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An analysis of fifth-grade pupils' subject preferences in relation to their teachers' preference

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BOSTON UNIVERSITY
SCHOOL OF EDUCATION

AN ANALYSIS OF FIFTH-GRADE PUPILS' SUBJECT PREFERENCES IN
RELATION TO THEIR TEACHERS' PREFERENCES

A Phase of the Research Project
Subject Preferences of Fifth-Grade Children

.Submitted by
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Master of Education

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Subject Preferences of Fifth Grade Children

"Subject Preferences of Fifth Grade Children" is a cooperative study in which a number of graduate students have contributed to the total research project. It was facilitated through the cooperation of the New England School Development Council. This thesis is one of the studies in the project. Those completed and filed as graduate studies in June and August, 1948 were:

1. Subject Preferences in the Fifth Grade by Helen C. Blanchard
2. The Reliability of the Check List Used in the Study by Francis L. Thompson
3. An Analysis of Sex Differences in Fifth-Grade Children's Preferences for School Subjects by Eleanor M. Skahill
4. Preferences for Content, Skills, and Aesthetic Subjects in Five Communities by Ado Commito
5. Children's Evaluation of the Difficulty of Well-Liked School Subjects by Katherine M. Kinsley
6. Children's Evaluation of the Difficulty of Disliked School Subjects by Esther M. Sullivan
7. An Analysis of Fifth-Grade Pupils' Subjects Preferences in Relation to Their Teachers' Preferences by Helen M. Sprague
8. High Morale Classrooms in the Subject Preference Study by George H. Englesby
9. An Analysis of the Influences of Intelligence and Age Differences Upon Fifth-Grade Children's Preferences for School Subjects by William L. Earley, Jr.

10. An Analysis of the Influence of Achievement on Preference for Reading and Arithmetic by Mary E. Cusack
11. Differences in Subject Preferences of High-Achievement Readers and Low-Achievement Readers by George H. Gardner
12. An Analysis of the Subject Preferences of 3,403 Third, Fourth, Fifth, and Sixth Grade Pupils in the Public Schools of Quincy, Massachusetts by Francis D. Mills
13. Techniques and Practices Used in Twenty Social Studies Classrooms by William A. Wolfer

AN ANALYSIS OF FIFTH-GRADE PUPILS' SUBJECT PREFERENCES
IN RELATION TO THEIR TEACHERS' PREFERENCES

It has been a more or less recognized opinion of many teachers that pupils like most the subjects their teachers prefer to teach. The reasons for such a similarity of choice might be the teachers' intense interest in the subjects, their desires to impart knowledge of the subjects to their pupils, and to arouse their interest and liking for the same subjects. No scientific study has been found which proves whether this contention is true or not.

It was the purpose of this study (1) to compare the subject preferences of pupils of fifth grades with the subject preferences of their teachers, (2) to show whether girls or boys have a greater tendency to prefer the subjects of their teachers' choices.

Pupils in expressing their preference for certain subjects are in reality expressing their interest in those areas. Interest is a powerful factor in any learning situation and attention should be given to likes and dislikes of children. If this be true of children's preferences then it would seem to be equally true in regard to teachers' preferences. In all probability a teacher will have more to offer her class if she is teaching subjects she likes. If both teachers and pupils care for the same subjects there will exist a rapport

between them. An attempt has been made in this study to show just which subjects teachers most prefer to teach and how many of their pupils prefer the same subjects.

Although a number of studies¹ may have been made of pupils' subject preferences no scientific studies have been completed. No study of comparisons between pupils' and teachers' preference in school subjects could be found.

Method of Procedure. All teachers of the cities and towns included in the survey were given an opportunity on the questionnaires to indicate the subject they most enjoyed teaching. Preferences of 543 teachers² as well as the first, second, and third choices of those teachers' 6664 boys and 6355 girls, a total of 12,999 pupils, were tabulated. The percentages of boys and girls of each teacher liking the different subjects were found. Penmanship and health were omitted from this study since no teacher chose either of those two subjects as most preferred in teaching.

The preferences were studied in this way. An analysis

1 Ethel E. Holmes, "School Subjects Preferred by Children," Sixteenth Yearbook of the National Education Association, Department of Elementary School Principals (Washington, D.C.: National Educational Association, 1937), pp. 336-344.

2 The variance in the number of teachers and pupils in this study from the over-all preference study is due to the fact that some teachers failed to express a preference or preferred social studies when that subject was taught as separate subjects of history and geography in their classrooms.

was made of the arithmetic choices of all pupils of the group of teachers who liked best to teach arithmetic. Comparison was made between the combined first, second, and third choices in arithmetic of the pupils of these teachers with the combined choices in arithmetic of pupils of teachers whose preference in teaching was in some other area than arithmetic. Comparison also was made between the two groups of pupils on the basis of first choices only in arithmetic. The study was continued in the same way in each subject matter field chosen by teachers as a teaching preference.

The critical ratio of the difference of the percentages was accepted as the most satisfactory instrument for analysis of the data since a significant difference statistically determines the trend of a group. To determine the significance of the difference between any two percentages, the formula for finding the critical ratio (CR), when the two percentages are expressed by P_1 and P_2 , is:

$$CR = \frac{P_1 - P_2}{SE \text{ Diff}_{P_1 P_2}}$$

The standard error of a difference between two percentages is found by use of the formula:

$$SE \text{ Diff}_{P_1 P_2} = \sqrt{SE_{P_1}^2 + SE_{P_2}^2}$$

In reference to the critical ratio and its implications, Wert³ says:

Whenever this ratio is unity, the chances are 68 in 100 that the difference is too great to be the result of sampling fluctuations; whenever this ratio is two, the chances are 95 out of 100 that the difference is too great to be the result of sampling fluctuations; whenever the ratio is three or more, it is a practical certainty that the difference is too great to be the result of sampling fluctuations.

Using this formula, the significance of differences in subject preferences was found for each group used.

Analysis of Data. The number and percentages of first, second, and third choices of boys who preferred the same subjects as their teachers are shown in Table I and Table II. The number and percentages of first, second, and third choices of girls who preferred the same subjects as their teachers are shown in Table III and Table IV. In a similar way the number and percentages of boys' and girls' first, second, and third preferences for the same subjects as their teachers chose are shown in Table V and Table VI. Table VII shows the total number and percentages of all boys' and girls' first, second, and third choices combined. In order to make a comparison of this study with the over-all preference study, the totals of the choices in all subjects of this study (the pupils' preferences the same as their teachers' preferences)

3 James E. Wert, Educational Statistics (New York: McGraw Hill Book Co., Inc., 1938) p. 145.

must be deducted from the totals of the over-all preference study. The balance of the totals were the number of children choosing preferences not the same as their teachers.

Table VIII indicates this computation.

TABLE I

NUMBER OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE NUMBER OF BOYS OF THEIR CLASSES WHO PREFER THE SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	No. of teachers	Total No. of boys	Choices			
			1	2	3	0*
Reading	64	812	201	120	124	367
Arithmetic	221	2680	680	452	280	1268
Language	38	474	11	15	17	431
Spelling	1	6	1	0	1	4
Geography	67	785	55	82	77	571
History	38	475	50	70	68	287
Soc. Studies	70	891	106	128	125	633
Art	9	128	29	15	17	67
Music	23	273	23	34	39	177
Science	12	140	10	22	15	93
Totals	543	6664	1165	938	763	3798

* 0 used as a heading in Tables I-VI represents the number of pupils who made their choices in other subjects than those preferred by their own teachers.

TABLE II

PER CENT OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE PER CENT OF BOYS OF THEIR CLASSES WHO PREFER THE SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	Per cent of Teachers	Number of Boys	Choices			
			1	2	3	0
Reading	11.79	812	24.75	14.78	15.27	45.20
Arithmetic	40.70	2680	25.37	16.87	10.45	47.31

TABLE II
(concluded)

Subjects	Per cent of Teachers	Number of Boys	Choices			
			1	2	3	0
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Language	6.99	474	2.32	3.16	3.59	90.93
Spelling	.18	6	16.67	0	16.67	66.67
Geography	12.34	785	7.01	10.45	9.91	72.74
History	7.00	475	10.53	14.74	14.32	60.42
Soc. Studies	12.89	891	11.78	14.37	14.03	59.82
Art	1.66	128	22.66	11.72	13.28	52.34
Music	4.24	273	8.43	12.45	14.29	64.84
Science	2.21	140	7.14	15.71	10.71	66.43
Totals		6664				

TABLE III

NUMBER OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH
THE NUMBER OF GIRLS OF THEIR CLASSES WHO PREFER THE
SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	Number of Teachers	Total Number of Girls	Choices			
			1	2	3	0
Reading	64	758	205	124	104	325
Arithmetic	221	2571	594	403	344	1230
Language	38	432	10	24	17	381
Spelling	1	4	2	0	0	2
Geography	67	791	43	50	44	654
History	38	490	33	47	49	361
Soc. Studies	70	789	67	68	60	594
Art	9	116	31	19	17	49
Music	23	257	53	45	38	121
Science	12	127	7	11	7	102
Totals	543	6335	1045	791	680	3819

TABLE IV

PER CENT OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE PER CENT OF GIRLS OF THEIR CLASSES WHO PREFER THE SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	Per Cent of Teachers	Number of Girls	Choices			
			1	2	3	0
Reading	11.79	758	27.04	16.36	13.72	42.88
Arithmetic	40.70	2571	23.10	15.67	13.38	47.84
Language	6.99	432	2.31	5.56	3.94	38.19
Spelling	.18	4	50.	0	0	50.
Geography	12.34	791	5.44	6.32	5.56	32.68
History	7.00	490	6.73	9.59	10.	73.67
Soe. Studies	12.89	789	8.49	8.62	7.60	75.29
Art	1.66	116	26.72	16.38	14.66	42.24
Music	4.24	257	20.62	17.51	14.79	47.08
Science	2.21	127	5.51	8.66	5.51	80.31

TABLE V

NUMBER OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE NUMBER OF BOYS AND GIRLS OF THEIR CLASSES WHO PREFER THE SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	Number of Teachers	Total No. of Boys and Girls				
			1	2	3	0
Reading	64	1570	406	244	228	692
Arithmetic	221	5251	1274	855	624	2498
Language	38	906	21	39	34	812
Spelling	1	10	3	0	1	6
Geography	67	1576	99	132	121	1225
History	38	965	83	117	117	648
Soe. Studies	70	1680	172	196	185	1127
Art	9	244	60	34	34	116
Music	23	530	76	79	77	298
Science	12	267	17	33	22	195
Totals	543	12999	2210	1729	1443	7617

TABLE VI

PER CENT OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE PER CENT OF BOYS AND GIRLS OF THEIR CLASSES WHO PREFER THE SAME SUBJECTS IN EITHER FIRST, SECOND, OR THIRD CHOICES

Subjects	Per cent of teachers	Total No. of boys & girls	Choices			
			1	2	3	0
Reading	11.79	1570	25.65	15.54	14.32	44.08
Arithmetic	40.70	8261	24.20	16.28	11.30	47.67
Language	6.99	906	2.31	4.50	3.75	59.92
Spelling	.10	10	30.00	0.00	10.00	60.00
Geography	12.34	1576	6.92	8.58	7.68	77.73
History	7.00	905	9.60	12.12	12.12	67.16
Soc. Studies	12.62	1680	10.24	11.67	11.01	67.08
Art	1.66	244	24.20	13.93	13.93	47.84
Music	4.24	530	14.34	14.91	14.63	56.83
Science	2.21	267	6.37	12.36	9.24	73.03

TABLE VII

NUMBER AND PERCENTAGE OF TEACHERS AND THEIR SUBJECT PREFERENCES WITH THE TOTAL NUMBER AND PERCENTAGE OF THEIR BOYS AND GIRLS WHO PREFER THE SAME SUBJECTS IN FIRST, SECOND, AND THIRD CHOICES

Subjects	Teachers' Choices		Total No. of boys & girls	Total of choices 1-2-3	
	Number	Per cent		Number	Per cent
Reading	84	11.79	1570	278	55.92
Arithmetic	221	40.70	8261	2753	52.42
Language	39	6.99	906	94	10.58
Spelling	1	.10	10	4	40.00
Geography	67	12.34	1576	351	22.28
History	38	7.00	905	317	39.64
Soc. Studies	70	12.62	1680	655	39.02
Art	9	1.66	244	126	52.46
Music	23	4.24	530	232	43.78
Science	12	2.21	267	72	26.97
Totals	848		12069	3302*	

*7917 pupils made choices in other subjects than those preferred by their own teachers.

TABLE VIII

TOTAL NUMBER AND PERCENTAGE OF SUBJECT PREFERENCES OF PUPILS NOT MAKING CHOICES IN THE SAME SUBJECTS AS THEIR TEACHERS

Subject	Total No. in P.-Non-T. Pref. Study*	Total No. and per cent of choice of P.-Non-T. Preference Study	Total No. and per cent of 1-2-3 Choices of P.-Non-T. Preference Study
Reading	11,913	2654 22.28	6299 52.88
Arithmetic	8,232	1724 20.94	4058 49.30
Language	12,577	55 .44	544 4.33
Spelling	13,473	1262 9.37	5352 39.72
Geography	11,907	204 1.71	1068 8.97
History	12,518	446 3.56	1919 15.33
Soc. Studies	11,803	265 2.25	1020 8.64
Art	13,239	2329 17.59	5747 43.41
Music	12,953	1165 8.99	4362 33.68
Science	13,216	592 4.48	2014 15.24

* P.-Non-T. Pref. Study refers to the Pupil-Non-Teacher Preference Group, pupils whose subject preferences were not the subject most preferred by their teachers.

TABLE IX

CRITICAL RATIOS BETWEEN THE PUPIL-TEACHER PREFERENCE GROUP AND THE PUPIL-NON-TEACHER PREFERENCE GROUP ON COMBINED FIRST, SECOND, AND THIRD CHOICES

Subject	Group	Per cent	SE	Diff.	SE Diff.	OR
Read.	P-T Pref.*	55.92	1.3	3.04	1.43	2.13
	P-Non-T Pref.	52.88	.6			
Arith.	P-T Pref.	52.42	.7	3.12	.92	3.39
	P-Non-T.Pref.	49.30	.6			
Lang.	P-T Pref.	10.36	1.0	6.03	1.02	5.91
	P-Non-T. Pref.	4.55	.2			

TABLE IX
(concluded)

Subject (1)	Group (2)	Per cent (3)	SE (4)	Diff. (5)	SE Diff. (6)	CR (7)
Spell.	P-T. Pref.	40.00				
	P-Non-T. Pref.	39.72				
Geog.	P-T. Pref.	22.23	1.0	13.31	1.02	13.05
	P-Non-T. Pref.	8.97	.2			
Hist.	P-T. Pref.	32.84	1.6	17.61	1.61	11.60
	P-Non-T. Pref.	15.33	.2			
Soc. Stud.	P-T. Pref.	32.92	1.1	24.28	1.14	21.30
	P-Non-T. Pref.	8.64	.3			
Art	P-T. Pref.	52.45	3.2	9.04	3.22	2.81
	P-Non-T. Pref.	43.41	.4			
Music	P-T. Pref.	43.78	2.2	9.90	2.24	4.43
	P-Non-T. Pref.	33.68	.4			
Science	P-T. Pref.	26.97	2.7	11.73	2.72	4.32
	P-Non-T. Pref.	15.24	.5			

Table IX first shows the comparison between the two groups with reading as the first subject. The percent difference of 3.04 between the Pupil-Teacher Preference Group and the Pupil-Non-Teacher Preference Group is not significant. The critical ratio of 2.13 shows that there are 97 chances in 100 that this is a true difference in favor of the Pupil-Teacher Preference Group

* P-T. Pref. means the pupils who preferred the same subjects as their teachers.

1

In arithmetic, the per cent difference of 3.12 is significant. The critical ratio of 3.39 shows that this is a true difference in favor of the Pupil-Teacher Preference Group.

In language, the per cent difference of 6.03 is significant. The critical ratio of 6.91 shows this to be a true difference in favor of the Pupil-Teacher Preference Group

In spelling, the per cent difference of .25 is not significant. No critical ratio could be found because of the small number of cases in Pupil-Teacher Preference Study.

In geography, the per cent difference of 13.31 is significant. The critical ratio of 13.05 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In history, the per cent difference of 17.51 is significant. The critical ratio of 11.60 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In social studies, the per cent difference of 24.28 is significant. The critical ratio of 21.30 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In art, the per cent difference of 9.04 is not significant. The critical ratio of 2.81 shows that there are 99 chances in 100 that this is a true difference in favor of the Pupil-Teacher Preference Group.

In music, the per cent difference of 9.90 is significant. The critical ratio of 4.43 shows this to be a true

difference in favor of the Pupil-Teacher Preference Group.

In science, the per cent difference of 11.73 is significant. The critical ratio of 4.32 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

TABLE X

CRITICAL RATIOS BETWEEN THE PUPIL-TEACHER PREFERENCE GROUP AND THE PUPIL-NON-TEACHER PREFERENCE GROUP ON FIRST CHOICES ONLY

Subject	Group	Per cent	SE	Diff.	SE Diff.	CR
Read.	P-T. Pref.	25.86	1.1	3.58	1.17	3.06
	P-Non-T.Pref.	22.28	.4			
Arith.	P-T. Pref.	24.26	.6	3.32	.72	4.61
	P-Non-T.Pref.	20.94	.6			
Lang.	P-T. Pref.	2.31	.5	1.87	.51	3.67
	P-Non-T.Pref.	.44	.1			
Spell.	P-T. Pref.	30.00				
	P-Non-T.Pref.	9.37				
Geog.	P-T. Pref.	6.22	.6	4.51	.61	7.39
	P-Non-T.Pref.	1.71	.1			
Hist.	P-T. Pref.	8.60	.9	5.04	.92	5.48
	P-Non-T.Pref.	3.56	.2			
Soc. Stu.	P-T. Pref.	10.24	.7	7.99	.71	11.25
	P-Non-T.Pref.	2.25	.1			
Art	P-T. Pref.	24.59	2.7	7.00	2.72	2.57
	P-Non-T.Pref.	17.59	.3			
Music	P-T. Pref.	14.34	1.5	5.35	1.53	3.50
	P-Non-T.Pref.	8.99	.3			
Sci.	P-T. Pref.	6.37	1.5	1.89	1.51	1.25
	P-Non-T.Pref.	4.48	.2			

Table X shows a comparison between percentages of first choices of the Pupil-Teacher Preference Group and those of the Pupil-Non-Teacher Preference Group.

In reading, the per cent difference of 3.58 is significant. The critical ratio of 3.06 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In arithmetic, the per cent difference of 3.32 is significant. The critical ratio of 4.61 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In language, the per cent difference of 1.87 is significant. The critical ratio of 3.67 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In spelling, the per cent difference of 20.63 is not significant. No critical ratio could be found because of the small number of cases in the Pupil-Teacher Preference Group.

In Geography, the per cent difference of 4.51 is significant. The critical ratio of 7.39 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In history, the per cent difference of 5.04 is significant. The critical ratio of 5.48 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In social studies, the per cent difference of 7.99 is significant. The critical ratio of 11.25 shows this to be a true difference in favor of the Pupil-Teacher Preference Group.

In art, the per cent difference of 7.00 is not significant. The critical ratio of 2.57 shows that there are 99 chances in 100 that this is a true difference in favor of the Pupil-Teacher Preference Group.

In music, the per cent difference of 5.35 is significant. The critical ratio of 3.50 shows that this is a true difference in favor of the Pupil-Teacher Preference Group.

In science, the per cent difference of 1.89 is not significant. The critical ratio of 1.25 shows that there are 79 chances in 100 that this is a true difference in favor of the Pupil-Teacher Preference Group.

TABLE XI

CRITICAL RATIOS BETWEEN BOYS AND GIRLS IN THEIR COMBINED FIRST, SECOND, AND THIRD CHOICE PREFERENCES FOR THE SUBJECTS PREFERRED BY THEIR TEACHERS

Subjects	Group	Per cent	SE	Diff.	SE Diff.	CR
Reading	Boys	54.80	1.7	--	--	--
	Girls	57.12	1.8	2.32	.78	2.97
Arithmetic	Boys	52.69	1.0	.53	1.41	.38
	Girls	52.16	1.0			
Language	Boys	9.07	1.3	--	--	--
	Girls	11.81	1.5	2.74	1.98	1.38
Spelling	Boys	33.33				
	Girls	50.00				
Geography	Boys	27.26	1.6	9.93	2.06	4.82
	Girls	17.33	1.3			

TABLE XI
(concluded)

Subjects (1)	Group (2)	Per cent (3)	SE (4)	Diff. (5)	SE Diff. (6)	CR (7)
History	Boys	39.58	2.2	13.25	2.97	4.46
	Girls	26.33	2.0			
Social Studies	Boys	40.18	1.6	15.47	2.19	7.06
	Girls	24.71	1.5			
Art	Boys	47.66	4.4	10.10	6.37	1.59
	Girls	57.76	4.6			
Music	Boys	35.16	2.9	17.76	4.24	4.19
	Girls	52.92	3.1			
Science	Boys	33.57	4.0	4.04	5.32	2.64
	Girls	19.68	3.5			

Table XI shows a comparison between percentages of the combined first, second, and third choice preferences of boys and girls for the subjects preferred by their teachers. Critical ratios are determined to find out whether boys or girls are most likely to prefer the subjects preferred by their teachers.

In reading, the per cent difference of 2.32 between the boys and girls is not significant. The critical ratio of 2.97 shows that there are 99 chances in 100 that this is a true difference in favor of the girls.

In arithmetic, the per cent difference of .53 between the boys and girls is not significant. The critical ratio of .38

shows that there are 30 chances in 100 that this is a true difference in favor of the boys.

In language, the per cent difference of 2.74 between the boys and girls is not significant. The critical ratio of 1.38 shows that there are 83 chances in 100 that this is a true difference in favor of the girls.

In spelling, the per cent difference of 16.67 between the boys and girls is not significant. No critical ratio could be found because of the small number of cases.

In geography, the per cent difference of 9.93 between the boys and girls is significant. The critical ratio of 4.82 shows this to be a true difference in favor of the boys.

In history, the per cent difference of 13.25 between the boys and girls is significant. The critical ratio of 4.46 shows this to be a true difference in favor of the boys.

In social studies, the per cent difference of 15.47 between the boys and girls is significant. The critical ratio of 7.06 shows this to be a true difference in favor of the boys.

In art, the per cent difference of 10.10 between the boys and girls is not significant. The critical ratio of 1.59 shows that there are 89 chances in 100 that this is a true difference in favor of the girls.

In music, the per cent difference of 17.76 between boys and girls is significant. The critical ratio of 4.19 shows this to be a true difference in favor of the girls.

In science, the per cent difference of 14.04 between the boys and girls is significant. The critical ratio of 5.32 shows this to be a true difference in favor of the boys.

Conclusions. The following chart summarizes the results derived from the analysis of the data used in this study. Chart I shows the subject and group preferring the same subject their teachers preferred in their combined choices. The critical ratios, with the exception of two subjects, are greater than three making it a practical certainty that the greater number of 12,999 pupils studied preferred the same subjects that their teachers preferred.

CHART I

SUBJECTS AND GROUPS PREFERRED THE SAME SUBJECTS THEIR TEACHERS PREFERRED WHEN PUPILS' FIRST, SECOND, AND THIRD CHOICES ARE PREFERRED ACCORDING TO THE CRITICAL RATIOS

Critical ratios	Subject	Group favored
3.00 and above	Arithmetic	P.-T. Pref. over P.-Non-T. Pref.
	Language	P.-T. Pref. over P.-Non-T. Pref.
	Geography	P.-T. Pref. over P.-Non-T. Pref.
	History	P.-T. Pref. over P.-Non-T. Pref.
	Soc. Studies	P.-T. Pref. over P.-Non-T. Pref.
	Music	P.-T. Pref. over P.-Non-T. Pref.
	Science	P.-T. Pref. over P.-Non-T. Pref.
2.00 to 2.99	Reading	P.-T. Pref. over P.-Non-T. Pref.
	Art	P.-T. Pref. over P.-Non-T. Pref.

Chart II shows the subject and group preferring the same subject their teachers preferred, when first choice only of pupils is considered, as classified by the critical ratios. In all subjects, except art and science, it is a practical certainty that the greater number of the 12,999 pupils studied preferred for their first choice the same subjects that their teachers preferred.

CHART II

SUBJECTS AND GROUPS PREFERRING THE SAME SUBJECTS THEIR TEACHERS PREFERRED ACCORDING TO PUPILS' FIRST CHOICE ONLY CLASSIFIED ACCORDING TO THE CRITICAL RATIOS

Critical ratios	Subject	Group favored
3.00 and above	Reading	P.-T. Pref. over P.-Non-T. Pref.
	Arithmetic	P.-T. Pref. over P.-Non-T. Pref.
	Language	P.-T. Pref. over P.-Non-T. Pref.
	Geography	P.-T. Pref. over P.-Non-T. Pref.
	History	P.-T. Pref. over P.-Non-T. Pref.
	Social Studies	P.-T. Pref. over P.-Non-T. Pref.
	Music	P.-T. Pref. over P.-Non-T. Pref.
2.00 to 2.99	Art	P.-T. Pref. over P.-Non-T. Pref.
1.00 to 1.99	Science	P.-T. Pref. over P.-Non-T. Pref.

Chart III indicates that, of the 12,999 pupils studied, boys have a tendency to prefer the subjects their teachers prefer more than girls. In arithmetic, geography, history, and

the social studies the critical ratios show that it is a practical certainty that the boys preferred more than the girls the same subjects as their teachers, while only in music is it a practical certainty that the girls preferred that subject choice of their teachers more than did the boys.

CHART III

PREFERENCES OF BOYS AND GIRLS FOR THE SUBJECTS PREFERRED
BY THEIR TEACHERS, CLASSIFIED ACCORDING
TO THE CRITICAL RATIOS

Critical ratios	Subject	Group favored
3.00 and above	Arithmetic	Boys over Girls
	Geography	Boys over Girls
	History	Boys over Girls
	Social Studies	Boys over Girls
	Music	Girls over Boys
2.00 to 2.99	Reading	Girls over Boys
	Science	Boys over Girls
1.00 to 1.99	Language	Girls over Boys
	Art	Girls over Boys

Suggestions for Further Research. As a result of this study other possibilities for studying the subject preferences of teachers and their pupils have developed. Some of these are:

1. To make a study of the factors influencing teachers' subject preferences.
2. To find out why no teacher preferred penmanship and health.
3. To find out why such a very small number of teachers preferred spelling.