES

Activities	Participants Mean	Non-Participants Mean
Football	3.49	3.03
Basketball	3.12	3.07
Track	3.12	3.07
Baseball	3.25	3.06
Softball	<u>3.41</u>	<u>3.11</u>
Group Mean	3.28	3.07
Orchestra	2.84	3.12
Band	3.18	3.08
Glee Club	3.02	3.26
Chorus	<u>3.11</u>	<u>3.09</u>
Group Mean	3.04	3.14
Debate	2.23	3.12
Dramatics	2.89	3.18
Clubs	<u>2.85</u>	<u>3.17</u>
Group Mean	2.66	3.15
Mean of all Participants	2.99	Mean of all Non-Partici- pants 3.12

Note: Table XXVIII reads from left to right: Students participating in football have a mean grade of 3.49, while all those not participating in this sport have a mean grade of 3.03.

TABLE XXIX. MEAN GRADES OF ALL PARTICIPANTS AND ALL
NON-PARTICIPANTS IN ALL CLASSES

Class	Participants	Non-Participants
	Mean	Mean
1932	3.00	2.90
1933	3.01	3.13
1934	3.26	3.31
1935	3.14	3.31
1936	<u>3.10</u>	<u>3.27</u>
Mean of all Classes	3.10	3.18

Note: Table XXIX reads from left to right: In the class of 1932 the participants had a mean grade of 3.00, while the non-participants had a mean grade of 2.90.

C. A Comparison of Boy Participants and Non-Participants

A study of Table XXX indicates a higher mean for the non-participating than for the participating boys. According to the facts as revealed in this study, the mean for the boy participants is 3.32 as compared with 3.20 for the non-participant group. There are 321 boys who participate, or 83 percent, and only 64 boys who do not participate, or 17 percent. The fact that the non-participating group is small somewhat limits the significance of this comparison. Another fact which must be considered in this comparison is the extent of boy participation in the athletic activities. It was evident in our study of activity participation that the athletic participants, notably those in football, ranked considerably lower in scholastic achievement than all other participant and non-participant groups.

TABLE XXX. BOY PARTICIPANTS AND NON-PARTICIPANTS IN
ALL CLASSES

Class	Participants			Non-Participants		
	Number	Percent	Mean	Number	Percent	Mean
1932	57	89	3.37	7	11	2.69
1933	77	84	3.40	15	16	3.33
1934	50	82	3.18	11	18	2.91
1935	63	81	3.32	15	19	3.80
1936	74	82	3.34	16	18	3.25
Total	321			64		
Percent	83			17		
Mean	3.32			3.20		

Note: Table XXX reads from left to right: In the class of 1932, 57 or 89 percent of the boys were participants, with a mean grade of 3.37; while 7 or 11 percent were non-participants, with a mean grade of 2.69.

D. A Comparison of Girl Participants and Non-Participants

The participation of girls in the activity program is indicated in Table XXXI. The facts discovered in the study of this group show that 375 girls, or 82 percent, participate in the activity program. The girl participants have a higher scholastic mean than do non-participants. The participants have an average grade of 2.82 as compared with 3.16 for non-participants. Facts discovered in this study substantiate the assertion that participation among girls is favorable to scholastic achievement.

It is, however, clarifying to point out some factors which may have a bearing on the interpretation and significance of the results. From the facts found in the survey of the data and as shown in the comparison of boy participants and non-participants, it was evident that the participants in athletics had a lower scholastic grade, especially the football participants. Since the schools in this study, with two exceptions, do not sponsor competitive athletic activity for girls, the number of girls in this group is small. Basketball is the only competitive activity in the athletic group sponsored by any of the schools. The fact that only few girls participated in the

athletic group may be a factor in the scholastic rating of that group. Also, girl participation in the other activity groups may have a tendency to raise these groups above the athletic group. It is not the purpose of this discussion to detract from the scholastic achievements of the girls, but to point out factors which may have a bearing on the interpretation of the data.

TABLE XXXI. GIRL PARTICIPANTS AND NON-PARTICIPANTS
IN ALL CLASSES

Class	Participants		Non-Participants	
	Number	Mean	Number	Mean
1932	89	2.79	14	3.00
1933	75	2.77	22	3.04
1934	59	2.88	15	3.60
1935	96	2.92	17	2.88
1936	56	2.78	14	3.29
Total	375		82	
Percent	82		18	
Mean	2.83		3.16	

Note: Table XXXI reads from left to right: In the class of 1932 there are 89 participating girls, with a mean grade of 2.79; 14 non-participating girls, with a mean grade of 3.00.

E. A Comparison of Boy and Girl Participants and
Boy and Girl Non-Participants

A comparison of the boy and girl participants, Table XXXII, indicates a higher average grade for girls than for boys. The girl participants have a mean of 2.83 as compared with 3.32 for the boys. The girls have a .49 higher scholastic grade than the boys.

In comparing the non-participating boys with non-participating girls, in scholastic achievement, the same tendency exists as was discovered in the comparison of the participant groups. The mean grade for the non-participant girls is 3.16 and for the boys 3.20. The difference in this group is only .04 in favor of the girls as compared with the difference of .49 in the participating group. Facts seem to indicate that girls are superior in scholastic achievement.

TABLE XXXII. BOY AND GIRL PARTICIPANTS AND BOY AND
GIRL NON-PARTICIPANTS IN ALL CLASSES

Class	Participants				Non-Participants			
	Boys		Girls		Boys		Girls	
	Number	Mean	Number	Mean	Number	Mean	Number	Mean
1932	57	3.37	89	2.79	7	2.69	14	3.00
1933	77	3.40	75	2.77	15	3.33	22	3.04
1934	50	3.18	59	2.88	11	2.91	15	3.60
1935	63	3.32	96	2.92	15	3.80	17	2.88
1936	74	3.34	56	2.78	16	3.25	14	3.29
Total	321		375		64		82	
Mean		3.32		2.83		3.20		3.16

Note: Table XXXI reads from left to right: Class of 1932 includes 57 participating boys whose mean is 3.37, 89 participating girls whose mean is 2.79; 7 non-participating boys whose mean is 2.69, and 14 non-participating girls whose mean is 3.00.

F. A Comparison of the Scholastic Achievement According to the Number of Activities Entered

The number of activities entered seems to indicate no consistent effect on scholastic attainment as shown in Table XXXIII. The number of activities entered with the highest mean grades are as follows: eight, 2.00; five, 2.66; one, 2.93; three, 2.96; seven, 3.00; and six, 3.06. The average scholarship of these groups of participants is considerably higher than that of the non-participants. Only two groups, those who entered two and four activities, have a lower average grade than the non-participants. The students participating in five activities, according to the facts discovered, have not been affected adversely in their scholastic achievement. The mean of this group is the highest of any group.

The largest number of students participated in two, three, and four activities. Following this group, there is a rapid, consistent decline in the number participating. The general tendency in this study seems to be that the number of activities entered does not affect scholarship as much as the type of activity.

TABLE XXXIII. MEAN GRADE ACCORDING TO NUMBER OF
ACTIVITIES ENTERED

Number of Activities	Number of Participants	Grade
0	146	3.18
1	90	2.93
2	207	3.24
3	173	2.96
4	130	3.22
5	68	2.66
6	18	3.06
7	9	3.00
8	1	2.00

Note: Table XXXIII reads from left to right: Entering no activities are 146 students, whose mean grade is 3.18.

CHAPTER III

GENERAL SUMMARY AND CONCLUSIONS

The purpose of this study has been to make a comparison of the scholarship ratings of high school students who participate and those who do not participate in extra-curricular activities. From this comparison the following conclusions have been drawn.

1. Music had the greatest appeal for the students. Nearly twice as many participated in some music activity as in either of the other groups. The debate, dramatic, and club group ranks second in number of participants.

2. In general, the participating students were superior in scholastic achievement to the non-participating group. However, upon dividing the participants into groups, the athletic group was lower in scholarship than the non-participating group. Debate, dramatic, and club participants rank first as a group. Both this group and the music group have superior grades to the non-participant group. Debate and orchestra participants rank first and second in scholastic achievement.

3. A study of participation according to sex was made by comparing participating boys with non-participating boys, participating girls with non-participating girls, participating boys with participat-

ing girls, and non-participating boys with non-participating girls. These comparisons show the girls to be superior to boys in scholastic achievement. The participating girls are superior to both participating boys and non-participating boys and girls.

4. The attempt to discover the relationship between the number of activities in which a student participated and his scholastic achievement revealed a rather inconsistent effect of the number of activities entered. The general trend in this study seems to indicate that the number of activities participated in does not affect scholarship as much as the type of activity.

In general, this study indicates for the participant group a slightly higher scholastic average than for non-participants. The conclusion, based upon evidence found in the data, can be drawn that participation in extra-curricular activities does not affect scholarship adversely but rather, in general, is favorable to scholarship.

BIBLIOGRAPHY

Ayer, Fred C. Pupil Participation in Extra-Curricular Activities in the High Schools of Everett and Seattle Washington. (In National Society for the Study of Education. Twenty-Fifth Yearbook, Part II. Bloomington, Illinois, 1926, p. 67-80).

A good report of a special investigation of 29 pupils belonging to eight or more organizations, disclosing the fact that their grades were slightly above the average of the entire group of high school pupils.

Brammell, P. R. Intramural and Interscholastic Athletics. Washington, D. C., U. S. Government Printing Office, 1933. 143 p. (U. S. Office of Education, Bulletin no. 17, 1932. National Survey of Secondary Education, Monograph no. 27).

A thorough portrayal of the present situation in numerous phases of secondary school athletics; presents suggestive materials gleaned from an intensive study of schools having especially promising practices in the phases studied.

Crawford, C. E. The Effect of Participation in Extra-Classroom Activities on Scholarship of High School Pupils. Masters Thesis, 1929, University of Illinois, Urbana, Illinois.

An interesting study of participants in extra-classroom activities with non-participants. A comparison of boy and girl participants and non-participants as shown by the I Q's of the two groups and their respective school marks.

Foster, Charles R. Extra-Curricular Activities in the High School. Richmond, Virginia, Johnson Publishing Company, 1925. 216 p.

A good general discussion of the history and development of non-athletic extra-curricular activities; their administration, supervision, and guidance.

Fretwell, E. K. Extra-Curricular Activities in the Secondary Schools. New York, Houghton Mifflin Company, 1931. 475 p.

A good general discussion of individual extra-curricular activities.

Koos, L. V. Evaluating Extra-Curricular Activities. (In National Society for the Study of Education. Twenty-Fifth Yearbook, Part II. Bloomington, Illinois, 1926, p. 225-235).

A discussion of the need for evaluation of extra-curricular activities by various methods and that extra-curricular activities are in some respects self-evaluative.

Mortenson, Alfred H. Scholarship of Participating and Non-Participating Students in Extra-Cur-

ricular Activities in Certain Secondary Schools of South Dakota. Masters Thesis, 1936, University of Colorado, Boulder, Colorado.

A most helpful study; shows that participants in extra-curricular activities are superior to non-participants in both achievement and mental ability.

Roemer, J. and Allen, C. F. Extra-Curricular Activities.

New York, D. C. Heath and Company, 1926. 260 p.

Another helpful treatment of the subject of extra-curricular activities from its initiation and development; its chief merit is in the treatment of various individual activities.

Reavis, W. C. and VanDyke, G. C. Non-Athletic

Extra-Curricular Activities. Washington, D. C.,

U. S. Government Printing Office, 1933. 174 p.

(U. S. Office of Education, Bulletin no. 17,

1932. National Survey of Secondary Education,

Monograph no. 26).

This bulletin has a very thorough study of the development, administration, and supervision of intra-mural and interscholastic activities; shows the relation of activities in high school and subsequent activities and interests.

Swanson, A. M. The Effect on High School Scholarship of Pupil Participation in Extra-Curricular Activities. (In School Review. vol. 32, p. 613-626. October, 1924).

A good study made in the schools of Kansas City, Missouri. The evidence adduced in this investigation points to the thesis that high school pupils of somewhat more than average intelligence participate in extra-curricular activities.

Tremper, George N. The Effect of Participation in Extra-Curricular Activities on the Scholarship of the Participants in the Kenosha, Wisconsin, Senior High School. Masters Thesis, 1928, University of Illinois, Urbana, Illinois.

A study made in the Kenosha, Wisconsin, Senior High School. In general the procedure and results were the same as in the study made by C. E. Crawford.

Woody, C. and Chapelle, E. H. Pupil Participation in the Extra-Curricular Activities in the Smaller High Schools of Michigan. (In National Society for the Study of Education. Twenty-Fifth Yearbook, Part II. Bloomington, Illinois, 1926, p. 81-96).

A good and helpful analysis of the extent of pupil participation in the smaller high schools in Michigan; shows a tendency for the pupils participating in one interscholastic sport to participate in two or three, or even four interscholastic sports.

Worcester, D. A. The Effect of Outside Work and Athletics Upon Scholarship. (In School and Society. vol. 18, p. 779-780. December, 1923).

This article was of no great value. This study found that out of three activities, school work, athletics, and outside work, two activities may be carried without seriously endangering one's scholarship standing, but that the addition of a third activity very seriously affects the grades which can be secured.