

A STUDY ON THE CORRELATION OF COURSE GRADES
IN ENGLISH WITH SCORES ON STANDARDIZED
READING TESTS

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A Thesis
Presented to
the Faculty of the Department of Psychology
University of Houston

In Partial Fulfillment
of the Requirements for the Degree
Master of Psychology

by
Sess Graves Bolton
June 1952

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An Abstract of a Thesis
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ABSTRACT

It was the purpose of this study to determine the degree of correlation between the academic achievement in English and the reading ability of a number of students of the Freshman Class at the University of Houston, 1951.

The course grades in English 131 were correlated with the scaled scores made on The Cooperative English Test, Test C2: Reading Comprehension, Form S and also with the raw scores made on The Psychological Examination for College Freshman. The Pearson product-moment method of correlation was used. All scores were tabulated, and a histogram was made for each set of scores and grades to give a pictorial representation of the distributions.

Literature was reviewed to find the viewpoint of authorities concerning the relationship between scholastic achievement in English and reading ability.

The histograms of the scores on the standardized reading test and on the "linguistic" test pictured normal distributions with the scores following the course of a normal curve. The histograms of the course grades showed a tendency of the grade scores to cluster around the arithmetic mean.

The coefficient of correlation between the English 121 course grades and the total reading scores proved to be a positive .445. The coefficient of correlation between the course grades and the "linguistic" scores proved to be a positive .492. The standard error for each coefficient was .032 therefore the coefficients were statistically significant.

The implications that arose from this study were: a possibility for further research on correlation after more intensive work on reading, a need for a more standardized method of the administering of grades by the instructors, and recognition of the necessity of remedial instruction for those students who are severely handicapped in the ability to read well.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Much has been done in colleges in recent years on increasing the reading ability of their students. Students have been helped to develop skills in comprehension, in speed, in skimming, in noting the author's viewpoint, in reading for details to answer specific questions, in outlining, and in knowing or inferring the meanings of difficult words. Many instructors believe that reading ability has a positive relationship to scholastic attainment. Strang¹ states that such a relationship is positive, but that it is not true that there is invariably a close relationship between the two factors. She² also states that there is a substantial relationship between academic achievement and the type of reading that college students have to

¹Ruth Strang and Mrs. Florence C. Rose, Problems in the Improvement of Reading in High School and College (Lancaster, Pennsylvania: The Science Press Printing Company, 1940), pp. 328-329.

²Ibid., p. 329.

do: to discriminate in selecting facts while reading, to read critically, to make distinctions, and to read rapidly enough to cover the required material. There is no doubt that definite improvement in the skill of reading has been accomplished in many colleges.

Authorities, however, seem to disagree as to whether or not this improvement in reading has any definite correlation with improvement in college courses.

Center and Persons³ say that readers read no better than they think so, that training in reading is training in thinking. Johnson O'Connor⁴ cites an experiment at Stevens Institute of Technology where a definite relationship was noted between vocabulary improvement and scholastic achievement. Another author⁵ says that college English consists of reading literature, of oral composition, and of written composition, and that the first of these receives the greatest share of attention.

³Stella S. Center and Gladys L. Persons, Experiences in Reading and Thinking. (New York: The Macmillan Company, 1954), Preface p. V.

⁴Johnson O'Connor, English Vocabulary Builder. (Hoboken: Human Engineering Laboratory, 1939), p. I.

⁵C. H. Ward, What is English? (New York: Scott Foresman and Company, 1925), pp. 26-27.

He implies that learning correct English depends to a great extent upon the ability to read. This presupposes that the student read rapidly and well the literature assigned.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study (1) to correlate the total reading scores made by approximately six hundred freshmen students of The University of Houston in the fall of 1951 on a Cooperative Reading Test, American Council on Education,⁶ with the course grades made on English 131 of the fall semester; (2) to correlate the "linguistic" scores on The Psychological Examination for College Freshmen, American Council on Education,⁷ with the same course grades made on English 131 that fall semester.

Importance of the study. As opinions vary on the definite relationship between reading ability and achievement in college courses, the English Department of the

⁶Cooperative English Test, Test C2: Reading Comprehension (Higher Level), Form S., American Council on Education (New York: Cooperative Test Service, 1942).

⁷Psychological Examination for College Freshmen, (Washington, D.C.: 1947), American Council on Education.

University of Houston is interested in ascertaining this correlation in its own school. This might be of positive value in the future planning of work on remedial reading for new students entering The University of Houston.

II. DEFINITIONS OF TERMS USED

Correlation. Correlation is the degree of relationship existing between two or more sets of measures.

Coefficient of Correlation. A coefficient of correlation is a single number that tells to what extent two things are related, that is, to what extent variations in the one correspond with variations in the other. A plus 1.00 indicates a perfect positive correlation; a zero indicates no correlation; and a minus 1.00 indicates perfect negative correlation.

Pearson's product-moment coefficient of correlation.

The Pearson's product-moment coefficient of correlation is the standard kind of coefficient, and it is computed by a basic formula.

Scaled score. "The size of the unit on the common scale is defined as a tenth of the standard deviation of the distribution of scores which would be made by an

unselected group of students, if they were all to take the particular subject."⁸

Raw Score. Raw scores are quantitative measures obtained directly by scoring a test.

⁸ Directions for Administering the Cooperative Tests.
(New York: The cooperative Test Division of the Educational
Testing Service, 1942), p. 8.

CHAPTER II.

REVIEW OF THE LITERATURE

1. Literature on the relationship of reading ability to scholastic achievement. Statistical data on correlations between reading ability and scholastic achievement are meager. Much has been written on the relationship of the two, and many authors assume a direct positive relationship. Until recent years high schools and colleges were not interested in reading ability as related to achievement. Reading was the problem of the elementary school.

In fact, the improvement of reading of high-school and college students is now frequently approached with more enthusiasm than understanding, and the inevitable tendency to exploit a new educational trend is already apparent."¹

According to Adams, Gray, and Reese,² reading holds the first place of all the aids to learning.

¹G. T. Buswell, Remedial Reading at the College Level (Supplementary Educational Monographs. No. 50. Chicago, Illinois: The University of Chicago, 1939).p1.

²Fay Adams, Lillian Gray, Dora Reese, Teaching Children to Read (New York: The Ronald Press Company, 1949), p. 6.

They state that the student will be bankrupt as far as scholastic success is concerned without this "cultural tool".

2. Literature as an aid in the interpretation of the results of the study. The results of this study seem to substantiate the belief that there is a positive relationship between scholastic achievement and the ability to read. The plus .445 coefficient of correlation between English 131 course grades and the total reading scores and the plus .492 coefficient of correlation between English 131 course grades and the "linguistic" scores show a moderate correlation with substantial relationship. Ruch³ states that the fact that two things are related does not prove that one is the cause of the other, and that, when two sets of factors seem to influence each other, caution must be taken to make sure that they are not both being influenced by a third set of factors.

The measurement of the relationship between reading ability and scholastic attainment can be only an

³Floyd L. Ruch, Psychology and Life (New York: Scott, Foresman and Company, 1949) p. 55.

approximate indication even though the relationship is a statistical correlation. This is due to the fact that so many factors might be involved. In this case the factors relating to the administering of course grades would probably influence the relationship. Intelligence, a pleasing personality, regular attendance, interest in the subject matter, personal likes and dislikes of the students and the instructor, cheating, and the effort expended are some of the most powerful factors which effect the trend of course grades. The emotional factor should not be discounted. Grace M. Fernald⁴ says that emotional stability is so serious that it is difficult to tell which comes first, the failure in academic work or the emotional upset. Some students fail because they are emotionally unstable; others are emotionally unstable because they are not succeeding. Russell⁵ believes that there is a positive correlation between physical, mental, social, and emotional development and the ability to read well. Teagarden

⁴Grace M. Fernald, Remedial Techniques in Basic School Subjects. (New York: McGraw-Hill Book Company, Inc., 1943), p. 7.

⁵David H. Russell, Children Learn to Read. (New York: Ginn Company, 1949), p. 69.

helps to verify this concept when he states that

. . . research in the field of reading disability has brought into the foreground the fact that very often failure in academic subjects is caused primarily by emotional blockings or personal emotional problems . . .⁶

In addition to a consideration of the factors mentioned above, when interpreting the coefficients of correlation obtained, the fact that reading and language are intrinsically related must also be weighed. The broader concept is that

. . . reading is no longer conceived to be an isolated fragment of the language arts but a facet of language.

Reading is a language process rather than a subject. In a psychological sense, reading is a thinking process. . . . Psychophysiological factors, such as seeing and hearing, also are embraced by an adequate concept of reading as a process.⁷

In answering the question as to whether or not poor reading ability is associated with poor scholastic work, one author asserts,

⁶ Florence M. Teagarden, Child Psychology for Professional Workers (New York: Prentice-Hall Inc., 1946), p. 421.

⁷ Emmett Albert Betts, Foundations of Reading Instruction (New York: American Book Company, 1946) p. 70.

The prevalent opinion of teachers that poor reading ability is associated with poor scholarship is not, in general, supported by the correlations reported between teachers' marks and the results of reading tests. The majority of correlations between these two factors fall between .30 and .50. The degree of relationship varies greatly with the tests and with the groups tested.⁸

As the results of this study fall at the upper limit of the above set limits, a more positive correlation might be assumed in these two sets of scores than is usually found between reading tests and scholastic achievement. The higher coefficient of correlation between the linguistic scores and the course grades seems to indicate that a knowledge of vocabulary has a more direct relationship to English achievement than do speed and comprehension of reading.

Whenever a relationship between two variables is established beyond reasonable doubt, the fact that the correlation coefficient is small, may merely mean that the measurement situation is contaminated by many things uncontrolled or not held constant.

⁸ Constance M. McCullough, Ruth M. Strang, and Arthur E. Traxler, Problems in the Improvement of Reading. (New York: McGraw-Hill Book Company, Inc., 1946), p. 222.

A correlation is always relative to the situation under which it is obtained, and its size does not represent any absolute natural or cosmic fact.⁹

The coefficients obtained should be interpreted in the light of all existing circumstances and not as an absolute value.

⁹ J. P. Guilford, Fundamental Statistics in Psychology and Education, (New York: McGraw-Hill Book Company, Inc., 1950), p. 167.

CHAPTER III.

MATERIALS AND GROUPS STUDIED

The Cooperative English Test, Test C2: Reading C Comprehension, Form S. was used by The Division of Counseling and Testing, Center for Psychological Services, University of Houston, for testing the freshman students of The University in the fall of 1951. It is a reading test of higher level designed to test vocabulary, speed of comprehension, and level of comprehension. The Psychological Examination for College Freshmen was also used for the same group of students. It is a test in which the linguistic section is designed to test ability of supplying a word for a meaning, knowledge of word meanings, antonyms and synonyms, and the ability to see verbal analogies.

Table I gives the basic data for this study. The total reading scores in the table are scaled scores; the linguistic scores are raw scores. A score of 50 represents an average score on the scaled scores. The course grades were the grades made on Freshman English 131 by students of the Freshman Class of The University of Houston in the fall of 1951. These grades were provided by the Department of English of the University of Houston. The number of cases used for the correlation

with the Cooperative English Test was 610; the number of cases used for the correlation with the Psychological Examination was 546 of the 610 cases as 64 "linguistic" scores were not obtainable.

The method used to correlate the two sets of scores was the Pearson product-moment method of correlation.

There were certain limitations to the study. No allowance was made for variation in intelligence. A student of high intelligence might have made a low reading score because of a lack of visual acuity. On the other hand, that same student might have made a high course grade because of superior ability shown in oral discussions. The differences in the amount and quality of the training of instructors was another variable element. The lack of emotional stability in either an instructor or a student was also a limitation. These factors were disregarded in the statistical problem, but they should not be discounted in the evaluation of the results.

TABLE I
COURSE GRADES IN FRESHMAN ENGLISH
SCALED SCORES ON READING COMPREHENSION AND
RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score*	Linguis- tic Score**
1	65	43	48
2	85	49	51
3	85	52	63
4	85	81	85
5	85	50	55
6	85	65	67
7	85	50	--
8	85	55	60
9	85	63	68
10	75	43	58
11	75	44	38
12	85	48	64
13	75	51	35
14	75	55	44
15	85	73	87
16	85	69	75
17	75	50	46
18	75	46	38
19	75	65	70
20	75	37	--
21	85	65	75
22	75	47	39
23	65	45	--
24	75	53	52
25	85	54	60
26	65	39	33
27	75	51	41
28	95	57	57
29	75	56	50
30	75	48	--

*Cooperative scaled scores.

**Raw scores.

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
31	95	61	82
32	75	52	--
33	75	47	57
34	85	68	67
35	75	50	53
36	85	53	62
37	75	55	42
38	65	44	46
39	85	64	64
40	75	51	39
41	75	42	42
42	75	54	64
43	75	55	--
44	95	69	77
45	75	67	70
46	85	47	--
47	65	42	33
48	95	54	60
49	85	57	73
50	85	59	--
51	75	46	33
52	75	57	85
53	65	50	--
54	85	65	79
55	75	45	66
56	75	54	--
57	95	57	73
58	85	47	31
59	85	67	67
60	75	47	46

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic
61	65	42	52
62	85	66	71
63	85	58	69
64	85	59	74
65	75	47	33
66	95	63	68
67	95	73	98
68	85	53	48
69	85	53	--
70	85	52	63
71	55	47	27
72	65	47	37
73	85	48	56
74	75	48	50
75	75	48	56
76	85	48	37
77	85	49	45
78	75	57	44
79	85	50	41
80	75	55	65
81	55	47	41
82	95	60	82
83	75	60	60
84	75	50	51
85	85	50	54
86	75	50	59
87	85	52	62
88	75	60	63
89	65	42	41
90	55	58	2

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
91	75	58	62
92	65	46	51
93	75	51	52
94	85	44	37
95	65	55	54
96	55	27	2
97	85	51	42
98	85	57	67
99	65	51	50
100	75	65	62
101	85	52	62
102	85	51	56
103	85	48	--
104	85	68	73
105	75	55	63
106	55	39	27
107	85	56	53
108	75	47	51
109	75	42	46
110	75	52	60
111	75	54	58
112	85	48	60
113	95	64	75
114	85	55	39
115	75	48	--
116	95	70	75
117	75	44	33
118	65	36	33
119	65	48	42
120	85	65	85

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
121	75	62	72
122	55	45	--
123	55	62	67
124	75	50	77
125	85	49	39
126	65	70	70
127	75	45	38
128	85	43	42
129	95	71	86
130	85	55	70
131	75	51	50
132	75	49	--
133	75	59	69
134	85	53	57
135	65	38	--
136	85	60	65
137	85	41	49
138	95	74	83
139	85	52	49
140	85	63	65
141	75	62	80
142	85	57	52
143	85	59	55
144	55	56	72
145	85	49	53
146	75	46	44
147	75	54	39
148	75	50	51
149	65	48	44
150	75	44	52

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
151	75	55	71
152	85	50	--
153	85	61	65
154	65	50	42
155	75	60	58
156	75	61	62
157	75	57	--
158	65	45	39
159	75	58	63
160	95	69	87
161	85	56	68
162	85	60	54
163	55	69	64
164	75	55	--
165	85	55	69
166	75	45	--
167	75	43	44
168	55	64	69
169	85	63	60
170	85	59	50
171	85	60	61
172	95	69	63
173	85	51	41
174	65	40	41
175	75	52	58
176	65	43	39
177	65	48	50
178	55	59	58
179	65	51	71
180	65	43	37

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
181	85	64	68
182	75	45	34
183	55	47	--
184	65	57	55
185	75	55	56
186	65	39	31
187	85	64	81
188	85	61	62
189	75	60	46
190	95	55	72
191	75	46	--
192	75	55	77
193	95	63	69
194	95	58	62
195	85	59	65
196	75	56	60
197	85	65	71
198	85	61	74
199	65	44	45
200	55	41	2
201	75	52	45
202	75	47	62
203	75	51	--
204	75	42	--
205	85	52	63
206	85	69	72
207	75	49	53
208	75	51	45
209	65	50	39
210	75	38	33

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
211	75	43	47
212	55	66	60
213	55	40	37
214	75	59	78
215	75	52	48
216	75	47	42
217	55	35	39
218	85	63	75
219	85	53	53
220	85	58	66
221	75	59	--
222	85	59	54
223	75	55	59
224	75	52	54
225	75	66	--
226	75	44	60
227	65	37	43
228	65	42	37
229	95	73	90
230	85	61	66
231	95	76	90
232	85	51	50
233	75	54	39
234	85	48	48
235	85	68	75
236	85	71	71
237	75	45	39
238	55	46	--
239	85	56	45
240	85	50	47

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
241	75	39	43
242	75	58	70
243	95	51	61
244	85	50	--
245	75	46	37
246	55	48	39
247	55	42	--
248	75	38	38
249	75	46	--
250	85	52	72
251	85	55	51
252	75	54	45
253	55	40	27
254	85	56	--
255	75	51	41
256	65	61	--
257	55	39	41
258	75	51	55
259	85	51	59
260	95	66	87
261	75	51	55
262	75	50	52
263	85	66	87
264	75	61	78
265	65	43	--
266	85	58	66
267	75	46	43
268	75	59	66
269	85	60	64
27088	85	48	46

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
271	85	50	56
272	55	65	55
273	85	56	60
274	75	50	51
275	95	71	78
276	75	50	--
277	65	44	41
278	85	62	75
279	75	55	45
280	85	63	81
281	65	41	56
282	75	51	59
283	85	62	66
284	85	71	--
285	85	72	85
286	65	41	34
287	65	59	75
288	55	48	39
289	75	47	31
290	85	51	57
291	55	40	27
292	55	26	44
293	75	52	55
294	85	50	49
295	85	64	63
296	85	52	73
297	75	46	56
298	85	47	55
299	75	66	64
300	75	59	78

TABLE I (Continued)

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COURSE GRADES IN FRESHMAN ENGLISH
 SCALED SCORES ON READING COMPREHENSION AND
 RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
301	75	56	55
302	75	50	--
303	85	66	57
304	65	42	34
305	65	34	23
306	85	63	68
307	85	51	--
308	55	56	60
309	75	51	49
310	75	36	39
311	85	68	78
312	75	39	31
313	65	51	63
314	65	42	44
315	55	40	49
316	75	52	55
317	55	49	41
318	65	56	50
319	85	52	63
320	75	54	68
321	85	60	69
322	75	61	68
323	65	44	38
324	75	61	56
325	75	54	64
326	65	39	31
327	75	36	23
328	95	64	79
329	75	49	52
330	55	62	74

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH
 SCALED SCORES ON READING COMPREHENSION AND
 RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
331	85	51	46
332	75	63	60
333	75	48	44
334	75	52	63
335	75	36	23
336	75	49	50
337	75	46	56
338	65	56	58
339	85	43	42
340	95	57	68
341	75	44	27
342	55	48	47
343	85	63	81
344	65	48	41
345	85	48	42
346	85	50	64
347	85	53	46
348	85	70	--
349	95	57	72
350	75	42	27
351	75	58	70
352	75	45	27
353	75	69	74
354	75	44	53
355	75	64	90
356	85	43	37
357	75	65	75
358	75	51	48
359	75	47	75
360	75	59	65

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
361	85	66	66
362	75	46	43
363	75	49	54
364	75	54	44
365	85	48	44
366	85	54	50
367	75	53	48
368	85	56	60
369	75	51	51
370	65	59	59
371	85	61	57
372	75	48	61
373	85	60	75
374	85	54	58
375	75	39	61
376	75	38	31
377	65	53	54
378	75	66	--
379	85	67	58
380	75	52	62
381	65	42	23
382	95	83	98
383	85	46	41
384	85	69	74
385	75	52	61
386	75	58	72
387	75	54	61
388	55	51	--
389	65	37	34
390	85	60	61

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
391	65	50	--
392	85	52	54
393	85	58	62
394	85	61	78
395	95	65	79
396	75	27	--
397	85	59	72
398	65	47	57
399	85	64	72
400	55	51	--
401	75	52	34
402	85	54	63
403	75	63	--
404	55	52	64
405	75	41	41
406	85	47	48
407	65	35	23
408	85	54	61
409	75	57	66
410	55	37	2
411	65	55	50
412	85	52	--
413	75	48	--
414	85	64	61
415	85	63	--
416	65	49	--
417	75	55	55
418	85	45	--
419	85	57	34
420	75	51	72

TABLE I (Continued)

COURSE GRADES IN FRESHMEN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshmen Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
421	65	54	49
422	95	76	86
423	75	42	43
424	75	45	31
425	85	70	67
426	85	47	47
427	75	39	37
428	75	47	49
429	75	43	46
430	75	57	62
431	75	53	56
432	75	38	44
433	75	45	45
434	85	53	52
435	65	52	55
436	75	51	45
437	75	43	33
438	85	61	81
439	75	49	37
440	75	47	45
441	75	52	47
442	75	54	57
443	55	41	37
444	85	52	54
445	85	47	45
446	65	60	67
447	85	65	70
448	95	60	80
449	65	40	58
450	85	52	48

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH
 SCALED SCORES ON READING COMPREHENSION AND
 RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
451	65	62	75
452	85	70	81
453	75	52	70
454	85	39	50
455	75	44	50
456	85	50	56
457	75	49	47
458	75	39	23
459	85	65	78
460	75	38	37
461	75	54	54
462	85	61	69
463	95	53	63
464	85	64	61
465	55	51	39
466	75	46	52
467	65	42	27
468	75	53	64
469	75	37	21
470	75	65	61
471	75	63	48
472	95	57	59
473	85	56	64
474	85	51	80
475	75	56	54
476	75	55	53
477	75	56	63
478	75	49	33
479	75	52	49
480	85	52	56

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
481	85	53	47
482	75	40	38
483	75	49	56
484	55	43	33
485	85	56	63
486	85	68	90
487	85	49	45
488	75	50	44
489	75	56	59
490	65	37	39
491	95	67	95
492	65	39	38
493	85	66	--
494	55	69	89
495	75	50	42
496	65	53	56
497	85	54	52
498	85	59	68
499	85	48	2
500	85	64	67
501	75	59	52
502	75	40	39
503	75	58	43
504	65	41	21
505	85	64	64
506	75	51	43
507	85	53	69
508	95	61	48
509	65	47	37
510	75	43	41

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
511	75	56	62
512	85	64	75
513	85	41	23
514	85	51	48
515	75	27	31
516	75	40	46
517	75	40	27
518	75	49	57
519	85	52	52
520	65	55	66
521	85	53	74
522	65	45	45
523	65	45	57
524	85	62	70
525	75	47	47
526	85	62	62
527	65	43	--
528	75	53	55
529	65	45	23
530	85	67	66
531	75	49	55
532	95	63	67
533	65	26	--
534	85	57	66
535	65	47	33
536	85	57	51
537	65	36	27
538	85	65	79
539	85	50	52
540	85	59	--

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
541	75	47	58
542	75	44	61
543	65	44	33
544	95	59	61
545	85	64	79
546	85	45	38
547	75	61	--
548	95	59	61
549	75	45	51
550	85	72	75
551	75	78	--
552	65	47	53
553	55	27	23
554	65	51	34
555	85	63	65
556	75	61	73
557	75	44	--
558	85	67	57
559	75	50	43
560	75	43	55
561	85	60	54
562	85	68	--
563	75	44	41
564	75	53	55
565	95	67	80
566	75	50	44
567	75	50	37
568	85	55	62
569	85	62	78
570	95	51	58

TABLE I (Continued)
 COURSE GRADES IN FRESHMAN ENGLISH
 SCALED SCORES ON READING COMPREHENSION AND
 RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 131	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
571	65	53	56
572	85	77	86
573	85	62	79
574	85	54	--
575	75	47	43
576	75	39	44
577	85	49	31
578	85	53	66
579	75	54	58
580	85	79	83
581	85	48	--
582	65	56	--
583	75	44	43
584	75	58	59
585	55	45	48
586	95	56	62
587	75	63	82
588	85	90	98
589	75	60	67
590	85	61	56
591	75	54	59
592	95	68	87
593	75	52	--
594	85	59	75
595	75	48	45
596	65	51	53
597	55	50	37
598	85	67	77
599	65	38	41
600	75	45	45

TABLE I (Continued)

COURSE GRADES IN FRESHMAN ENGLISH

SCALED SCORES ON READING COMPREHENSION AND

RAW SCORES ON LINGUISTIC ABILITY

Freshman Class 1951	English 121	Reading Compre- hension	Psycho- logical Exam- ination
Case Number	Course Grade	Total Score	Linguis- tic Score
601	65	47	27
602	65	44	29
603	75	49	52
604	75	68	37
605	75	42	--
606	75	50	50
607	75	43	37
608	75	52	49
609	95	72	90
610	95	56	62

CHAPTER IV.

RESULTS OF THE STUDY

The Pearson product-moment correlation between the English 131 course grades and the total reading scores on The Cooperative English Test, Test C2: Reading Comprehension, proved to be a positive .445. The Pearson product-moment correlation between the English 131 course grades and the linguistic scores on The Psychological Examination for College Freshmen was a positive .492. The standard error for each coefficient was .022 and therefore both coefficients are statistically significant.

The histogram of the grade scores used in the total reading score correlation corresponds in shape to the one on the course grades used in the linguistic correlation. The slight variation is caused by the difference in the number of course grades used. In the total reading correlation 610 cases were used, whereas only 546 were used in the linguistic correlation. Both figures clearly show that there are relatively few low scores and relatively few high scores. The greatest number fall between 70 and 80. The standard deviation of the 610 grade scores in the total reading correlation was .9862, and that of the 546 scores used in the linguistic correlation, .9891. The standard deviations confirm

the pattern shown in the histograms of the tendency of the grade scores to cluster around the arithmetic mean of 75.2.

Both the histogram of the total reading scores and that of the linguistic scores picture a more normal distribution than do the histograms of the distributions of the course grades. The standard deviation of the total reading scores is 1.82, and that of the linguistic scores is 2.316. The standard deviation of the total reading scores shows that there is a relatively small deviation from the arithmetic mean of 50.22; the histogram of the distribution shows that the scores are evenly distributed above and below the mean. This, however, does not appear to be the case in the linguistic score distribution. The standard deviation is larger, being 2.316, and the histogram shows the distribution to be skewed to the left, or below the arithmetic mean of 60.3. In the comparison of these two distributions it must be noted that the total scores are scaled scores with 50 considered average and the linguistic scores are raw scores.

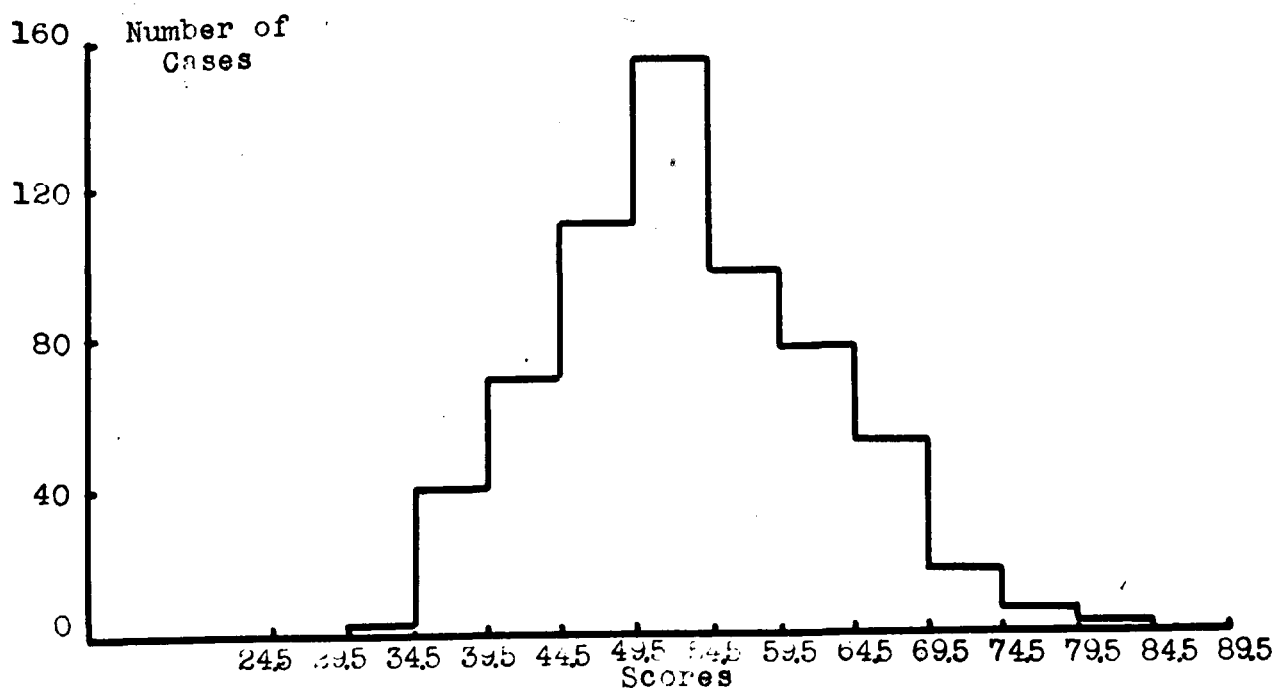


Figure I

Histogram on the Cooperative English Test Co.,
Reading Comprehension, Form S.

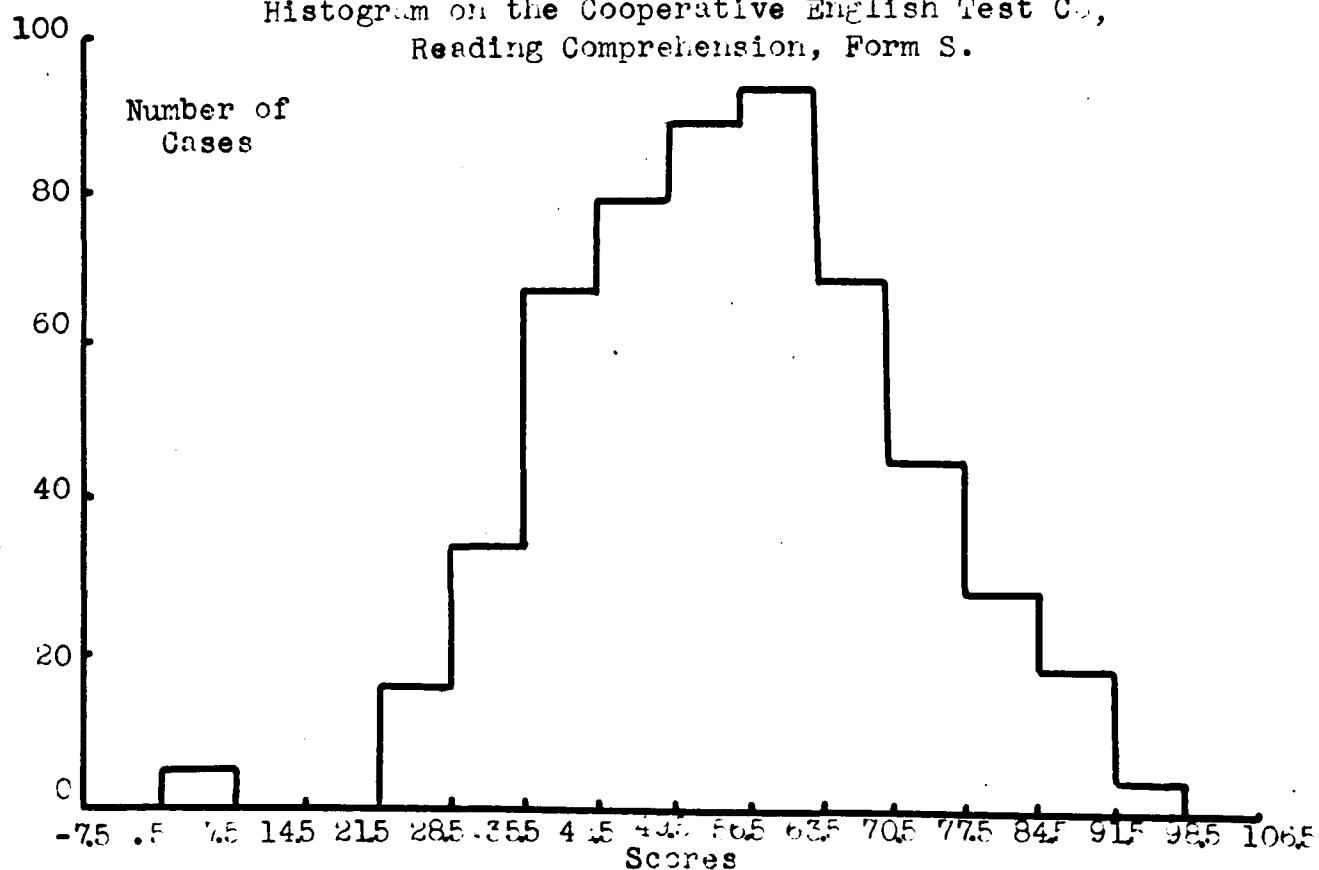


Figure II

Histogram of Linguistic Scores on the Psychological
Examination for College Freshmen

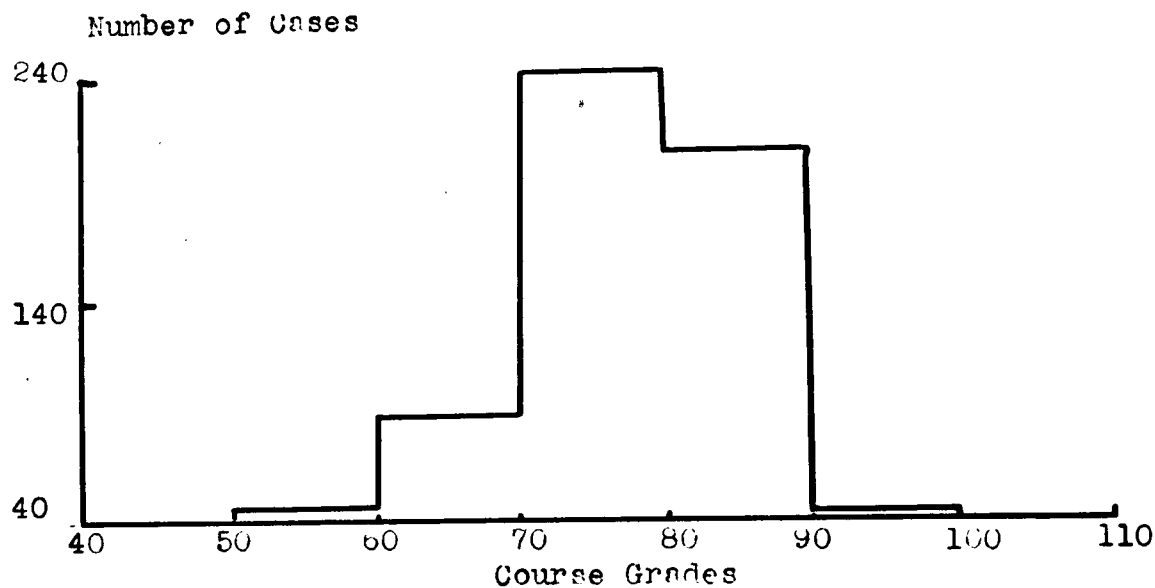


Figure III
Histogram of English Course Grades Used in the
Total Reading Correlation

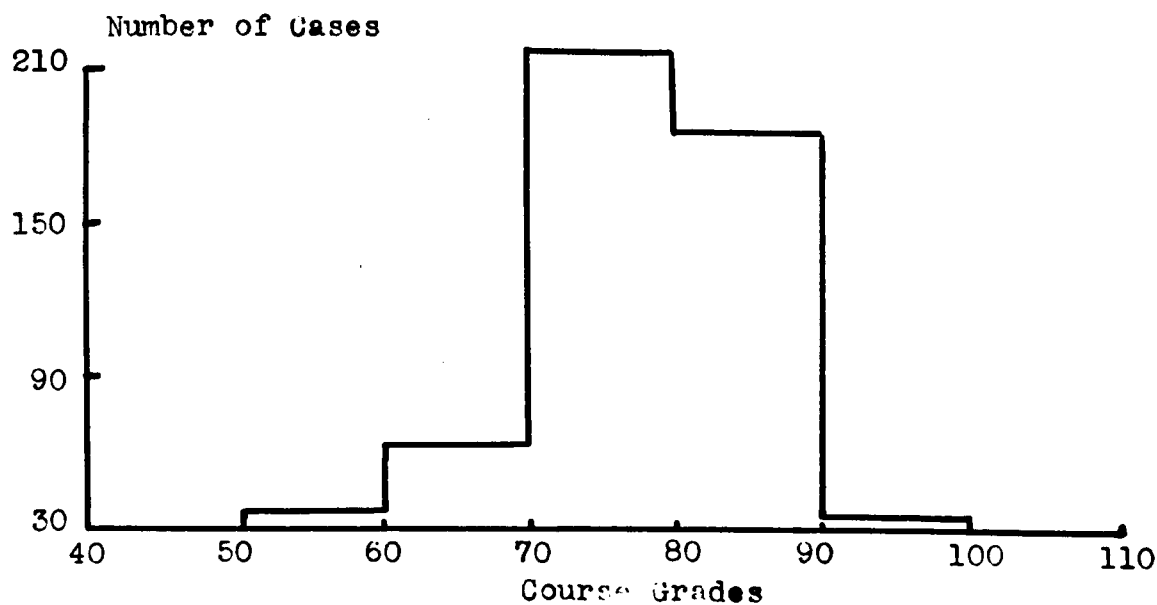


Figure IV
Histogram of English Course Grades Used in the
Linguistic Correlation

CHAPTER V.

SUMMARY AND RECOMMENDATIONS

The coefficient of correlation between the English course grades and the total reading scores proved to be positive with a moderate degree of relationship. The English grades deviated to a relatively small degree from an average of 75.2; the reading and linguistic scores followed the trend of a more normal distribution. Guilford¹ states that, where there is moderate correlation, the coefficient of correlation would be higher if other determiners were held constant. He says,

. . .where any correlation between two things things is established at all, and particularly where there is a causal relationship, the fundamental law implies a perfect relationship.²

A causal relationship seems to exist between reading and English as reading is a component part of English.

The standardized scores tend to fall into a normal distribution; the course grades do not tend to follow closely the normal curve. A more standardized method

¹J. P. Guilford, Fundamental Statistics in Psychology and Education. (New York: McGraw-Hill Book Company, Inc., 1950), p. 166.

²Ibid., p. 166.

of grading might eliminate some of the irrelevant factors which enter into the assigning of grades.

Since there is a positive correlation with substantial relationship between the reading ability and course grades on the scores made by the freshman students at the University of Houston, certain implications arise from these findings. It would seem advisable to alter the content of the English curriculum to some degree. This alteration should include more intensive work on reading comprehension and reading speed tests of an informal nature which would include a wide range of subject matter. As verbal skill has a higher correlation with the grade scores, more emphasis should be placed on this phase of reading. Some modern methods would stress the needs of the individual and his specific interests. It would probably be advisable for each student to select, with supervision, his own vocabulary field in addition to vocabulary element provided in his English classes. This additional instruction in reading would benefit all students, whereas remedial work would reach only the few who were in need of that kind of help.

Further research, after the additional instruction, on the resulting correlation of reading ability with achievement in English, might afford an interesting project for further study.

Until high schools assume the responsibility of carrying on the reading instruction begun in the primary and elementary grades, it rests with the colleges to correct the deficiencies which cause students to fall below the required level of scholastic achievement. Instruction of a remedial nature should be given those who need it on the mechanics of reading--speed, vocabulary, correct eye movements, reading silently without verbalizing -- and skills involved in critical interpretations. A mastery of these basic essentials would enable students to acquire the ability to think, reason, evaluate ideas, draw conclusions, predict outcomes, enjoy reading, and to attain academic success.

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