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## A comparative study for determining the value of Latin in building the English vocabulary

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A COMPARATIVE STUDY FOR DETERMINING THE VALUE OF  
LATIN IN BUILDING THE ENGLISH VOCABULARY

by

Laura L. Ellis

Contributions of the Graduate School  
Indiana State Teachers College  
Number 188

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Master of Arts Degree  
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## I. INTRODUCTION

### A. Nature and Definition of the Problem

During more than a decade of teaching in the high school, the most insistent question that has been put to the writer by prospective students has been, "How will Latin benefit me in using English and subjects that grow out of and are expressed in English; does Latin help in science and mathematics?" In various forms, with about the same content, the question has plagued every Latin teacher with whom I have talked. Data for guiding the prospective Latin pupil are not easily available.

The problem of how to lay before him in convincing form, the truth a Latin teacher knows about the influence of Latin on the English vocabulary; and all the rich benefits that flow from such a vocabulary; how to produce data that could be taken home and inform the parents of the great opportunity the Latin course offers the son or daughter; how to put in condensed form an array of the benefits conferred by the culture phase of Latin study, that teachers may be instructed who have not had their attention called to the subject; this was the problem that caused many hours of conjecture and planning. The thesis that follows is the answer to the problem.

### B. Limitations

The problem had three limitations.



1. The tests were given to only 466 pupils.
2. Lack of time limited the number of words in the first two tests to fifty; the third, to twenty-five; and the difficult context limited the fourth to fifteen words and phrases.
3. No intelligence quotients were available.

### C. Survey of Previous Studies

A considerable literature has been thrown up around the teaching of the classics and especially about the source languages, Latin and Greek. This very problem has engaged the attention of many great teachers and educators. A consideration of this literature at the beginning of the treatise will be helpful.

In a study by Carr,<sup>1</sup> a test was made of English words derived from Latin that had been learned during the first year of Latin study. The test was for the purpose of measuring the growth of English vocabulary during the year; and to show how this growth was brought about by the study of Latin. Two tests were given, one in October and one in May. A comparison of the scores shows a loss for seven of the non-Latin students; some of the Latin pupils made slightly better general grades in Latin in October than in May; but the scores of all the Latin pupils were better in English vocabulary in May than they were in October. The

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<sup>1</sup>W. L. Carr, "The English Vocabulary of the High School Freshman," Classical Journal, XV (1919), pp. 20-29.

best growth shown was by a Latin pupil who raised his score from 22 to 79, a gain of fifty-seven points or 259 per cent. The poorest growth made by any Latin pupil was from 43 to 48, a gain of twelve per cent. The highest gain made by any non-Latin pupil was from 22 to 44, a gain of twenty-two, or 100 per cent. The poorest showing made by a non-Latin pupil was a drop from 26 to 10, a loss of sixteen points, or sixty-one per cent.

In the study by Evan T. Sage<sup>2</sup> and others in the required course in English composition during the second semester of 1920-21, the score reveals the real value of Latin in the mastery of vocabulary. Ninety students had a background of four years of Latin study. Of these, 49.9 per cent made a score of 75-100 per cent, and only 7.7 per cent made scores falling in the 1-25 per cent group. The non-Latins numbered ninety-one; yet of these, only 8.9 per cent attained the 75-100 per cent group, while 37.3 per cent had scores in the 1-25 per cent group. Thus a four year Latin student had about five chances to one of the non-Latin of gaining the top fourth--75-100 per cent--in the class; and the same chance not to be counted in the bottom fourth--1-25 per cent.

Recently, the Editor<sup>3</sup> of the Standard Dictionary presented some statistics. He analyzed nearly 20,000 words into numerous sub-divisions. Grouping these together, one obtains

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<sup>2</sup>Evan T. Sage, Harold Gilmer and Mary Dunbar, "Results of a Word Analysis Test," Classical Journal XVII (1922), p. 218.

<sup>3</sup>Frank H. Vizetelly, Standard Dictionary.

these figures of language origins of English words:

Latin, 48.3%. Greek, 13%. Teutonic, 29.7%. Miscellaneous, 9%.

This shows the classical element, Latin and Greek, to be more than 100 per cent greater than the Teutonic. The simple vocabulary of a small child is largely Teutonic. It is safe to presume that the new words that the child meets from the seventh grade up are overwhelmingly of Latin and Greek origin. It is at this time, or soon after, that the pupil may avail himself of the beginning of Latin study, for help in forming his vocabulary of new English words.

In an investigation carried on by Colvin<sup>4</sup> to find out the value of Latin in the field of transfer in learning, the following conclusions were reached:

1. Pupils in high school who are taking a classical course are, as a rule, superior in mental ability and attainments to those who are taking other courses.

2. Such pupils, as a group, make a better college record than do pupils without Latin training. They usually pass better entrance examinations and receive more college honors.

3. Classical students have better English vocabularies, have a more exact knowledge of the meaning of English words, know extensively and accurately, English grammar, and they are more fluent in reading and composition.

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<sup>4</sup> Stephen S. Colvin, "Transfer in Learning," Classical Journal, XIX (1923). Pp. 145.

The Enlow<sup>5</sup> study of technical and semi-technical words in the most commonly used textbooks in general science, biology, physics and chemistry shows Latin origins for 49.7 per cent, and Greek origins for 38.8 per cent, a total of 88.5 per cent.

In the Pressey<sup>6</sup> study of the vocabularies of commonly used textbooks in mathematics, the sciences, history and the languages, it has been established that of the words presumably unfamiliar, including technical and semi-technical terms, over fifty per cent are of Latin origin.

The Thorndyke-Ruger<sup>7</sup> studies, with several thousand Latin and non-Latin pupils, covering a period of two years, show that pupils who had studied Latin for two semesters made an average growth in their knowledge of English words, derived directly from Latin, two and a half times greater than that made by their non-Latin classmates of the same initial ability; and that those pupils who had studied Latin for four semesters made an average superior growth in their knowledge of these words several times greater than that made by non-Latin pupils of the same initial ability.

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<sup>5</sup>G. L. Enlow, "An Analysis of the Technical and Semi-Technical Vocabularies of High School Textbooks," Classical Investigation. Princeton, New Jersey: Princeton University Press, 1924. P. 51.

<sup>6</sup>L. G. Pressey, "The Vocabularies of High School Subjects," Classical Investigation. Princeton, New Jersey: Princeton University Press, 1924. P. 51.

<sup>7</sup>E. L. Thorndyke and G. J. Ruger, "The Effect of First-Year Latin upon a Knowledge of English Words of Latin Derivation," School and Society, XVIII (1923). Pp. 417-418.

The Lawler<sup>8</sup> study, based on an analysis of 982,800 words made by seventh, eighth and ninth grade pupils, shows that of the 2,977 different words in the list chosen, forty-nine per cent are of Latin origin, and that approximately seventy per cent of the misspellings occurring two or more times in these Latin-derived words are remediable through the study of Latin.

The Cox<sup>9</sup> study, based on tests with several thousand pupils through a period of one year, shows that first-year Latin pupils made a growth in ability to spell English words of Latin origin one and one-half times greater than that made by their non-Latin classmates of the same initial ability. By the use of methods consciously adapted to the attainment of this objective, a gain can be secured three times greater than is the case when no special effort is directed to the attainment of this objective.

#### D. How the Problem of this Thesis Differs from the Other Studies Cited

From the above summaries it can readily be seen that a need has existed for such a study, and that the field of investigation has been well covered in the past. Yet, there is one difference between the previous experiments and this study. So far as the writer has been able to discover the great majority of those previous experiments have been

<sup>8</sup>L. B. Lawler, "The Potential Remediability of Errors in English Spelling Through the Study of High School Latin," Classical Journal, XXI (1925). Pp. 135-148.

<sup>9</sup>Coxe, Warren W., "A Controlled Experiment to Determine the Extent to Which Latin Can Function in the Spelling of English Words," Journal of Educational Research, VII (1923). Pp. 244-247.

carried out with high school students, many of them being limited to freshmen. This study has been designed solely for college students, two tests being given to freshmen and sophomores, and two to juniors and seniors, the finished product of Latin study being only available after concluding the high school course. Therefore, although all the values in the educative process cannot be measured, nevertheless, all the evidence thus far presented proves conclusively that the value of Latin is outstanding as an aid in improving the student's reading and writing vocabulary, so often designated as his passive vocabulary.

The active reading vocabulary of everyday conversation is not sufficient if the aim is true culture. Extensive reading must supplement the "picked up" vocabulary, so that an ever-widening circle of new words will open up vistas of enlarged thought.

The argument has often been presented by opponents of Latin that pupils trained by Latin study could just as easily have "picked up" their English vocabulary without any such study. In this process of "picking up" a vocabulary, a certain amount of everyday words may be acquired, but unless a determined effort is made to use the dictionary constantly, or unless the meaning is made clear by the context, the passive vocabulary will be wholly inadequate. What does the average pupil do when he chances upon a word not within the range of his knowledge? Will he look it up in the dictionary? Or will he ask the teacher the meaning?

Either alternative is just too much trouble. He will simply read over it, hoping that by some dispensation of the gods he will be inspired to know the meaning. By the time he has finished the article he has made up his mind that the book is difficult; he may even tell the teacher so, to excuse his own ignorance and laziness.

Since the majority of the words the pupil encounters when he reaches high school are of Latin origin, and since the difficult words of English literature, of the sciences, and of the professions are of Latin or Greek origin, an extensive study of Latin and the derivatives of Latin should be an essential part of the high school pupil's work. It is for the purpose of measuring the growth in the average pupil's vocabulary brought about by the study of Latin in high school that this thesis has been written.

#### E. Procedure

Four original tests were made which were designed to measure the ability of college students in all four years of work along the following lines.

1. The spelling ability of students, chiefly freshmen and sophomores, as evidenced by a spelling test consisting of fifty commonly used English words.

2. The ability to understand the meanings of words derived from Latin as evidenced by a synonym test consisting of fifty commonly used English words.

3. The ability to understand the meanings of words taken bodily from the Latin into English as evidenced by

a synonym test consisting of twenty-five commonly used English words.

4. The ability to interpret the meanings of words derived from Latin in relationship with other words used in the same sentences as evidenced by fifteen commonly used English words and phrases.

These tests were given in the classes of the Indiana State Teachers College during the spring and first summer semester of the year 1933.



## II. COLLECTION AND DISCUSSION OF DATA

This study seeks to find the influence of high school Latin on the student's capacity to understand and use English.

The first of the four tests for acquiring data is based on the knowledge of word-forming shown by spelling.

In language the word is fundamental. Its form is an epitome of its history, the mental images it mirrors, and the circumstances and purposes that called it into being. Through long usage it is established, a standardized thing.

Our study concerns the celerity and clarity of the concept awakened by the sound of the word in the labyrinths that discipline<sup>1</sup> builds in the cultured mind. If that concept is clear and true, a cultural agency has builded with precision, patient polishings, and exact placing, the elements that form the finished word on paper. If not, the student has been deprived of the discipline that works order and purges confusion. There are many disciplines, and the effect of their use may be beneficent or vicious. The discipline of gambling is undesirable; that of living a life of altruism is the summum bonum. The discipline must be adapted to the end sought.

For exactness in word-concept, word origins and the uses that standardized them in the original forming must be the cultural means~~which~~ employed through the years of patient application the mind requires for fixation of fundamentals. Of the two language sources, Greek and

---

<sup>1</sup>Discipline--instruction, tuition, teaching, in its broadest sense. Latin Dictionary.

Latin, while the versatile and delicately shaded Greek is cultural, it is through the stately Latin, mirroring the stern codes of justice and order and organization that was ancient Rome, and built inherently into every English word of Latin origin, that the student is influenced toward fidelity to ideals that must base constructive culture and build the orderly mind revealed in the instant putting down of correct, established word forms.

A perusal of the results of this study codified in the tables and figures included in the following pages reveals a convincing commentary on the desirable opportunities afforded by high school Latin.

Test 1 was given in classes of the Indiana State Teachers College to undergraduate students. One hundred eighteen were examined, numbering sixteen seniors, twenty-four juniors, forty-four sophomores, and thirty-four freshmen. Each word was pronounced three times slowly and if still not understood, was repeated. The fifty words selected by the author were ordinary English that would be encountered in current reading and were of remote Latin origin. Corrent spellings are tabulated in Table I and incorrect in Table II. All scores in all the tests are in per cents of totals items answered.

Seniors, juniors, sophomores, and freshmen are arranged in four divisions of five columns each. Beginning at the left, the columns present the records of four, three, two, and one year Latin students, and the fifth, non-Latin

students. The footings, totals and averages, are under each column. The spelling ability of each student is thus shown in each column representing one student, as the first four in Senior division, by a figure "1" opposite the word correctly spelled and a blank opposite the word missed. In the fifth column of this division are recorded the efforts of twelve non-Latin students; the number opposite each word in the column is the number among the twelve who spelled the word correctly.

TABLE I

SHOWING CORRECT SPELLINGS OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	Senior					Junior					Sophomore					Freshman				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Substructural			1		4			7	3	1	4	5	11	5	7	1	2	4	2	10
2. Somnolescent	1	1		1	6			10	2	2	3	4	10	2	1	1	2	6	4	5
3. Invincible	1	1	1	1	5			13	3	2	4	5	13	3	3	1	2	6	4	5
4. Egotism	1	1	1	1	11			13	3	2	4	5	14	7	9	1	2	7	6	9
5. Obstreperous		1		1	2			6	2		4	5	9	2	2	1		4	1	2
6. Millionaire	1	1	1	1	9			12	4	5	4	5	15	7	7	1	2	7	3	12
7. Excruciate	1		1	1	3			11	2		4	3	11	3	2	1	2	3	3	1
8. Modulation	1	1	1	1	11			10	4	5	4	5	15	8	9	1	2	6	5	9
9. Itinerary	1	1	1	1	1			11	1		4	5	12	6	3	1	1	5	4	6
10. Exigency	1	1	1	1	1			10	2		4	4	11	4	2	1	2	5	4	3
11. Obstinacy	1	1	1	1				11	1	1	4	5	11	3	1	1		5	1	
12. Subpoena	1			1	2			8			3	5	10	2		1	1	3		1
13. Vulnerable	1	1	1	1	7			13	1		3	5	14	7	3	1	2	7	5	4
14. Virile	1				1			8			4	4	9	3	1	1	1	1		
15. Incorporate	1	1	1	1	9			13	4	4	4	5	15	8	6	1	2	5	5	11
16. Incipient	1	1	1	1	6			11	3	2	4	5	13	6	3	1	1	7	5	6
17. Prerogative		1	1		8			11	3	2	4	5	12	7	6	1	1	4	5	6
18. Arrogantly	1	1	1	1	7			12	1		4	5	14	6	4	1	1	4	3	2
19. Pecuniary	1	1	1	1	2			13	3	2	4	4	15	7	3	1	2	7	5	7
20. Metamorphosis	1	1			1			12	3	2	4	5	9	5	1	1	2	6	3	
21. Perennial	1	1			4			12	1	1	3	4	8	2			2	1	2	
22. Servility	1	1	1		4			11	2	3	3	5	13	6	3	1	2	5	3	8
23. Centigrade	1	1	1		7			12	3	1	4	5	12	3	6	1	2	6	6	12
24. Multiplicity	1	1	1	1	9			13	4	3	4	5	15	7	9	1	2	7	5	7
25. Occidentalism	1	1	1		5			10	1	1	3	4	14	6	3	1	2	6	3	5
26. Contemporary	1	1	1	1	4			13	3	2	4	5	14	8	6	1	2	7	5	8
27. Equestrian	1	1		1	3			11	1		4	4	11	6	1	1	2	6	5	2
28. Belligerent	1	1	1		2			11	1	1	4	3	13	5	3	1	1	4	2	1

TABLE I. (Continued)

29. Alienated	1	1	1	1	3		11	2	3	4	5	12	4	1	1	2	6	5	8
30. Malign	1	1			3		10	1	1	3	5	9	1	2	1	1	2	2	
31. Omniscient		1					3			3	3	3	1	1	1		1		
32. Unanimous	1	1		1	1		8	1		2	5	13	4	2	1	2	6	4	5
33. Altruistic	1	1			2		11	2		4	4	10	3	2	1	2	6	4	5
34. Facilitate	1	1	1	1	7		12	1	3	4	5	13	6	3	1	1	6	4	9
35. Potent	1	1	1	1	9		13	4	6	4	5	15	8	7	1	2	7	6	12
36. Stipulation	1	1	1	1	11		13	4	6	4	5	15	8	11	1	2	7	5	11
37. Insuperable	1	1	1	1	7		12	3	5	4	4	15	8	7	1	2	7	5	14
38. Providence	1	1	1	1	10		13	4	6	4	5	15	8	11	1	2	7	6	14
39. Pugnacious	1	1	1		5		13	4	3	4	4	11	4	4	1	2	4	4	4
40. Annihilated		1			2		7			3	3	10	3	1	1	1	3	4	2
41. Auxiliary	1	1			7		9		1	3	1	9	6	4	1	2	3	2	3
42. Execrable	1				1		4			2	1		2		1		1		
43. Affiliate	1	1	1	1	10		11	4	1	4	3	14	7	8	1	2	6	5	7
44. Incumbrance					2		5	1		3	1	4	2		1	1	2	3	2
45. Discriminate	1	1	1	1	9		13	4	3	4	5	14	8	8	1	1	7	6	12
46. Accidental	1	1	1	1	10		13	4	3	4	5	14	8	9	1	2	7	4	12
47. Epistle	1	1	1	1	5		13	3	1	4	5	15	4	7	1	2	5	5	1
48. Ignominious	1	1			3		6	1		3	4	10	2		1	1	3	1	6
49. Subsidize	1	1	1	1	6		12	2	2	4	3	11	7	4	1	2	6	3	6
50. Inscrutable					3		10	2	2	4	5	8	6	2	1	2	4	4	5
Totals	43	43	33	31	250		530	108	88	184	215	583	254	197	49	79	246	179	280
Averages	43	43	33	31	21		41	27	13	46	43	39	32	16	49	39	35	30	16
Number of Students Examined	1	1	1	1	12		13	4	7	4	5	15	8	12	1	2	7	6	18--118

Read Table as follows: In "Senior" Division, the extreme left column is the record of a Senior with four years of Latin. He spelled correctly words numbered 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 45, 46, 47, 48, 49--total 43 found at bottom. Of 12 Seniors in "No-Latin" column, four pupils spelled correctly number 1; six, number 2; five, number 3, etc.

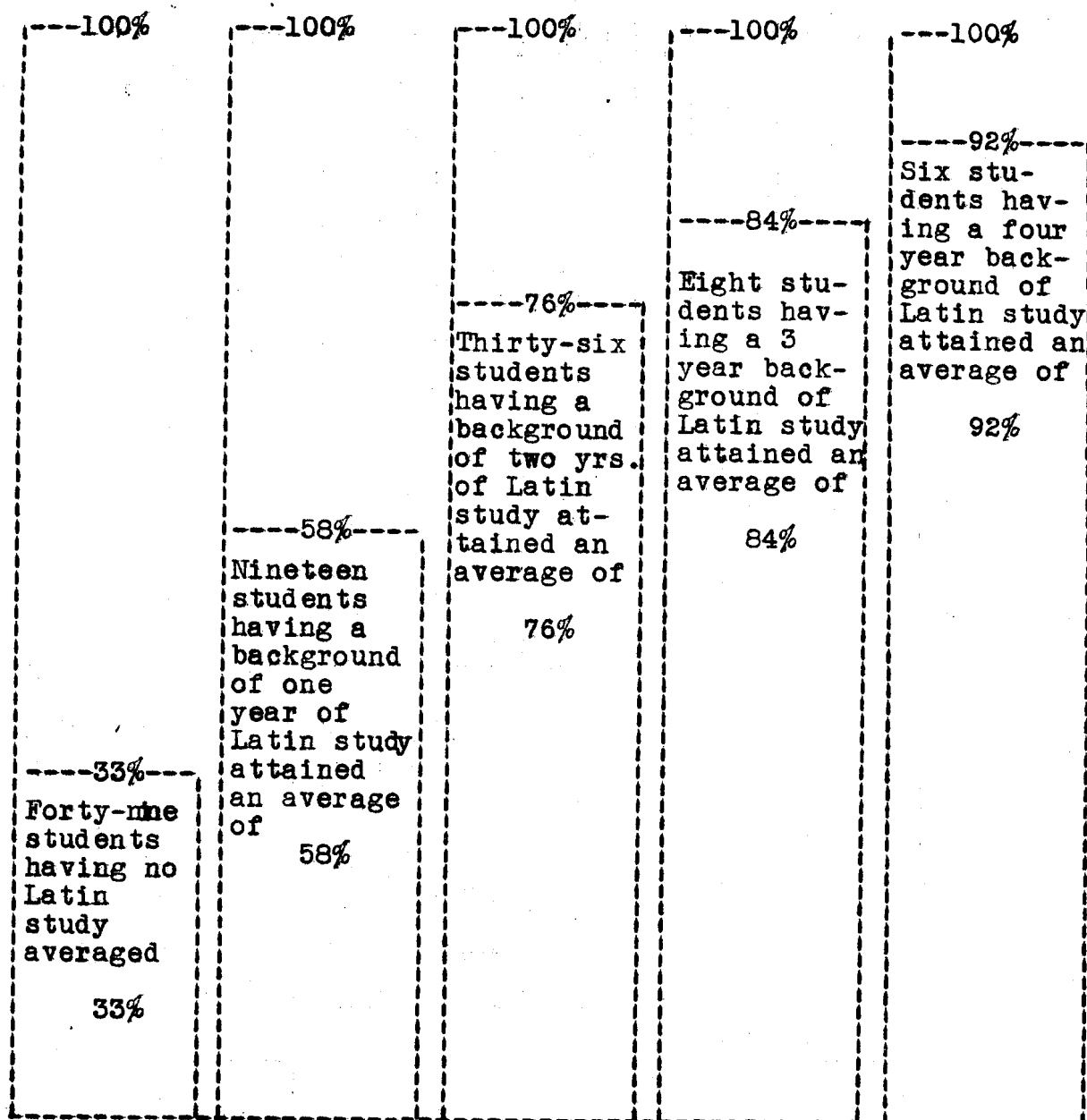


Figure 1. Effect of Latin  
on Spelling.

TABLE II

SHOWING INCORRECT SPELLINGS OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	Senior					Junior					Sophomore					Freshman				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Substructural	1	1		1	8			6	1	6			4	3	5			3	4	8
2. Somnolescent			1		6			3	2	5	1	1	5	6	11			1	2	13
3. Invincible					7				1	5			2	5	9			1	2	13
4. Egotism					1				1	5			1	1	3					9
5. Obstreperous	1		1		10			1	2	7			6	6	10		2	3	5	16
6. Millionaire					3			1		2				1	5				3	6
7. Excruciate		1			9			2	2	7		2	4	5	10			4	3	17
8. Modulation					1			3		2					3			1	1	9
9. Itinerary					11			2	3	7			3	2	9		1	2	2	12
10. Exigency					11			3	2	7		1	4	4	10			2	2	15
11. Obstinacy					12			2	3	6			4	5	11		2	2	5	18
12. Subpoena		1	1		10			5	4	7	1		5	6	12		1	4	6	17
13. Vulnerable					5				3	7	1		1	1	9				1	14
14. Virile		1	1	1	11			5	4	7		1	6	5	11		1	6	6	18
15. Incorporate					3					3					6			2	1	7
16. Incipient					6			2	1	5			2	2	9		1		2	12
17. Prerogative	1			1	4			2	1	5			3	1	6		1	3	1	12
18. Arrogantly					5			1	3	7			1	2	8		1	3	3	16
19. Pecuniary					10				1	5		1		1	9				1	11
20. Metamorphosis			1	1	11			1	1	5			6	3	11			1	3	18
21. Perennial			1	1	8			1	3	6	1	1	7	6	12	1		6	4	18
22. Servility				1	8			2	2	4	1		2	2	9			2	3	10
23. Centigrade				1	5			1	1	6			3	5	6			1		6
24. Multiplicity					3					4				1	3				1	11
25. Occidentalism				1	7			3	3	6	1	1	1	2	9			1	3	13
26. Contemporary					8				1	5			1		6				1	10
27. Equestrian			1		9			2	3	7		1	4	2	11			1	1	16
28. Belligerent				1	10			2	3	6		2	2	3	9		1	3	4	17

TABLE II. (Continued)

29. Alienated				9			2	2	4			3	4	11			1	1	10		
30. Malign			1	1	9			3	4	6	1		6	7	10		1	5	4	18	
31. Omniscient	1		1	1	12			10	4	7	1	2	12	7	11		2	6	6	18	
32. Unanimous			1		11			5	3	7	2		2	4	11			5	4	13	
33. Altruistic			1	1	10			2	2	7		1	5	5	10			1	2	13	
34. Facilitate					5			1	3	4			2	2	9		1	1	2	9	
35. Potent					3					1					5				6		
36. Stipulation					1					1					1			1	7		
37. Insuperable					5			1	1	2		1			5			1	4		
38. Providence					2					1					1				4		
39. Pugnacious				1	7					4		1	1	4	8			3	2	14	
40. Annihilated	1		1	1	10			6	4	7	1	2	5	5	11		1	4	2	16	
41. Auxiliary			1	1	5			4	4	6	1	4	6	2	8			4	4	15	
42. Execrable		1	1	1	11			9	4	7	2	4	15	6	12		2	6	6	18	
43. Affiliate					2			2		6		2	1	1	4			1	1	11	
44. Incumbrance	1	1	1	1	10			8	3	7	1	4	11	6	12		1	5	3	16	
45. Discriminate					3					4			1		4		1			6	
46. Accidental					2					4			1		3				2	6	
47. Epistle					7				1	6				4	5			2	1	17	
48. Ignominious			1	1	9			7	3	7	1	1	5	6	12		1	4	5	12	
49. Subsidize					6			1	2	5		2	4	1	8			1	3	12	
50. Inscrutable	1	1	1	1	9			3	2	5			7	2	10			3	2	13	
Totals	7	7	17	19	350			120	93	262	16	35	164	145	403		121	104	122	620	
Averages	7	7	17	19	29			9	23	37	4	7	11	18	34		111	15	20	34	
Number of Students Examined	1	1	1	1	12			13	4	7	4	5	15	8	12		1	2	7	6	18--118

Read Table as follows: In "Senior" Division, the extreme left column is the record of a Senior with four years of Latin. He misspelled words numbered 1, 5, 17, 31, 40, 44, and 50, a total of 7, found at the bottom. Of twelve Seniors in "No-Latin" column, eight misspelled number 1; six, number 2, etc.



The startling disclosure revealed on inspection of the table is the rapid falling off in spelling ability as Latin study diminishes. A natural supposition would be that years in school progressing through freshman, sophomore, junior and senior would result in a steady increase, proportionate to increase in mental training. The figures refute the supposition in toto. Rather, when Latin study stops, progress in spelling ability stops also. The best record is made by a freshman, not far removed from four years of high school Latin. The footings show the nearest approach to his record to be made by a sophomore, also not far from the four years of Latin. In each division those with more years of Latin always surpass those with fewer. But the comparisons of different Latin-year students pale into insignificance when Latin and non-Latin are contrasted. The non-Latin plight is pitiable. Here are youths, as well endowed mentally, maybe better, certainly as well as their fellow classmates who have enjoyed Latin training; and the footings of their columns show them to be quite at sea, embarrassingly bewildered by words any student would encounter in an hour's reading. No impassioned rhetoric is needed to carry home the deadly import of these cold figures. The vividness of these findings from Table I is but intensified by a perusal of Table II. Here every number is a record of failure. The footings are factual evidence of crippled equipment through lost opportunity.

Tables III and IV, drawn from the same source, show student groupings whose positions in the scale express

the success or failure of their efforts. In the "non-Latin" division three students spelled correctly out of the fifty words, between 0 and 4 words, and so placed themselves in the 0-4 group. Four more spelled correctly between five and nine words out of the fifty; and one spelled as many as thirty, but not thirty-five, thus placing himself in the 30-34 group. The Table shows at a glance the low position of the Latinless group compared with the groups of progressively increasing Latins; and two-thirds of all the four year Latins attained the 45-50 group. Table IV is a grouping of failures. Here the non-Latins head the list with three who missed between forty-five and fifty of the fifty words. Further inspection of the Table reveals it as the opposite of Table III and intensifies the plight of the non-Latins.

The truths taught by the Test are further illuminated by the graph, Figure 1, that concludes the findings. Figure 1 totals the one hundred eighteen in the five groups: 4, 3, 2, 1, and 0 Latin and shows their relative position on a scale of 100 per cent.

TABLE III

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF CORRECT SPELLINGS

50-Word List Groups Show Correct Spelling	No Latin Carried	One Year	Two Years	Latin taken for:	
				Three Years	Four Years
50-45			5	2	4
44-40			8	4	2
39-35			13	2	
34-30	1	10	10		
29-25	4	6			
24-20	15	3			
19-15	10				
14-10	12				
9-5	4				
4-0	3				
Division Student Totals	49	19	36	8	6

TABLE IV

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF INCORRECT SPELLINGS

50-Word List Groups Show In- correct Spelling	No Latin Carried	Latin taken for:			
		One Year	Two Years	Three Years	Four Years
50-46	3				
45-41	4				
40-36	12				
35-31	10				
30-26	15	3			
25-21	4	6			
20-16	1	10	10		
15-11			13	2	
10-6			8	4	2
5-1			5	2	4
Division Student Totals	49	19	36	8	6

This concludes the Spelling Test. Other tests will feature other approaches to the state of the student's mind culture with and without Latin training. The summing up of this test leads to a consideration of the change wrought by Latin study that was lacking where Latin was not employed.

First, the student with Latin training had acquired a knowledge of more words, a familiarity with more forms. He had experienced more confidence in reading the words with added pleasure by acquaintance and familiarity, making the words a part of his consciousness, until they entered into the expression of his thoughts as entities that helped him in corresponding with his mental environment. They thus became part and parcel of him.

Second, the effect just noted was accomplished just as any other acquaintance is made, that is, by cultivating a knowledge through association and close contact. Friendships between people come in just this way; mutual activities, confidence in the friend's ability to render a certain service, finding him always dependable to help out of a given difficulty. The words as made into friends become indispensable. He is introduced to them at a succession of parties where they congregate on the pages of Caesar's Commentaries, the wanderings of Vergil's Aeneas and the difficulties of Queen Dido. He finds them as old friends thinly disguised in the English friends of his reading, as "Invincible", "Potent", and "Pugnacious", and the recognition brings pleasure to the reading, and

the pleasure adds zest that insures understanding as among old friends and acquaintances. He is at ease with them in whatever guise he finds them, knows them as friends, not as unsympathetic strangers. He has enlarged and deepened himself to the extent that he includes them in himself. He thus becomes a motive force with many added units of energy stored for use when need arises. He is equipped for emergencies that he never could have successfully met without the apparatus he stored up through Latin study. Quod erat demonstrandum.

The second of the four tests for acquiring data inquires into the knowledge of word meaning as revealed by definition.

In the language beginnings word meanings grew out of the impressions produced by the happenings of environment, elaborated by the cerebrations and emotions they generated. Those meanings were established by a process of crystallization over long decades and centuries of use by millions of minds, as the forms of coral are slowly evolved. Derived meanings, built around the dominant idea, are later languages' adaptations to new customs and modes of thought. To discover the efficiency of Latin study in building word-meanings into growing minds is the concern of the second test.

One hundred fourteen undergraduate students took the test in the classes of the Indiana State Teachers College. The test consisted in explaining the meaning of each word in a list of fifty words, by the use of another word or

phrase.

The preliminary observations in the preceding test apply in a general way to this. There is a difference, however, in that exactness must be observed in word-form concept; while the word-meaning concept has generous latitude, circumscribed only in the direction of its dominant idea. The derivative, flowering on the branches of a new language, has its roots still in the soil of its origin, and the fruitage that it bears must have the flavor of the original. Literary gems, whose freshness defies the passage of time and that live through the generations, are built of words whose heritage is old and whose meaning is unequivocal. Clarity of thought can be expressed and transferred from one person to another only by both employing the same word-meaning standard. A lax standard makes confusion, defeating the author and nullifying his message. To use English, therefore, the student preparing for a life work that employs language to influence others must have his equipment formed of the elements that will make it effective.

Tables V and VI present the totals of success and failure reached by seventeen seniors, seventeen juniors, forty-nine sophomores and thirty-one freshmen. The findings are similar to those of the former test with the comparative plight of the non-Latins decidedly worse than they were in that showing.

Considering now Table V, in a fifty word list four year Latin seniors defined correctly thirty-nine; and four year Latin juniors, forty words. Three year, two year and one year Latins proceed down by a regular curve that could be easily plotted, and then a sheer fall to twelve, eleven and ten, the level of the unfortunate non-Latins. The contrast is so overwhelming that alarm over its import is stifled. The possibilities for the non-Latins is hopeless. They have left the high school and passed the age of quick response; and the opportunity of incorporating Latin training in those formative years is gone.

Table VI but accentuates this deplorable situation. A consultation of its footings brings home the handicap even more vividly.



TABLE V

SHOWING CORRECT DEFININGS OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	<u>Senior</u>					<u>Junior</u>					<u>Sophomore</u>					<u>Freshman</u>				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Dextrous	2	2	3	2	2	3		5		2			12	2	4			5		3
2. Procrastinate	2		2	1		2		2	3				6	1	4			4		2
3. Loquacious	2	2	2	1		3		3	2	2			11		2			8	1	1
4. Magnificent	2	2	4	3	6	3		6	3	5			19	4	20			9	3	16
5. Nocturnal	2	2	4	1	3	3		6	1	1			19	3	7			8	1	3
6. Subscription	2	1	4	3	1	2		6	2	3			15	3	14			4	1	14
7. Apperception	2		3		1	1		4		2			12	1	5			3	1	1
8. Malignant	2	1	1			3		3	1	1			11	1	16			4	1	2
9. Retrograde	2	2	2	1	2	3		4					9	2	2			5		3
10. Aggressive	2	2	4	2	2	3		6	1	4			17	5	10			8	2	8
11. Incipient	2	1				3			1				1					1		1
12. Prospective	2	2	3	2	3	2		4	2				15	1	7			6	1	19
13. Omnipotent	2	2	2	2	3	3		5	1	2			14		7			7		14
14. Hibernate	2	2	2	2	3	3		6	2	3			17	2	4			7	2	4
15. Oblivion	1	2	2	1		2		4	1				13					7	2	1
16. Obstreperous		1	1		1	2			1				13					1		
17. Lubricate	1	2	3	3	2	3		6	2	2			20	4	12			9	1	14
18. Homicide	2	2	2	1	3	3		5	1	1			15		4			4	1	4
19. Domicile	2	2	4	1	4	3		5	2				18	2	7			6		5
20. Lunar	2	2	3	1	1	3		5	1				19	3	6			6		5
21. Obsequious			1			1							1							
22. Immitigable	1	1				1							1					2		
23. Impecunious			1			1							2					3		
24. Onerous	2	1		1		1							1							
25. Impertinent	1	1	1	2	3	3		6	3	4			13	5	10			8	1	9
26. Component	2	2	3	1	2	1		3	1				12	1	5			4		2
27. Pugnacious	2	2	4	2	2	3		6					19	4	6			7		6

TABLE V. (Continued)

28. Cognizance	2	2	2	1	1	3	5	2			15	1	4			6		2
29. Inconspicuous	2	2	3	3	4	3	6	3	2		19	5	16			9	3	14
30. Resilient	1		1			3	1	2			4							
31. Sedimentary	2	1	2	1	3	3	5				12	1	7			5	1	2
32. Pulchritude	1	2	2	1	1	3	3	1	2		12	1	3			7	1	2
33. Stipend	2	1			1	3	3				6		3			5		
34. Perfidious	2	1	1			3					7	1				1	1	
35. Supercilious	1	2	1			2					1		3			1		
36. Inadequacy	2	2	3	1	4	2	4	1	3		21	5	6			6	3	4
37. Peremptory	1			1		2					3					1		
38. Residue	2	2	3	2	2	3	5	1			7	2				6		2
39. Predatory	1	1	1			3										2		1
40. Inadvertency	2					2										1		
41. Pervert	2	2		2	1	2	1				1	1	2			3		2
42. Commutation	1	1	1								4	1						3
43. Inappropriate	2	2	4	3	3	3	5	3	4		21	4	14			7	3	14
44. Presumption	1	2	4	2	1	3	6	2	2		17	2	9			5	1	7
45. Precipitate		1	3	1		3	4	1	2		18	2	3			5		1
46. Predicament	2		1	1	2	2	5	1	5		11	3	5			5		7
47. Incongruous	2	2	2	1		3	3				9	1				3		1
48. Mandatory	1	1	3			3	4	1			16	1	1			5		
49. Plaudit	1	2	3	1	2	1	3	1	3		15	3	4			6	1	2
50. Consternation	1	1	1		1		2				7					1		3
Totals	78	69	102	54	70	119	165	50	55		539	78	222			226	32	204
Averages	39	35	26	18	12	40	28	17	11		26	13	10			25	10	11
Number of Students Examined	2	2	4	3	6	3	6	3	5		21	6	22			9	3	19

Read Table as follows: In "Senior" Division, the extreme left column is the record of two seniors with four years of Latin. They defined correctly words numbered 1 to 14, 18, 19, 20, 24, 26, 27, 28, 29, 31, 33, 34, 36, 38, 40, 41, 43, 46, 47. One of them defined words numbered 15, 17, 22, 25, 30, 32, 35, 37, 39, 42, 44, 48, 49, and 50 correctly; totaling 78 and averaging 39 as found at the bottom of the column.

TABLE VI

SHOWING INCORRECT DEFININGS OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	<u>Senior</u>					<u>Junior</u>					<u>Sophomore</u>					<u>Freshman</u>				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Dextrous			1	1	4			1	3	3			9	4	18			4	3	16
2. Procrastinate		2	2	2	6	1		4		5			15	5	18			5	3	17
3. Loquacious			2	2	6			3	1	3			10	6	20			1	2	18
4. Magnificent													2	2	2					3
5. Nocturnal				2	3				2	4			2	3	15			1	2	16
6. Subscription		1			5	1			1	2			6	3	8			5	2	5
7. Apperception		2	1	3	5	2		2	3	3			9	5	17			6	2	18
8. Malignant		1	3	3	6			3	2	4			10	5	16			5	2	17
9. Retrograde			2	2	4			2	3	5			12	4	20			4	3	16
10. Aggressive				1	4				2	1			4	1	12			1	1	11
11. Incipient		1	4	3	6			6	2	5			20	6	22			8	3	18
12. Prospective			1	1	3	1		2	1	5			6	5	15			3	2	10
13. Omnipotent			2	1	3			1	2	3			7	6	15			2	3	5
14. Hibernates			2	1	3				1	2			4	4	18			2	1	15
15. Oblivion	1		2	2	6	1		2	2	5			8	6	22			2	1	18
16. Obstreperous	2	1	3	3	5	1		6	2	5			18	6	22			8	3	9
17. Lubricate	1		1		4				1	3			1	2	10				2	5
18. Homicide			2	2	3			1	2	4			6	6	18			5	2	15
19. Domicile				2	2			1	1	5			3	4	15			3	3	14
20. Lunar			1	2	5			1	2	5			2	3	16			3	3	14
21. Obsequious	2	2	3	3	6	2		6	3	5			20	6	22			9	3	19
22. Immitigable	1	1	4	3	6	2		6	3	5			20	6	22			7	3	19
23. Impecunious	2	2	3	3	6	2		6	3	5			19	6	22			6	3	19
24. Onerous		1	4	2	6	2		6	3	5			20	6	22			9	3	19
25. Impertinent	1	1	3	1	3					1			8	1	12			1	2	10
26. Component			1	2	4	2		3	2	5			9	5	17			5	3	17
27. Pugnacious				1	4				3	5			2	2	16			2	3	13
28. Cognizance			2	2	5			1	1	5			6	5	18			3	3	17

TABLE VI. (Continued)

29. Inconspicuous			1		2				3			2	1	6					5
30. Resilient	1	2	3	3	6	1		5	1	5		17	6	22			9	3	19
31. Sedimentary		1	2	2	3			1	3	5		9	5	15			4	2	17
32. Pulchritude	1		2	2	5			3	2	3		9	5	19			2	2	17
33. Stipend		1	4	3	5			3	3	5		15	6	19			4	3	19
34. Perfidious		1	3	3	6			6	3	5		14	5	22			8	2	19
35. Supercilious	1		3	3	6	1		6	3	5		20	6	19			8	3	19
36. Inadequacy			1	2	2	1		2	2	2			1	16			3		15
37. Peremptory	1	2	4	2	6	1		6	3	5		18	6	22			8	3	19
38. Residue			1	1	4			1	2	5		14	4	22			3	3	17
39. Predatory	1	1	3	3	6			6	3	5		21	6	22			7	3	18
40. Inadvertency		2	4	3	6	1		6	3	5		21	6	22			8	3	19
41. Pervert			4	1	5	1		5	3	5		20	5	20			6	3	17
42. Commutation	1	1	3	3	6	3		6	3	5		17	5	22			9	3	16
43. Inappropriate					3			1		1			2	8			2		5
44. Presumption	1			1	5				1	3		4	4	13			4	2	12
45. Precipitate	2	1	1	2	6			2	2	3		3	4	19			4	3	18
46. Predicament		2	3	2	4	1		1	2			10	3	17			4	3	12
47. Incongruous			2	2	6			3	3	5		12	5	22			6	3	18
48. Mandatory	1	1	1	3	6			2	2	5		5	5	21			4	3	19
49. Plaudit	1		1	2	4	2		3	2	2		6	3	18			3	2	17
50. Consternation	1	1	3	3	5	3		4	3	5		14	6	22			8	3	16
Totals	22	31	98	96	230	32		135	100	195		509	222	888			224	118	776
Averages	11	16	25	32	38	11		23	33	39		24	37	40			25	39	40
Number of Students Examined	2	2	4	3	6	3		6	3	5		21	6	22			9	3	19

Read Table as follows: In the last column on the right is the record of nineteen freshmen who have not had the benefit of Latin study. Sixteen of them missed the first word, and so on down making a total of seven hundred seventy-six misinterpretations for the nineteen, averaging forty out of the fifty-word total, for each freshman.

Table VII, as its predecessor in test 1, is a table of classes or groups into which one's attainments or their lack place him. Social unrest and class hatred are foreshadowed in this table. Opportunity has been denied, and someone is responsible for their not being permitted to know. As an exhibition of class inequality Table VII reveals an element not generally stressed, i.e., the cause. Penned in unescapable bounds, their mute appeal goes to those who determine curricula and formulate criteria in the nation's greatest enterprise, education.

Table VIII holds on high the shame of unattainment.

Figure 2 but accentuates the impression the reader must already have of the unnecessary and unforgivable crippling that deprivation of Latin has wrought on the talented and aspiring young men and women striving for success against such heart-breaking odds.

A further consideration of the effects of Latin as illuminating the pathway that leads to understanding of English usage must be drawn from this test.

The agencies that gradually banished illiteracy marked the beginning of the end of the Dark Ages. The high school "Oration" of some years back fully informed a waiting world of this momentous fact. But in the light of recent inquiries as to the efficiency of present curriculum methods, the subject of illiteracy is again assuming prominence.

Not every school attendant receives either the training or the stored knowledge that age-old accumulations entitle

him to have. Literature preserves the findings of different periods of human experience to hand on to those coming after. Contemporary knowledge passes from its local source via the printed page to a wide dissemination. Ideals of excellence that men reach only for a little while can be preserved at their height in the marrowy book whose sphere and continuance of influence is not limited. Those who have wrought in the fields of experiment inspire coming generations through language preserved in the archives; literature is the storehouse where opportunity is unlimited. The poorest may be rich in the things that build and ennoble ideals; incite to the attainments we embody as civilization.

The pivotal idea around which the whole matter revolves is the reader's capacity to use this priceless and boundless heritage. Understanding of the words that convey the mightiest, the most beneficent, or the most beautiful of all inspiring sentiment or instructive facts, alone, can transfer the fire that fuses percept into concept and melts down into wisdom. The teacher, watching the unfolding and building of power into wings that shall carry to the heights, sees with sorrow the limiting indifference when the stimulus of comprehension is withdrawn by the inability to comprehend. The English that must be used--there is no choice--alone, is the highway to the goal of accumulated riches held in the student's literature.

TABLE VII

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF CORRECT MEANINGS

50-Word List Groups Show Cor- rect Meanings	No Latin Carried	One Year	Latin taken for:		
			Two Years	Three Years	Four Years
50-46					
45-41					2
40-36			1	1	2
35-31			5	1	1
30-26		1	16		
25-21		2	12		
20-16	6	1	6		
15-11	19	9			
10-6	18	2			
5-1	9				
Division Student Totals	52	15	40	2	5

TABLE VIII

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF INCORRECT MEANINGS

50-Word List Groups Show In- correct Meanings	No Latin Carried	Latin taken for:			
		One Year	Two Years	Three Years	Four Years
49-45	9				
44-40	18	2			
39-35	19	9			
34-30	6	1	6		
29-25		2	12		
24-20		1	16		
19-15			5	1	1
14-10			1	1	2
9-5					2
4-0					
Division Student Totals	52	15	40	2	5



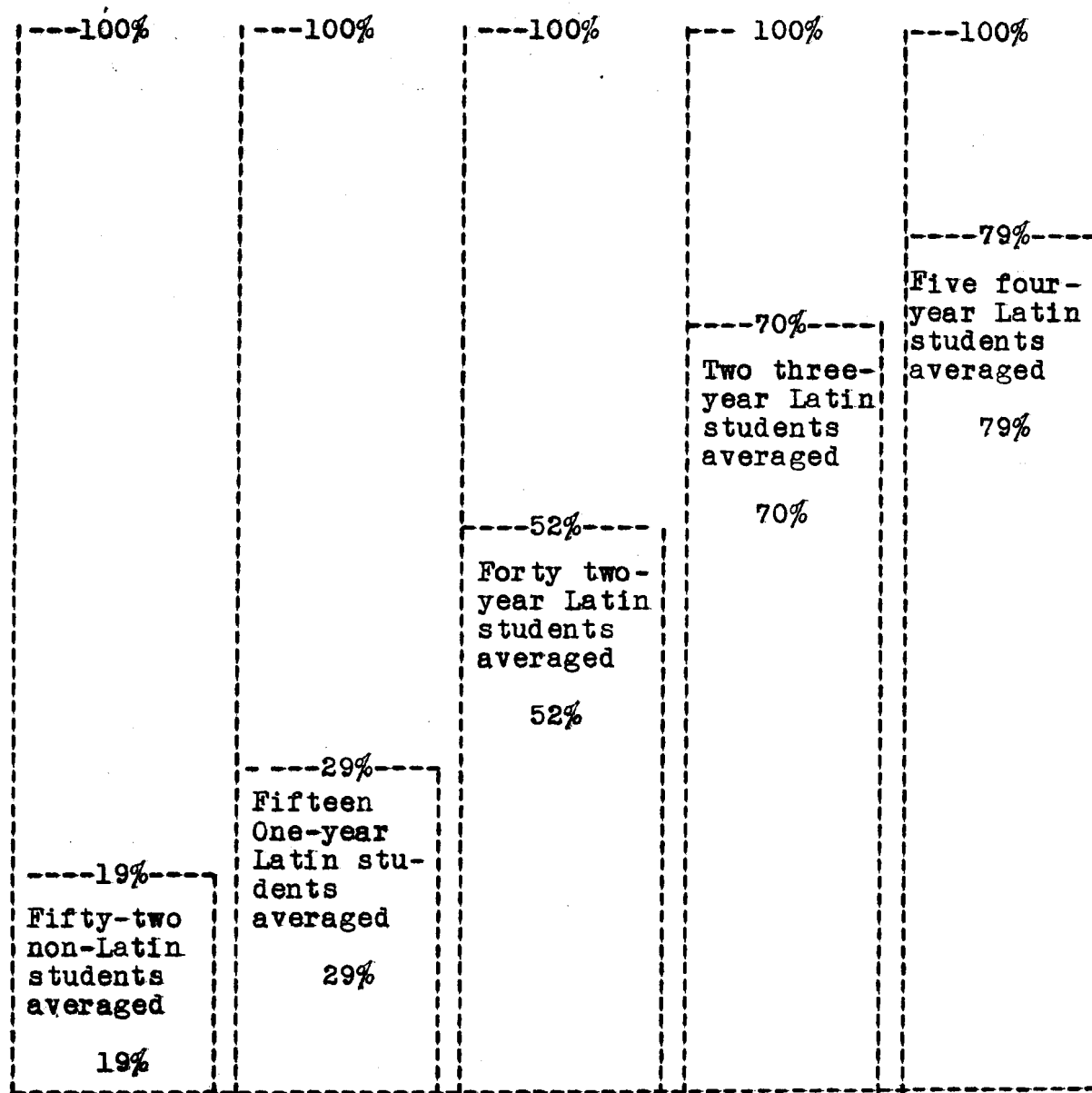


Figure 2. Effect of Latin  
on Word Meanings.

The third of the four tests concerns the student's understanding of English words that have been taken bodily from the Latin.

The test was given to one hundred nineteen undergraduates in the classes of the Indiana State Teacher's College. They were required to render the meanings of the twenty-five words selected by the author by another word or phrase. Thirteen seniors, eighteen juniors, fifty-three sophomores and thirty-five freshmen participated.

The findings are condensed into Tables IX and X. They follow the form of like tables in the two previous tests.

The comparisons to which the reader has, by this time, become accustomed continue in this test. But an illuminating difference occurs which should be noted here. The former tests showed the non-Latins holding to a proportion of about one-fourth the efficiency of the four year Latins. Those tests employed words that were not more difficult, nor less, than the ordinary run of words on a page of reading. The students examined gave the meanings--or form--from a knowledge of etymology without having bestowed special effort to learn them, or from having learned them in general reading as any other word is learned. The words of test 3, on the other hand, are new and formidable and must be learned by special effort. The non-Latin students here actually "studied Latin" enough, at least, to know the word forms and meanings and brought up their ratio to between one-half and one-third. They, therefore, appear in this

test as Latin students with something like a year's training, at least enough Latin to bear out the findings of the former tests.

An inspection of Table IX shows the findings the most valuable so far encountered. A little Latin is a tremendous asset. The Latin students did very well--they always do--the four year students defining from twenty to twenty-two of the twenty-five words in the test. The three year students did about as well. Those with two years ran fourteen, fifteen and sixteen of the twenty-five. The average of the one year Latins in each of the four divisions--senior, junior, sophomore, and freshman--total thirty-four; the averages of the non-Latins in the same four divisions total exactly thirty-four. This makes the special study of the latter equal to about one year of Latin on these particular words. Table X shows the reverse side of the test and brings out even more plainly these valuable results.

Tables XI and XII present the same phases as this form of table in the previous tests; and their inspection shows the excellent effect of a little Latin.

Figure 3 shows this gratifying result in a more graphic way and rounds out the evidence. It is self-explanatory.

TABLE IX

SHOWING CORRECT SYNONYM OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	<u>Senior</u>					<u>Junior</u>					<u>Sophomore</u>					<u>Freshman</u>				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Item	1		4	1		3		6	1	6		3	22		10	1	1	6	2	12
2. Locus	2		4		1	3		3		2		2	12		6	2		7	1	6
3. Foci	2		4		1	2						2	10	1	1	1	1	3	1	2
4. Apparatus	2		4	1	2	3		7	1	4		3	24	3	15	2	1	10	3	14
5. Ultimatum	2		4		2	3		4		1		3	14		2	2		4		4
6. Minimum	2		6	1	3	3		8	1	6		3	26	3	16	2	1	9	3	11
7. Alumnus	1		5	1	1	3		8		1		3	20	2	6	2	1	9	3	9
8. Bonus			6	1	1	3		8		3		3	22	3	13	2	1	9	2	15
9. Agenda																				
10. Versus	2		5	1	2	3		8		3		2	22	3	1	2	1	10	2	11
11. Impetus	2		3		1	2		3				2	12			2	1	1		4
12. Status	2		5		2	2		5		2		3	25	2	5	2	1	5		6
13. Stimulus	2		5	1	2	2		7	1	1		3	19	1	11	1	1	10	2	5

TABLE IX. (Continued)

14. Alibi	2	4	1	1		3	5		5		2	23	1	11	2	1	7	1	11
15. Addenda	2	1				3	3		1		2	6		1	2	1	2		1
16. Fiat	1					2						2		1			2		
17. Data	2	5	1	2		3	8		4		3	24	2	15	2	1	10	3	12
18. Memoranda	2	4	1	3		3	8	1	3		3	25	2	18	2	1	10	3	14
19. Impedimenta	2	5		1		3	5		1		3	19	1	4	2	1	8		5
20. Referendum	2	3				3	6		1		2	14		2	1	1	3	1	3
21. Consensus	2	4				2	2		1		2	7		1	1	1	2		1
22. Par	2	4		1		2	8	1	5		3	19	1	8	2		9		6
23. Crux	2	3		2		3	6				2	11		2	2	1	5		2
24. Omnibus	2	5		2		3	5		2		3	16		7	1	1	8	2	7
25. Phenomena	2	3		2		2	5				3	10		3	1	1	4		2
Totals	43	96	10	32		64	128	6	52		60	404	25	159	39	20	153	29	163
Averages	22	16	10	8		21	16	6	9		20	15	8	8	20	20	14	10	9
Number of Students Examined	2	6	1	4		3	8	1	6		3	27	3	20	2	1	11	3	18

The above Synonym Test of Latin words taken over bodily into English is read as follows: In the "Freshman Division" the second column is the record of a freshman with three years of Latin. He indicated correct meanings for each of the twenty-five words opposite the figure 1 in his column, a total of twenty, shown at the bottom. In the Senior Division the fifth column records the efforts of four seniors without Latin training; all failed on the first word.

TABLE X

SHOWING INCORRECT SYNONYM OF EACH WORD IN EACH STUDENT CLASSIFICATION

Years of Latin	<u>Senior</u>					<u>Junior</u>					<u>Sophomore</u>					<u>Freshman</u>				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Item	1		2		4			2					5	3	10	1		5	1	6
2. Locus			2	1	3			5	1	4		1	15	3	14		1	4	2	12
3. Foci			2	1	3	1		8	1	6		1	17	2	19	1		8	2	16
4. Apparatus			2		2			1		2			3		5			1		4
5. Ultimatum			2	1	2			4	1	5			13	3	18		1	7	3	14
6. Minimum					1								1		1			2		7
7. Alumnus	1		1		3				1	2			7	1	14			2		9
8. Bonus	2				3				1	3			5		7			2	1	3
9. Agenda	2		6	1	4	3		8	1	6	3		27	3	20	2	1	11	3	18
10. Versus			1		2				1	3	1		5		19			1	1	7
11. Impetus			3	1	3	1		5	1	6	1		15	3	20			10	3	14
12. Status			1	1	2	1		3	1	4			2	1	15			6	3	12
13. Stimulus			1		2	1		1		5			8	2	9	1		1	1	13

TABLE X. (Continued)

14. Alibi		2		3		3	1	1		1	4	2	9			4	2	7
15. Addenda		5	1	4		5	1	5		1	21	3	19			9	3	17
16. Fiat	1	6	1	4	1	8	1	6		3	25	3	19	2	1	9	3	18
17. Data		1		2			1	2			3	1	5			1		6
18. Memoranda		2		1				3			2	1	2			1		4
19. Impedimenta		1	1	3		3	1	5			8	2	16			3	3	13
20. Referendum		3	1	4		2	1	5		1	13	3	18	1		8	2	15
21. Consensus		2	1	4	1	6	1	5		1	20	3	19	1		9	3	17
22. Par		2	1	3	1			1			8	2	12		1	2	3	12
23. Crux		3	1	2		2	1	6		1	16	3	18			6	3	16
24. Omnibus		1	1	2		3	1	4			11	3	13	1		3	1	11
25. Phenomena		3	1	2	1	3	1	6			17	3	17	1		7	3	16
Totals	7	54	15	68	11	72	19	98		15	271	50	341	11	5	122	46	287
Averages	4	9	15	17	4	9	19	16		5	10	17	17	6	5	11	15	16
Number of Students Examined	2	6	1	4	3	8	1	6		3	27	3	20	2	1	11	3	18

This table is read as Table IX.

TABLE XI

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF CORRECT INTERPRETATIONS  
AS SHOWN IN TABLE IX

25-Word List Groups Show Cor- rect Interpreta- tions	Latin taken for:				
	No Latin Carried	One Year	Two Years	Three Years	Four Years
25-24					2
23-22					1
21-20				3	2
19-18			7	1	2
17-16			18		
15-14	2		13		
13-12	8		9		
11-10	8	3	5		
9-8	15	4			
7-6	9	1			
5-4	2				
3-2	3				
1	1				
Division Student Totals	48	8	52	4	7



TABLE XII

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF INCORRECT INTERPRETATIONS  
AS SHOWN IN TABLE X

25-Word List		Latin taken for:			
Groups Show Incorrect Interpretations	No Latin Carried	One Year	Two Years	Three Years	Four Years
25-24	1				
23-22	3				
21-20	2				
19-18	9	1			
17-16	15	4			
15-14	8	3	5		
13-12	8		9		
11-10	2		13		
9-8			18		
7-6			7	1	2
5-4				3	2
3-2					1
1-0					2
Division Student Totals	48	8	52	4	7

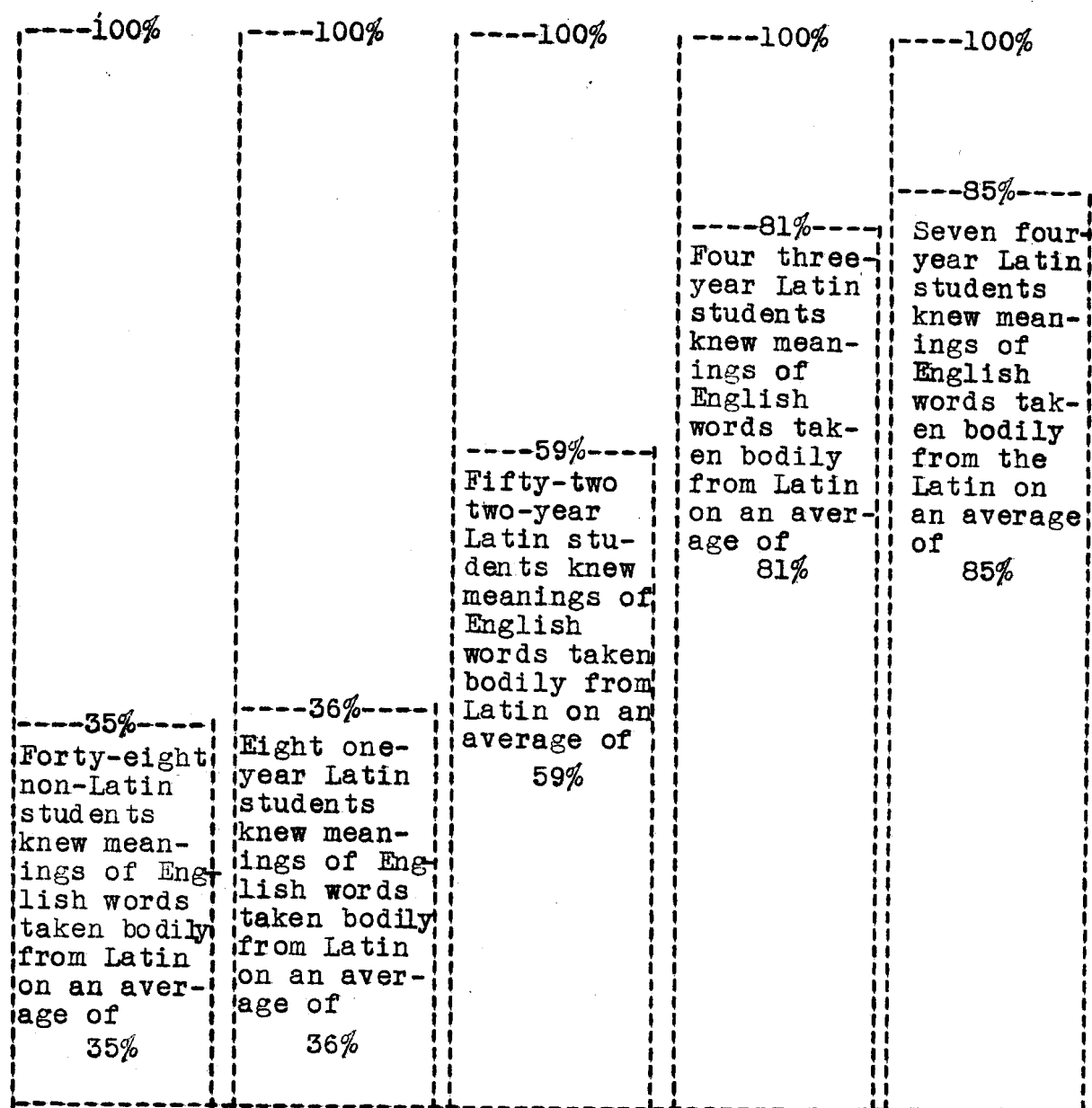


Figure 3. Effect of Latin on meanings of English words of Latin origin.

Test 4, the final of the series, seeks data on the influence of Latin study as determined by the student's ability to interpret the shades of meaning of Latin-derived English words qualified by context settings.

This test is the most searching of the series. The text selected is from Herbart's Psychology and is standard requirement in the student's preparation for the profession of teaching. His ability to interpret is a measure of the proportion of money the State of Indiana utilizes in the education of teachers; also, the amount wasted by the student's inability to take what the State offers.

The chosen text is a fair sample of that used in the months of study required of the great philosophers and opinion-moulders of the educational world. These great exponents of the science of pedagogy, who have delved deeply into the underlying principles of mental development in the growing mind, are either European born or European trained; or influenced by those so born and trained. Their linguistic medium is the language of the cultured, based on the Latin that underlies all the Romance Languages. Their use of words to convey the meaning they intend is delicately exact due to their association and training. The Latin background of their expression-medium makes it imperative that a like background qualify the understanding of the student who will interpret them. We now enter the consideration of the test findings to arrive at the true state of the student's ability for this task.

Fifteen Latin-derived words in context settings form the basis of this test. It was given in the same surroundings as the former three tests, with the exception that from the nature of the subject matter it required advanced students. The classes chosen contained sixty-seven seniors, forty-two juniors, and the five sophomores and one freshman in the classes were permitted to write. Their findings, however, do not really belong to the test.

An inspection of Table XIII discloses that only the four and three year Latin students were equipped to do profitably this work. The papers of these showed a high grade of understanding of the scope and ramifications the language warranted. The figures in the table hardly do their capacity justice. Only one of the four year Latin seniors failed to interpret every word. He found the word "abstraction" together with its context sufficiently confusing in its setting to leave a doubt as to the interpretation. All of the four and three year Latin seniors and the four year Latin junior had conceptions of all the words; but interpretations in the shadings of the context were hazy in the few rejected.

Below these, the students plainly showed failure to comprehend. Clear cut interpretation seemed beyond them. The credits given them do not represent all that credits given the three and four year Latins represent. The two year Latins interpreted somewhat more than half; while the one year Latins and no Latins dropped to a hopeless third,

equal to a grade of hardly thirty-five per cent. The complement of Table XIII is Table XIV, which shows the failure side as far as figures can show, but not the quality that was lacking as compared with the quality of the four and three year Latin efforts recorded as failures. The remaining tables and figure are already familiar to the reader.

TABLE XIII

SHOWING CORRECT INTERPRETATION OF EACH WORD OR  
PHRASE IN EACH STUDENT CLASSIFICATION

Years of Latin	Senior					Junior					Sophomore					Freshman				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Contain (Ideas)	2	5	33	1	15	1		13	1	24			1	3						1
2. Substance	2	3	18		11			6	2	6			1	1						
3. Original Self Activity	2	3	22	2	13	1		9		14			1							
4. Intuition	2	5	20		7	1		4		11										
5. Predisposition	2	3	11		5	1		6	1	4										
6. Speculative Psychology	1	2	3		1	1		1		2										
7. Empirical	1	3	6		1															
8. Innate Ideas	2	5	24	2	7	1		13	2	10			1							1
9. Innate Faculties	2	4	20	2	4	1		13	1	8			1							
10. Successive States	2	5	29	3	13	1		10		15			1	3						
11. Introspection	2	5	28	4	6			12	1	9										
12. Abstraction		2	14		3	1		1		5			1	1						
13. Passive Material	2	4	19	3	3	1		10	1	8										1
14. Vitality	2	5	34	4	13	1		14	2	13			1	2						
15. Homogeneous	2	4	22	3	7			6	1	13			1							
Totals	26	58	303	20	109	11		118	12	142			9	10						3
Averages	13	12	9	5	5	11		8	6	5			9	2						3
Number of Students Examined	2	5	35	4	21	1		14	2	25			1	4						1

TABLE XIV

SHOWING INCORRECT INTERPRETATION OF EACH WORD OR  
PHRASE IN EACH STUDENT CLASSIFICATION

Years of Latin	<u>Senior</u>					<u>Junior</u>					<u>Sophomore</u>					<u>Freshman</u>				
	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.	4.	3.	2.	1.	0.
1. Contain (Ideas)			2	3	6			1	1	1					1					1
2. Substance		2	17	4	10	1		8		19					3					1
3. Original Self Activity		2	13	2	8			5	2	11					4					1
4. Intuition			15	4	14			10	2	14			1		4					1
5. Predisposition		2	24	4	16			8	1	21			1		4					1
6. Speculative Psychology	1	3	32	4	20			13	2	23			1		4					1
7. Empirical	1	2	29	4	20	1		14	2	25			1		4					1
8. Innate Ideas			11	2	14			1		15					4					
9. Innate Faculties		1	15	2	17			1	1	17					4					1
10. Successive States			6	1	8			4	2	10					1					1
11. Introspection			7		15	1		2	1	16			1		4					1
12. Abstraction	2	3	21	4	18			13	2	20					3					1
13. Passive Material		1	16	1	18			4	1	17			1		4					
14. Vitality			1		8					12					2					1
15. Homogeneous		1	13	1	14	1		8	1	12					4					1
Totals	4	17	222	36	206	4		92	18	233			6		50					12
Averages	2	3	6	9	10	4		7	9	9			6		13					12
Number of Students Examined	2	5	34	4	21	1		14	2	25			1		4					1

TABLE XV

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF CORRECT INTERPRETATIONS

15-Word-Context List	Latin taken for:				
	No Latin Carried	One Year	Two Years	Three Years	Four Years
15					
14					1
13	1		1	1	
12	1			2	2
11			2	1	
10	2		11		
9	3		14	1	
8	3	1	8		
7	5		9		
6	4	3	5		
5	8	2			
4	12				
3	3				
2	6				
1	3				
Division Student Totals	51	6	50	5	3



TABLE XVI

SUMMARY OF STUDENTS BY DIVISIONS ARRANGED IN  
THE ORDER OF INCORRECT INTERPRETATIONS

15-Word-Context List	Latin taken for:				
	No Latin Carried	One Year	Two Years	Three Years	Four Years
15					
14	3				
13	6				
12	3				
11	12				
10	8	2			
9	4	3	5		
8	5		9		
7	3	1	8		
6	3		14	1	
5	2		11		
4			2	1	
3	1			2	2
2	1		1	1	
1					1
Division Student Totals	51	6	50	5	3

### III. SUMMARY AND CONCLUSIONS

#### A. Summary of Test Results

We now pass to the conclusions drawn from these tests.

The reader has already formed an estimate of the relative importance of Latin training in preparing students to understand and use English. The tables present data that make conclusions inevitable as the totals are scanned and the figures consulted. A resume that brings all the total scores of each division together in an average will give a final estimate.

TABLE XVII

FINAL AVERAGE SCORES OF ALL AVERAGE TEST SCORES

	Non-Latin	One Year	Latin Carried For:		
			Two Years	Three Years	Four Years
Test 1	33	58	76	84	92
Test 2	19	29	52	70	79
Test 3	35	36	59	81	85
Test 4	37	40	57	76	84
*Averages	31	41	61	78	85

\*Averages shown in Table XVII are presented in the form of an irregular curve on the following page.

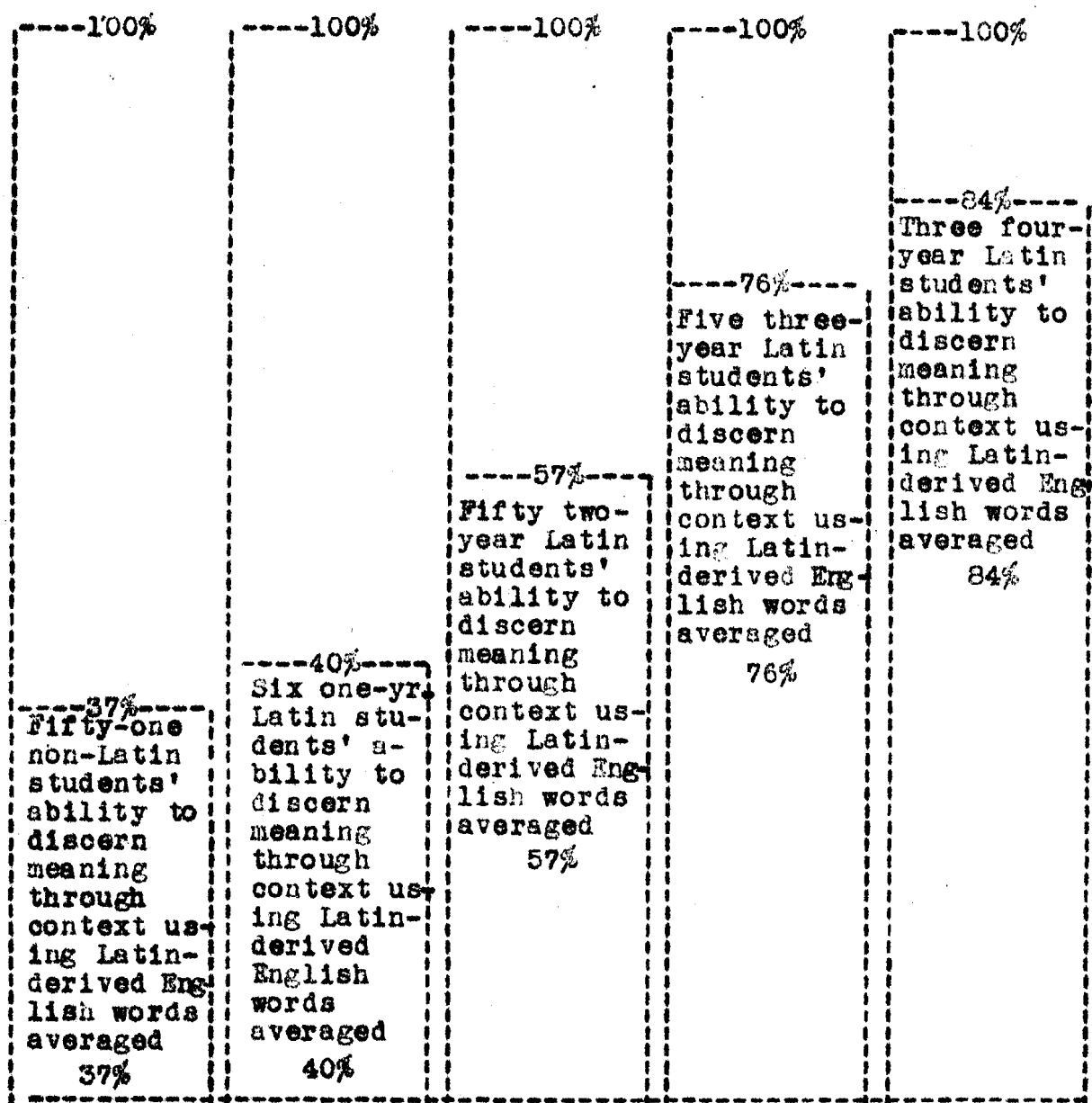


Figure 4. Effect of Latin on Interpretation

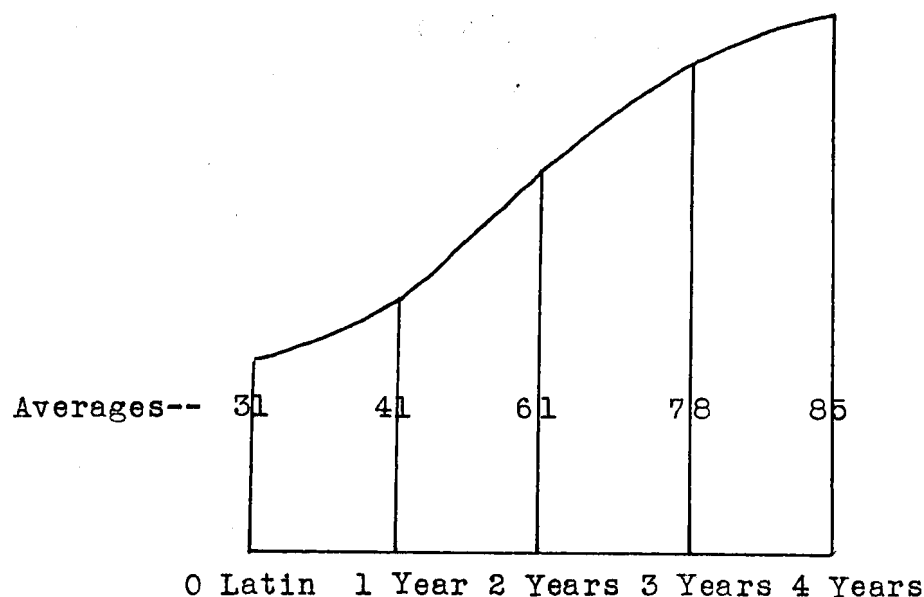


Figure 5. Summary of  
Average Test Scores

Another lesson drawn from the tests is the relative standing. Four year Latins averaged about three times the score of non-Latins. Three year Latins, about two and one-half times that of non-Latins. Two year Latins, about twice that of non-Latins. One year Latins, about one and one-third that of non-Latins.

Considering the separate tests, a disclosure of the spelling test (number one) refutes a rather commonly held position concerning spelling ability as a measure of intellectual capacity. The comparison is between the non-Latins and the best representative of Latin study, those having studied four years. The non-Latin score in this

test was 33. Their average score for all the tests was 31. The four year Latin score was 92. Their average score for all the tests was 85. Thus the spelling scores approached closely the average of all the tests, including definition and interpretation, considered intellectual, in both the lowest and the highest; i.e., the proportion of 33 to 31 is about the ratio of 92 to 85.

The second test disclosed another high point of difference between Latins and non-Latins. The test was on definitions of fifty Latin-derived English words. The test was long for the time allotted and called for ready concepts, quickly given, the same readiness one would have to have in speaking or writing. The non-Latins dropped to their lowest score in this test, averaging less than one-fourth the score made by the four year Latins.

In the third test there was a departure from the usual ratio maintained between the non-Latins and the Latins. The reason given in the discussion is noted in the resume. The words, while adopted into English, were taken over bodily from the Latin and retained the Latin form; and were a challenge to special study on that account.

In test four it is noted that although the one year, two year, three year and four year Latins averaged about the same as in the other tests, the non-Latin scores showed a slight increase of four over that of the first test, eighteen over that of the second, and two over that of the third. Tests three and four, however, were given to

juniors and seniors almost exclusively who have, of course, an advantage over freshmen and sophomores in the fact of having done more reading.

### B. General Conclusions

The ability to spell is increased by the study of Latin.

The ability to understand the meanings of words used without the context is increased by the study of Latin.

The ability to understand the meanings of words used with the context is increased by the study of Latin.

The tables show that two years is the minimum time in which to accomplish the desired results from Latin study.

### C. Recommendations

The study of Latin should be begun in the formative period of a student's life, which coincides roughly with the early years of high school.

Two years of Latin should be compulsory for those who elect it.

#### IV. APPENDIX

##### A. Bibliography

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## B. Tests

Test Number One--Spelling

1. Substructural
2. Somnolescent
3. Invincible
4. Egotism
5. Obstreperous
6. Millionaire
7. Excruciate
8. Modulation
9. Itinerary
10. Exigency
11. Obstinacy
12. Subpoena
13. Vulnerable
14. Virile
15. Incorporate
16. Incipient
17. Prerogative
18. Arrogantly
19. Pecuniary
20. Metamorphosis
21. Perennial
22. Servility
23. Centigrade
24. Multiplicity
25. Occidentalism
26. Contemporary
27. Equestrian
28. Belligerent
29. Alienate
30. Malign
31. Omniscient
32. Unanimous
33. Altruistic
34. Facilitate
35. Potent
36. Stipulation
37. Insuperable
38. Providence
39. Pugnacious
40. Annihilate
41. Auxiliary
42. Execrable
43. Affliliate
44. Incumbrance
45. Discriminate
46. Accidental
47. Epistle
48. Ignominious
49. Subsidize
50. Inscrutable

Test 2. Explaining the meaning of each word  
by a word or phrase\*

- |                  |   |
|------------------|---|
| 1. Dextrous      | Skillful, quick, ready, precise, expert, handly, clever.  |
| 2. Procrastinate | Defer, delay, postpone, put off, to be dilatory.  |
| 3. Loquacious    | Talkative, garrulous, great in effect, promise or import.   |
| 4. Magnificent   | Gorgeous, grand, imperial, kingly; majestic appearance.   |
| 5. Nocturnal     | Pertaining to the night.  |
| 6. Subscription  | Formal agreement evidenced by a signature. The signature at the end of a document.  |
| 7. Apperception  | Perception in which the mind is conscious of perceiving. Assimilating comparatively new ideas in a mass concept the whole constituting a system--(Herbart). |
| 8. Malignant     | Acting with extreme enmity. Evil. Virulent.   |
| 9. Retrograde    | Deteriorating. Going backward.  |
| 10. Aggressive   | Disposed to work actively for own interest.   |
| 11. Incipient    | Initial. Belonging to first stages.   |
| 12. Prospective  | Looking to the future. Anticipated. View.   |
| 13. Omnipotent   | All powerful. Unlimited in authority or strength.   |
| 14. Hibernate    | To pass the winter in seclusion in a torpid state.  |
| 15. Oblivion     | Loss of all remembrance, record or trace.   |
| 16. Obstreperous | Making great outcry. Boisterous. Clamorous.   |
| 17. Lubricate    | To cause to slip easily.  |
| 18. Homicide     | Killing of any human being by another.  |
| 19. Domicile     | Place of abode. Home.   |
| 20. Lunar        | Pertaining to the moon. Like the moon.  |
| 21. Obsequious   | Servilely agreeing. Cringing compliance.  |
| 22. Immitigable  | What cannot be appeased, made milder or alleviated.   |
| 23. Impecunious  | Having no money.  |
| 24. Onerous      | Burdensome. Oppressive.   |

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\*Standard Dictionary, Unabridged.

- |                   |   |
|-------------------|---|
| 25. Impertinent   | Offending against propriety. Presumptuous. Rude. Irrelevant.  |
| 26. Component     | Forming a part or ingredient. Constituent.                    |
| 27. Pugnacious    | Disposed or addicted to fighting. Quarrelsome.                |
| 28. Cognizance    | Perception of fact. Knowledge. Notice. Recognition.           |
| 29. Inconspicuous | Escaping notice by obscure placing, smallness or dimness.     |
| 30. Resilient     | Having power to spring back to former shape or position.      |
| 31. Sedimentary   | Like matter that settles to the bottom of a liquid.           |
| 32. Pulchritude   | The quality of beauty. Grace.                                 |
| 33. Stipend       | Wages regularly paid for services. Salary.                    |
| 34. Perfidious    | Violating good faith. Treacherous.                            |
| 35. Supercilious  | Insolent. Proud. Haughty. Overbearing.                        |
| 36. Inadequacy    | Insufficient or unequal to a requirement.                     |
| 37. Peremptory    | Not admitting of expostulation. Intolerant of opposition.     |
| 38. Residue       | A remainder or surplus after separating or treating.          |
| 39. Predatory     | Constituted for living by preying on others.                  |
| 40. Inadvertency  | Want of care or circumspection. Oversight. Mistake.           |
| 41. Pervert       | To turn from its right purpose, use or meaning. Misinterpret. |
| 42. Commutation   | A substitution, as of kind of payment. Changing a penalty.    |
| 43. Inappropriate | Unsuited to the time, place or occasion.                      |
| 44. Presumption   | Blind, headstrong confidence in the uncertain. Effrontery.    |
| 45. Precipitate   | Rushing down headlong. Rash haste. Lacking due deliberation.  |
| 46. Predicament   | A difficult situation that has befallen a person or thing.    |
| 47. Incongruous   | Out of place or character. Not adapted to each other.         |
| 48. Mandatory     | Positive command as distinguished from dictatory.             |
| 49. Plaudit       | An expression of applause. Praise bestowed. Used plural.      |
| 50. Consternation | Terror accompanied with confusion.                            |

Test 3. Interpretation of English words taken  
bodily from the Latin

1. Item A separate article or entry in an account or schedule. A newspaper paragraph.
2. Locus Place--locality--focus--area.
3. Foci Plural of focus. Any central point. Region of morbid affection. Points of meeting of systems of rays.
4. Apparatus A complex device designed to accomplish a specific purpose.
5. Ultimatum A final statement or proposal as to conditions, etc.
6. Minimum The smallest.
7. Alumnus A male graduate of a school. Loosely, any graduate.
8. Bonus An allowance in addition to that stipulated.
9. Agenda Things to be done in distinction to beliefs.
10. Versus Against
11. Impetus Energy with which a thing moves. Momentum.
12. Status State. Mode of existence in given circumstances. Rank.
13. Stimulus Anything arousing to increase activity. Producer of a muscle-nerve activity.
14. Alibi Elsewhere or at another place. Defense based on alibi.
15. Addenda Something added--an appendix.
16. Fiat A positive, peremptory command, a divine command.
17. Data Facts or premises for conclusion or investigation.
18. Memoranda A record of things in brief notes or jottings.
19. Impedimenta Things that impede progress, as baggage.
20. Referendum A proposition to be referred for government approval.
21. Consensus A collective unanimous opinion of several. General agreement.
22. Par Equality of validity. Equivalence. A standard for comparing variations.
23. Crux A cross. Anything hard to explain. The pivotal point.
24. Omnibus A 'Bus. Sheet iron--cover for articles in glass making. A catch-all.
25. Phenomena Any unusual occurrence. An observed happening.

Test 4. Interpretation of English words  
derived from Latin

"From the earliest times, philosophers have been racking their brains, to explain how the mind manages to make ideas, or find ideas, or contain ideas, or combine ideas. "Cogito ergo sum" is but one of a series of ways in which this truth has been expressed. 1

"It is, therefore, no tabula rasa in the sense that impressions foreign to its nature may be made on it; also, it is no substance in Leibnitz' sense which includes original self activity. It has originally neither ideas, nor feelings, nor desires; it knows nothing of itself and nothing of other things; Further within it lie no forms of intuition and thought, no laws of willing and acting; nor any sort of predisposition, however remote, to all these. 4 5

"The simple nature of the soul is totally unknown; and forever remains so; it is as little a subject for speculative as for empirical psychology." 7

It is here that Herbart has the advantage of Locke. 8 The English philosopher got rid of innate ideas, but he 9 could not free himself from innate faculties. What Locke did for innate ideas, Herbart did for innate faculties. Burdened by his assumption of successive states, Locke 10 could not get his ideas to work upon each other in order to produce complex actions and reactions. He was, therefore, driven to invent or assume certain powers of the mind which he called faculties; and which were credited with all the work that went on in the mind. When a certain process was discovered, by the act of introspection, to take place in the mind, Locke and his followers gave this process a name and then assumed a faculty corresponding to that name. A certain process called 12 abstraction is discovered to go on within the mind. This gives the introspectionist no trouble. It is only a matter of baptizing another faculty, and we have the faculty of abstraction. Against this short and easy method, Herbart made a vigorous protest, and swept away forever from his philosophy the whole brood of faculties. 11

Thus, suddenly deprived of our faculties, we are naturally somewhat anxious to see how we are to get along without them. Herbart does not leave us long in suspense. What he has taken from the soul he has transferred to the ideas. These are no longer the mere passive material on which the faculties act; they have a vitality of their own. Indeed, apart from them, there is no vitality in the soul at all. With Herbart the soul is assumed to be 15 perfectly simple and homogeneous, its only power being a vigorous vis inertiae. 13 14

C. Samples of Individual Records Showing Words Correctly  
Spelled and at Right Words Misspelled

No. 1, Freshman Latin--Four Years 98% Correct	No. 2, Sophomore Latin--Four Years 94% Correct	No. 3, Sophomore Latin--Four Years 94% Correct
1. Substructural	1.	1.
2. Somnolescent	2.	2.
3. Invincible	3.	3.
4. Egotism	4.	4.
5. Obstreperous	5.	5.
6. Millionaire	6.	6.
7. Excruciate	7.	7.
8. Modulation	8.	8.
9. Itinerary	9.	9.
10. Exigency	10.	10.
11. Obstinacy	11.	11.
12. Subpoena	12.	12.
13. Vulnerable	13.	13.
14. Virile	14.	14.
15. Incorporate	15.	15.
16. Incipient	16.	16.
17. Prerogative	17.	17.
18. Arrogantly	18.	18.
19. Pecuniary	19.	19.
20. Metamorphosis	20.	20.
Perrenial	21.	21.
21. Servility	22.	22.
22. Centigrade	23.	23.
23. Multiplicity	24.	24.
24. Occidentalism	25.	25.
25. Contemporary	26.	26.
26. Equestrian	27.	27.
27. Belligerent	28.	28.
28. Alienate	29.	29.
29. Malign	30.	30. Maline
30. Omniscient	Unamamous	30.
31. Unanimous	31.	31.
32. Altruistic	32.	32.
33. Facilitate	33.	33.
34. Potent	34.	34.
35. Stipulation	35.	35.
36. Insuperable	36.	36.
37. Providence	37.	37.
38. Pugnacious	38.	38.
39. Annihilate	Anihilated	39.
40. Auxiliary	39.	40.
41. Execrable	40.	41. Exicrible
42. Affiliate	41.	42.
43. Incumbrance	42.	43. Incumberance
44. Discriminate	43.	44.
45. Accidental	44.	45.
46. Epistle	45.	46.
47. Ignominious	46.	47.
48. Subsidize	Ignomenious	48.
49. Inscrutable	47.	49.

No. 31, Freshman	No. 32, Junior	No. 33, Junior
Latin--Two Years 76% Correct	Latin--Two Years 74% Correct	Latin--Two Years 74% Correct
Substructural	1.	1.
Somnelescent	2.	2.
1.	3.	3.
2.	4.	4.
3.	5.	Obstructural
4.	6.	5.
5.	7.	6.
6.	Motulation	Modelation
7.	8.	7.
8.	9.	Exigincey
Obstinancy	10.	Obstiniousy
Subpeanae	11.	Subponea
9.	Supeona	8.
Viril	Viro	Virole
10.	12.	9.
11.	13.	10.
12.	14.	11.
13.	15.	12.
14.	16.	13.
15.	17.	14.
Perrenial	Perrenial	15.
Surveillity	18.	16.
16.	19.	Centergrate
17.	20.	Opsidentalism
18.	21.	18.
19.	22.	19.
20.	23.	20.
Baligerent	Beligerent	21.
21.	Aillienated	22.
22.	Muline	23.
Omnicient	Omnicient	Unaminous
23.	24.	24.
24.	25.	25.
25.	Vacilitate	26.
26.	26.	27.
27.	27.	28.
28.	28.	29.
29.	29.	30.
30.	30.	Annihlated
31.	Anialated	31.
32.	Auxiliary	Exsicible
33.	Exicreble	32.
Incumberance	31.	Incomperence
34.	Incumberance	33.
35.	32.	34.
36.	33.	35.
37.	34.	36.
38.	35.	37.
Insructible	36.	Inscrutiable
	37.	

No. 10, Sophomore  
Latin--Three Years  
84% Correct

- 1.
- 2.
- 3.
- 4.
- 5.
6. Excrutiate
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
26. Beligerent
- 27.
28. Omnicient
- 29.
- 30.
- 31.
- 32.
- 33.
- 34.
- 35.
- 36.
37. Auxillary  
Execrible  
Affilliate  
Encumburence
- 38.
- 39.
- 40.
41. Subsidise
- 42.

No. 11, Sophomore  
Latin--Three Years  
84% Correct

1. Somolescent
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
17. Pecunary
- 18.
- 19.
- 20.
- 21.
22. Oxidentalism
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.
- 32.
- 33.
- 34.
- 35.
36. Annihlated  
Auxillary  
Exic-  
Affiliate  
Incumberance
- 37.
- 38.
- 39.
- 40.
- 41.
- 42.

No. 12, Freshman  
Latin--Three Years  
80% Correct

- 1.
- 2.
- 3.
4. Obstrepous
- 5.
- 6.
7. Itineary
8. Obstinancy
- 9.
- 10.
- 11.
- 12.
13. Preoggative
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
23. Belligerant
- 24.
25. Omnisent
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.
- 32.
33. Annilliated
34. Exicable
35. Incumberance
- 36.
- 37.
38. Ignominous
- 39.
- 40.



## No. 61, Junior

Latin--One Year  
58% Correct

1. Sommolescent
- 2.
- 3.
- 4.
- 5.
- 6.
7. Ittinerary  
Exegency  
Obsteniocy  
Suppina  
Volnerable  
Viral
- 8.
- 9.
10. Earogently
- 11.
12. Parenial  
Survility
- 13.
14. Oxidentalism
- 15.
16. Beligerant  
Alianated  
Moline  
Imnitiant  
Onatimis
17. Facialitate
- 18.
- 19.
- 20.
- 21.
22. Anihalated  
Auxialarate
- 23.
24. Incomrence
- 25.
- 26.
- 27.
- 28.
29. Insrutible

## No. 62, Junior

Latin--One Year  
58% Correct

- 1.
- 2.
3. Eagletism  
Obst-
4. Exorusiata
5. Itteneruary  
Existency  
Obstinicy  
Subpoene  
Vulnarable  
Verial
- 6.
- 7.
- 8.-
9. Aerogently
10. Metamorphis  
Perannial
- 11.
12. Accidentalism
13. Acquestrian
- 14.
15. Maline  
Omniciant
- 16.
17. Fascilitate
- 18.
- 19.
- 20.
- 21.
22. Annillated  
Auxillary  
Exicable
- 23.
- 24.
- 25.
- 26.
27. Egnominis
- 28.
- 29.

## No. 63, Sophomore

Latin--One Year  
58% Correct

1. Somdolscent  
Unvinscible  
Egotisim
- 2.
3. Excrusiata
4. Itinery  
Exidency
5. Supena  
Volnerible  
Viral
- 6.
- 7.
- 8.
- 9.
10. Metimorphosis
- 11.
12. Sentegrade
13. Occidentalysm
- 14.
- 15.
16. Alianated  
Maline  
Omnicient
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
23. Pugnatiours
24. Auxilliary  
Execrible
25. Incubrence
- 26.
- 27.
28. Ignominous
29. Insc-

No. 94, Freshman	No. 95, Freshman	No. 96, Freshman
Latin--Not Studied 34% Correct	Latin--Not Studied 32% Correct	Latin--Not Studied 32% Correct
1. Somnulest Invinsible Eagletism Obstrep-	Substructual Solmnolissent Invencible Egetism Ubstructrous	1. Psalmnolistic
2. Exerusiata	1. Execruicate Mogulation Itenary Exigity	2. Eogetism Obstructerous
3. Exeyency	2. Subpeny Volnurable Veral Incorperate Insipiant	3. Exclisiata
4. Ob- Supena Volmurable Veral Incorperate Insipiant	3. Preoggative Arogmentally Pickenary Metomordis Perential	4. Exigistenoy Obstencious Subspeance Volnerable Vereal
5. Aro- Picanerary Metamorposis Peranal Serbility	4. Maltplicity Occade Contempory	5. Insipiant Prerrogrative Arrograntly
6. Multpliciate	5. Belligrent Allenated Maline Omnicient	6. Metamorphorous Perental Serviluate
7. Contemperary	6. Belligrent Allenated Maline Omnicient	7. Multiplicitate Oxcidentalism
8. Beligerant	7. Anilaled Auxiliary Exsicrable	8. Equstrian Bellegarent Allienated Malian Amneicient Unamimious Altruasttic Valicitate
9. Maline Omnisiant Ananomous Altuestic	8. Pognatoun Anilaled Auxiliary Exsicrable	9. Stipilutation
10. Insuperable	9. Incourance Discrimnate	10. Anilaled Axuliarly Execrable Aphiliated Incommerce
11. Pognasius Anilaled Auxilaury Exicrible	10. Eposiple Egnominous	11. Apistle
12. Insuperable	11. Insuperable	12. Subsidice Inscretabile
13. Pognasius Anilaled Auxilaury Exicrible	12. Insuperable	
14. Incommece	13. Insuperable	
15. Exissal	14. Insuperable	
16. Susidise Inserudible	15. Insuperable	
17. Susidise Inserudible	16. Insuperable	

## D. Samples of Test 2

## Four Years of Latin

\*Correct--76%

## Junior

- \*1. Right handed
- 2. Waste time
- \*3. Talkative
- \*4. Wonderful
- \*5. Nightly
- 6. Enrollment, payment
- \*7. Understanding
- \*8. Harmful
- \*9. Go backward
- \*10. Warlike
- \*11. Beginning
- 12. Likely to happen
- \*13. All powerful
- \*14. Sleep during winter
- 15. Extermination
- \*16. Troublesome
- \*17. Oil
- \*18. Kill a man
- \*19. Home
- \*20. Moon-like
- \*21. Meek
- 22. Inexcusable
- \*23. Moneyless
- 24. Unlikable
- \*25. Saucy
- 26. Associate
- \*27. Pugilistic
- \*28. Understanding
- \*29. Unnoticable
- \*30. Quickly recovers
- \*31. Dirt that settles
- \*32. Beauty
- \*33. Pay
- \*34. Untrustworthy
- \*35. Overbearing
- 36. Unpreparedness
- \*37. Sharp
- \*38. Remainder
- \*39. Bloodthirsty
- 40. Unintentional
- 41. Change
- 42. Moving back and forth
- \*43. Wrong for the occasion
- \*44. Idea
- \*45. Fall
- \*46. Troublesome situation
- \*47. Aside from the point
- \*48. Required
- \*49. Praise
- 50. Confusion

## Three Years of Latin

\*Correct--76%

## Senior

- \*1. Skillful
- \*2. Put off
- \*3. Talkative
- \*4. Great
- \*5. Nightly
- 6. Ascribing to
- 7. Seeing
- \*8. Evil
- \*9. To go back
- \*10. Taking the initiative
- \*11. Beginning
- \*12. Looking over
- \*13. All Powerful
- \*14. Spend the winter
- \*15. Forgetfulness
- 16.
- \*17. Oil
- \*18. Man killing
- \*19. Home
- \*20. Moon
- 21. Following
- \*22. Cannot be helped or lessened
- 23.
- \*24. Heavy
- \*25. Impudent
- \*26. Part of
- \*27. Fighting or belligerent
- \*28. Knowledge
- \*29. Not noticed
- 30.
- \*31. What is left
- \*32. Beauty
- \*33. Allowance
- \*34. Unfaithful
- \*35. Highbrow, Haughty
- \*36. Insufficient
- 37. Open before
- \*38. Remains
- \*39. Preying upon
- 40.
- \*41. Turned back
- \*42. Changing to
- \*43. Out of place
- \*44. Assume attitude beforehand
- 45. Cause before
- 46. Situation one finds oneself in
- \*47. Does not fit
- 48. Necessary
- \*49. Praise
- 50. Confusion

## Two Years of Latin

\*Correct--52%

### Sophomore

1. Right or left handed
2. Cursory
- \*3. Speech of fluency
- \*4. Beautiful
- \*5. Night
- \*6. Obligate to take a newspaper
7. Conceive
8. A display of irony; wrath
- \*9. Retard
- \*10. Forward
11. Median through which something passes
- \*12. Something to look forward to
- \*13. All powerful
- \*14. Spend the winter
- \*15. Disappeared or hidden
- 16.
- \*17. Oil
- \*18. Death of one caused by a fellow man
- \*19. Home
- \*20. Moon
- 21.
22. Bosom or closely united
23. Peculiar
- 24.
- \*25. Cocky
- \*26. A part
- \*27. Fighting nature
- 28.
- \*29. Hidden
- 30.
31. A part
- \*32. Womanly beauty
33. Huge
- 34.
35. Heaven like
- \*36. Inefficient
- 37.
- 38.
- 39.
40. Precaution
- 41.
42. Postpone or defer
- \*43. Unfit
- \*44. One's opinion
- \*45. Rainfall
- \*46. State of mixed up affairs
- 47.
- \*48. Compulsory
- \*49. Applaud
50. Firmly determined

## One Year of Latin

68

\*Correct--30%

### Junior

- 1.
- \*2. To put off
- \*3. Talkative
- \*4. Beautiful
- 5.
- \*6. Act of subscribing
- 7.
8. Severe
9. Of low order
- 10.
11. Contagious
- 12.
- 13.
- \*14. Act of sleeping months
- \*15. Forgetfulness
- 16.
17. Smoothness
- \*18. Murder
- \*19. Home
20. Not sequential
- 21.
- 22.
- 23.
- 24.
- \*25. Bold
- 26.
- 27.
- \*28. Recognize
- \*29. Not noticeable
- \*30. Power of resisting
- 31.
- \*32. Beautiful
- 33.
- 34.
35. Sensitive
- 36.
- 37.
- 38.
- 39.
- 40.
41. Prevent
- 42.
- \*43. Not fixed for the occasion
- \*44. Act of assuming
- 45.
46. Act of doing
- 47.
- 48.
- 49.
50. Anxious

## No Latin

\*Correct--18%

Senior

- 1.
- 2.
- 3.
- \*4. Great
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- \*12. Hope
13. One condition
- 14.
- 15.
- 16.
17. Think
18. Suicide
- \*19. Home
20. Sun
- 21.
- 22.
- 23.
24. One
- \*25. Smart, saucy
- 26.
- \*27. Fighting instinct
- 28.
- 29.
30. Calm again
- \*31. Bad
- 32.
- 33.
- 34.
35. Above
- \*36. Not satisfactory
- 37.
38. Reside
- 39.
- 40.
- 41.
42. Talk with
- 43.
44. Consider
45. Change
- \*46. Terrible condition
- 47.
- 48.
- \*49. Applaud
- 50.

## E. Samples of Test 3

## Four Years of Latin

\*Correct--92%

. Junior

- \*1. One of a series
- \*2. Place
- \*3. Center
- \*4. Equipment
- \*5. Final command
- \*6. Least amount
- \*7. Graduate of a school-masculine
- \*8. Additional payments
- 9.
- \*10. Against
- \*11. Force
- \*12. Standing
- \*13. Irritating; anything which produces a response or result
- \*14. Excuse
- \*15. Additional material
- \*16. Make; or let there be made
- \*17. Facts pertaining to
- \*18. Data compiled with the purpose of refreshing one's memory
- \*19. A handicap; as baggage
- \*20. References for consultation.
- \*21. Conclusion--group opinion.
- 22.
- \*23. Cross or high point; crisis
- \*24. Conveyance for a group
- \*25. Peculiar facts or properties

## Three Years of Latin

\*Correct--80%

Freshman

- \*1. Piece
- 2. Equi distant from all points
- \*3. Concentration; like a beam of light
- \*4. Machinery
- 5. Demand
- \*6. Least
- \*7. Graduate of school
- \*8. Extra pay
- 9. Docket
- \*10. Against
- \*11. Momentum
- \*12. State or condition
- \*13. Moving power or stimulation
- \*14. Excuse
- \*15. Extra material
- 16. Paper
- \*17. Information
- \*18. Notes
- \*19. Obstruction
- \*20. Reference to the people
- \*21. General or usual
- 22. Minimum
- \*23. Main part
- \*24. Bus or carriage
- \*25. Something unusual

## Two Years of Latin

\*Correct--60%

## Senior

- 1.
- \*2. Place
- 3.
- \*4. Tools, working articles
- \*5. Final decree
- \*6. Smallest amount
- \*7. Graduate from a school
- \*8. Reward
- 9.
- 10.
- \*11. Force
12. Level
- \*13. That which arouses
- \*14. Proof of innocence by  
absence at the time
- 15.
16. False
- \*17. Information, facts
18. List
- \*19. Hindrance
- \*20. Carrying back
21. Average
- 22.
- \*23. Highest point
- \*24. Vehicle
- \*25. Natural events

## One Year of Latin

\*Correct--36%

## Sophomore

1. Number; as, first item
2. Plant
3. Moss
- \*4. Material or machinery used
5. Amount
- \*6. Smallest
- \*7. Graduates of a school
- \*8. Money; as a soldier's  
bonus for service
- 9.
- \*10. Against
11. Take part in
- \*12. Standing or condition
- \*13. That which causes reaction
14. Reason; a long alibi
15. Item; one
16. Encounter
17. The present data shows an  
increase
- \*18. Account; outline of some-  
thing
- \*19. Withhold
20. Referendum
- 21.
22. Sold at par
23. State
24. The omnibus bill
25. Date record

## No Latin

\*Correct--36%      Sophomore

- \*1. One part
2. An insect
3. A ray of a focus
- \*4. A machine
- 5.
- \*6. Smallest
- \*7. A graduate
8. Interest
- 9.
- 10.
- 11.
- \*12. Standing
13. Something as a stimuli
- \*14. Excuse
15. Musical term
- 16.
17. Material
- \*18. Ajotting to recall something
19. An obstruction
20. Material recorded to refer to
- 21.
22. Average
- 23.
- 24.
- \*25. A natural occurrence



## F. Samples of Test 4

## Four Years of Latin

\*Correct--93%

## Senior

- \*1. Have within
- \*2. Material
- \*3. New activity arising from within
- \*4. Insight
- \*5. Inclination toward
- \*6. Theorizing
- \*7. According to proof
- \*8. Ideas present before or at birth
- \*9. Faculties present before or at birth
- \*10. Conditions of mind following one upon another
- \*11. Looking within one's self
- 12. Without movement; thinking without doing
- \*13. Inert substance
- \*14. Life
- \*15. Identical throughout; of a sameness; one material

## Three Years of Latin

\*Correct--80%

## Senior

- \*1. Hold
- 2.
- \*3. Spontaneous action
- \*4. Sensing without knowledge
- \*5. Preconceived idea or feeling
- 6. Guessing
- 7. Dominating study of the mind
- \*8. Inborn concepts
- \*9. Native potentialities
- \*10. States, one following another
- \*11. Looking into one's self
- \*12. A taking from; a generalization
- \*13. Inactive, without force
- \*14. Life
- \*15. Like in kind

## Two Years of Latin

\*Correct--60%

## Senior

- \*1. Held within
- \*2. Matter
- \*3. Movement, either mental or physical, which is not motivated or suggested by another person
- \*4. Unconscious foretelling from within of coming happenings
- 5. The act of putting away or disposing of beforehand
- 6. Psychology which can be thought upon intensely
- 7. Empirical psychology means a wide and intensive type of psychology
- 8. Inactive and unfounded ideas
- 9. Uninfluential powers or forces
- 10. Next to or adjacent
- \*11. Looking into one's self. Analyzing one's self
- \*12. Not definite or concrete
- \*13. Inactive and powerless matter
- \*14. Vitality; energy
- \*15. Alike and agreeable

## One Year of Latin

\*Correct--40%

## Junior

- \*1. Hold ideas
- \*2. Material
- 3. Things one does because one wishes
- 4. Inward feeling
- \*5. Inherited disposition
- 6. Investigation. To think on
- 7. Psychology of the whole body
- \*8. Ideas inside you developed since birth
- 9. Facts that he felt
- 10. State of mind he would be in
- \*11. Inside inspection
- 12. Distracting or leading away
- 13. Occasional material
- \*14. Strength
- 15. Adaptable to any situation

## No Latin

\*Correct--40%      Senior

- \*1. Ability to hold in the mind
- \*2. Matter
- \*3. Activity of individual acquired  
at birth
- 4. A hunch or feeling that you are  
right
- \*5. Thinking before hand how you will  
act
- 6.
- 7.
- 8. Express what you are thinking about
- 9. Ability to express what you are  
thinking about
- \*10. An idea or though following or  
succeeding another
- 11. Observation
- 12. Reason without the use of concrete  
material
- 13. Abstract material
- 14. Meaning
- \*15. Alike in structure

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