R E P O R T R E S U M E S

ED 018 211 JC 680 094

THE EFFECTS ON ACADEMIC GRADES OF ENROLLMENT IN A READING COURSE.

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PUB DATE 67

EDRS PRICE MF-$0.25 HC-$0.48 16P.

DESCRIPTORS- *JUNIOR COLLEGES, *HIGHER EDUCATION, *STUDY SKILLS, *READING SKILLS, EXPERIMENTAL CURRICULUM, PRETESTS, POST TESTS, PREDICTIVE ABILITY (TESTING), MINNEAPOLIS, MINNESOTA, DIAGNOSTIC READING TESTS,

IN FALL 1963, ALL FRESHMEN ENTERING THE UNIVERSITY OF MINNESOTA GENERAL COLLEGE TOOK THE DIAGNOSTIC READING TEST, AND FROM THEM A 110-STUDENT EXPERIMENTAL GROUP AND A SIMILAR CONTROL GROUP WERE RANDOMLY SELECTED. THE EXPERIMENTAL GROUP STUDENTS WERE ASKED TO ENROLL IN A 1-UNIT EDUCATIONAL SKILLS COURSE, WHICH 67 COMPLETED. READING PRETEST SCORES SHOWED NO SIGNIFICANT DIFFERENCES BETWEEN THE GROUPS, NOR WERE SIGNIFICANT DIFFERENCES FOUND BETWEEN THOSE EXPERIMENTAL GROUP STUDENTS WHO COMPLETED THE COURSE AND THOSE WHO DID NOT. MEAN GRADE AVERAGES OVER A 3-QUARTER PERIOD WERE HIGHER IN THE EXPERIMENTAL THAN IN THE CONTROL GROUP, THOUGH THE DIFFERENCES WERE NOT SIGNIFICANT. SIMILAR RESULTS WERE OBTAINED FROM A COMPARISON OF EXPERIMENTAL GROUP POST TESTS AND GRADE AVERAGES WITH THOSE OF A GROUP WHO HAD COMPLETED A DIFFERENT READING COURSE. SINCE THE STUDY DID NOT INCLUDE A POST TEST FOR THE CONTROL GROUP, EVIDENCE WAS NOT COLLECTED ABOUT SKILL IMPROVEMENT WHICH MIGHT HAVE OCCURRED WITHOUT THE COURSE. WHILE FACTORS OF READING AND STUDY SKILLS SEEM TO HAVE LOGICAL GRADE PREDICTIVE ABILITY, THE EVIDENCE OF THIS STUDY INDICATES THAT IMPROVING THESE SKILLS DOES NOT NECESSARILY RESULT IN IMPROVED GRADES. THIS DOCUMENT IS VOLUME 3, NUMBER 3 OF "THE GENERAL COLLEGE STUDIES," 1966-67. (WO)

UNIVERSITY OF MINNESOTA

Volume III, Number 3 1966-1967

THE EFFECTS ON ACADEMIC GRADES OF ENROLLMENT IN A READING COURSE

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For many years the Student Personnel Division of the General College has conducted studies of the General College student body in a continuing effort to keep itself -- as well as the whole College -- informed about the characteristics of the group we serve and, at the same time, to keep abreast of the needs of each new generation of students. Occasionally, as in the case of the project described in this issue of The General College Studies, research by the Student Personnel Division is carried on with the cooperation of other units of the University. In this instance, Dr. Scheller describes a project undertaken by the General College Student Personnel Division in conjunction with the Student Counseling Bureau of the University of Minnesota.

While the results of some studies are often predictable, it is sometimes the case that research findings challenge widely-held assumptions. Though it is generally agreed that we live in an oral-aural oriented society, the eclipse of reading as a basic learning skill for college students has not been so readily recognized. One of the conclusions of this study, as Dr. Scheller notes, is that we cannot complacently assume that there is a positive correlation between improvement in reading skills and improvement in course grades. Such conclusions emphasize that more research on the place of reading in learning is necessary.

Dr. Scheller's paper originally circulated privately in the General College and was labelled "Student Personnel Division: Project No. 33".

Editors: G. GORDON KINGSLEY, Coordinator, Student Personnel Services • DAVID L. GIESE, Coordinator of Research • NORMAN W. MOEN, Assistant Dean

INTRODUCTION

The faculty of the General College has long been concerned about the quality of the basic educational tools that our students bring to the College. In an attempt to get a clearer picture of the strengths and weaknesses of our students in a particular area--reading, it was decided that all entering freshmen in the fall of 1963 would be given a diagnostic reading test as part of their general orientation testing. The test chosen for this purpose was the DIAGNOSTIC READING TEST,[1] a fairly common, widely-used examination that gives part scores for reading rate, comprehension, and vocabulary.

PURPOSE AND PROCEDURE OF THIS STUDY

The purpose of this research was to study the effects of instruction given by the Reading and Study Skills Center. This Center is a division of the University's Student Counseling Bureau and is staffed by three full-time and several part-time professional persons with considerable experience in a wide range of instructional, research, and clinical activities in reading and other educational skills areas.

Of primary interest in this study were the possible changes as measured by two criteria: academic grades and DRT post-test results.

PROCEDURE

A random sample of 110 students was selected from all entering freshmen who had completed the DRT; This group was designated as the experimental group. Another random sample was taken and designated as the control group. Students in the experimental group were contacted by letter toward the end of the fall quarter, 1963, and were requested to take a one-credit course, numbered GC-1D, a course designed to improve their educational skills.

Of the 110 students contacted, 100 made initial contact with the Center. Sixty-seven of these students eventually completed the quarter of work in the center, while 33 failed either to appear after the first contact or discontinued attending the sessions early in the quarter.

The first step in the analysis was to compare the scores of the experimental and control group on the DRT Orientation (pre-test) results. Tables I and II give the means and standard deviations of these orientation test results.

TABLE I

Pre-test mean scores of the DRT subtests for the experimental and control groups.

	Experimental (N=110)	Control (N=110)	t value
Read. Rate (RR)	256.1	263.4	1.06
Story Comp. (SC)	14.0	14.2	.52
Vocab. (V)	31.6	31.7	.21
Comp. (C)	26.2	26.9	1.00
Total Comp. (TC)	57.8	58.6	.66

No significant differences were observed between the two groups, permitting further analysis.

TABLE II

Pre-test standard deviations of the DRT subtests for the experimental and control groups.

	Experimental	Control	F ratio
RR	46.7	52.6	.79
SC	3.6	2.7	1.49
V	5.8	5.8	1.01
C	5.3	4.7	1.30
TC	9.5	9.0	1.13

Since a rather large proportion of the total experimental group failed to complete the course, the next analysis was compared with the reading scores of the experimental group students who stayed in the course and those who dropped out. Tables III and IV show pre-test means and standard deviations and the fall quarter numeric grade point average for these two groups.

TABLE III

Pre-test mean scores on the subtests of the DRT and the numeric grade point averages for those students in the experimental group who completed the course and those who dropped out.

	Completed (N=67)	Dropout (N=33)	t value
RR	256.2	255.8	.05
SC	14.2	13.6	.81
V	31.9	30.7	1.55

C	26.5	25.7	.72
TC	58.4	56.3	1.05
NGA (fall)	6.32	5.21	2.74*

*Significant at .05 level

TABLE IV

Pre-test variance on the subtests of the DRT and the NGA for those students in the experimental group who completed the course and those who dropped out.

	Completed	Dropout	F ratio
RR	42.9	55.7	.59
SC	3.3	3.6	.82
V	5.4	6.8	.64
C	5.2	5.7	.84
TC	8.7	11.4	.57
NGA	1.7	2.2	.64

The only significant difference on the variables studied between these two groups was the higher mean fall quarter numeric grade average for the experimental students who completed the course. Since there are no differences in their reading scores, the data suggest that the variable of reading ability was not significantly related to the students' decisions to stay in or drop out of the course. The most parsimonious explanation of this difference probably points to a motivational factor or factors, i.e., drop-outs would appear to be less responsible students, etc.

The other comparisons were of major interest. The first of these was concerned with the academic grades of the experimental and control groups. Table V gives the mean numeric grade average (NGA) for the two groups.

TABLE V

Mean and standard deviation NGA for three quarters of academic work for the experimental and control groups.

	MEANS			STANDARD DEVIATION		
	Exp.	Cont.	t-	Exp.	Cont.	F-
Fall NGA	6.08	6.05	.34	1.8	1.9	.97
Winter NGA	6.43	5.86	1.85	1.6	2.0	.66
Spring NGA	6.19	5.96	.61	1.69	2.16	.61

While the direction of the differences is consistently in favor of the experimental group, none of the differences was significant.

Tables VI and VII give DRT subtest means and variances for the experimental group and a group of students who completed GC 30A, Reading and Vocabulary Development, a five-credit course that concentrates on improving reading speed, comprehension, and vocabulary.

TABLE VI

Pre- and Post-test means on the subtest of the DRT for fall and winter quarters for the experimental group and students enrolled in 30A.

	MEAN ANALYSIS					
	FALL QUARTER			WINTER QUARTER		
	Exp.	30A	t value	Exp.	30A	t value
RR	256.6	249.2	.83	325.6	349.3	1.31
SC	14.1	13.8	.50	14.2	13.9	.40
V	31.8	29.5	1.89	43.9	48.6	3.85
C	26.5	25.6	.90	28.4	27.4	1.04
TC	58.2	55.1	1.72	72.3	76.1	2.13

TABLE VII

Pre- and Post-test variances on the subtests of the DRT for fall and winter quarters for the experimental group and students enrolled in 30A.

	VARIANCE ANALYSIS					
	FALL QUARTER			WINTER QUARTER		
	Exp.	30A	F ratio	Exp.	30A	F ratio
RR	43.3	47.5	.83	90.6	86.5	1.10
SC	3.2	2.7	1.41	3.4	2.8	1.44
V	5.4	7.0	.61	6.7	4.5	2.22
C	5.3	4.7	1.24	4.9	4.0	1.50
TC	8.8	10.1	.75	9.3	7.2	1.66

Table VIII compares the numeric grades for these two groups.

TABLE VIII

Means and variances of the fall, winter, and spring quarter grades of the experimental group and 30A students.

	MEAN			VARIANCE		
	Exp.	30A	t value	Exp.	30A	f ratio
Fall NGA	6.37	6.14	.71	1.70	1.6	1.21
Winter NGA	6.43	6.65	.73	1.60	1.3	1.47
Spring NGA	6.19	5.90	.12	1.69	2.0	.715

DISCUSSION

The chief focus of this study was on the hypothesis that improving a student's ability in reading skills would result in better academic performance as measured by academic grades. There appears to be a growing body of evidence, including the findings presented in this paper, which makes this hypothesis tenable. There is no question

that students who do complete work either in the Reading Center or in a course such as 30A, do make significant improvement in their reading speed, comprehension, and vocabulary, measured by post-test results. Two observations, however, can be made: (1) An unknown at the present time is the amount of improvement which students would make on a post-test without any kind of formal reading training intervening. This present study neglected to give the post-DRT to the control group and thus lost an opportunity to shed some light on this point. (2) The second observation, which is becoming more clear as evidence accumlates, is that reading ability, at least as measured by the DRT, appears to be an insignificant factor in predicting academic grades. Various studies in the college have demonstrated that the inter-correlations between high school rank, which is in reality a summation of three years' grades, and reading test results, hover around zero. One reserved report,[2] for example, shows the following inter-correlations:

DRT	HSR
Reading Rate	.091
Vocabulary	.119
Comprehension	.132

Some other research by the General College Student Personnel Office revealed almost identical HSR's for two samples, one sample consisting of students with very high reading scores and the other sample, students with very low reading scores. Thus, while the factor of reading seems to have a good deal of logical predictive validity, the weight of the evidence at the present time is to the contrary. Given these zero correlations between high school grades

and reading scores, it seems a little naive to assume that this correlation should change because one attends college.

From what has been said, it cannot be concluded that reading and the improvement of reading skills are not important goals for each student. At the present time, however, we cannot continue the assumption, as we apparently have, that improving these skills will necessarily result in improved grades. It appears that the empirical demonstration of the values of reading or improving reading will need to be accomplished using other criteria.

Another piece of research[3] suggests some alternatives for consideration. In this study a questionnaire revealed that 15 per cent of the students polled thought that reading was more important than listening while 40 per cent of the students believed the opposite proposition. (45 per cent of the students felt that they were about equally important) Perhaps some experimental work with listening at this point would be worth the time and effort expended.

Table of References

1. Diagnostic Reading Tests, The Committee on Diagnostic Reading Tests, Inc., Kingscote Apt. 3G, 419 West 119 Street, New York, New York 10027.

2. Leon Reisman, "The Relative Importance of Reading and Listening in General College Classes," Mimeographed, University of Minnesota, The General College, 1954.

3. Table T--1-11, Intercorrelations of Local Predictors and College English G.P.A. in ACT Research Service Report, Iowa City, Iowa, 1964.