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ABSTRACT

This study of two student groups enrolled in secondary school foreign language programs evaluates comparative achievement covering a four-year sequence of study. The control group results, reflecting previous foreign language elementary school (FLES) instruction, provide strong contrasts favoring the continuation and further development of FLES programs. Experiment description, research design, and conclusions are reported. Description of FLES courses, foreign language personnel data, and a detailed statistical report are included. (RL)

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EVALUATION OF THE EFFECT OF FOREIGN LANGUAGE STUDY
IN THE ELEMENTARY SCHOOL
UPON ACHIEVEMENT IN THE HIGH SCHOOL

Final Report

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FOREWORD

The research studies reported herein, completed under the auspices of the Department of Special Services, have involved the cooperation of many employees of the Somerville Board of Education, particularly teachers of modern foreign languages. Primary responsibility, however, was delegated to the following:

Project Director:	Dr. Joseph H. Vollmer Superintendent of Schools
Assistant Project Director:	Miss Ruth E. Griffiths, Director Department of Special Services
Principal Investigator:	Miss Dorothy E. Chamberlain Chairman, Foreign Language Department

The statistical analysis which forms Appendix C of this report was prepared by STACO, statistical consultants, Williston Park, Long Island, New York.

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INTRODUCTION

In increasing numbers throughout the past few years, public and private schools across the nation have introduced various programs for teaching foreign languages in the elementary grades. The public schools of Somerville, New Jersey, however, have operated for thirteen years a continuous FLES program that was initiated with third grade classes in 1949. That is, members of the first groups to participate were graduated from college during the spring of 1962.

Since 1949, of course, the pioneer program has been modified extensively. Teaching guides have been altered and expanded; personnel has changed; M.L.A. studies and N.D.E.A. language institutes have influenced local thought and practices. However, Somerville has exposed to FLES training a consistent enough group of students to undertake a systematic evaluation of the effects of the program. The community, too, has asked questions:

- . Is the study of foreign languages in the grades merely play?
- . Do students tire of a language they study for ten years?
- . Does the level of general academic preparation suffer when time is allotted for FLES instruction?
- . On what grounds can the time, money, and effort devoted to a FLES program be justified?
- . Is the justification purely theoretical, or can results be measured?

In an endeavor to answer some of these questions, the Office of Education, Department of Health, Education, and Welfare, has authorized a study of the Somerville language program to determine the influence, if any, of FLES study upon achievement in the high school, including achievement in foreign language study.

To supplement subjective judgments, a mathematical statistical analysis was undertaken by STACO, statistical consultants, represented by Frederic L. Matthews, Ph.D.

DESCRIPTION OF LOCAL PROGRAM

In the Somerville High School there is a natural dichotomy in the student body. The Somerville pupils have studied either Spanish or French continuously since third grade in the elementary school as part of the regular academic program. For the past seven years there have been pupils in the Somerville High School who have studied continuously either French or Spanish from third grade on. At the same time, there are tuition pupils enrolled who have not had this enrichment in their academic preparation for high school.

Borough pupils on entering ninth grade continue the study of the language in which they have had continuous instruction, French or Spanish in alternate years. If the Somerville pupil continues the language in high school, he is in a transition class in ninth grade which permits him to enter the third year of that foreign language (French or Spanish) as a tenth grade pupil. In all classes in the Somerville High School, with the sole exception of the transition class in French or Spanish, students are heterogeneously mixed in regard to whether or not they are Somerville pupils.

Because of this fortunate situation, it is possible, by the methods of mathematical statistics, to compare fairly using several different measures the Somerville (FLES) and non-Somerville (non-FLES) groups. This research project undertakes a four-part measure as outlined in "Organization of Research."

When foreign languages were introduced in the Somerville elementary grades, outstanding and well-established programs were few. The Cleveland program was limited to students of a certain I.Q.; the western and southwestern programs capitalized on the large segment of bilingual pupils in their schools. Consequently, Somerville determined to pioneer.

However, investigation and other preparations were completed before the proposal was presented to the Board of Education. The superintendent of schools, the elementary supervisor, and members of the high school language department recognized merit in the plan that was beginning to crystalize. In the summer of 1948 one, only one, summer language school trained for elementary schools -- Western Reserve. A young Spanish teacher, completing her first year of teaching, was asked to take the training at her own expense on condition that she be relieved of one class and a study period if she was interested in beginning the experiment. She was interested. The project was next presented to the Board. Members of the Board, too, were enthusiastic.

Since local thinking called for teaching Spanish in the same manner the child learns English -- that is, by imitation and practice -- Spanish was given to all third grade pupils. By the age of three, the baby has learned to use his own language -- all the babies, the bright, the average, the dull. Initially each class met for twenty minutes three times a week. Within three years class sessions were increased to five times a week.

During the first year some subjective conclusions were drawn. The pupil of low I.Q. apparently learned as well as the pupil of high I.Q. -- sometimes better because his most important equipment is a good ear. A second language even did something for

stutterers: they did not stutter in Spanish! Too, the enthusiasm of the third-grader was never matched in a high school class. A point was also made of having every third grade parent visit the program sometime during the year. The most frequent comment was: Why didn't they do this when I was in school?

Since the first year was apparently a success, the experiment was expanded the following year by starting French in the third grade and continuing Spanish in the fourth grade. Subsequently, Spanish and French have been alternated each year. The language a child starts is purely an accident of birth, but he continues through eighth grade whichever language he does start. (At the inception of FLES, the only modern foreign languages offered in the high school were French and Spanish, and original plans called for continuing through high school.)

In 1954 the first transition class was established -- Spanish 2E for graduates of the Somerville Junior High. Of the forty-seven students who continued college Spanish in that first year, only one failed despite the fact that the I.Q. range was from 87 to 137. Either the early training or the interest or both might have been factors in their success.

The only sense in which FLES students "begin over" in high school, if it can be termed beginning over, is that a review is given at the beginning of the ninth year to check on the progress of each incoming group. Although groups vary from year to year, certain fundamentals should be automatic; if they are not, some attention must be given them.

The program, however, has faced some obstacles. Initially, teachers trained to work with high school students had to be oriented to the elementary psychology; and throughout, high school teachers trained in traditional methods have had to be reconditioned. (N.D.E.A. sponsored institutes are now assisting in this area.) Somerville is fortunate in that it has had available certified teachers with a sound foundation in both language and education; however, the teacher turnover, particularly in the elementary grades, has been heavy.

Scheduling classes within a heavy junior high and high school academic program has also been an intermittent problem. Fortunately, the Board of Education has accepted the fact that some upper level classes will have low enrollments, but the student can still fit only so many classes into his nine-period day. Another situation which occurs infrequently, but annoyingly to those steeped in FLES, is the need to combat parental insistence that a student elect in high school a language other than his FLES language, that accident of birth.

Still another weakness recognized locally is the need for evaluative criteria, particularly on the elementary level, other than teachers' subjective judgment. Although it is not felt that students must receive marks, teachers would appreciate a means of measuring their and the students' progress.

In preparation for undertaking this government-sponsored investigation of the Somerville experience, further descriptive and analytical data on the extent and kind of integration which have existed in Somerville between the FLES and the high school courses were established. Specific questions have been posed:

IS FLES CONSIDERED "CONVERSATIONAL" AS OPPOSED TO THE "REGULAR" FOREIGN LANGUAGE COURSE IN THE HIGH SCHOOL?

Inasmuch as all courses are considered "conversational", if by "conversational" one understands audio-lingual, the distinction between this and "regular" is difficult to define. All language, grades three through six, is conversational; however, the

conversation is directed to give a clear functional knowledge of the target language by drills and analogy rather than an intellectual knowledge based on rules. In the junior high school and first level high school a functional knowledge of the structure (grammar) is paramount. Obviously, FLES students in ninth year have an audio-lingual facility in the language which those beginning in high school do not have.

WHAT ADVANTAGE, IF ANY, IS OFFERED TO FLES PUPILS WITH RESPECT TO THE HIGH SCHOOL WORK THEY CAN LOOK FORWARD TO TAKING?

The advantage to which FLES students may look forward in high school is a college-level course in their senior year which leads to the Advanced Placement examination. Therefore, the successful passing of this examination carries the further advantage of possible higher college placement and/or college credit, or for some, the advantage of having met the college language requirement. However, even if the FLES student does not elect to continue his FLES language study beyond the minimum two years required by most colleges, he has completed in that time three years of work -- that desired by the college. He has the opportunity to elect more units of a second foreign language or to pursue other areas of specialization.

WHAT CORRESPONDENCE AND/OR INTEGRATION IS THERE IN THE TEACHING MATERIALS AND EXAMINATIONS USED AT EACH LEVEL, FLES OR HIGH SCHOOL?

There is a determined effort to integrate the work or program of the elementary school with that of the junior high school and the work of the junior high school with that of the high school as can be seen from the description of courses of each level. No examination other than teacher-made ones is given as yet at either the elementary or junior high level. The reason for this is that any good examination for these levels that suits local purposes or needs is unknown. When those examinations being prepared under the MLA are ready for distribution, Somerville teachers will doubtless administer them.

The screening between the sixth and seventh grade is determined entirely by teachers' recommendations.

During the eighth grade the Modern Language Aptitude Test is given. This may seem to some to be a rather late date in the program to determine whether the pupil has any language aptitude. However, this test is designed for ninth grade up, and it would not be possible to give it any earlier.

The results of the aptitude test in the eighth grade, together with the results of the Iowa Tests of Basic Skills, the Otis Mental Ability, the teachers' marks and recommendations are used to determine which pupils should continue in the program in the high school and at what level each pupil should continue.

The three possible levels are: 2E - enriched group, 2 - regular college preparatory class, or General 2, a terminal course for those pupils of less than average ability who do not have college as a goal. In the near future 2E for the enriched group will be a second or third year course. The reaction of present Language 3 students is favorable to only one semester of regular second-year work and then third.

In high school again Somerville is still awaiting publication of the new achievement tests. The only examinations given are those prepared by the teachers, the French Listening Test, and Cooperative Tests, or for the college-bound students, the College Entrance Examination Board and Advanced Placement Examinations.

Since 1949 the course of study has been changed several times. At present the

Modern Language Guides for French and Spanish in the elementary school are being used as their title indicates, as guides. The junior high school program has been changed several times and will probably continue to change. A course of study for the high school written in 1960 already has undergone numerous additions or deletions.

The language laboratory installed in 1961 has been the reason for some of the changes.

Throughout the FLES and high school experience each of the four language skills is, to some extent, weighted. Roughly, this chart might represent their value:

<u>Grade</u>	<u>Listening</u>	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
3	x	x		
4	x	x		
5	x	x		
6	x	x	Readiness	Dictation-limited
7	x	x	Dialogues	Dictation in increasing amounts
8	x	x	Dialogues	Dictation in increasing amounts
9	x	x	Narrative and expository paragraphs	Translation
10	x	x	Novelettes and cultural material	Some original writing
11	x	x	One-act plays, novels, periodicals, poetry	Papers 150-500 words
12	x	x	Gamut of contemporary and classical writings (intensive and extensive)	Term papers of considerable length

What this amounts to then is that listening and speaking weigh heaviest throughout the sequence. Little reading and almost no writing is done before high school. In the ninth grade a little of both is done, in tenth grade quite a little more reading, not much writing. Both of these skills are increased considerably in eleventh grade; and in the twelfth, reading has reached a point at which dictionaries need be used only for less modern works or poetry, and writing has reached a point of literacy and accuracy for most.

ORGANIZATION OF RESEARCH

The records of all the graduates of the Classes of 1957-61 who had spent four years in Somerville High School were collected for this study. Only the graduates of the Classes of 1958-61 who were enrolled in the Somerville elementary schools had FLES training. None of the graduates of the Class of 1957 did; therefore, a comparison is possible before the inception of a local FLES program.

Classifications studied are the elementary school preparation and the type of secondary school preparation. These classifications were sub-divided into Somerville (FLES), non-Somerville (non-FLES) for the elementary preparation; college preparatory, non-college preparatory for the type of secondary school preparation. A parallel factor considered is the election or non-election of any foreign language in the secondary school. The numbers of pupils involved are reported in Table 1.

Table 1

Pupils in Classifications in the Somerville High School for Grade Point Average

	<u>Somerville</u>		<u>Non-Somerville</u>		<u>Any Foreign Language</u>	<u>No Foreign Language</u>
	<u>College Prep.</u>	<u>Non-College Prep.</u>	<u>College Prep.</u>	<u>Non-College Prep.</u>		
1957	44	43	67	91	192	53
1958-61	228	188	426	443	1054	231
Total	272	231	493	534	1246	284
Grand Total	1530				1530	

For each of the 1530 pupils included, the various categories, a grade point average and general ability (or I.Q.) were reported. In all comparative analyses, I.Q.'s were factored to insure that studies measure groups of equal ability.

To evaluate the effort of FLES study, four measures were employed:

1. General achievement -- represented by the final grade point average of seniors, as a criterion of whether or not the enrichment in foreign languages affected the overall academic preparation for high school;¹
2. Language achievement -- as indicated by high school foreign language teachers' grades, a subjective evaluation of the worth of FLES instruction;
3. Language achievement -- as indicated by performance on C.E.E.B. Foreign Language Achievement Tests, a second and non-subjective measure for evaluation;
4. Pupil and parental reaction -- as indicated by continuance of foreign language study in the high school.

The tests of significance in the entire study - grade point average; foreign language achievement, and continuity -- have been taken at the 99% level; i.e. the chance that a statistic or statistics will be different from a hypothesized statistic is a long shot -- 99 to 1.

¹ The methods used in the grade point average study, the teachers' grades in Foreign Language 3, the C.E.E.B. Foreign Language Achievement Tests are linear regressions related to the I.Q. together with analysis of variance. In the continuity in foreign language study, the method was the binomial distribution approximated by the normal distribution.

CONCLUSIONS AND DISCUSSIONS

General Achievement

The primary purpose of the general achievement portion of the study was to determine whether the Somerville FLES students had had less preparation for total high school work -- attributable to time spent on foreign languages in the elementary school -- than had the traditionally prepared students.

Over-all academic achievement of the pupils in Somerville High School is measured, in this study, by a grade point average, covering their marks in all courses taken throughout four years. It was found that there is no difference between the grade point average of the Somerville pupils and the non-Somerville pupils in the Class of 1957 and in the combined Classes of 1958-61. The difference between the mean of the Somerville pupils and the mean of the non-Somerville pupils in the combined Classes of 1958-61 is less than 0.1% (0.001).

The mathematical findings lead one to conclude that in Somerville, at least, systematic study of a foreign language from grade three through grade eight does not undermine the child's foundation in the basic or traditional learnings. He does not compete in high school classes other than foreign language under any discernible handicap. One might further project the hypothesis that in college or life situations he will face no hardship attributable to deficient elementary school preparation.

Language Achievement

In addition to the consideration of general academic achievement, steps were also taken to determine the relation between FLES study and achievement in foreign language study in the high school. Both subjective and non-subjective measures were employed.

Foreign language achievement, in this study, is measured first by teachers' marks in Foreign Language 3 -- French, German, Latin, or Spanish classes pooled. This level was selected, since only those students with an interest and competency in the foreign language would have continued to the third level. In a sense, these marks may be considered a measure of the foreign language teachers' estimate of the FLES program. Using records of all graduates of the Classes of 1957-61 who had spent four years in Somerville High School -- 343 in all, regardless of the year in which the language was taken -- teachers' marks in Foreign Language 3 were analyzed in specified classifications. The numbers of pupils involved are reported in Table 2.

Table 2

Pupils in Classifications in Somerville High School for Foreign Language 3 Teachers' Grades

	<u>Somerville</u>								<u>Non-Somerville</u>							
	<u>Spanish</u>		<u>French</u>		<u>Latin</u>		<u>German</u>		<u>Spanish</u>		<u>French</u>		<u>Latin</u>		<u>German</u>	
	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
1957	1	0	1	9	1	2	0	0	4	4	0	2	2	5	0	0
1958-61	39	45	36	45	4	2	2	2	20	32	7	22	10	18	17	11
Total	40	45	37	54	5	4	2	2	24	36	7	24	12	23	17	11
Grand Total	343															

Somewhat disappointing on the surface was the statistician's conclusion that the foreign language teachers' estimate of the FLES program, as measured by teachers' marks in Foreign Language 3 for pupils of equal general ability, shows no discernible difference in the Somerville (FLES) pupils and the non-Somerville (non-FLES) pupils in the combined Classes of 1958-61. There was also no difference between the Somerville and non-Somerville pupils in the Class of 1957.

However, the FLES program contains a one-year acceleration in Spanish and French in the combined Classes of 1958-61; Somerville students in Spanish 3 or French 3 are in their second year of high school study. The inference from statistics, therefore, is that pupils can advance at least one year in foreign language by the FLES program with no harmful effect on their achievement. In fact, reaction of present third-year students favors further acceleration -- a single semester of regular language work in 2E to be followed by third-year work.

Currently, the advantage which FLES students may anticipate in high school is a college level course in their senior year. This course leads to the Advanced Placement examination; therefore, the successful passing of this examination carries the further advantage of possible higher college placement and/or college credit, or for some the advantage of having met the college language requirement.

Although the analysis of teachers' marks incorporated in this research indicates neutral findings, a pilot study completed in 1960 of the language students in one year is significant. The STACO report indicated that at mid-term FLES students in a Spanish 3 class achieved approximately ten percent higher grades than did other pupils in the class who were in the traditional language pattern group, even though the FLES students were one year younger. A ten-percent difference is mathematically significant.

Language achievement, in this study, is also measured by the College Entrance Examination Board Foreign Language Achievement Tests. If the test was taken more than once, the higher score was used. Fifty pupils took the C.E.E.B. Foreign Language Achievement Tests; sixteen in Spanish, twenty-five in French, five in Latin, and four in German. With reference to the entire group, a difference of 47 points in the means favored the Somerville or FLES pupils.

However, when analysis was limited to the languages of the FLES program, Spanish or French, the scores of 41 pupils were involved. The difference in the means again favored FLES pupils, this time by 67 points measured at the 1% level of significance. That is, the odds are 99 to 1 that in Spanish or French, a pupil who had FLES preparation will have a score 67 points higher than a pupil of equal general ability who did not have FLES preparation.

Both measures of foreign language achievement -- teachers' marks and C.E.E.B. scores -- support FLES continuation.

Parental and Pupil Reaction

Consideration of continued enrollment in foreign language study in the high school was measured as an indication of pupils' and their parents' estimates of the value of the FLES program. The number of pupils who continued to the next higher level of a foreign language compared with the total number of pupils who could have so continued constitutes the measure of continuance in this study. The numbers of pupils enrolled at each level of the four foreign languages are reported in Table 3.

Table 3

Pupils Enrolled at Each Level of the Four Foreign Languages (1958-61)

	<u>Somerville</u>		<u>Non-Somerville</u>	
	<u>College Prep.</u>	<u>Non-College Prep.</u>	<u>College Prep.</u>	<u>Non-College Prep.</u>
<u>Spanish</u>				
Gen.Lang.1	1	17	6	98
Gen.Lang.2	1	15	2	46
Language 1	50	16	189	101
Language 2	42	2	177	49
Accelerated	80	30	-	-
Sub-Total 2	122	32	177	49
Language 3	72	14	50	6
Language 4	27	2	13	0
<u>French</u>				
Gen.Lang.1	2	16	4	12
Gen.Lang.2	1	11	1	4
Language 1	50	10	117	29
Language 2	45	2	99	8
Accelerated	80	35	-	-
Sub-Total 2	125	37	99	8
Language 3	74	10	25	1
Language 4	20	0	10	1
<u>Latin</u>				
Language 1	42	11	196	31
Language 2	35	3	168	6
Language 3	5	0	30	0
Language 4	2	0	13	0
<u>German</u>				
Language 1	27	7	82	22
Language 2	22	1	75	14
Language 3	3	0	27	4
Language 4	0	0	1	0

It must be recognized that many factors affect election of a language in high school: college entrance requirements, determination of a sequence (General Language 1 and 2 complete a sequence), scheduling difficulties. However, all are related essentially by the election of the pupils and their parents. There are four natural drop-out or retention times:

1. Retention of the pupils who elect the first course in General Language 1 and continue to the second course in General Language and then terminate
2. Retention of the pupils enrolled in the first level of traditional language who continue to the second level of traditional language
3. Retention of the pupils who enrolled in the second level of the traditional language or the pupils who enrolled in the accelerated level, both of whom continued to the third level
4. Retention of the pupils who enrolled in the third level and continued to the fourth level.

At 99 to 1 odds, there was a significant difference in favor of the Somerville pupils compared with the non-FLES pupils in retention from General Language 1 to General Language 2 although the language itself, French or Spanish, was immaterial. Seventy-eight percent of the FLES group enrolled in General Language 1 elected a second year; whereas only 44% of the non-FLES pupils did.

Also considered noteworthy is the fact that 70% of the non-college-bound FLES students -- free from the dictates of college entrance requirements -- did elect some foreign language during their four years in high school. In fact even among the non-FLES non-college-bound students at Somerville High School 62% elect a foreign language. The difference is significant at 13 to 1 odds (90% level of significance). In New Jersey in the fall of 1959, 48.2% of all pupils were enrolled in foreign language, and in the fall of the previous year 43.7% were enrolled.¹ The national percentages at the same time were 27% in 1959 and 24.3% in 1958. Although the state and national figures do not cover general language courses, they do involve all pupils including the college-bound.

There are four foreign languages in the sequence Language 1, 2 and the sequences to follow: French, German, Latin, and Spanish. During the year of the study, 980 pupils were enrolled in Language 1 and 748 pupils in Language 2, which does not include the accelerated classes. Of both Somerville and non-Somerville pupils 76% were retained, there being no difference among the four foreign languages. Whereas 88% of the college preparatory students continued from Language 1 to Language 2, only 34% of the non-college preparatory pupils did.

The local situation, however, is a factor in this phase of the study: except for those who are entering level one of a new foreign language, the majority of FLES pupils enter high school on level two (French or Spanish 2E) rather than the traditional level one. The same situation affects the next phase, retention from level two to level three.

As might be expected, a very significant difference favored the Somerville pupils in continuation from Language 2 to Language 3. Of 973 pupils enrolled in Language 2 and 322 in Language 3, the FLES continuation was 47% and the non-FLES 24%. However,

¹ Modern Language Association of America, Reports of Surveys and Studies in the Teaching of Modern Foreign Language, p.21.

one must recognize that college-bound students usually need at least two language units, Language 3 often being the second unit for the FLES group. A supplemental breakdown of the four languages indicates that 38% of students enrolled in French, German, or Spanish 2 continued to the third level. In Latin 17% continue from the second to the third level.

No significant difference between the Somerville or FLES pupils and the non-Somerville or non-FLES pupils showed in retention from Language 3 to Language 4. Retention in both cases was 28%. There were 322 pupils in Language 3 and 89 pupils in Language 4.

This study of retention as a measure of pupil and parental estimates of the value of the FLES program supports two major conclusions:

First: There is no deleterious effect from the FLES program on the retention of pupils in foreign language in the Somerville High School.

Second: In the non-college preparatory pupils, there is a positive relationship favoring the FLES program in the election of a foreign language even though the awareness of the non-Somerville pupils of the value of foreign language study is reflected by a relatively higher proportion electing foreign language than in general in the state or nation.

DESCRIPTION OF FLES COURSES

ELEMENTARY SCHOOL (3 - 6)

Procedures and methods used in grades three through six are alike in both French and Spanish, inasmuch as the MLA Guides form the basis of both courses. Only the specific materials are different.

I. Procedures and Methods

- A. Course content and procedures, methods and materials throughout the elementary French and Spanish Programs in Somerville are those recommended in the MLA Guides for Teaching French and Spanish.

Immediate stress is placed upon building comprehension of words, sentences, and ideas expressed by the teacher. The children are encouraged to repeat in chorus and individually; and from the first day of the FLES experience they are expected to reply and are encouraged to gain confidence in their abilities and progress. The goal is active participation and involvement of all students.

In the introduction of each lesson or unit, the teacher finds it able to explain in English to the children the procedures involved what is expected of them. For example, in the first unit in third grade, the teaching of various types of greetings and farewells, teacher explains to the class: "We are going to learn how a French (Spanish) child says 'good morning' to his teacher and how the teacher says 'good morning (afternoon)' to the class. Listen carefully as I repeat this greeting for you several times. Then all of you try to repeat exactly what I have said in the same way." From repetition as a class, the teacher proceeds to speaking to individual students, encouraging and praising quick and accurate response. Finally the teacher feels the students are ready for student-to-student conversations. Children are encouraged to volunteer to play the role of the teacher. All vocabulary is presented in context, never in isolated words.

- B. The core of the FLES program in Somerville is the basic dialogue, as recommended by the MLA Guides. The basic dialogue represents some realistic situation related to the experiences and interests of most children of the age group, often correlating with some other area in the school curriculum, such as hygiene or geography.

1. Presentation of a dialogue lesson

- a. Introduction of vocabulary to be employed in lesson through pictures, posters, charts or concrete objects
- b. Drill and mastery of vocabulary by class

- c. Explanation (rapid; in English) by teacher of the situation about which the dialogue revolves
- d. Dialogue divided into scenes, each of which is presented rapidly in entirety by the teacher
- e. Rapid repetition, sentence by sentence, by the class in chorus
- f. Repetition of scene, sentence by sentence, sections of the class
- g. Repetition of scene, sentence by sentence, by individuals
- h. Drill -- individual sentences; one at a time; perhaps two a day, stressing accuracy of pronunciation and intonation
- i. Student-to-student practice of individual sentences, progressively building up into the entire scene
- j. Presentation by volunteers of: (a) the whole scene
(b) entire dialogue

- 2. Modification of basic dialogue
- 3. Question and answer, teacher-student
- 4. Question and answer, student-student
- 5. Question and answer, student-teacher - student
- 6. Structural changes
- 7. Re-entry of previously learned materials in modified forms

II. Materials

A. Visual

- 1. charts
- 2. calendars
- 3. pictures
- 4. flashcards
- 5. concrete objects: as required by unit
 - a. stuffed animals
 - b. cutlery, plates, etc.
 - c. money: French (Spanish) coins, bills
- 6. posters

B. Audial: records

- 1. speech
- 2. music (songs)

III. Content of French Course

A. Grade III

- 1. Introduction to most usual forms of greeting and farewell:
 - Bonjour, madame, mademoiselle, monsieur.
 - Comment allez-vous, classe? Comment vas-tu, Jean?
 - Très bien merci, et vous?
 - Au revoir, classe.
 - Au revoir, madame, monsieur, mademoiselle.
 - A demain.
- 2. Learning own name and those of other boys and girls in the class; asking another student his name and replying with own name

3. Numbers from one to fifty-nine
4. Common classroom vocabulary: blackboard, window, door, chalk, pencil, eraser, boy, girl, teacher, chair, etc.
5. Colors
6. Animals: dog, cat, rabbit, etc.
7. Common classroom commands and activities: go to the door; to the window; get up; sit down; raise your hand; repeat; lower your hand; write on the board; erase the board, etc.
8. Members of the family: mother, father
9. Christmas unit: a Christmas carol
10. Using the telephone: Calling a friend to invite him to play
11. Morning at home: Get up; get washed; brush teeth; etc.
12. Furniture in bedroom
13. Days of the week: Today is Wednesday.
14. Expressions of weather: Response to questions concerning weather
15. Clothing: Boy's and girl's
16. The house: roof, doors, windows, walls, etc.
17. Songs: Sur le pont d'Avignon
Monte sur un éléphant
Frère Jacques
Savez-vous planter les choux?
Il était une bergère
Il était un petit navire
Fais Dodo

B. Grade IV

Grade IV French course is sequel to Grade III and is built upon materials learned in Grade III. Actual content: as recommended in M.L.A. Guide for French in Grade IV (Revised 1961 edition).

1. Review of Grade III material
2. Unit of visit to a toy store: purchasing an article; learning names of various toys
3. Months and seasons of the year
4. Foods and setting the table
5. Additional members of the family: brother, sister, aunt, uncle, grandmother, grandfather
6. A visit to grandmother's house: getting ready, preparations, etc.
7. The city: buildings, streets, vehicles, policeman, etc.
8. Finding a lost pet: inquiry, policeman
9. Introduction of a new friend
10. Addresses
11. Simple geography: Paris is a city. It is the capital of France; France is not a city; it is a country; Somerville is small; New York is large; it is a city; New York is in the United States; it is not in France.
12. Numbers 59 - 1,000
13. Christmas Unit: more extended than Grade III
14. Songs: Review of Grade III songs
Au Clair de la lune
Le Coucou
J'ai perdu le do

C. Grade V

1. Review of Grade IV units
2. Aches and pains: Where do you feel bad? I have a headache, sore throat, etc.
3. Telephoning doctor, dentist, etc. for an appointment
4. At the doctor's office
5. Rooms of the house and furniture
6. Christmas unit
7. An evening at home: activities of various members of the family
8. Preparations for a trip to France
9. Stores and shops in France, buying expeditions
10. Geography: More intensive than previously: important mountains, rivers, cities; names of countries of Europe and their capitals
11. Dramatization of a fairy tale: Little Red Riding Hood
12. At the Post Office
13. Number experiences: arithmetic, making change with French money, etc.
14. Songs: Jean Wagonas
Review and additional stanzas of previously learned songs

D. Grade VI

1. Review of materials from previous grades
2. Shopping for a gift
3. Presentation of a new student in class: to teacher, to parent, etc.
4. Foods: preparing a meal, selecting a meal in a restaurant
5. Preparing a surprise party
6. A day at school
7. Christmas unit
8. Family: how many members, how old, etc.
9. Buying a new shirt (dress, etc.)
10. Introduction to reading
 - a. names of accents
 - b. basic principles of pronunciation
 - c. reading paragraphs of materials already familiar
 - d. reading as a group
 - e. individual reading
 - f. finding words in a passage containing a given sound
 - g. word recognition, out of context, from flashcards
 - h. writing words and sentences from dictation
 - i. differentiation between singular and plural: nouns, verbs, articles, etc.
 - j. introduction to written forms of masculine, feminine of common adjectives
 - k. introduction to conjugation of some basic verbs; particularly conjugation pattern
 - l. more formalized work with negatives

IV. Content of Spanish Course

A. Grade III

1. Introduction to most usual forms of greeting and farewell:
Buenos días, señora, señorita, señor.
¿Cómo están, clase? ¿Cómo estás tú, Juanita?

¿Muy bien gracias, y usted?
Adiós, clase
Adiós, señora, señor, señorita
Hasta mañana.

2. Learning own names and those of other boys and girls in the class; asking another student his name and replying with own name
3. Numbers from one to a hundred
4. Common classroom vocabulary: blackboard, window, door, chalk, pencil, eraser, boy, girl, teacher, chair, etc.
5. Colors
6. Animals: dog, cat, rabbit, etc.
7. Common classroom commands and activities: go to the door; to the window; get up; sit down; raise your hand; repeat; lower your hand; write on the board; erase the board, etc.
8. Members of the family: mother, father
9. Christmas unit: a Christmas carol
10. Using the telephone: Calling a friend to invite him to play
11. Morning at home: get up; get washed; brush teeth; etc.
12. Furniture in bedroom
13. Days of the week: Today is Wednesday.
14. Expressions of weather: response to questions concerning weather
15. Clothing: Boy's and girl's
16. The house: roof, doors, windows, walls, etc.
17. Canciones:
 - El rancho grande
 - Cielito lindo
 - Los números
 - Los pollitos
 - Las mañanitas

Juegos:

El burro
Pín Marín
San Serafín
Naranja dulce
La víbora de la mar.
La rueda de San Miguel

Recitaciones:

La bandera
La viejita
El patito
El aguacate
Riqui ran

B. Grade IV

Grade IV Spanish course is sequel to Grade III and is built upon materials learned in Grade III. Actual content: as recommended in MLA Guide for Spanish in Grade IV.

1. Review of Grade III material
2. Unit of visit to a toy store: purchasing an article; learning names of various toys
3. Months and seasons of the year
4. Foods and setting the table

5. Additional members of the family: brother, sister, aunt, uncle, grandmother, grandfather
6. A visit to grandmother's house: getting ready, preparation, etc.
7. The city: buildings, streets, vehicles, policeman, etc.
8. Finding a lost pet: inquiry, policeman
9. Introduction of a new friend
10. Addresses
11. Simple geography: Mexico is a country: Mexico City is a large city. Somerville is small; New York is large; it is a city: New York is in the United States; it is not in Mexico.
12. Numbers 100 - 10,000
13. Christmas unit: more extended than Grade III
14. Songs: Review of Grade III songs
El Millonario
Amor, amor, amor
El barquito

C. Grade V

1. Review of Grade IV units
2. Aches and pains; Where do you ache? I have a headache, sore throat, etc.
3. Telephoning doctor, dentist, etc. for an appointment
4. At the doctor's office
5. Rooms in the house and house furnishings
6. Christmas unit
7. An evening at home: Activities of various members of the family
8. Preparations for a trip to some Latin-American country or Spain
9. Stores and shops in Mexico; buying expeditions
10. Geography: More intensive than previously: important mountains, rivers, cities: names of countries of Latin America and Europe and their capitals
11. Dramatization of a fairy tale: Red Riding Hood
12. At the Post Office
13. Number experiences: arithmetic, making change with Mexican money, etc.
14. Songs: María Elena
Review and additional stanzas of previously learned songs

D. Grade VI

1. Review of materials from previous grades
2. Shopping for a gift
3. Preparing a surprise party
4. Presentation of a new student in class: to teacher, to parent, etc.
5. Foods: preparing a meal and selecting meal in a restaurant
6. A day at school
7. Christmas unit
8. Family: how many members, how old, etc.
9. Buying a new shirt (dress, etc.)
10. Introduction to reading
 - a. accent, tilde
 - b. basic principles of pronunciation
 - c. reading paragraphs of materials already familiar
 - d. reading as a group
 - e. individual reading

- f. finding words in a passage containing a given sound
- g. word recognition, out of context, from flash cards
- h. writing words and sentences from dictation
- i. differentiation between singular and plural: nouns, verbs, articles, etc.
- j. introduction to written forms of masculine, feminine of common adjectives
- k. introduction to conjugation of some basic verbs; particularly conjugation pattern
- l. more formalized work with negatives

JUNIOR HIGH SCHOOL (7 - 8)

In Somerville the child is introduced to the spoken language in grade three. The junior high school program continues the emphasis on the spoken language. The skills of reading and writing are introduced and grammar concepts are presented. Cultural items are inserted at every possible point.

I. Objectives

A. In the junior high the skills of listening, speaking, reading, and writing are stressed in that order.

1. The student should understand the foreign language as it is spoken by native speakers in situations similar to his own experiences and using vocabulary, idioms, and grammar with which he is familiar.
2. The student should speak the foreign language with reasonable fluency using the vocabulary and situations appropriate to his age and training. Answering basic questions, participating in simple dialogues, and giving brief summaries of material he reads or hears are included.
3. The student should be able to read in the foreign language material at his level with not too much difficulty and without conscious translation. He should be able to read the texts and any other materials which conform to his level of advancement.
4. The student should be able to write anything he can say.

B. Culturally speaking, the student should be familiar with French and Spanish geography. He should know certain features of history, civilization, and contemporary life. He should know several songs and a few poems.

II. Procedures and Methods

A. The process of learning a foreign language should as much as possible follow the normal pattern which a child follows in learning his native language. The procedures and methods used in the junior high school are basically those of the "new key" or audio-lingual method. Modifications have been made, particularly in the beginning, to allow for the four years of previous oral preparation and the introduction to reading which is given at the end of grade six. The program may be divided into three periods: the completely oral period, the transition period, and the reading-writing-text book period.

1. Oral Period

During this oral period which lasts approximately one month, there is a review of greetings, expressions, basic vocabulary, and other items which the students have already learned. This is done by direct questioning and by use of a basic dialogue. The basic dialogue is the core of the oral period and the transition period which follows it. The objective is mastery of the basic dialogue. Students are expected to know the dialogue from memory. From the first day, mistakes in pronunciation and intonation are corrected. The target language is used exclusively except for the short English description which introduces the dialogue. Pictures and concrete objects are used to convey meanings.

a. Presentation of Dialogue Lesson

1. Introduction of dialogue in English. Teacher sets the scene and tells students what the situation is. This is not a word for word translation.
2. Teacher presents entire dialogue (or section) at normal rate.
3. Rapid repetition sentence by sentence by students in chorus. If the sentence is long, it is broken up and practiced in meaningful phrases. The building is always done from the end and the sentence is always put together in the end since the student retains in his memory the beginning of the sentence but not the end. It also helps to maintain logical grouping of words and proper intonation.

Give me some bread and butter please.
_____ please.
_____ and butter please.
_____ some bread and butter please.
Give me some bread and butter please.

4. Rapid repetition sentence by sentence by sections of class, by rows, and finally by individuals.
5. Rapid repetition of whole dialogue (or section) in chorus, by sections, and by pairs.
6. Presentation of dialogue by volunteers.
7. Dialogue adaptation. Supplementary material is inserted.
8. Questions and answers concerning the dialogue.
9. Drills - individual sounds, structural patterns.

2. Transition Period

After the basic dialogue has been learned orally, students are ready to proceed with the reading and the writing areas. This work begins with the isolation of individual sounds which are used in the dialogue. The students are asked to give words in which these sounds are used. The words are written on the board. For the first time the student is able to relate the written word with the already learned pronunciation. The group continues in this manner until it is possible to build up whole sentences from the dialogue and eventually the whole dialogue. Mimeographed copies are handed out and

reading begins. At first students read after the teacher and then alone. There is much skipping around to insure that the student is actually reading and not reciting from memory. Progress is from chorus reading to sections of the class and finally to pairs of students. It is helpful to number the lines and call students at random to read individual lines. When they can read the dialogue easily, they make a copy of it for homework. This is the first step towards writing. Dictation of words and of sentences at the board follows. Finally the student is asked to write the whole dialogue from dictation. The transition period takes approximately two weeks.

3. Text-book Period

The remainder of the course is centered around the texts (grammar, vocabulary, reading). Songs, poems, and other cultural items are added to supplement the texts. The language laboratory * is used to drill and to reinforce points already taught in class.

4. Language Laboratory

One twenty-minute period a week is spent in the language laboratory. The work of this period serves as an intensive reinforcement of skills learned in the classroom.

III. Materials for French Course

A. Texts (Years in parenthesis indicate years texts were used)

1. Spink and Millis. French Storybook Grammar. New York: Ginn & Company, 1942. (1954-1956)
2. Rubin et Bergeaud. Le Français Par la Méthode Directe. Paris: Hachette, 1941. (1957-1961)
3. Mauger, Cours de Langue et de Civilisation Française I. Paris: Hachette, 1953. (1961-1962)
4. Croteau et Selvi. Premières Lectures Culturelles. New York: American Book Company, 1952.
5. Keating-Moraud. Audubon. New York: American Book Company, 1958.

B. Visual Aids

1. Charts depicting various scenes such as family, town, country, fair, etc.
2. Bulletin Boards, Posters
3. Pictures
4. Flashcards
5. Concrete objects (such as calendars, clocks, souvenirs of France, etc.)
6. Map of France
7. Slides

* Linguatrainner Laboratory installed September, 1961 - Not in use during the period of this survey.

C. Audio Aids

1. Records
2. Tapes (made by teacher)

IV. Content of French Course

A. Grade VII

1. Oral Period
2. Transition Period
3. Text - (pages 1-72) Mauger, G. Cours de Langue et de Civilisation Française I. Paris: Hachette, 1953 (1961)

note: The lesson heading indicates the grammar and the vocabulary covered therein.

- a. Un, une - c'est
 - b. Un, des - ce sont
 - c. Le, la, les, l'
 - d. L'accord de l'adjectif qualificatif, les couleurs
 - e. Je suis. Les adjectifs
 - f. Un chapeau, des chapeaux, il y a, y a-t-il?
 - g. Je ne suis pas. Suis-je? La matière des objets
 - h. J'ai, le corps
 - i. Mon, ton, son, la tête
 - j. Notre, votre, leur, les verbes en -ER
 - k. Du, des, l'heure
 - l. Au, aux, le jour, le mois, l'année
 - m. Les verbes en -IR, les saisons
 - n. Ce, cette, ces, les mesures, l'âge
 - o. Les trois groupes de verbes, la maison de M. Vincent à Montréal
 - p. Le passé composé de l'indicatif, la famille Vincent
 - q. Le passé composé (suite), le salon, la salle à manger, la cuisine
 - r. Le passé composé avec être, les chambres, la salle de bains
 - s. L'article partitif, les repas
 - t. Le futur de l'indicatif, une grande nouvelle
 - u. Le futur des verbes du 3^e groupe, les vêtements de l'homme
 - v. Le futur proche, les vêtements de femme
 - w. Le passé récent, lettres et passeports
 - x. Le verbe pronominal, la toilette de M. Vincent
 - y. Le passé composé d'un verbe pronominal, le départ
4. Reading - In addition to the reading in the grammar text the following intensive reading is done from Croteau et Selvi. Premières Lectures Culturelles. New York: American Book Company, 1952.
- a. Villes de France
 - b. Fleuves de France
 - c. Les Provinces
 - d. Le Bretagne et la Normandie
 - e. Le Relief de la France
 - f. Paris
 - g. L'Union Française
 - h. Analogie entre l'anglais et le français

5. Songs

- a. La Chanson des Voyelles
- b. Noël du XVII^e Siècle
- c. Le Petit Prince
- d. En Passant Par La Lorraine
- e. Plantons La Vigne

6. Poems

- a. "La Fourmi" (Robert Desnos)
- b. "Mars"
- c. "L'automne" (Victor Hugo)
- d. "La Vie" (Leon Montenaeken)

B. Grade VIII

- 1. Review of main points taught in grade VII.
- 2. Text - (pages 74-179)

- a. Le pluriel des noms. La famille Vincent débarque au Havre.
- b. Le pluriel des noms(suite). Dans le train
- c. Le pluriel des adjectifs qualificatifs. L'arrivée à Paris.
- d. L'impératif. Vers l'hôtel.
- e. Le comparatif. A l'hôtel.
- f. Le superlatif. La chambre d'hôtel.
- g. Le féminin des adjectifs qualificatifs (2^e degré). Le petit déjeuner.
- h. Le féminin des adjectifs (suite). Une promenade.
- i. Le féminin des adjectifs (suite). Le déjeuner au restaurant.
- j. Le sujet et l'objet direct. Chez les Legrand.
- k. Les pronoms possessifs. Maison ou appartement.
- l. Les pronoms personnels. l'appartement des Vincent à Paris. le salon.
- m. L'objet indirect, les pronoms personnels (suite). Le cabinet de travail de M. Vincent.
- n. Les pronoms personnels(fin). La salle à manger et la cuisine.
- o. La conjugaison des verbes en -ELER, -ETER, L'épicerie, les légumes, et les fruits.
- p. Le féminin des noms(2^e degré). La boucherie, la charcuterie, la poissonerie.
- q. La conjugaison des verbes en -CER, -GER. Le féminin des noms (suite). La boulangerie, la crèmerie.
- r. La conjugaison des verbes en -AYER, -OYER, -UYER. Le féminin des noms (fin). Les marchands du quartier (fin).
- s. L'imparfait de l'indicatif (la durée). La poste.
- t. L'imparfait de l'indicatif (la répétition). Les grands magasins.
- u. L'adverbe Le métro, l'autobus.
- v. Les pronoms relatifs. Chez le coiffeur.
- w. Les pronoms relatifs(suite) A la préfecture de police.
- x. Les démonstratifs composés. Paris vu de la tour Eiffel.
- y. Les adjectifs et les pronoms interrogatifs. Les rues. La circulation.
- z. Les pronoms interrogatifs(suite). Le cafe-tabac.

- aa. L'accord du participe passé - Au théâtre et au cinéma.
- bb. L'analyse grammaticale. Un concert au Luxembourg.
- cc. L'analyse grammaticale (suite). Les animaux du zoo.
- dd. Une lettre.
- ee. Le futur antérieur. ~~A Biarritz, la plage.~~
- ff. Le futur antérieur(suite). Dans les Pyrenees.
- gg. Le plus-que-parfait. La chasse et la pêche.
- hh. La moisson et les vendanges.
- ii. Les animaux de la ferme.
- jj. Le participe présent. Un mariage a la campagne.
- kk. La fête du village.
- ll. Le conditionnel présent. Les sports.
- mm. C'est.....que. Un accident, l'hôpital.
- nn. C'est.....qui, c'est.....que. La fin des vacances.

3. Reading - In addition to the reading in the grammar text intensive reading is done in Keating Moraud: Audubon and the following selections in Croteau et Selvi: Premieres Lectures Culturelles.

- a. Le père, son fils, et l'âne.
- b. L'homme entre deux âges.
- c. La jeune veuve.
- d. Les trois aveugles
- e. Renard et Isengrin: Renard et les anguilles
- f. Renard et Isengrin: Isengrin et les poissons
- g. La couverture
- h. Le cuvier
- i. Une aventure de Gil Blas
- j. Le Louis d'or

4. Songs

- a. La Marseillaise
- b. Chevaliers de la Table Ronde
- c. Margoton
- d. La Mer
- e. Others

5. Poems

- a. "L'aurore sur la mer"
- b. Fables de la Fontaine
 - (1) "Le corbeau et le renard"
 - (2) "La cigale et la fourmi"

6. Games

- a. Bingo
- b. Vocabulary Bees
- c. Spelling Bees
- d. Buzz
- e. Je vais à Paris et je prends...
- f. Question cards
- g. Connaissez-vous mon oncle?

7. Other Activities

- a. French notebook (kept by each child)
- b. Making maps of France
- c. French Club (grade VIII)
- d. Skits
- e. Telephone conversations
- f. Proverbs
- g. Anecdotes
- h. Assembly Programs

V. Materials for Spanish Course

A. Texts (Years in parenthesis indicate years texts were used)

1. Lopez and Brown. Vamos a Hablar Español. Boston: D. C. Heath, 1949 (1953-55)
2. Arjona, Doris King. Fronteras. New York: Scott, Foresman, 1952 (1955-1958)
3. Ginsburg, Nassi. Speaking Spanish. Boston: Allyn and Bacon, Inc. 1955 (1958-61)
4. La Grone, McHenry, O'Connor. Entender y Hablar. New York: Holt, Rinehart and Winston, 1961 (1961-62)

B. Visual Aids

1. Flash cards
2. Maps of Spain and Latin America
3. Objects such as calendars, clocks, souvenirs of Spanish-speaking countries, etc.
4. Bulletin boards
5. Posters
6. Pictures
7. Motion Pictures

C. Audio Aids

1. Records
2. Tapes that accompany text used primarily in the language laboratory

Content of Spanish Course

A. Grade VII

1. Oral Period
2. Transition Period
3. Text - (units 1-10) La Grone, McHenry, O'Connor. Entender y Hablar. New York: Holt, Rinehart and Winston, 1961 (1961-62)
note: The topics covered in these units are topics with which the students are familiar orally, but which they have not seen in written form and which have not been analyzed gramatically. All items are presented in context.

- a. Uso de tú y usted
- b. Concordancia de verbos

- c. Formas del verbo sin pronombres
 - d. Género de sustantivos
 - e. Artículo definido con títulos
 - f. Adjetivos demostrativos
 - g. Orden de palabras en oraciones interrogativas
 - h. Uso del pronombre sujeto
 - i. Tiempo presente de llamarse
 - j. Posición y concordancia del adjetivo con el sustantivo en género y número.
 - k. Plural de sustantivos
 - l. Artículo indefinido
 - m. A personal
 - n. Pronombres de complemento directo lo, la, los, las
 - o. Conocer, ser
 - p. Numeros 1-20
 - q. Los adjetivos posesivos mi, mis, tu, tus, su, sus
 - r. Mayor, menor
 - s. Tener
 - t. Números 21-1,000
 - u. Artículo definido con nombres de calles
 - v. Contracción del
 - w. Concordancia de nuestro
 - x. Vivir
 - y. Contracción al
 - z. Las horas
 - aa. Formas del infinitivo
 - bb. llegar, comer
 - cc. Expresiones negativas
 - dd. los objetos indirectos me, te, le
 - ee. Usos de hay, gustar, faltar
 - ff. El artículo con deportes, con días de la semana
 - gg. Frases adjetivales
 - hh. Pronombres preposicionales
 - ii. Uso de ir a + infinitivo
 - jj. Jugar
 - kk. Artículo con nombres de diversiones
 - ll. Pensar + infinitivo
 - mm. Participio presente
 - nn. Formas progresivas
 - oo. Fechas
 - pp. Meses y estaciones
 - qq. El tiempo
4. Reading - All intensive reading material is found in the text.
Extensive reading is from:
- a. Elkin, Benjamin. El hombre que caminó alrededor del mundo.
Chicago: Children's Press, 1961
 - b. Friskey, Margaret. El Indio Dos Pies y su caballo.
Chicago: Children's Press, 1959
 - c. Politi, Leo. Pedro, el ángel de la calle Olvera.
New York: Charles Scribner's Sons, 1961
 - d. Rey, H. A. Jorge el curioso. Boston: Houghton Mifflin Company, 1961.

5. Songs - An effective aid to further increase mastery of structure, to increase vocabulary, to add interest, to enrich the cultural background.

- a. Villancicos (Christmas carols)
- b. Cielito Lindo
- c. Las Mañanitas
- d. Corocloclo
- e. Allá en el Rancho Grande

B. Grade VIII

1. Review of main points taught in grade VII.
2. Text - (units 11-20)

- a. El pretérito
- b. Concordancia de adjetivos
- c. El pretérito de los verbos irregulares: ser, ir
- d. Números ordinales, primero hasta quinto
- e. Usos de hay que + infinitivo
tener que + infinitivo
a personal
- f. El tiempo imperfecto
- g. Uso del pretérito y del imperfecto
- h. Artículos con nombres de las partes del cuerpo
- i. Uso de los pronombres reflexivos
- j. Concordancia de adjetivos
- k. Participios pasados
- l. El presente del perfecto de los verbos
- m. Uso de los objetos directos
- n. El tiempo del futuro
- o. El reflexivo como la voz pasiva
- p. Futuro de ir, estar
- q. Uso del infinitivo
- r. El presente del subjuntivo
- s. Uso del subjuntivo con querer, decir, cuando
- t. Expresiones del teléfono
- u. Las formas demostrativas de aquel, aquellos
- v. Uso de acabar de + infinitivo
- w. El pluscuamperfecto
- x. Los complementos con el infinitivo
- y. Expresiones de cortesía
- z. El condicional
- aa. Medios de transporte
- bb. El mandato

3. Reading - Intensive reading in the text and extensive reading from list under section 4 Grade VII.
4. Songs - Same as for Grade VII.
5. Games - Games are included in each unit of the text. Other games depend on the individual teacher and his ingenuity, resources and resourcefulness.

6. Other Activities

- a. Assembly programs
- b. Spanish Club (grade VIII)
- c. Skits

HIGH SCHOOL (9 - 12)

I. General Language Sequence

The objectives of the General Courses are understanding and speaking. Since the pupils in these courses are usually below average in mental ability, repetition is the principle of all learning. While it may seem that the use of the AL Materials may be a repetition for those in these classes who have been through the FLES program, these materials have not been used earlier and are therefore a different approach to accomplish the same goals - understanding and speaking.

A. General French II

1. Content

The basis of work in both class and laboratory is the ALM Guide. Students learn vocabulary and grammar construction through repetition of prescribed dialogues (see AL materials - Harcourt, Brace and World). Each dialogue is supplemented with appropriate pattern drills and adaptation of the dialogue so that the process isn't just rote memory work. Following several class periods of work on a single dialogue, generalizations are made of the main grammar points contained in that lesson, though emphasis on grammar is minimized.

2. Speaking

Through familiarity of the pattern drills and the dialogue adaptation, students are able to answer and ask questions based on information in the dialogue, making it necessary that all class participation be in French... The class is always conducted in French by the teacher except for the last few minutes of the period which may be given over for questions in English if the students have them. (Discussions on cultural material are also conducted in English.)

3. Reading

There are fourteen dialogues which the students don't see in written form until the audio-lingual mastery of each is complete. Students are then given the printed page which is read first by the teacher, then chorally by the entire class and then by rows or individually.

Outside reading in background and culture is in English (text: Huebener. La Douce France. New York: Henry Holt and Company, 1940). Extra reports on such topics as costumes, religious festivals, etc. are given by the students in English and supplemented with pictures.

4. Writing

After the dialogue-reading phase, students copy the dialogue as it is read by the teacher. This dialogue is then given as homework - students being instructed to follow a method similar to that used in class, saying the dialogue as they write it. A regular dictation is given in class after two days' practice as homework. Students have their copies to compare with their own writing.

5. Laboratory

Work in the language laboratory is used as an adjunct to the audio-lingual practice in class. Students attend twice a week for twenty minute sessions. The tapes used are those of ALM - Harcourt, Brace and World. Time is provided for listening, recording and the playback so students may compare their pronunciation to that of the model voices. Much of the material is repetition and recombination of phrases and idioms presented in class to reinforce the learning process.

6. Materials

Whenever appropriate, additional materials are used to further student understanding of the culture of the people. Records of folksongs and films such as:

- a. Food for Paris Markets
- b. French Children
- c. The French Revolution
- d. Modern France - the land and its people
- e. Une Famille Bretonne
- f. Vacances en Normandie

7. Activities

Students are encouraged to join the French Club where they play games in French and listen to guest speakers.

One trip a year is planned to visit the United Nations in New York and to have dinner in a French restaurant.

B. General Spanish II

1. Method: Use of the aural-oral approach

- a. In the classroom the teacher uses the foreign language as much as possible, e.g., giving directions, asking questions, making assignments and explaining materials to be presented. English is completely eliminated except in certain emergency situations.
- b. The students hear and imitate the teacher, who is careful to pay close attention to his own intonation, pronunciation, and accentuation as well as to those of the student.

- c. Only after hearing and repeating and complete oral mastery is attained do the students attempt to read and write the materials presented orally.
- d. The teacher indicates to the students, through pictures, actions, drawings, props, or pointing to the objects read, the meaning of his words.
- e. Variety in the classroom may include any or all of the following:
- (1) Teacher-class response; teacher calls for choral recitation or answers to questions.
 - (2) Teacher-group response; teacher calls for certain groups, such as girls, boys or certain rows of class, to recite, read or answer questions.
 - (3) Teacher-pupil response; teacher calls on individual students to read, recite, or answer questions.
 - (4) Pupil-pupil response; teacher tells one pupil to ask a question of another student who is in turn supposed to answer the question.
 - (5) Frequent conversations based on materials learned; various topics are assigned to be given as conversations or else dialogues from the texts illustrating a particular point of grammar are practiced and memorized for presentation to the class.
 - (6) Games for vocabulary, grammar and cultural review; teacher tells students to give the opposite of a word or identify a particular person or place. If the student answers correctly he can go to the board and draw one part of a picture of an animal. Or, a correct answer may count as a base hit in a game of baseball, the winning team receiving some sort of prize. Crossword puzzles or twenty-questions types of games are played.
 - (7) Written exercises; certain exercises in the text are assigned to be completed for homework. A student may be required to make certain sentences singular if they are written in the plural, or plural if they are in the singular. The student may also be asked to change the tense of certain verbs or answer certain questions on his age, the date, the weather, etc.
 - (8) Reading in the foreign language; after going over a certain section in the book orally, the teacher assigns this section to be read, along with certain questions to be answered, or particular points to be looked for as directed by the teacher.
 - (9) Classroom recitation of poetry, singing, etc.; certain poems such as those of Becquer (Qué es poesía?....) Joaquín María de Bartina, Ruben Darío, and others are learned. The singing of modern songs in Spanish such as "Amor," "Greenfields," "Frenesi," "Adios," "Aquellas Ojos Verdes (Green Eyes)," etc. provides a contrast with some of the older traditional songs, such as "Allá en el rancho grande," "San Serení," "Adios Muchachas," "Las Mananitas" and a few of the traditional Christmas songs, such as "Noche de Paz," "Cascabel", etc.

2. Grammar

- a. Grammar is taught analytically through the use of examples, model sentences, and various types of structure drills.
- b. Some fundamentals of grammar, such as the masculine and feminine forms, the definite and indefinite articles, present, past, and future tense conjugations of all three verb endings, some essential irregular verbs, and possession must be taught as grammar. This is done by the presentation of the particular point of grammar in a model phrase or sentence illustrating its usage. The teacher gives the model and has the students repeat it several times. Then he provides a series of other drills which make use of this same point of grammar in a new setting. Soon, the teacher changes the pattern of the drill; but by supplying a "cue" word or phrase, the student can complete the drill correctly, according to the example and the "cue". These pattern drills are used by the teacher to illustrate uses of various grammatical points. They are most useful in providing practice and review of the basic structural and speech patterns.

3. The Language Laboratory

- a. The language laboratory provides for constant review and practice of materials already learned or being learned.
- b. Tapes are made on each unit by the teacher. After the unit has been introduced in class and learned sufficiently, the class goes to the laboratory and hears the tapes on the unit being studied. Thus, the laboratory acts as a "reinforcing" agent, i.e. it reinforces through constant repetition and overlearning the work of the classroom.
- c. The laboratory period is an important aid in that it affords more individual contact between student and teacher and helps the teacher to evaluate the progress being made by each student.

4. Cultural appreciation of the foreign language

- a. A review of Spain precedes the study of Latin America.
- b. The study of Latin America is begun by a look at geography of the country. Outline maps are useful in the locating of important cities, rivers, mountain ranges, etc.
- c. Historical events going back to the discovery, exploration, and conquest of the land, to the revolt of the colonies against Spain to the present are studied. It is here that we look at the influence of such important figures in Latin American history as San Martín, Bolívar, Sucre, Miranda, etc. At this time we also begin to look at some of the problems of Latin America, past and present, political and economical.

- d. Through the use of maps, outside readings, clippings from magazines and newspapers, we learn about the daily life representative of the country. Styles of dress are contrasted and ideas on courtship, the United States, religion, etc. are of particular interest. A study of a typical menu obtained from a Spanish or Mexican restaurant gives some idea of the types of foods which are popular in these Latin American countries. Enchilladas, tortillas, tamales, and chile con carne are some of the more well-known dishes students come across.
 - e. Music from albums such as "Bullring," "La Fiesta Brava" and "Sing Along in Spanish" gives examples of some of the types of music originating in the Latin American countries.
5. Testing: Tests cover the students' ability to comprehend what they hear and what they read, and their ability to express themselves in the language correctly and easily.
- a. Oral tests of speaking
 - (1) Directed speech; teacher gives student directions to ask a question or repeat a phrase.
 - (2) Talk about or answer questions on pictures
 - (3) Question-answer type
 - (4) Oral resume of materials learned
 - b. Oral tests of hearing
 - (1) ABCD type completion; student has choice of correct answer.
 - (2) Written rejoinder - joining two statements which are related to each other
 - (3) Passage with choice of answers to questions
 - (4) True - False
 - c. Written tests of reading comprehension
 - (1) Passage to be read and questions to be answered
 - (2) Fill-ins with glossary provided
 - (3) Identification of it in passage
 - (4) Matching of names and descriptions, places, etc.
 - d. Written tests of writing
 - (1) Sentences in which the verb is to be changed from present to past or singular or plural
 - (2) Identification
 - (3) Completion tests in which a student is asked to complete a paragraph already begun
 - (4) Writing out various pattern drills which have been learned orally

6. Materials

a. Texts

- (1) Lipp, S² and Besso, H. V. Conversational Spanish. New York: Hastings House, 1947, a text prepared for teaching Spanish to Air Force pilots in a short period of time. (out of print)
- (2) Ginsburg, Ruth R. and Nassi, Robert J. Speaking Spanish. New York: Allyn and Bacon, 1960, a text which is especially suited for the general language classes.
- (3) Turk, L. H. and Turk, M. A. El español al día, Book I. Boston: D. C. Heath, 1949. (used until 1958)
- (4) Leal, Luis, ed. Periquillo. Boston: D. C. Heath, 1946, Graded Spanish Readers.

b. Pictures, posters, and various articles from the places being studied

c. Recordings by native singers, bands, etc.

- (1) "Bullring"
- (2) "La Fiesta Brava"
- (3) "Christmas in Mexico"
- (4) "Sing Along in Spanish"

d. Materials from NDEA Summer Institute

- (1) Poetry: "Cantos de Vida y Esperanza"
- (2) Songs: "Amor," "Frenesi," "Bésame Mucho," etc.
- (3) "Tests" by Nelson Brooks

e. Magazines in Spanish - Life

f. Tapes prepared by the teacher for each unit of work

II. French Sequence

A. French IIE (a course for ninth grade pupils with a FLES background)

1. Speaking

All work in the classroom is conducted in French. Pattern drills based on exercises in the text and on similar work from other sources such as the Teachers' Guide and Recorded Text for Tapes and L'Encyclopédie sonore which accompany class texts are used.

The student's vocabulary is developed through these oral drills, dialogues learned, and reading. Comments on topics of national and international importance, holidays, life in school and sports, are encouraged at opportune times. These discussions are enriched by the travel and study experience of the teacher. Practice in the language laboratory serves to strengthen this foundation.

2. Grammar

The first few weeks are spent in reviewing the work covered in Junior High School. The amount of time consumed varies with the group, the advanced students needing less time than the slower ones. At this point the second year text is introduced.

3. Reading

Intensive reading is done mainly in the text. If time permits a reader is used.

Extensive reading includes four books in English with French or French-American backgrounds. Good students are urged to do some of their reading in French. A cumulative reading record is started. The school library provides a wide choice of books. Newspapers and periodicals are available there as well as in the classrooms.

4. Writing

Compositions are written, progressing from easy to more difficult ones. Suggestions are made based on the intensive reading and dialogues, the student's own experience and later on subjects appropriate to his knowledge. Dictées, simple resumes, completion, multiple choice, substitution exercises and some translation from English to French are given.

5. Culture

Songs, poems and games vary the more routine phases of language learning. Both texts include material on France, its geography, interesting traditions, modern customs, history and government. Here again the teacher draws from his travel and study experience to add what he can to the student's appreciation of France. In French Club meetings contact with native French people whenever possible, singing, skits and games provide additional gaiety and knowledge.

6. Materials

a. Texts

- (1) O'Brien and La France. New Second-Year French. New York: Ginn, 1959
- (2) Mauger. Cours de langue et de civilisation françaises I. Paris: Hachette, 1953, (Advanced class).

Note: In Junior High School the present class used Rubin et Bergeaud. Le français par la méthode directe I. Paris: Hachette, 1941. The next class to enter high school will be prepared to start Mauger. Cours de langue et de civilisation II. Paris: Hachette.

b. Readers

- (1) Hills and Dondo. Contes Dramatiques. Boston: D. C. Heath, 1927
- (2) Hills and Dondo. La France. Boston: D. C. Heath, 1949
- (3) Parqment. Lectures pour débutants. New York: Henry Holt, 1950
- (4) Mauriac. Le Drôle. Boston: D. C. Heath, 1957

c. Tapes

- (1) Commercial: those which accompany tests: O'Brien and La France. Ginn
- (2) Those made by teachers and others reproduced from records such as Mauger. L'Encyclopedie sonore. Paris: Hachette

d. Film strips, slides, movies

e. Reference materials are available in the classroom, school and town libraries

B. French III (a course for tenth grade pupils with a FLES background)

1. Speaking

Classroom work continues to be conducted in French. Idiomatic expression, correct usage, shades of meaning, word definition and study of word families play an important rôle in this phase of learning. Each student owns a Larousse de poche. Oral discussion of all literature read and several memory passages learned tend to vary the program. Short "exposés" from time to time make interesting lessons with topics chosen in France-Amerique, Top, or Paris Match generally. Discussion of timely subjects continue to be used as in IIE. Work in the language laboratory reinforces that of the classroom.

2. Grammar

More advanced grammar is covered including a review and continued study of the use of the subjunctive as well as the conditional, passive voice, auxiliary verbs (devoir, pouvoir, savoir, vouloir), verbs followed by prepositions; and irregular verbs. As in French IIE the "honors" group will proceed more rapidly and have more time for reading than the other groups.

3. Reading

Reading must be adapted to the class. Much more intensive reading is done in this course than in IIE (see materials below).

Extensive reading is continued and recorded on the cumulative sheet. Three or four books in French are assigned and reported on orally. These books may be read by the entire class if available or chosen on an individual basis from the school library.

4. Writing

Letters and compositions on assigned topics are made from studies related to classwork. Extensive exercises in the text supplement the oral presentation of the grammar and cultural aspects of each lesson. Three or four written book reports are made during the year.

5. Culture

To a greater extent than previously the student has the opportunity to increase his knowledge and appreciation of French culture through his reading, seeing slides, films, hearing records and tapes, a visit to a museum, lunch in a French restaurant, a play or participation in French Club.

6. Materials

a. Grammar: Mauger. Cours de langue et de civilisation françaises II. Paris: Hachette, 1955 (Degrés 1, 2)

b. Readers (choice)

(1) Méras and Célières. French Reading and Practice. New York: Globe Book Company, 1936.

(2) Daudet. Neuf Contes choisis. New York: Henry Holt, 1938

(3) La Brète. Aimer Quand Même. Boston: D. C. Heath, 1930

(4) Loti. Pêcheur d'Islande. New York: Allyn and Bacon, 1922

(5) Lavisse. Cours élémentaire. Boston: D. C. Heath, 1919

c. Dictionaries: The students own Mansion. Pocket Dictionary. French-English. D. C. Heath and Larousse. Larousse de poche.

d. Tapes and records such as:

(1) EMC series of famous people, Promenades en France

(2) Those made by faculty

(3) Audio-Lingual Digest, Pleasantville, New York

(4) Gems of Wit, Wisdom and Beauty (Girard) SMC

(5) Chansons de Noël, Vanguard

(6) Records made at Middlebury College by Mme Moussu and Pierre Thomas to accompany French Reading and Practice and Neuf contes choisis

e. Dictionaries for reference:

(1) Larousse. Petit Larousse

(2) Mansion. Shorter French-English Dictionary. New York: D. C. Heath

(3) Heath. Standard French and English Dictionary, Parts 1 and 2. New York: D. C. Heath

C. French IV (a course for eleventh grade students with FLES background)

1. Speaking

By this time the students are equipped with a vocabulary of fair range which enables them to answer questions quite fully, to ask thought provoking questions of their fellow students and expect replies of similar quality, to make oral reports on books and magazine articles which they have read. They should be able to understand a native person who is speaking in his natural manner.

The aim is to give these students a greater skill in speaking and comprehending spoken French, to increase their curiosity about the literature and culture of France and to develop a greater ability to understand the French people.

Articles in France-Amérique, Paris Match, Top, Réalités and other similar periodicals when available form the basis for "exposés oraux" from time to time. A few "textes commentés" are made. A conversation text in its première partie provides a vicarious trip to France. Students also enjoy dramatization of scenes from Le Bourgeois Gentilhomme and Cyrano de Bergerac.

In the laboratory literary excerpts, intonations and pronunciation exercises, aural and oral tests and records of current interest provide additional experience suitable to their student needs.

2. Grammar

Work is continued in Cours de langue II, degrés 3 and 4. Progress depends again on the class, whether honors or not. The review is continued with grammatical and idiomatic constructions presented on a more advanced level. The compound and formal tenses (indicative, subjunctive, conditional; active and passive) used in literary works are studied and their use noted during the reading.

3. Reading

Intensive - The reading includes selections of a wide variety which give the student experience in observing the style of several different authors. A sense of literary values comes as a cumulative result of this wider range of works by outstanding, representative French authors. Considerable research and reference work is done (see Culture).

Extensive - Five books are read during the year, including a play, a novel, short stories or some poetry, which are related to the period being studied if possible. For instance during the study of poetry of the Middle Ages and fifteenth century many students read Aucassin et Nicolette and La Farce de maître Pierre Pathelin.

4. Writing

Longer papers related to the reading and on original subjects are written during the year, with continued stress on style and idiomatic expression of thought. Composition work on themes developed in Cours de langue et de civilisation françaises and other intensive studies,

character sketches, textes commentés, evaluation of the literary work studied, a moral developed from the reading, all comprise most of the written work of this year. Some dictation is given in class and note taking is stressed. All are familiar with Petit Larousse and Heath's Standard French and English Dictionary by Mansion and use them frequently.

5. Culture

Cultural aspects are achieved indirectly through reading, discussion and research, for instance:

- a. In Cours de langue lessons, students follow a gentleman taking a trip through the provinces. In addition a section called En France with its Documents et Photographies provides ample material on life in France today.
- b. Research on the Middle Ages, the Renaissance and the seventeenth century precedes reading poems of these periods and fables of La Fontaine.
- c. Later an extensive study is made of the development of the comedy as such, the life of Molière, the timelessness of his characters, the court at Versailles and the salon of the Marquise de Rambouillet.
- d. The introduction to Cyrano de Bergerac is discussed: the life and literary work of the real Cyrano (seventeenth century); a general comparison is made between the work and periods in which Shakespeare, Molière and de Bergerac lived.
- e. In Eugénie Grandet, Balzac presents the narrow, provincial life in France with a contempt for everything Parisian. In particular, it is an excellent study of the effect of greed upon a family.
- f. Mann. Conversational French. New York: The Macmillan Company, 1951, previously mentioned, Sonorama and Audio-Lingual Digest records bring timely subjects for class study.

6. Direct experience: By this time, too, students are better prepared to appreciate visits planned for them to such places of interest as The Cloisters, the Metropolitan Museum of Art, the Frick Collection, the Museum of Modern Art or plays presented by the Comédie-Française and other fine troupes of players from France.

7. Materials

a. Texts

- (1) Mauger. Cours de langue et de civilisation françaises. Paris: Hachette, 1955
- (2) Mann. Conversational French, revised. New York: The Macmillan Company, 1951

b. Reading

- (1) Moliere. Le Bourgeois Gentilhomme. Boston: D. C. Heath, 1947.
- (2) Rostand. Cyrano de Bergerac. New York: Henry Holt, 1956.
- (3) Balzac. Eugénie Grandet. Boston: D. C. Heath, 1914
- (4) Francois Villon, du Bellay, Ronsard. Selected poems of Charles d'Orleans.
- (5) Selected fables of La Fontaine

c. Tapes

- (1) Tape to accompany film strip: Molière, Carlier. Gessler Publishing Company
- (2) Tapes made by faculty and native speakers
- (3) Yale-Barnard Conference Aural tests #1 and #2
- (4) Cooperative French Listening Tests A and B

d. Records

- (1) Le bourgeois gentilhomme, Les Comédiens de la Pléiade, Period
- (2) Cyrano de Bergerac, Le Centre d'Art Dramatique, Period
- (3) La Fontaine fables, Liore - disc, Phillips
- (4) La Phonétique et l'intonation, Delattre, Middlebury
- (5) Sonorama, Le Magazine sonore de l'actualité, European Publishing Repres. Company
- (6) Ecrivains français, Extraits, Poésie; J. V. Pleasants
- (7) Speak and Read French III: French Literature, Armand et Louise Bégue
- (8) Audio-Lingual Digest

e. References for research most commonly used:

- (1) Castex et Surer, Manuel des études littéraires françaises, Moyen Age au 20e siècle. Paris: Hachette
- (2) Abry, Audic, Grouzet, Didier. Histoire illustrée de la littérature française.

f. For personal use of students in reviewing for College Board examinations: George Phyllides. Manter Hall Review Exercises III, IV. Massachusetts: Educators Publishing Service.

D. French V (a course for twelfth grade students with FLES background)

Students in the course have shown an aptitude for language. Some may not go to college. Others may not be able to continue their study of the language, but most are planning to continue French. Many of the latter will take the Advanced Placement examination.

1. Speaking

Care in expressing thought and opinions in idiomatic, correct French is stressed as is intonation. Supplementary French conversation lessons (twice a month) are available to those who wish the experience of talking with a native French person. Topics of student interest and

questions on previous Advanced Placement tests are discussed. There are excellent records and tapes at class disposal for use in the study of the literature mentioned below. Current topics are made more meaningful through Sonorama records and the discussions which follow.

2. Grammar

Through use of Mann. Conversational French. New York: The Macmillan Company, 1951, grammar is treated indirectly and review is continued in this way with special study of any point which seems to need emphasis. The grammar at their disposal for reference is Schwartz. French Grammar Review. New York: The Macmillan Company.

3. Reading

- a. Intensive - The student should be quite capable of reading fairly difficult works of great literary value with comprehension and be able to express his interpretation of the author's meaning clearly and concisely. The anthology which is used as a basic text gives an excellent collection of essays, poems, plays and novels. These are supplemented from time to time by selections from other "recueils".
- b. Extensive - Approximately one marking period is spent studying works representative of a century. The extensive reading suggestions are divided in the same way with a choice of at least one to be read independently. At the completion of this course the students have read a rather large number of excellent French works.

4. Writing

At the conclusion of each step the students write a paper on an appropriate topic. This often involves research as well as careful planning. A term paper on a subject of the student's choice is written as part of the final examination.

5. Culture

As the year progresses, the students are introduced to their reading through the study of the Aperçu historique in the Anthologie. They keep in their notebooks a Tableau Chronologique which highlights contemporary political world events and literary contributions of the period.

The students listen to records made by actors of the Comédie-Française and attend a representation in New York or Princeton by players from the Comédie, the Théâtre National Populaire or others.

Visits to the Cloisters, the Metropolitan Museum of Art, the Frick Collection or the Museum of Modern Art are arranged (with lunch in a French restaurant).

A prize is awarded by the Cercle Français to a senior who has excelled in four years of high school French.

6. Materials

a. Texts

- (1) Schinz, Robert and Giroud. La Nouvelle Anthologie française, revised. New York: Harcourt, Brace and Company, 1943
- (2) Hall and Michaud. Lectures classiques et modernes. New York: Odyssey Press, 1956
- (3) Camus. L'Etranger. New York: Appleton, Century, Crofts, Inc., 1955
- (4) Bruezière et Mauger. Langue et civilisation françaises IV: La France et ses écrivains. Paris: Hachette, 1957.

b. Reading in general follows the suggestions made for the Advanced Placement program:

(1) Intensive *

- (a) 16e Montaigne: Les Cannibales
- (b) 17e Corneille: Le Cid
Descartes, Pascal, La Rochefoucauld, La Bruyère,
Mme de Sévigné: selections
- (c) 18e Voltaire: Zadig
- (d) 19e Poésie, Selected poems of Lamartine, Vigny, Hugo,
Baudelaire, Musset, Verlaine, Rimbaud, de Nerval
- (e) 20e Francis Jammes, Paul Valéry
Camus: L'Etranger

(2) Extensive

- (a) 16e Rabelais, Ronsard, Montaigne
- (b) 17e Molière, Racine, Marivaux, Beaumarchais
- (c) 18e Rousseau: Selections from Confessions
- (d) 19e Flaubert, Balzac, Zola, Maupassant
- (e) 20e Anouilh, Cé, Gide, Giraudoux, Proust, Romain, Saint Exupéry

c. Laboratory Materials

(1) Records:

- (a) Poésie française, Extraits, Jeanne Varney Pleasants GMS
- (b) Anthologie sonore, 17e et 18e siècles, Prose, Jeanne Varney Pleasants GMS
- (c) Speak and Read French, Part III, French Literature, Armand et Louise Bégue
- (d) Phonotapes Inc.
- (e) Le Cid, Corneille, La Comédie Française, Period
- (f) L'Etranger, Camus, selections
- (g) Sonorama

* AS a result of the Advanced Placement Conference at Smith College, June, 1962, some replacements or additions will be made to this list.

III. Spanish Sequence

A. Spanish IIE (a course for ninth grade pupils with a FLES background)

1. Speaking

All classroom work is conducted in the foreign language, in this case Spanish. Pattern drills are used based on exercises in the text and on similar work from other texts such as: Modern Spanish, Oral Drills, etc.

Discussions of non-grammar material are conducted, such as: current events in Spanish-speaking areas (the recent Peruvian landslide disaster is an example), cultural material in text, augmented by the teacher's experience from travel and study. Other points which may arise, such as school events or what to the students appear school crises.

Vocabulary is handled as an integral part of knowledge, is learned from pattern practice, is increased from reading.

All work is reenforced by practice in the language laboratory.

2. Grammar

A hasty but rather complete review of the work done in junior high school is undertaken first. The amount of time varies according to the group. The "honors" group obviously needs less time than the slower groups.

At the completion of this review the normal second year work is introduced including a study of the subjunctive.

3. Reading

Intensive reading is from the text. Readers are used if time permits and on an individual extensive basis if it does not. Extensive reading includes four books a year in English with Spanish or Spanish-American backgrounds or books otherwise dealing with Hispanic culture. Good students are encouraged to read some books in Spanish. Newspapers and periodicals in Spanish are available in the classroom and in the school library.

4. Writing

Composition is limited but progresses from the easy to the more difficult. Subjects are themes based on given outlines, on intensive readings, on student's experiences, finally on given subjects. Some translation English to Spanish is done. Completion exercises are given which consist of fill-in-the-blanks, multiple choice, translation of selected words in sentences.

5. Culture

Every opportunity is used to increase the students' knowledge and appreciation of Hispanic culture -- through intensive and extensive reading, through guest speakers, such as students with Hispanic background or travel experience, local residents with similar qualifications, visitors with such background, exchange students. Slides and films, songs, records and tapes, visits to museums, plays, movies, restaurants are also an important part of the cultural program. A Spanish Club gives all students a chance to use and expand their knowledge both of the language and its culture through singing, acting in skits, making piñatas, etc.

6. Materials

a. Texts

- (1) Jarrett. El Camino Real, Book II. third edition. New York: Houghton, Mifflin and Company. (By the time the next group reaches high school, this will probably no longer be the text.)

b. Readers

- (1) Leal, Louis, ed. Periquillo. Boston: D. C. Heath, 1946
- (2) Castillo, Carlos and Sparkman, Colley F., eds. Sigamos leyendo. Boston: D. C. Heath, 1936
- (3) Castillo, Carlos and Sparkman, Colley F., eds. Aventuras de Gil Blas. Boston: D. C. Heath, 1961.

c. Tapes and records are available to supplement the text, as well as others made by members of the department or purchased commercially.

d. The school library contains a large selection of novels, dramas, books of poetry, collections of short stories and essays, biographies, books of travel, histories, encyclopedias (including Encyclopedia Barsa), dictionaries. In the classroom, laboratory, or library are located filmstrips of both Spain and Latin America, records of all types such as folk songs, dances, musicals. Song books are provided containing folksongs and popular songs.

e. Reference materials in all categories are available to the teacher.

B. Spanish III (a course for tenth grade pupils with a FLES background)

1. Spéaking

As in all classes, Spanish continues to be the language of the classroom. While pattern drills continue to be used, they are used to a lesser degree than they have been at other levels. When drills are used, they are based on the exercises in the short review grammar (which is one of the texts), and on the vocabulary and construction of the books that are read. All reports on extensive reading are given in Spanish, discussions on the current topics read in La Prensa are, obviously, in Spanish, discussions on the cultural material, from whatever source it may come, experiences of students and teachers, school events - all

provide excellent opportunities for speaking. At times students in the top group are given subjects to discuss such as: Are bull fights cruel? El Prado. Where is Latin America going? Why should school dances be on Friday? What's the favorite room in your home, and why?

The language laboratory continues to reinforce the work of the classroom. However, at this level, more work in listening comprehension is given than at the second-year level. More testing is done in the laboratory.

2. Grammar

One of the texts used this year is a short review grammar containing fifteen lessons. About seven weeks, at various times during the school year, are spent on this general review. During this study some time is given to the learning of some irregular or orthographically changing verbs with which the students are not yet familiar, for example: oler, huir, caber, esparcir, averiguar, etc. In addition to this, grammar is studied as points arise in composition or reading.

3. Reading

Intensive reading includes representative works of nineteenth century Spanish authors, certain units of civilization, including the history and geography of Spain, a daily New York Spanish newspaper subscribed to one day a week during the second semester. The grammar used includes articles or stories on José Martí, Simón Bolívar, Facondo Quiroga, Sarmiento, Caupolicán, José de San Martín, a Tradición de Ricardo Palma, and certain Latin American fables or legends.

Extensively, the students read at least one representative work of a Spanish or Spanish-American author each semester. These works are reported on orally to the class.

4. Writing

Longer and more original compositions are assigned on subjects generally from their reading. Tests are less and less objective and more and more of the essay type. In all writing, accuracy as well as content are stressed. Style and idiomatic expression are more emphasized.

5. Culture

The early inhabitants of Spain, the geography and history of Spain are studied rather thoroughly. Phases of Latin American life are brought out in the intensive reading. The same opportunities and materials are provided as listed under IIE, including visits, visitors, trips, slides, films, tapes, songs, dances, Spanish Club, etc.

6. Materials

a. Texts

- (1) Ugarte, Francisco. España y su civilización. New York: The Odyssey Press, 1952
- (2) Seymour, A. R., Carnahan, D. H. and Hespelt, E. H. Alternate Spanish Review Grammar and Composition. Boston: D. Heath, 1943

b. Readers

- (1) Castillo, Carlos and Sparkman, Colley F., eds. Aventuras de Gil Blas. Boston: D.C. Heath, 1961
- (2) Alarcón, Pedro A de. El capitán veneno. Boston: D. C. Heath, 1925
- (3) Castillo, Carlos and Sparkman, Colley F., eds. La Nela. (An Adaptation of Benito Pérez Galdós' "Marianela" with Cuaderno) Boston: D. C. Heath, 1932
- (4) La Prensa. La Prensa. 245 Canal Street, New York 13, New York. Daily
- (5) Alexis, Joseph E. A., ed. La vida de Lazarillo de Tormes. Lincoln, Nebraska: Midwest Book Company, 1960
(if not previously read)

c. Tapes are available to supplement the texts. These tapes have all been prepared in the department. Tapes to reinforce the grammar include some prepared by the department and some commercial tapes. Tapes records for listening comprehension include:

- (1) Circling the Globe
- (2) Aesop's Fables
- (3) Audio-Lingual Digest
- (4) La Vida española
- (5) Canciones españolas

d. For the school library material and classroom materials - see Spanish IIE. The Public and County Libraries augment the materials provided by the school.

e. Reference materials in all categories are available to the teacher.

7. Activities (outside of the classroom)

The students of this year are the "work-horses" of the department. They do much of the carrying out of the plans the upper-classmen make. They seem to have time to practice dances for Spanish Club meetings, to make cakes, cookies, etc. and to sell them, too, for the Annual Cake Sale, the profits of which are used for a scholarship for a Spanish student. They make posters, decorate bulletin boards and whatever odd jobs the teachers and upper classmen conjure up for them. For the average and better than average student this seems to be the happiest year.

C. Spanish IV (a course for eleventh grade students with FLES background)

1. Speaking

Spanish continues to be the language of the classroom and students are encouraged to express their opinions on all subjects studied. With sympathetic help and guidance from the teacher, the students gain confidence in advancing from comparatively simple forms of self-expression to ever more idiomatic and complicated forms. Practice in listening comprehension and pattern drills continues regularly in the language laboratory, thus systematically increasing the students' store of basic structures and vocabulary items.

2. Grammar

On this level grammar is discussed and explained as specific questions arise from students' speaking, reading and writing. Students' interest and need dictate to what extent a formal consideration of grammar is undertaken.

3. Reading

Intensive reading is provided by the basic text España y su civilización in which the student surveys the development of Spanish literature from the Middle Ages to the twentieth century. At various intervals this survey is interrupted to consider an example of the type of literature under discussion, for example, medieval and golden age poetry, the picaresque novel El Lazarillo de Tormes, the story of La vida es sueño, plays of the "género chico" "sainete" variety, El sombrero de tres picos. Also one work from the Spanish light opera genre called "zarzuela" is studied. The students hear the recorded work, read the abridged script, and discuss various aspects of the work, its music, plot, setting. Example: La verbena de la Paloma, El barberillo de Lavapiés.

Further intensive work in reading is provided by Speaking Spanish and El frijolito saltón, books specifically designed to increase systematically the students' command of vocabulary and idioms.

Extensive reading consists of four books for the year, all Spanish, one of each of the following types: play, short novel, short stories, and a fourth of the student's choice.

4. Writing

Students are encouraged to continue improving their ability to write accurately and clearly on many different subjects. Besides compositions based on material being read in and out of class, students are evaluated largely by means of essay tests which in turn test ability to write clearly and accurately.

Students are also required to write at least one research paper in Spanish on some aspect of Spanish or Spanish-American culture or civilization.

5. Culture

Besides those aspects of culture which arise from literature, the basic text España y su civilización deals with such topics as the psychology of the Spanish people, the bull fight, Spanish education, Spanish industries and Spanish art and music. These topics serve to stimulate lively class discussions and projects.

6. Materials

a. Texts

- (1) Tyre, Carl A. and Tyre, Annemarie B. Speaking Spanish.
New York: Henry Holt, 1955

- (2) Ugarte, Francisco. España y su civilización. New York. The Odyssey Press, 1952.
- (3) Tarr, F. Courtney and Centeno, Augusto. A Graded Spanish Review Grammar with Composition. New York: Appleton-Century-Crofts, 1933

b. Reading

- (1) Cano, Juan and Saenz, Hilario. Easy Spanish Plays. Boston: D. C. Heath, 1938
- (2) Blasco Ibáñez, Vicente. La condenada y otros cuentos. Buenos Aires: Espasa-Calpe Argentina, S.A., 1946
- (3) Alarcón, Pedro A. de. El sombrero de tres picos. New York: Henry Holt, 1952
- (4) Torres - Rioseco, Arturo. El frijolito saltón. Boston: D. C. Heath, 1953
- (5) Alvarez, Quintero, J. and S. Doña Clarines y Mañana de sol. New York: D. C. Heath, 1915
- (6) Alpern, H. and Martel, J. The Story of Calderon's "La vida es sueño". Boston: D. C. Heath, 1942.
- (7) Alexis, Joseph E. A., ed. La vida de Lazarillo de Tormes. Lincoln, Nebraska: Midwest Book Company, 1960

c. Tapes (work in the language laboratory)

- (1) Drill materials on patterns, structure, vocabulary
- (2) Recorded materials to enhance the appreciation of reading (mostly prepared by members of the department and their colleagues in the field).
- (3) Recorded materials specifically designed to evaluate students' ability to speak and comprehend

d. Materials from the school library

e. Magazines

- (1) Life (en español)
- (2) Revista rotaria
- (3) El mundo hispánico

D. Spanish V (a course for twelfth-grade students with FLES background).

This course has for its goal an adequate preparation for the CEEB Advanced Placement examination. The course is a college-level course. Professors from nearby colleges and universities conduct the class from time to time. Teachers in the department alternate in taking over the class in order to give the student as varied an experience as possible. Listening to tape recordings of some length and depth prepare students for lecture courses in college. The course consists largely of a study of literature, but with a deeper, less superficial approach than has been possible up to this time. Students of this class prepare to take the Advanced Placement examination, the successful passing of which will give them advanced standing and/or credit in college language.

1. Speaking and Listening

A degree of competence in these skills is by now a foregone conclusion. The teacher continues to provide ample opportunity for self-expression and for listening comprehension practice.

2. Grammar

A short review grammar is used to review some difficult points of grammar and as the basis for practice in composition. Two or three days during the year are devoted to a review of some particular irregular or difficult verbs. Verbs incorrectly used in compositions are explained as errors appear.

3. Reading

a. Intensive - At this level the students read more Latin American literature. A birdseye view of Latin American literature is provided by reading a selection of works from Hernán Cortés to José Santos Chocano. Two contemporary Mexican novels are also read. In addition, students study the development of the romantic and the realistic novel of nineteenth and twentieth century Spain with particular attention given to the work of Benito Pérez Galdós. In the field of modern Spanish drama, three works of Alejandro Casona are studied. Poems of considerably greater length than previously encountered are studied for form as well as for content.

b. Extensive - A minimum of twenty pages a week read outside of class is a requirement at this level. In addition, outside reading for the year consists of one political-social novel of Latin America such as Los de abajo or El mundo es ancho y ajeno, one realistic novel of Spain, and some other contemporary works.

4. Writing

During the course of the year several papers of approximately 1500 words are required. All tests are of the essay type and require opinions and reviews. Also, written work is assigned on many topics that arise from particular lessons.

5. Culture

At this level a more profound study is made of the sociological and religious phases of Hispanic life. Much attention is given to developments in the field of contemporary politics and economics and, in general, it may be said that a deeper understanding of Hispanic culture arises from the works of literature read. Some examples of this are: (1) the concept of just what a "gaucho," "baqueano" and "rastreador" are as a result of reading Sarmiento's Facundo; (2) the history of the wars for independence as seen in the writings of Bartolomé Mitre and the character of the two great South American liberators Bolívar and San Martín as seen in Mitre's account of the famous Entrevista de Guayaquil; the crumbling of old traditions, the conflict between the traditional and reactionary on the one hand and the modern and progressive on the other in Doña Perfecta of Pérez Galdós.

6. Materials

a. Texts

- (1) Adams, Nicholson B. Brief Spanish Review Grammar and Composition. New York: Henry Holt, 1958
- (2) Hespelt, E. H., Leonard, I. A., Reid, J. T., Crow, J. A., and Englekirk, J. E. An Anthology of Spanish American Literature. New York: Appleton-Century-Croft, Inc., 1946
- (3) Perry, Janet H. The Heath Anthology of Spanish Poetry. Boston: D. C. Heath

b. Reading

(1) Intensive *

- (a) Hespelt, E. H., Leonard, I. A., Reid, J. T., Crow, J. A., and Englekirk, J. E. An Anthology of Spanish American Literature. New York: Appleton-Century-Croft, Inc. 1946
- (b) Perry, Janet H. The Heath Anthology of Spanish Poetry. Boston: D. C. Heath
- (c) Pérez Galdoz, Benito. Doña Perfecta. Boston: D. C. Heath, 1940
- (d) Goytortua, Jesús. Pensativa. New York: Appleton-Century-Croft, Inc., 1947
- (e) Goytortua, Jesús. Lluvia roja. New York: Appleton-Century-Croft, Inc., 1949
- (f) Casona, Alejandro. Teatro (La sirena varada, La barca sin pescador, Los árboles mueren de pie). Buenos Aires: Editorial Losada, S. A., 1958

(2) Extensive

- (a) A sociological novel of Spanish America
- (b) A novel of Galdós
- (c) A contemporary novel of Spain or Spanish America
- (d) As many books on the "Acorn" list as possible

* It is anticipated that in 1963-64 the novels in this list will be read in Spanish IV and will be replaced in this list by others.

APPENDIX B

FOREIGN LANGUAGE PERSONNEL 1949-1962

Elementary School

Miss Antoinette Czaplicki B.A. Douglass College Western Reserve Spanish School - 1 summer	1948 - 1952	Teacher of Spanish
Miss H. Elizabeth Hoadley See High School	1949 - 1950	Teacher of French
Mrs. Ruth Greiner B.A. Lebanon Valley College Pennsylvania State College French Institute - 1 summer Sorbonne - 3 summers Berlitz School - 1 summer Travel in Europe	1950 - 1955	Teacher of French
Miss May Giovaniello B.A. Albany State College McGill University - 1 summer Middlebury College - 1 summer Columbia University - 1 full session University of Mexico - 1 summer	1952 - 1954	Teacher of Spanish
Miss Winifred Ballard B.A. Montclair State College	1954 - 1955	Teacher of Spanish
Miss Mary Lou Washburn B.A. Montclair State College University of Mexico - 1 summer	1955 - 1956	Teacher of Spanish
Miss Françoise Duraffourg B.A. Barnard College M.A. Columbia University Freiburg University - 1 summer University of Mexico - 1 summer Montclair State College - 1 summer Lived in Switzerland, France, Germany Travel - all Europe	1955 - 1956	Teacher of French
Mrs. Felice Pérez Peña B.A. Barnard College Colby College - 1 summer Middlebury College - 1 summer University of Wisconsin - 1 summer University of California - 1 summer New York University - 1 full year Travel - All of Europe and the United States	1956 - 1958	Teacher of Spanish

Mrs. Joanne Klauder	1956 - 1958	Teacher of French
B.S. Bucknell University Middlebury College - 1 summer		
* Mrs. Patricia Mandelsohn	1958 - 1/1960	Teacher of Spanish
B.A. Montclair State College		
Mrs. Alice Thiele	1/1960 - 6/1960	Teacher of Spanish
B.A. Northwestern University M.S. Northwestern University Extensive travel to many countries, especially South America, as Pan American Airlines stewardess		
Mrs. Miryam Kayser	9/1960 - 12/1960	Teacher of Spanish
B.A. Upsala Middlebury College - 1 summer		
Mrs. Grace Mitchell	1/1961 - 6/1961	Teacher of Spanish
B.A. Transylvania America-Peruvian Cultural Institute - 1 semester School of Languages, Lima, Peru - 1 semester University of San Marcos - 1 year Extensive travel through Europe and South America		
Mrs. Elsie W. Gould	1958 - 1962	Teacher of French
B.A. Vassar College; Major field: French M.A. Yale University; MAT Program: French, Education Middlebury College French School - 1 summer Residence in France while Assistante d'Anglais at French lycée - 1 year		
Mr. Emil S. Paul	1961 - 1962	Teacher of Spanish
Born in Mexico. Elementary and secondary training in Mexico B.A. North Texas State College, Denton, Texas; Major field: Spanish North Texas State College - graduate work Rutgers University - graduate work Iona College - NDEA Language Institute in Elementary Languages - 1 summer		

Junior High School

Mrs. Grace Principato	1952 - 1954	Teacher of Spanish and French
B.A. Pennsylvania State College		
Mr. James Partington	1954 - 1955	Teacher of French
B.A. Bloomsbury State College		
Miss Eileen Giblan	1954 - 1955	Teacher of French
See High School		
Miss Barbara Scotch	1954 - 1955	Teacher of Spanish
B.A. Douglass College		
Mr. Gerald Fink	1954 - 1955	Teacher of French
B.A. Kings College		

Mr. Thomas W. Kelly 1957 - 1962 Teacher of Spanish
B.A. Montclair State College
M.A. Montclair State College
University of Madrid, Facultad de filosofia y letras - 1 year
Colgate University - Language Institute - 1 summer
Educational Testing Service, Test Development Division, Princeton, N.J. - 1 year
Bucknell University - NDEA Institute - Instructor summer 1962.

Miss Marie Rita 1960 - 1962 Teacher of Spanish
B.A. Douglass College
Rutgers University - NDEA Summer Language Institute

Mr. Richard Archdeacon 1960 - 1962 Teacher of Spanish
B.A. Lafayette College
Hofstra College - NDEA Language Institute - 1 summer
Montclair State College - 1 winter

Miss Shirley P. Comstock 1961 - 1962 Teacher of French
Syracuse University
B.A. Montclair State College
University of Maine - NDEA Summer Institute
Tours, France - NDEA Summer Institute

APPENDIX C

DETAILED STATISTICAL REPORT

The project "Evaluation of the effect of foreign language study in the elementary schools upon achievement in the high school" in the Borough of Somerville, New Jersey, was supported by the Department of Health, Education, and Welfare, Division of Higher Education of the United States Government. The study was started in June, 1961. The study was conceived as an evaluation of the achievements in the various foreign languages; the over-all grade point average; and the retention or drop-out at the several levels of foreign language study in the Somerville High School; all related to a natural dichotomy between the pupils who were trained in FLES in the Borough of Somerville Public Elementary Schools and the pupils who were trained in other elementary schools not having a FLES program.

The subjects for analysis covered the graduates of the Classes of 1957, 1958, 1959, 1960, 1961 from the Somerville High School. The number is limited to those pupils who had the four years in the Somerville High School. The number of pupils involved was 1530. The numbers of pupils in these graduating classes were:

<u>Classes</u>	<u>Number</u>
1957	245
1958	240
1959	304
1960	344
1961	397
Total	<u>1530</u>

The graduating class of 1957 was the last class before the inception of the FLES program in the Borough of Somerville Elementary Schools. The pupils in the Class of 1957, therefore, did not have any foreign language training prior to their entry into the Somerville High School. The Somerville trained graduates in the Classes of 1958-61 did have foreign language training prior to their entry into the Somerville High School. The remaining pupils in the Classes of 1958-61 did not have any foreign language training prior to their entry into the Somerville High School. The pupils in these graduating classes can be categorized as to their electing any foreign language, or not electing any foreign language in the Somerville High School. The numbers of these pupils are:

<u>Classes</u>	<u>Any Foreign Language</u>	<u>No Foreign Language</u>
1957	192	53
1958	195	45
1959	234	70
1960	285	59
1961	340	57
	<u>1246</u>	<u>284</u>

All of the pupils in the study have been in the Somerville High School for their four years of high school. Those pupils who were trained in the Borough of Somerville Elementary Schools are categorized as Somerville pupils. Those Somerville pupils who graduated in the Class of 1957 had no elementary school preparation in foreign language. Those Somerville pupils who graduated in the Classes of 1958-61 did have foreign language training in the elementary schools. Pupils not trained in the Borough of Somerville Elementary Schools are categorized as non-Somerville pupils. The numbers of pupils in these categories were:

<u>Classes</u>	<u>Somerville</u>	<u>Non-Somerville</u>
1957	87	158
1958	79	161
1959	96	208
1960	116	228
1961	125	272
	<u>503</u>	<u>1027</u>

All of the pupils in the study have been in the Somerville High School for their four years of high school. Those pupils who had the goal of attendance at college are categorized as college preparatory. Those pupils who did not have the goal of attendance at college are categorized as non-college preparatory. The numbers of pupils in these categories were:

<u>Classes</u>	<u>College Preparatory</u>	<u>Non-College Preparatory</u>
1957	111	134
1958	126	114
1959	142	162
1960	181	163
1961	205	192
Total	<u>765</u>	<u>765</u>

All of the pupils in this study have been categorized as those who elected at least some foreign language and those who did not elect any foreign language. The numbers of pupils in these categories were:

<u>Classes</u>	<u>Foreign Language</u>	<u>No Foreign Language</u>
1957	192	53
1958	195	45
1959	234	70
1960	285	59
1961	340	57
	<u>1246</u>	<u>284</u>

For the pupils in this study the various categories, the grade point average and the general ability (or IQ) were reported.

The grade point average is calculated from the individual marks of the pupils. There is a uniform marking system in each subject in each year. The marks of the pupils are not weighted. The sum of the marks divided by the number of marks is the grade point average. To facilitate this calculation, the marks are first converted to a percentage equivalent by the use of the following table:

<u>Marks</u>	<u>Percentage Equivalent</u>
1	97
1-	92
2	87
2-	82
3	77
3-	72
P	70
4	64

The general ability test used was the Gamma Otis Quick Scoring Mental Ability Test (deviation method) and was reported as IQ.

The pupils' achievements in the four foreign languages, Spanish, French, Latin, and German, were studied at the third level (normally the third year of the traditional sequence for pupils starting in the high school). The number of pupils reported at the third level during the five years are:

<u>Class</u>	<u>Spanish</u>	<u>French</u>	<u>Latin</u>	<u>German</u>
1957	9	12	10	0
1958	43	7	5	5
1959	8	35	7	6
1960	61	11	12	6
1961	24	57	10	15
	<u>145</u>	<u>122</u>	<u>44</u>	<u>32</u>

In the study of the third level of the foreign languages the same categories of Somerville, Non-Somerville were used. The number of pupils in these categories were:

<u>Class</u>	<u>Somerville</u>	<u>Non-Somerville</u>
1957	14	17
1958	37	23
1959	33	23
1960	52	38
1961	53	53
	<u>189</u>	<u>154</u>

In the same study of the third level of the foreign languages, the categories of male and female were also used. The number of pupils in these categories were:

<u>Class</u>	<u>Female</u>	<u>Male</u>
1957	22	9
1958	41	19
1959	34	22
1960	52	38
1961	50	56
	<u>199</u>	<u>144</u>

The pupils' achievements in teachers' marks were studied. The teachers' marks were converted to percentages as in the grade point average calculation above.

Another measure of achievement in the foreign language is the College Entrance Examination Board Foreign Language Achievement Tests in the four languages; Spanish, French, Latin, and German. The number of pupils who were in this study who took this test were:

<u>Spanish</u>	<u>French</u>	<u>Latin</u>	<u>German</u>
16	25	5	4

No conversion is necessary.

The pupils' and their parents' estimates of the value of continuing in a foreign language were studied. The measure of continuance (non-drop out) of the pupils in this study is defined as follows: the number of pupils who continued to the next higher level of a foreign language referred to the total number of pupils who could have so continued.

The tests of significance in the entire study, grade point average, foreign language achievement, and continuity, have been taken at the 99% level; i.e., the chance that a statistic or statistics will be different from a hypothesized statistic is 99 to 1.

Over-All Academic Achievement

Each pupil of the 1530 pupils in the study has a grade point average covering his marks in all subjects in his Somerville High School career. The frequency of the grade point average was studied by years and by total. The method was to hypothesize simple mathematical distributions using the chi-squared or goodness of fit test. There was no uniform distribution found by years or total. This finding is not surprising. Intuitively, a uniform distribution cannot easily be supported by a heterogeneous population. A regression between the grade point average and the IQ (general ability) will order the grade point average differently.

Each pupil of the 1530 pupils in the study had a gamma Otis IQ score. The frequency of the IQ scores by years was examined. The simplest hypothetical distribution is the normal distribution.

The chi-squared results were:

	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>
(chi) ²	18.0	29.0	11.4	5.8	14.3

All of the years are consistent to the theoretical normal distribution except one which is only approximate to the theoretical normal distribution. It can be asserted, therefore, that the five years are consistent, at least, to the approximate normal distribution and probably to the normal.

The five years IQ was then examined by a one-way classification variance analysis. The results are shown below.

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Square</u>	<u>F</u>
Without Sets	1,918	4	479.5	3.03
Within Sets	240,961	1525	158.0	

The theoretical F number is greater than the 97.5% level and less than the 99% level. This result indicates that the regression line between the grade point average and the IQ preferably should be done by years, not in total. The mean of the reported IQ and the standard deviation, by years, is as follows:

<u>Years</u>	<u>Mean IQ</u>	<u>Standard Deviation</u>
1957	107.7	12.5
1958	108.8	12.3
1959	105.9	12.1
1960	108.3	12.5
1961	109.3	12.6

The mean of the grade point average and the standard deviation, by years, is as follows:

<u>Years</u>	<u>Grade Point Average</u>	<u>Standard Deviation</u>
1957	81.48	5.34
1958	81.81	5.34
1959	80.20	5.36
1960	80.57	5.65
1961	79.97	5.78

From this data five regressions were calculated by the least squares method.

$$E(y_1) = 0.276x_1 + 51.78 \quad : \quad n = 245$$

$$E(y_2) = 0.256x_2 + 53.92 \quad : \quad n = 240$$

$$E(y_3) = 0.257x_3 + 53.02 \quad : \quad n = 304$$

$$E(y_4) = 0.300x_4 + 48.13 \quad : \quad n = 344$$

$$E(y_5) = 0.292x_5 + 48.09 \quad : \quad n = 397$$

where

$E(y_i)$ = expected grade point average from the IQ

y_1 = grade point average in 1957

y_5 = grade point average in 1961

x_1 = IQ in 1957

x_5 = IQ in 1961

n = number of pupils in one year

Each pupil has a residual which is the difference of his actual grade point average from the expected grade point average based on his IQ. Each residual is determined by the regression equation for the appropriate year.

$$d(y_{ij}) = y_{ij} - E(y_{ij})$$

where

$d(y_{ij})$ = residual for all i, j

y_i = same as above

and

$j = 1, 2, \dots, n_i$

where

n_i = number of pupils in one year

Assume that the residuals can be pooled. Order the residuals and select ten fractiles. Assume that the theoretical distribution is the normal distribution and calculate the necessary chi-squared test where the degrees of freedom are $f = 10 - 3 = 7$. The actual chi-square is 18.1. The theoretical chi-square is 18.5 at the 99% level. The distribution is consistent to the normal distribution.

Each of the residuals can be categorized as plus or minus; i.e., above or below the expected grade point average. There were 726 residuals which were plus and 804 residuals which were minus. The theoretical binomial distribution is within the 98% level. The mean is therefore symmetrical. There is assurance that the least squares method, the binomial distribution and the chi-squared test permits the usage of this distribution as, at least, an approximately normal distribution.

In this study there is a built-in control in the data from the Class of 1957, since this was the last Class before the inception of the FLES program for the Somerville pupils. Since the least squares regressions between the grade point average and the IQ were calculated independently for each year, the data of the Class of 1957 was studied by the binomial test for symmetry and the chi-squared test for normality. There were 117 plus data points and 128 minus data points (a total of 245) in the Class of 1957. The theoretical binomial distribution shows that the data fits within the 60% level. The actual chi-squared was 13.2, which is less than the theoretical chi-squared of 14.7 at the 90% level.

In the study of the Classes of 1958 - 61 combined, there were 609 plus data points and 676 minus data points (a total of 1285). The theoretical binomial distribution shows that the data fits within the 95% level and the actual chi-squared of 16.46 with 7 degrees of freedom is less than the theoretical chi-squared of 18.5 at the 99% level. Therefore, it can be assumed that the data of the combined Classes of 1958 - 61 and the data of the Class of 1957 are, at least, approximately normal.

In the Class of 1957 the regression of the grade point average and the IQ has a residual variance of 16.5761 with 243 degrees of freedom. Multiplying this variance by 243 gives 4,028.0027 as the sum of the squares. The sum of residuals of the sub-classes in the variance analysis were:

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Somerville College Preparatory	+ 57.651	44
Somerville Non-College Preparatory	- 46.685	43
Non-Somerville College Preparatory	+ 25.168	67
Non-Somerville Non-College Preparatory	- 65.167	91
Total	- 1.033	245

A one way classification of variances of all sub-classes was used. (Reference 1). The results are shown below;

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	141.0370	3	47.0124	2.90
Within sets	3886.9657	240	16.1957	
Total	4028.0027	243		

The results of the interaction of all of the sub-classes is greater than the theoretical F number of 2.63 at the 95% level, but the theoretical F number at the 99% level is 3.85. While there is no interaction based on the 99% level, the sub-classes could be indicative.

Using the methods of unequal sub-classes and using the within sets mean squares of 16.1957 as the error for the independent estimator, the main effect of Somerville and non-Somerville was then compared. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	22.9548	1.42
Error	240	16.1957	

The results of the main effect of Somerville and non-Somerville is less than the theoretical F number of 6.72 at the 99% level. Actually, the theoretical F number of 2.72 at the 90% level is also larger. The conclusion is that there is no effect between the Somerville pupils and the non-Somerville pupils in the grade point average for pupils of equal general ability.

The same method was then employed for the main effect of college preparatory and non-college preparatory. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	109.9819	6.79
Errors	240	16.1957	

The results of the main effect of college preparatory and non-college preparatory is greater than the theoretical F number of 6.72 at the 99% level. The conclusion is that there is a significant difference between the college preparatory pupils and the non-college preparatory pupils in the grade point average in the Class of 1957 for pupils of equal general ability in favor of the college preparatory pupils.

The Class of 1957 was subjected to a one-way classification between those pupils who elected any foreign language and those pupils who did not elect any foreign language. In the regression of the grade point average and the IQ there is a residual variance of 16.5761 with 243 degrees of freedom. Multiplying this variance by 243 gives 4,028.0027. The sum of the residuals of the two classes in this variance analysis was:

<u>Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Any foreign language	+ 32.058	192
No foreign language	- 33.091	53
Total	<u>- 1.033</u>	<u>245</u>

The table of this one-way classification of variances is as follows:

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	26.0090	1	26.0090	1.57
Within sets	4,001.9938	<u>242</u>	16.5372	
Total	4,028.0028	<u>243</u>		

The result is less than the theoretical F number of 6.72 at the 99% level. Actually, the theoretical F number of 2.72 at the 90% level is still larger. The conclusion is that there is no difference in the grade point average for pupils of equal general ability whether they elected any foreign language or did not elect any foreign language.

Since the residuals of the combined Classes of 1958 - 61 were calculated by four regressions, it is necessary to test by the Bartlett test for equal variances. The actual chi-squared test was 3.89 which is less than the theoretical Bartlett test of 4.64 for 3 degrees of freedom at the 80% level. This justifies the pooling of the residual variances. The pooled residual variances are 18.5125 with 1277 degrees of freedom. Multiplying the degrees of freedom and the residual variances gives 23,640.4313, the sum of the squares. The sum of residuals of the sub-classes in the variance analysis was:

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Somerville College Preparatory	+ 78.242	228
Somerville Non-College Prep.	- 55.595	188
Non-Somerville College Prep.	+ 168.825	426
Non-Somerville Non-College P.	- 199.643	<u>443</u>
Total	<u>- 8.171</u>	<u>1285</u>

A one-way classification of variances of all sub-classes was used (Reference 1). The results are shown below:

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	200.1158	3	66.7053	3.63
Within sets	23,440.3155	1274	18.3990	
Total	23,640.4313			

The results of the interaction of all of the sub-classes is greater than the theoretical F number of 3.12 at the 95% level, but the theoretical F number at the 99% level is 3.78. While there is no interaction based on the 99% level, the sub-classes could be indicative.

Using the methods of unequal sub-classes and using the within sets mean squares of 18.3990 as the error for the independent estimator, the main effect of Somerville and non-Somerville was then compared. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without Sets	1	0.8587	0.0467
Error	1274	18.3990	

The results of the main effect of Somerville and non-Somerville is less than the theoretical F number of 6.63 at the 99% level. The conclusion is that there is no effect between the Somerville pupils and the non-Somerville pupils in the combined Classes of 1958-61 in the grade point average for pupils of equal general ability.

The same method was then employed for the second main effect of college preparatory and non-college preparatory. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	154.2818	8.39
Error	1274	18.3990	

The results of the main effect of college preparatory and non-college preparatory is greater than the theoretical F number of 6.63 at the 99% level. The conclusion is that there is a significant difference between the college preparatory pupils and the non-college preparatory pupils in the grade point average in the combined Classes of 1958-61 for pupils of equal general ability in favor of the college preparatory pupils.

The general conclusion of this portion of the analysis of variance shows that the general educational achievement of Somerville and non-Somerville pupils of equal general ability is the same in the Class of 1957 and in the combined Classes of 1958-61. The inference, therefore, is that the Somerville pupils who had the FLES program did not have any deleterious effect in their general educational achievement.

Although the residual variance analysis shows no significant interaction in the sub-classes in the Class of 1957 and in the combined classes of 1958-61, the interaction was relatively high. A supplemental analysis was then performed using the combined Classes of 1958-61. The total pooled residual variance is 18.5125 with 1277 degrees of freedom as reported before. The residual variance was partitioned by the number of pupils in the college preparatory group and the number of pupils in the non-college preparatory group. There were 654 pupils in the college preparatory group. Therefore, the degrees of freedom were

$$\frac{654}{1285} (1277) = 649.9$$

In the college preparatory group the mean was + 0.378. The total mean is - 0.006. Adjusting the variance to the new college preparatory mean gives the new variance of 18.3650. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 11,335.9407. A one-way classification of Somerville and non-Somerville analysis was then performed and is reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>
Somerville College Preparatory	+ 78.242	228	+ 0.34
Non-Somerville College Prep.	+ 168.825	426	+ 0.40
Total	+ 247.067	654	+ 0.38

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	0.4194	1	0.4193	0.023
Within sets	11,935.5214	648.9	18.3927	
Total	11,935.9408	649.9		

The main effect of Somerville and non-Somerville in the college preparatory group is not significant. The same analysis was performed with the non-college preparatory. In the non-college preparatory there were 631 pupils. Therefore the degrees of freedom were:

$$\frac{631}{1285} (1277) = 627.1$$

In the non-college preparatory group the mean was - 0.404. The total mean is - 0.006. Adjusting the variance to the new non-college preparatory mean gives the new variance of 18.3541. This variance multiplied by the degrees of freedom gives as the sum of the squares 11,509.3063. A one-way classification of the Somerville and the non-Somerville analysis was then performed and is reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Means</u>
Somerville Non-College Prep.	- 55.595	188	- 0.30
Non-Somerville Non-College P.	-199.643	443	- 0.45
Total	-255.238	631	- 0.40

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	3.1687	1	3.1687	0.17
Within sets	11,506.1376	626.1	18.3783	
Total	11,509.3063	627.1		

The main effect of Somerville and non-Somerville in the non-college preparatory group is not significant. This result, together with the previous result, is of course redundant.

The residual was next partitioned by the number of pupils in Somerville and the number of pupils in non-Somerville. In Somerville there were 416 pupils. Therefore the degrees of freedom were

$$\frac{416}{1285} (1277) = 413.4$$

In the Somerville group the mean was + 0.054. The total mean is - 0.006. Adjusting the variance to the new Somerville mean gives the new variance of 18.5100. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 7,652.2092.

A one-way classification of the college preparatory and the non-college preparatory analysis was then performed and is reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>
Somerville College Preparatory	+ 78.242	228	+ 0.34
Somerville Non-College Prep.	- 55.595	188	- 0.30
Total	+ 22.647	416	+ 0.05

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	44.5234	1	44.5234	2.41
Within sets	7,607.6858	412.4	18.4469	
Total	7,652.2092	413.4		

The main effect of college preparatory and non-college preparatory is not significant since the theoretical F number at the 99% level is 6.72.

In non-Somerville there were 869 pupils. Therefore the degrees of freedom were

$$\frac{869}{1285} (1277) = 863.6$$

In the non-Somerville group, the mean was - 0.035. The total mean was - 0.006. Adjusting the variance to the new non-Somerville mean, the new variance is 18.5116. This variance multiplied by the degrees of freedom gives, as the sum of the squares 15,986.4629. A one-way classification of the college preparatory and the non-college preparatory analysis was then performed and is reported below;

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>
Non-Somerville College Prep.	+ 168.825	426	+ 0.04
Non-Somerville Non-College F.	- 199.643	443	- 0.45
Total	- 30.818	869	- 0.04

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	155.7843	1	155.7843	8.49
Within sets	15,830.6786	862.6	18.3525	
Total	15,986.4629	863.6		

The main effect of college preparatory, non-college preparatory is significant since the theoretical F number at the 99% level is 6.69

The inference of the total analysis of variance shows that there is a difference in the college preparatory, but the difference is concentrated in the non-Somerville group. The inference, therefore, is that the Somerville pupils who had the FLES program did not have any deleterious effect in their general educational achievement whether or not they elected the college preparatory or the non-college preparatory program.

The combined Classes of 1958 - 61 were subjected to a one-way classification between those pupils who elected any foreign language and those pupils who did not elect any foreign language. In the regression of the grade point average and the IQ, there is a residual variance of 18.5125 with 1277 degrees of freedom, as reported before. Multiplying the residual variance by the degrees of freedom gives 23,640.4313, the sum of the squares. The sum of residuals of the classes in the variance analysis was as follows;

<u>Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Any foreign language	+ 3.430	1054
No foreign language	- 11.601	231
Total	- 8.171	1285

A one-way classification of variances of the classes was used. The results are shown below .

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	0.5418	1	0.5418	0.029
Within sets	23,639.8895	1276	18.5266	
Total	23,640.4313	1277		

The result is less than the theoretical F number of 6.66 at the 99% level. The conclusion is that there is no difference in the grade point average for pupils of equal general ability whether they elected any foreign language or did not elect any foreign language. This is the same conclusion as was reached in the Class of 1957.

In addition to the inference that there is no deleterious effect on the general academic achievement of pupils of equal general ability from the FLES program, the further inference can be drawn that the marking system and the single curriculum are uniform.

Third Level of Foreign Language Achievement

There were 343 pupils in this study who took the third level of a foreign language (Spanish, French, Latin or German). Each pupil had a final grade in the third level and a gamma Otis IQ score. The same regression method, by years, employed in the grade point average section of the study was used for the analysis of the third level marks. Again, the teachers' grades were converted to letter grades.

The third level foreign language grades were used without differentiation as to the specific language to develop the regression with the IQ (the general ability test). From this data five regressions were calculated by the least squares method.

$$E(z_1) = 0.235x_1 + 59.52 \quad : \quad n = 31$$

$$E(z_2) = 0.178x_2 + 62.59 \quad : \quad n = 60$$

$$E(z_3) = 0.439x_3 + 31.72 \quad : \quad n = 56$$

$$E(z_4) = 0.336x_4 + 43.39 \quad : \quad n = 90$$

$$E(z_5) = 0.317x_5 + 44.97 \quad : \quad n = 106$$

where

$E(z_i)$ = expected foreign language 3 grade from the IQ

z_1 = foreign language 3 grade in 1957

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z_2 = foreign language 3 grade in 1961

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x_5 = IQ in 1961

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n = number of pupils in one year

Each pupil has a residual which is the difference of his actual foreign language 3 grade from his expected foreign language 3 grade, just as in the grade point average procedure.

Each of the residuals can be categorized as plus or minus. There were 166 plus residuals and 177 minus residuals. The theoretical binomial distribution is within the 80% level. The mean is, therefore, symmetrical. Using the previous work on the grade point average, we can assume that this distribution will be normal. Since the residuals of the combined Classes of 1958 - 61 were calculated by five regressions, it is necessary to test by the Bartlett test for equal variances. The actual chi-squared test was 6.8, which is less than the theoretical Bartlett test of 7.78 for 4 degrees of freedom at the 90% level. This confirms the normality of the distributions of the residuals.

In this portion of the study, as in the grade point average portion, there was a built-in control in the data of the Class of 1957, since this was the last Class before the inception of the FLES program for the Somerville pupils. The regression of the foreign language 3 grades and the IQ has a residual variance of 29.8219 with 29 degrees of freedom. Multiplying this variance with the degrees of freedom gives 864.8352, the sum of the squares. In this study in the Class of 1957, the pupils in foreign language 3 were characterized as Somerville, non-Somerville, male and female. There is not enough data to differentiate according to the foreign language since some of the sub-classes are void.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Somerville male	- 9.503	3
Somerville female	+ 0.923	11
Non-Somerville male	-17.006	6
Non-Somerville female	+25.576	11
Total	- 0.011	31

A one-way classification of variances of all sub-classes was used. The results are shown below.

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	137.8423	3	45.9474	1.64
Within sets	726.9929	26	27.9613	
Total	864.8352	29		

The results of the interaction of all sub-classes is not significant since it is less than the theoretical F number of 4.64 at the 99% level.

Using the methods of unequal sub-classes and using the within sets mean squares of 27.9613 as the error for the independent estimator, the main effect of Somerville and non-Somerville was then compared. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	9.7206	0.35
Error	26	27.9613	

The results of the main effect of Somerville and non-Somerville is less than the theoretical F number of 7.72 at the 99% level. The conclusion is that there is no effect between the Somerville and the non-Somerville pupils in the Class of 1957 in the foreign language 3 grade for pupils of equal general ability.

The same method was then employed for the second main effect of male and female. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	103.7570	3.71
Error	26	27.9613	

The results of the main effect of male and female is less than the theoretical F number of 7.72 at the 99% level. However, the F number at the 90% level is 2.91. The actual F number of 3.71 is less than the theoretical F number at the 90% level. The conclusion is that there is no significant difference between male and female in the Class of 1957. The results may be indicative; however, the sample is small.

Since the residuals of the combined Classes of 1958-61 were calculated by 4 regressions, it is necessary to test by the Bartlett test for equal variances. The actual chi-squared test was 3.46 which is less than the theoretical Bartlett test of 3.67 for 3 degrees of freedom at the 70% level. This justifies the pooling of the residual variances. The pooled residual variance is 55.4187 with 304 degrees of freedom. Multiplying the degrees of freedom and the residual variance gives 16,847.2769, the sum of the squares. The sum of residuals of the sub-classes in the variance analysis was:

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>
Somerville-male-Spanish	- 69.604	39
Somerville-male-French	- 143.652	36
Somerville-male-Latin	+ 21.761	4
Somerville-male-German	+ 9.784	2
Somerville-female-Spanish	- 52.651	45
Somerville-female-French	- 6.985	45
Somerville-female-Latin	+ 8.386	2
Somerville-female-German	- 4.149	2
Non-Somerville-male-Spanish	- 51.081	20
Non-Somerville-male-French	+ 62.278	7
Non-Somerville-male-Latin	+ 22.978	10
Non-Somerville-male-German	- 66.599	17
Non-Somerville-female-Spanish	+ 66.295	32
Non-Somerville-female-French	+ 106.294	22
Non-Somerville-female-Latin	+ 54.901	18
Non-Somerville-female-German	+ 37.286	11
Total	- 4.758	312

A one-way classification of variances of all sub-classes was used. The results are shown below.

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	2,913.0698	15	194.2046	4.03
Within sets	13,934.2071	289	48.2152	
Total	16,847.2769	304		

The results of the interaction of all the sub-classes is greater than the theoretical F number of 2.13 at the 99% level. There is an interaction of the sub-classes and the results will be reported after the study of the main effects.

Using the methods of unequal sub-classes and using the within sets mean squares of 48.2152 as the error for the independent estimator, the main effect of Somerville and non-Somerville was then compared. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	66.7372	1.38
Error	289	48.2152	

The results of the main effect of Somerville and non-Somerville is less than the theoretical F number of 6.76 at the 99% level. The conclusion is that there is no effect between the Somerville pupils and the non-Somerville pupils in the foreign language 3 for pupils of equal general ability.

The same method was used for the main effect of male and female. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1	9.8774	0.20
Error	289	48.2152	

* The results of the main effect of male and female is less than the theoretical F number of 6.76 at the 99% level. The conclusion is that there is no effect between the male and female pupils in the foreign language 3 for pupils of equal general ability.

The same method was used for the main effect of the four foreign languages. The results are shown below.

	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	3	655.0697	13.59
Error	289	48.2152	

The results of the main effect of the four foreign languages is significant since the F number is greater than the theoretical F number of 3.88 at the 99% level. There is a difference between the four foreign languages in foreign language 3 for pupils of equal general ability.

Since there is a significant interaction in the sub-classes of the combined Classes of 1958-61 in the foreign language 3 for pupils of equal general ability, and since there is a main effect of the four foreign languages, a supplemental analysis was then performed.

The residual variance was partitioned first by the number of pupils in Somerville male, Somerville female, non-Somerville male, non-Somerville female.

In the Somerville male sub-class there were 81 pupils. Therefore the degrees of freedom were:

$$\frac{81}{312} (304) = 78.9$$

In the Somerville male the mean was -2.23. Adjusting the variance to the new Somerville male mean gives the new variance of 50.4539. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 3981.9737. A one-way classification of the four foreign languages was then performed. The results are reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>	
Spanish	- 69.604	39	- 1.78	
French	- 143.652	36	- 3.99	
Latin	+ 21.761	4	+ 5.44	
German	+ 9.784	2	+ 4.89	
Total	- 181.711	81	- 2.24	

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	456.0509	3	152.0169	3.27
Within sets	3,525.9228	75.9	46.4408	
Total	3,981.9737	78.9		

The result is less than the theoretical F number of 4.08 at the 99% level. The conclusion is that there is no difference for Somerville males in the four foreign language 3 for pupils of equal general ability.

In the Somerville female sub-classes there were 94 pupils. Therefore the degrees of freedom were:

$$\frac{94}{312} (304) = 91.6$$

In the Somerville female the mean was - 0.59. Adjusting the variance to the new Somerville female mean gives the new variance of 55.0893. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 5,045.6279. A one-way classification of the four foreign languages was then performed. The results are reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>
Spanish	- 52.651	45	- 1.17
French	- 6.985	45	- 0.15
Latin	+ 8.386	2	+ 4.19
German	- 4.149	2	- 2.07
Total	- 55.399	94	- 0.59

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	73.8072	3	24.6024	0.44
Within sets	4,971.8207	88.6	56.1217	
Total	5,045.6279	91.6		

The result is less than the theoretical F number of 4.01 at the 99% level. The conclusion is that there is no difference for Somerville females in the four foreign language 3 for pupils of equal general ability.

In the total Somerville Classes 1958-61 without differentiating according to sex, there were 175 pupils. Therefore the degrees of freedom were:

$$\frac{175}{312} (304) = 170.5$$

The Somerville mean was -1.36. Adjusting the variance to the new Somerville mean gives the new variance of 53.6258. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 9,143.9034. A one-way classification of the four foreign languages was then performed. The results are reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>	
Spanish	- 122.255	84	- 1.46	
French	- 150.637	81	- 1.86	
Latin	+ 30.147	6	+ 5.02	
German	+ 5.635	4	+ 1.41	
Total	- 237.110	175	- 1.36	

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	296.2222	3	98.7407	1.87
Within sets	8,847.6812	167.5	52.8179	
Total	9,143.9034	170.5		

The result is less than the theoretical F number of 3.92 at the 99% level. The conclusion is that there is no difference for Somerville pupils of equal general ability in the four foreign language 3.

In the non-Somerville male sub-class there were 54 pupils. Therefore the degrees of freedom were:

$$\frac{54}{312} (304) = 52.6$$

In the non-Somerville male the mean was -0.60. Adjusting the variance to the new non-Somerville male mean gives the new variance of 55.0765. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 2,897.8521. A one-way classification of the four foreign languages was then performed. The results are reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>
Spanish	- 51.081	20	- 2.55
French	+ 62.278	7	+ 8.90
Latin	+ 22.978	10	+ 2.30
German	- 66.599	17	- 3.92
Total	- 32.424	54	- 0.60

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	978.7794	3	326.2598	8.44
Within sets	1,919.0727	49.6	38.6793	
Total	2,897.8521	52.6		

The result is greater than the theoretical F number of 4.20 at the 99% level. The conclusion is that there is a difference for non-Somerville males of equal general ability in the four foreign language 3.

In the non-Somerville female sub-class there were 82 pupils. Therefore the degrees of freedom were

$$\frac{83}{312} (304) = 80.9$$

The non-Somerville female mean was +3.19. Adjusting the variance to the new non-Somerville female mean gives a variance of 43.8247. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 3,544.1943. A one-way classification of the four foreign languages are reported below.

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>	
Spanish	+ 66.295	32	+ 2.07	
French	+ 106.294	22	+ 4.83	
Latin	+ 54.901	18	+ 3.05	
German	+ 37.286	11	+ 3.39	
Total	+ 264.776	83	+ 3.19	
	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	100.9096	3	33.6365	0.76
Within sets	3,443.2847	77.9	44.2172	
Total	3,544.1943	80.9		

The result is less than the theoretical F number of 4.08 at the 99% level. The conclusion is that there is no difference for non-Somerville females of equal general ability in the four foreign language 3.

In the total non-Somerville Classes 1958-61 without differentiation according to sex, there were 127 pupils. Therefore the degrees of freedom were

$$\frac{127}{312} (304) = 123.9$$

The non-Somerville mean was +1.83. Adjusting the variance to the new Somerville mean gives the new variance of 52.0147. This variance multiplied by the degrees of freedom gives, as the sum of the squares, 6,443.0657. A one-way classification of the four foreign languages was then performed. The results are reported below:

<u>Sub-Classes</u>	<u>Sum of Residuals</u>	<u>n</u>	<u>Mean</u>	
Spanish	+ 15.214	52	+ 0.29	
French	+ 168.572	29	+ 5.81	
Latin	+ 77.879	28	+ 2.78	
German	- 29.313	28	- 1.05	
Total	+ 232.352	137	+ 1.83	
	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	1,517.8961	3	505.9654	12.42
Within sets	4,925.1696	120.9	40.7476	
Total	6,443.0657	123.9		

The result is greater than the theoretical F number of 3.94 at the 99% level. The conclusion is that there is a difference for non-Somerville pupils of equal general ability in the four foreign language 3.

The supplemental analysis shows that there is no differentiation of the four foreign language 3 in the Somerville pupils of equal general ability who were in the FLES program, either differentiated by sex or undifferentiated. In the supplemental analysis there is a differentiation of the four foreign language 3 in the non-Somerville pupils of equal general ability without differentiation by sex. Furthermore, there is a differentiation of the four foreign language 3 in the non-Somerville males of equal general ability.

College Entrance Examination Board Foreign Language Achievement Tests

There were 50 pupils in this study who took the College Entrance Examination Board Foreign Language Achievement Tests in Spanish, French, Latin and German. Each pupil also had a gamma Otis IQ score. The same regression method employed in the grade point average and the foreign language 3 marks was used.

The initial study was used without differentiation as to the specific foreign language to develop the regression with the IQ (general ability test). The regression is reported below.

$$E(w_1) = 4.74x_1 - 70.3$$

where

$E(w_1)$ = expected CEEB Achievement in a foreign language

x_1 = IQ

The residual was tested for normality using the chi-squared test with ten fractiles. The degrees of freedom were 4. The actual chi-squared was 5.71. The theoretical chi-squared at the 80% level was 5.99. The residual is consistent to the normal distribution. A one-way classification for residual analysis was performed. The raw data was:

	<u>Somerville</u>	<u>Non-Somerville</u>
CEEB-Achievement Mean	531.9	484.5
IQ Mean	122.1	122.9
n	27	23
<u>Classes</u>	<u>Sum of Residuals</u>	
Somerville	+ 23.605	
Non-Somerville	- 27.712	

The residual variance of the regression is 13,118.5. This variance multiplied by the 48 degrees of freedom gives 629,689.9 as the sum of the squares.

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without Sets	32,707.3	1	32,707.3	2.58
Within Sets	<u>596,982.6</u>	<u>47</u>	12,695.9	
Total	629,689.9	48		

The residual distribution was normal, consistent to the 80% level. The theoretical F number is 2.84 at the 90% level so this result is just barely not significant. It represents a difference of 47 points in the means of the CEEB Foreign Language Achievement Test in favor of Somerville or the FLES program for pupils of equal general ability.

There were 41 pupils in the next study, which was restricted to the Spanish and French CEEB Achievement Tests, the languages of the FLES program. The regression with the IQ (general ability test) is reported below.

$$E(w_2) = 5.54x_1 - 163.7$$

where

$E(w_2)$ = expected CEEB Achievement
in Spanish or French

$$x_1 = IQ$$

The residual was tested for normality using the chi-squared test with ten fractiles. The degrees of freedom were 3. The actual chi-squared was 3.49. The theoretical chi-squared is 3.67 at the 70% level. The residual is consistent to the normal distribution. A one-way classification for residual analysis was performed. The raw data was:

	<u>Somerville</u>	<u>Non-Somerville</u>
CEEB Achievement mean	536.9	469.7
IQ mean	121.7	122.4
n	26	15

<u>Classes</u>	<u>Sum of Residuals</u>
Somerville	+ 26.004
Non-Somerville	- 45.072

The residual variance of the regression is 13,699.4. This variance multiplied by the 39 degrees of freedom gives 534,276.3 as the sum of the squares.

	<u>Sum of Squares</u>	<u>Degrees of Freedom</u>	<u>Mean Squares</u>	<u>F</u>
Without sets	48,054.2	1	48,054.2	4.74
Within sets	486,222.1	38	10,129.6	
Total	534,276.3	39		

The residual distribution was normal, consistent to the 70% level. The theoretical F number is 4.10 at the 95% level so this result is significant. This represents a difference of 67 points in the means of the CEEB Spanish and French Achievement Tests in favor of Somerville or the FLES program for pupils of equal general ability.

Continuity in Foreign Language Study

The pupils and their parents' estimate of the value of continuing in a foreign language was studied. The measure of continuance (non-drop-out) of the pupils in this study is defined as follows: the number of pupils who continued to the next higher level of a foreign language referred to the total number of pupils who could have so continued.

The continuity in each of the four foreign languages, Spanish, French, Latin, and German was used. The pupils in the study were categorized in addition as to Somerville, non-Somerville, college preparatory, and non-college preparatory. This study covered the data of the combined Classes of 1958-61, the Classes since the inception of the FLES program in Somerville. The method used was the binomial distribution approximated by the normal distribution.

There are only two foreign languages, Spanish and French, in the sequence General Language 1,2. The following table will show the number of pupils in each category in General Language 1 and the number of these pupils who continued in General Language 2.

	<u>Somerville</u>			
	<u>College Preparatory</u>		<u>Non-College Preparatory</u>	
	<u>Gen. Lang. 1</u>	<u>Gen. Lang. 2</u>	<u>Gen. Lang. 1</u>	<u>Gen. Lang. 2</u>
Spanish	1	1	17	15
French	2	1	16	11
	<u>Non-Somerville</u>			
	<u>College Preparatory</u>		<u>Non-College Preparatory</u>	
	<u>Gen. Lang. 1</u>	<u>Gen. Lang. 2</u>	<u>Gen. Lang. 1</u>	<u>Gen. Lang. 2</u>
Spanish	6	2	98	46
French	4	1	12	4

In the study of the continuation from General Language 1 to General Language 2 there were 156 pupils in General Language 1 and 81 in General Language 2.

The pupils in the study were characterized as Somerville and non-Somerville. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 3.35 where u is the normal variate with mean 0 and standard deviation 1. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is significant. Of the Somerville pupils who enrolled in General Language 1, 78% continued to General Language 2. Of the non-Somerville pupils who enrolled in General Language 1, 44% continued to General Language 2.

In the General Language continuation study the pupils were then categorized as to college preparatory and non-college preparatory. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 0.72. The theoretical bi-lateral u test at the 99% level is 2.58. This result is not significant, therefore there is no difference between college preparatory and non-college preparatory in the continuance from General Language 1 to General Language 2. The percentage is 53% in both cases.

In the General Language continuation study, the pupils were then categorized as to Spanish and French. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 0.06. This result is also not significant. Again the percentage of pupils continuing from General Language 1 to General Language 2 is 53% for Spanish and for French.

There are four foreign languages in the sequence Language 1, 2. The following table shows the number of pupils in each category in Language 1 and the number of pupils in each category who continued in Language 2.

	<u>Somerville</u>			
	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 1</u>	<u>Language 2</u>	<u>Language 1</u>	<u>Language 2</u>
Spanish	50	42	16	2
French	50	45	10	2
Latin	42	35	11	3
German	27	22	7	1

	<u>Non-Somerville</u>			
	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 1</u>	<u>Language 2</u>	<u>Language 1</u>	<u>Language 2</u>
Spanish	189	177	101	49
French	117	99	29	8
Latin	196	168	31	6
German	82	75	22	14

N.B. The accelerated group was not enumerated in this table.

In the study of the continuation from Language 1 to Language 2, there were 980 pupils in Language 1 and 748 pupils in Language 2.

The pupils in the study were characterized as Somerville and non-Somerville. By using these two populations in the normal approximation of the binomial distribution, the actual u test was 1.84. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is not significant. There is no difference between the Somerville and non-Somerville pupils in the continuation from Language 1 to Language 2. The percentage was 76% in both cases.

In the Language 1, 2 continuation study, the pupils were characterized as college preparatory and non-college preparatory. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 15.63. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is significant. There was a difference between college preparatory and non-college preparatory in the continuance from Language 1 to Language 2. 88% of the college preparatory pupils continued from Language 1 to Language 2 while 34% of the non-college preparatory pupils continued.

In the Language 1, 2 continuation study, the pupils were characterized as to the language elected; Spanish, French, Latin or German. By using these four populations in the normal approximation of the binomial distribution, the chi-squared test was employed to compare the four languages. The actual chi-squared was 2.17. The theoretical chi-squared test for 3 degrees of freedom and the 99% level was 11.3. This result was not significant, so there was no difference between the four foreign languages in the continuation from Language 1 to Language 2. There were 76% of the pupils continuing from Language 1 to Language 2.

There are four foreign languages in the sequence Language 2, 3. The following table shows the number of pupils in each category in Language 2 and the number of pupils in each category who continued in Language 3.

	<u>Somerville</u>			
	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 2</u>	<u>Language 3</u>	<u>Language 2</u>	<u>Language 3</u>
Spanish	122	72	32	14
French	125	74	37	10
Latin	35	5	3	0
German	22	3	1	0

	<u>Non-Somerville</u>			
	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 2</u>	<u>Language 3</u>	<u>Language 2</u>	<u>Language 3</u>
Spanish	177	50	49	6
French	99	25	8	6
Latin	168	30	1	0
German	75	27	14	4

N.B. The accelerated group was enumerated in the foregoing table as part of the enrollment in Language 2.

In the study of the continuation from Language 2 to Language 3, there were 973 pupils in Language 2 and 322 pupils in Language 3.

The pupils in the study were characterized as Somerville and non-Somerville. By using these two populations in the normal approximation of the binomial distribution, the actual u test was 7.52. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is significant. There was a difference between Somerville and non-Somerville in the continuation from Language 2 to Language 3. The Somerville percentage was 47%. The non-Somerville percentage was 24%.

In the Language 2, 3 continuation study, the pupils were characterized as college preparatory and non-college preparatory. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 1.48. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is not significant. There was no difference between the college preparatory and the non-college preparatory in continuation from Language 2 to Language 3. There are 33% of the pupils who continue from Language 2 to Language 3 in either case.

In the Language 2, 3 continuation study, the pupils were characterized as to the language elected; Spanish, French, Latin or German. By using these four populations in the normal approximation of the binomial distribution, the chi-squared test was employed to compare the four languages. The actual chi-squared was 37.7. The theoretical chi-squared for 3 degrees of freedom and the 99% level is 11.3. This result was significant, therefore, a supplemental analysis, using the u test by pairs was performed. Three of the four languages could be pooled since they were not significant. These languages were Spanish, French and German. Only Latin was significantly different from the others. In the three pooled languages, Spanish, French and German, 38% of the Language 2 students continued to Language 3. In Latin 17% of the Language 2 students continued to Language 3.

There are four foreign languages in the sequence Language 3, 4. The following table shows the number of pupils in each category in Language 3 and the number of pupils in each category in Language 4.

	<u>Somerville</u>			
	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 3</u>	<u>Language 4</u>	<u>Language 3</u>	<u>Language 4</u>
Spanish	72	27	14	2
French	74	20	10	0
Latin	5	2	0	0
German	3	0	0	0

Non-Somerville

	<u>College Prep.</u>		<u>Non-College Prep.</u>	
	<u>Language 3</u>	<u>Language 4</u>	<u>Language 3</u>	<u>Language 4</u>
Spanish	50	13	6	0
French	25	10	1	1
Latin	30	13	0	0
German	27	1	4	0

In the study of the continuation from Language 3 to Language 4, there were 322 pupils in Language 3 and 89 pupils in Language 4.

The pupils in the study were characterized as Somerville and non-Somerville. By using these two populations in the normal approximation of the binomial distribution, the actual u test was 0.26. The theoretical bi-lateral u test at the 99% level is 2.58. This u test is not significant. There is no difference between the Somerville and the non-Somerville pupils in the continuation from Language 3 to Language 4. The percentage was 28% in both cases.

In the Language 3,4 continuation study, the pupils were characterized as college preparatory and non-college preparatory. By using these two populations in the normal approximation of the binomial distribution, the actual u test was 4.02. The theoretical bi-lateral u test at the 99% level is 2.58. This result was significant. There was a difference between college preparatory and non-college preparatory in the continuance from Language 3 to Language 4. 30% of the college preparatory pupils continued from Language 3 to Language 4, while 8% of the non-college preparatory pupils continued.

In the Language 3,4 continuation study, the pupils were characterized as to the language elected; Spanish, French, Latin or German. By using these four populations in the normal approximation of the binomial distribution, the chi-squared test was employed to compare the four languages. The actual chi-squared was 17.7. The theoretical chi-squared test for three degrees of freedom and the 99% level was 11.3. This result is significant. Therefore, a supplemental analysis, using the u test by pairs was performed. Three of the four languages could be pooled since they were not significant. In these three pooled languages; Spanish, French and Latin, 31% of the Language 3 pupils continued to Language 4. German had 3% of the Language 3 pupils continuing to Language 4.

The studies above were concerned with both the college preparatory and the non-college preparatory pupils. It is interesting to investigate the non-college preparatory pupils alone. This study can include the differentiation of the Class of 1957, the last class before the inception of the FLES program, with the combined Classes of 1958 - 61.

There were four categories of pupils in the non-college preparatory; Somerville combined Classes 1953/- 61, non-Somerville combined Classes 1958 - 61, Somerville Class of 1957, non-Somerville Class of 1957. The numbers of pupils in each of the four categories who took any foreign language and the numbers of pupils in each of the four categories who did not take any foreign language as well as the percentage of pupils taking a foreign language follows;

Non-College Preparatory

	<u>Somerville Classes 1958-61 combined</u>	<u>Non-Somerville Classes 1958-61 combined</u>	<u>Somerville Class 1957</u>	<u>Non-Somerville Class 1957</u>
Foreign Lang.	131	275	27	56
No. For. Lang.	57	168	16	35
Total	188	443	43	91
Percentage	70	62	63	62

Only one of the categories of pupils had a FLES program. The remaining three categories can be pooled.

Non-College Preparatory

	<u>FLES</u>	<u>Non-FLES</u>
Foreign Lang.	131	358
No For. Lang.	57	219
Total	188	577
Percentage	70	62

The pupils in this study were characterized as FLES and non-FLES. By using these two populations in the normal approximation of the binomial distribution, the actual u test is 1.80. The theoretical bi-lateral u test at the 99% level is 2.58. This result is not mathematically significant at the 99% level. However, if only 5 of the 188 Somerville non-college preparatory pupils during the four years switched to a foreign language, this result would have been significant at the 99% level. Stated in another manner, the actual u test is, 1.80 which is greater than the 90% level, and significant at that level. The odds are 13 to 1.

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