THE EFFECT OF DIRECTED PROOFREADING PRACTICE ON THE DEVELOPMENT OF PROOFREADING SKILL IN A COLLEGE-LEVEL TYPEWRITING CLASS

Ву

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Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
May, 1976



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PREFACE

This study is concerned with the effectiveness of using specific proofreading exercises in a college-level typewriting course. Twenty proofreading exercises were designed, based on literature concerning common types of proofreading errors by typists. These proofreading exercises were used in a typewriting class in an effort to assess the value of developing and including this type material in a typewriting course.

The author wishes to express her appreciation to Dr. Herbert

Jelley for his guidance and assistance throughout this study. Appreciation is also expressed to the other members of the committee,

Dr. Dennis Mott, Dr. Arnola Ownby, and Dr. James Yelvington, for their assistance in this study, and to Dr. Lloyd Garrison for his help in scheduling of teaching assignments to make this study possible.

Special appreciation is expressed to my mother, Mrs. Ira Canfield, to my husband, John, and to my son, Gregory, for their assistance and encouragement.

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CHAPTER I

INTRODUCTION

Proofreading has an illustrious background that has been traced to times preceding the invention of movable types. The art of proofreading grew concurrently with the invention and development of printing. The need for the improvement of manuscripts and the printed page stimulated a desire for more technical knowledge about proofreading as early as the Second Century; the first known volume on the subject of proofreading is a treatise in Latin by Jerome Hornschuch, a doctor of medicine. 2

Purpose of the Study

Complaints have been heard from teachers and businessmen that typists cannot proofread accurately, but there are few materials available for the teacher's use in developing this skill. The objectives of this study were (1) to develop proofreading materials for use in a college-level production typewriting course, and (2) to determine if the use of directed proofreading practice in a college-level production typewriting course is significantly more effective in improving proofreading skill than indirect proofreading practice in a college-

¹Joseph Lasky, <u>Proofreading and Copy-Preparation</u> (New York, 1954), p. 1.

²Ibid., p. 15.

level production typewriting course.

Importance of the Study

Many problems can be caused by a typist's inability to proofread accurately. The meaning of a sentence can be changed in many ways, such as by typing an incorrect word, by transposing a dollar amount, perhaps at considerable expense to the writer, or problems can arise by typing incorrect street addresses, possibly causing letters to be undeliverable. Any error that is undetected by the typist could cause an individual or a business a great deal of embarrassment as well as possible financial loss.

While business teachers, businessmen, and typists themselves would probably agree that accurate proofreading is extremely important, very little work appears to have been done that is specifically designed to improve this skill. The literature found involving the actual use of proofreading exercises was in subject areas other than business.

It is sometimes difficult for a teacher to have time to present all the material in a typewriting textbook that appears to be important, and it is even more difficult to have additional time for extra practice on areas such as proofreading. Although it is frequently recommended that students get additional practice to improve their proofreading skill, there is little evidence to indicate that this practice does provide a significant improvement in the skill.

This study involved the development of proofreading exercises and a study of their effectiveness, in an attempt to determine the value of taking the additional time required to prepare and use specific proof-reading exercises. The proofreading materials developed for this

study have additional value in that they can be used as supplementary exercises for other courses or can be used on an individual basis with students who need proofreading practice.

Delimitations

The study was delimited to those students who enrolled in Office Management 2313, Production Typewriting, 12:30 p.m. section, during the Fall and Spring semesters of the 1974-1975 school year at Oklahoma State University.

Limitations

Data were collected and analyzed for only those students who participated in the two proofreading tests and who completed at least 75 percent of the timed writings and production measurements during the course.

Assumptions

The following assumptions are noted:

- 1. Students enrolled in Office Management 2313 (Production Typewriting) at Oklahoma State University in the 12:30 p.m. section during the 1974-1975 school year will have successfully completed one year of high school typewriting or one semester of college typewriting.
- 2. There is no significant difference in ability of students who enroll in Office Management 2313 in the Fall semester and students who enroll in Office Management 2313 in the Spring semester.

Definition of Terms

<u>Production typewriting</u>. Production typewriting is a course designed for college students who have some previous training in typewriting (at least one year of high school typewriting or one semester of college typewriting), with emphasis placed on producing a variety of typed materials (such as letters, reports, tables, and business forms) with all errors corrected.

Timed writing. A timed writing is a typewriting test for a specific length of time where speed and accuracy rates are determined and errors are not corrected, using materials that are straight paragraph copy, as opposed to such materials as business forms and tables.

<u>Production measurement</u>. A production measurement is a typewriting test for a specific length of time (usually 20 to 30 minutes) using such materials as business forms and tables, where all errors are corrected and a rate is determined based on the amount of work completed in the specific length of time involved.

<u>Proofreading skill</u>. Proofreading skill is the ability to recognize all types of errors in completed copy, such as misspelled words, omissions or additions of letters or words, and errors in numerical information.

<u>Proofreading exercise</u>. The proofreading exercises referred to in this study are materials designed specifically for use by students in practicing to improve proofreading skill.

<u>Directed proofreading practice</u>. Directed practice on proofreading is specific practice using proofreading exercises, with instructions by the teacher.

Indirect proofreading practice. Indirect proofreading practice is practice that students traditionally receive by checking their own work and having it evaluated by the teacher, with the teacher reporting to each student any proofreading errors that were made.

Control group. The control group in this study is the group of students in production typewriting who receive indirect proofreading practice but no directed proofreading practice.

Experimental group. The experimental group in this study is the group of students in production typewriting who receive indirect proof-reading practice, and, in addition, receive directed proofreading practice.

CHAPTER II

REVIEW OF RELATED LITERATURE

While there is little specific literature on the actual use of proofreading exercises, there is a great deal of literature indicating the importance of improving proofreading skill, on specific proofreading difficulties, on methods of teaching proofreading, and on proofreading in areas other than business subjects. The literature on proofreading will be discussed below.

Literature on the Need for Proofreading Skill by Typists in Business

Some of the literature reviewed indicated a need for good proof-reading skill by typists in business. Odell and Stuant stated in their book on teaching typewriting that the typist is responsible for proof-reading the letters he types in the business office. According to Rowe, employers seldom complain if typists make errors but are very concerned when the errors are not located and corrected. Winger stated that the teacher who permits inaccurate proofreading is being

William R. Odell and Esta Ross Stuart, <u>Principles and Techniques</u> for Directing the <u>Learning of Typewriting</u> (Boston, 1935), p. 174.

²John L. Rowe, "Typewriting in the Seventies--An Overview," <u>Effective Secretarial Education</u>, National Business Education Yearbook, No. 12 (Reston, Virginia, 1974), p. 63.

unfair to the student who does a good job, and that teacher is not going to turn out students who will be in great demand in the office. 3

Wise observed some large companies and concluded that although speed and accuracy in typewriting were considered necessary, the ability to proofread and produce mailable copy was of primary concern to the businesses. A Ryan made a survey of executives concerning qualifications wanted in secretaries and found that one of the five main "pet peeves" listed by executives was "lack of proofreading for meaning in letters."

The literature discussed above seemed to indicate a need for improvement in typists' proofreading performance in business offices.

Literature on the Most Common Types on Proofreading Errors

In studying possible methods of improving proofreading skill, literature on the most common types of proofreading errors seemed helpful.

A study by Wong indicated the most common types of proofreading errors, in order, are: (1) transposition of words within sentences, (2) spacing errors—omission of extra space, (3) substitution of one small word for another, (4) omission of one of a pair of doubled

³Fred E. Winger, "Skill Building in Typewriting," <u>Effective Secretarial Education</u>, National Business Education Yearbook, No. 12 (Reston, Virginia, 1974), p. 67.

Elva Lea Wise, "Training for Today's Office," The Balance Sheet, Vol. LV, No. 6 (March, 1974), pp. 257-260.

⁵LaVerne C. Ryan, "Wanted: Secretary," <u>Business Education Forum</u>, Vol. 28, No. 8 (May, 1974), pp. 35-36.

letters, (5) omission of a letter within a word, (6) doubling of small words or of syllables within a word, (7) transposition of letters within a word. She also found that errors on the left half and bottom half of a page are more difficult to detect.

According to Peterson and Staples, the types of errors likely to be undetected are: (1) errors in headings or subheadings, (2) near beginnings or at ends of lines, (3) toward the bottom of the page, (4) in long words that occur rather frequently, (5) additions or omissions, (6) transpositions, (7) captions or footnotes, (8) proper nouns, (9) vertical enumerations, and (10) number combinations.

The literature discussed above indicated some specific locations when proofreading errors commonly occur which could be useful in determining areas of concentration in proofreading practice.

Literature on Methods of Teaching Proofreading
in Typewriting Classes

Some of the literature reviewed suggested methods of teaching proofreading in typewriting classes.

Sobolik listed a number of specific suggestions for classroom practice to improve proofreading, such as (1) assuming the possibility of the existence of errors, (2) taking whatever time and effort are needed to locate errors, (3) proofreading several times, and

⁶Shirley Wong, "A Study to Compare the Effects of Three Different Methods of Reading Copy When Proofreading Straight Paragraph Copy by First-Year Typewriting Students" (unpublished doctoral dissertation, Oregon State University, 1971).

John C. Peterson and John Staples, "Declare War on Undetected Typing Errors," <u>Business Education World</u>, Vol. 49, No. 7 (March, 1969), pp. 9-10.

(4) proofreading backwards letter by letter or word by word. 8

According to Peterson and Staples, students should have the opportunity to practice proofreading skills frequently. They recommended that the teacher prepare a series of short proofreading exercises for the students to complete and that short proofreading projects be assigned throughout the course. They also mentioned that even though these exercises should be fairly short, the student should be allowed sufficient time for careful proofreading.

Ashby stated that homework assignments could be made in the area of proofreading. She suggested that students be given mimeographed problems prepared by the teacher to be done outside the class and returned to the teacher. These homework assignments were suggested so students could develop more skill than is possible in the average class period. 10

In discussing collegiate typewriting, Harris and Rainey also suggested the use of homework assignments to supplement class sessions. They stated that the teacher can design proofreading exercises which include all types of errors to be used throughout intermediate and advanced typewriting and that proofreading exercises completed outside of class can be quite effective. They stated that this out-of-class work should be reinforced with some teacher instruction in the class-room and by strict adherence to high standards of perfection in class-room typing assignments. 11

⁸Gayle A. Sobolik, "It Pays to be Sure--Proofread," <u>The Journal of Business Education</u>, Vol. 50, No. 5 (February, 1975), pp. 188-189.

⁹John C. Peterson and John Staples, pp. 22-24.

Patricia Ashby, "Assign Typewriting Related Activities Outside the Classroom," The Balance Sheet, Vol. LII, No. 8 (May, 1971),pp.346-7.

¹¹ Clyta L. Harris and Bill G. Rainey, "Collegiate Typewriting--Fact or Fiction," The Balance Sheet, Vol. LII, No. 5 (February, 1971), pp. 214-215.

Robinson stated that proofreading is a much neglected basic skill competency that needs to be given more attention. He further stated that a student should proofread his own work and his proofreading skill should be evaluated and graded. 12

Odell and Stuart also felt that evaluation of proofreading work was important. They stated that most poor proofreading results from carelessness or laziness and reported that they had not found a student who had not learned to proofread accurately when he knew he would fail the course if he did not. 13

In discussing the teaching of typewriting in their textbook,
Harms, Stehr, and Harris also indicated that evaluation of proofreading
is important and that it can be used effectively. They stated that we
often let proofreading go without careful checking, so students learn
not to penalize themselves by proofreading their work too carefully.
Their suggestion was that we use a different approach in evaluation and
sometimes not consider the errors at all but have the student's grade
depend on his proofreading ability. 14

The literature discussed above suggested the use of such items as short proofreading exercises in class homework assignments, and an increased emphasis on proofreading in all phases of class activities.

¹² Jerry W. Robinson, Editor, <u>Strategies</u> of <u>Instruction</u> in <u>Type-writing</u>, (Cincinnati, 1972), p. 46.

 $^{^{13}}$ William R. Odell and Esta Ross Stuart, p. 172.

Harm Harms, B. W. Stehr, and E. Edward Harris, <u>Methods of Teaching Business and Distributive Education</u>, Third Edition, (Cincinnati, 1972), pp. 101-102.

Literature on Developing Proofreading Skill on Other Subject Areas

Several studies concerned the development of proofreading skill in subject areas other than business.

A study by Holmes of the effect of direct instruction in proofreading on the spelling accuracy of fifth grade children indicated that
those children receiving the direct proofreading practice showed a
marked gain in spelling accuracy over the other children. Both groups
displayed improvement in discovering errors in their own compositions,
but the experimental group (with the direct proofreading practice) made
significant gains in spelling accuracy over the control group. 15

Laubner found that the use of a proofreading card, constant proofreading and immediate reference to a corrected copy produced statistically significant gains in the use of capitals and punctuation for
elementary children involved in the study. 16

Oswalt found that proofreading instruction improved achievement of fifth grade pupils in recognizing misspelled words and reproducing them correctly. He recommended that systematic instruction in proofreading for spelling errors be incorporated into language arts programs. 17

¹⁵ Elizabeth Haworth Holmes, "An Analysis of the Effect of Direct Instruction in Proofreading Upon Spelling Accuracy of Fifth Grade Children as Reflected in Improvement in Basic Vocabulary Lists" (unpub. doctoral dissertation, Temple University, 1962).

¹⁶George Francis Laubner, "The Effect of a Series of Lessons on Proofreading Abilities in Capitalization and Punctuation" (unpub. doctoral dissertation, Boston University, 1964).

¹⁷William W. Oswalt, "The Effect of Proofreading for Spelling Errors on Spelling Achievement of Fifth Grade Pupils" (unpub. doctoral dissertation, Temple University, 1962).

The studies discussed above indicated improvement in the schoolwork of elementary students through the use of specific proofreading instruction.

Summary of the Literature

It appears from reviewing the literature that there is general agreement that proofreading skill is important and needs more emphasis. Suggestions about the teaching of proofreading included giving frequent teacher-made proofreading exercises, assigning proofreading homework, and evaluating and grading proofreading work. Other literature mentioned specific types of common proofreading errors, information which could be used in designing proofreading exercises. Also mentioned in the literature were methods of teaching proofreading in the typewriting classroom, methods which could be used in coordination with teachermade proofreading exercises.

While there were recommendations in the literature reviewed indicating that teacher-made proofreading exercises should be used in type-writing classes, there was nothing to indicate that the writers recommending this practice had actually tested their hypotheses. The only literature found that involved actual use of proofreading exercises was in other subject areas.

Because of the lack of information and the apparent need for better proofreading skill by typists, this study was conducted in an effort to determine the value of using certain teacher-prepared proofreading exercises in a college-level typewriting class.

CHAPTER III

PROCEDURES OF THE STUDY

Selection of Participants

This study was conducted at Oklahoma State University during the Fall and Spring semesters of the 1974-1975 school year. Since one of the purposes was to study the effectiveness of using specific proof-reading materials, the groups being compared needed to be as similar as possible in areas which might have an effect on their proofreading performance. Factors which could be controlled included the type of course, the instructor, the class meeting days, and the class meeting time. The course in which the above factors could be controlled was Office Management 2313 (Production Typewriting), and the study participants were those students who enrolled in the 12:30 p.m. section of the course in the Fall and Spring semesters. Both classes were taught by the researcher, and both classes met each week on Monday, Tuesday, Wednesday, and Thursday. The Fall section was the "control" group, and the Spring section was the "experimental" group.

Development of Proofreading Materials

The proofreading exercises used in this study were designed by the researcher and were based on the literature concerning common types of proofreading errors, so students would get practice using materials in which proofreading errors appear to occur most often. The materials

used were presented in four different forms to give students proofreading practice under varying circumstances. Listed below are brief descriptions of the twenty proofreading exercises used in this study:

Exercise	Type of	Form of
No.	Material	Presentation
1	Numerical figures	Original copy typewritten; final copy typewritten
2	Straight paragraph copy	Original copy typewritten; final copy typewritten
3	Dollar amounts	Original copy typewritten; final copy typewritten
4	Business letters	Original copy typewritten; final copy typewritten
5	Names and addresses	Original copy typewritten; final copy typewritten
6	Numerical figures	Original copy handwritten; final copy typewritten
7	Straight paragraph	Original copy typewritten; final copy typewritten
8	copy Dollar amounts	Original copy handwritten;
9	Business letters	final copy typewritten Original copy handwritten;
10	Names and addresses	final copy typewritten Original copy handwritten;
11	Numerical figures	final copy typewritten Original copy typewritten;
12	Straight paragraph	final copy student typed Original copy typewritten;
13	copy Dollar amounts	final copy student typed Original copy typewritten;
14	Business letters	final copy student typed Original copy typewritten;
15	Names and addresses	final copy student typed Original copy typewritten;
16	Numerical figures	final copy student typed Original copy handwritten;
17	Straight paragraph	final copy student typed Original copy handwritten;
18	copy Dollar amounts	final copy student typed Original copy handwritten;
19	Business letters	final copy student typed Original copy handwritten;
20	Names and addresses	final copy student typed Original copy handwritten; final copy student typed

In Exercises 1 through 5, both the original and final copies were prepared in advance by the researcher and were in typewritten form.

The student was to compare the original copy with the final copy and circle on the final copy any differences found.

In Exercises 6 through 10, both the original and final copies were prepared in advance by the researcher, with the original copy hand-written and the final copy typewritten. The student was to compare the original copy with the final copy and circle on the final copy any differences found.

In Exercises 11 through 15, the original copy was prepared in advance by the researcher and was in typewritten form. The final copy was to be typed by the student, with any differences in the two copies circled on the final copy.

In Exercises 16 through 20, the original copy was prepared in advance by the researcher and was in handwritten form. The final copy was to be typed by the student, with any differences in the two copies circled on the final copy.

The first ten exercises were used during class to provide more instructor direction and to provide immediate feedback to the students. The final ten exercises, which were to be typed by the students and required more time to complete, were done as homework assignments and were evaluated by the instructor before the final proofreading test, given as a post-test near the end of the semester.

Treatment of the Experimental and Control Groups

The control group used no special proofreading materials. The students were told that 10 percent of their grade would be based on

their proofreading skill. Their five-minute timed writings and twenty-minute production measurements were evaluated and returned to them to give them feedback concerning the number of proofreading errors made, if any. Two proofreading tests were given during the semester, one near the beginning of the semester (pre-test) and one near the end of the semester (post-test). The pre-test was the production measurement from Lesson 87, and the post-test was the production measurement from Lesson 141 in the textbook used for the course. These proofreading tests were similar in nature to the production measurements, but students were informed that this work would be evaluated and graded based on their proofreading skill.

The experimental group used basically the same procedure as the control group. They were told that 10 percent of their grade would be based on their proofreading skill. The same five-minute timed writings and twenty-minute production measurements were used as in the control group and were evaluated and returned to them to give them feedback concerning the number of proofreading errors made, if any. The same two proofreading tests were given to the experimental group and to the control group at the same learning stages in the semester.

The one difference in the treatment of the two groups was the addition of twenty proofreading exercises to the course work of the experimental group. These students were not told that they were in an experimental group. The proofreading exercises were designed by the

¹D. D. Lessenberry, S. J. Wanous, and C. H. Duncan, <u>College Type</u>-writing, 8th ed., (Cincinnati, 1969), pp. 153-154, 244-245.

researcher and were short, untimed, and scattered throughout the semester, beginning after the first proofreading test and ending before the final proofreading test. The proofreading exercises were short to avoid consuming much class time and were untimed to give students proofreading practice that would be somewhat similar to work in a business office and to give students with varying abilities sufficient time to complete the exercises as accurately as possible.

Students in both groups were encouraged throughout the course to work to improve their proofreading skill. This was emphasized frequently through the feedback given concerning proofreading errors on timed writings and on production measurements. It was further emphasized in the experimental group through the use of the proofreading exercises. With this continual emphasis on proofreading in the two groups, attendance became very important. Students with poor attendance records would not receive the proofreading training that was an essential part of the study, and their scores on the pre-test and posttest would not be good indicators of the value of the proofreading practice. Because of this, only those students who completed at least 75 percent of the five-minute timed writings given in class and at least 75 percent of the twenty-minute production measurements given in class were included in the study. In addition, only those students in the experimental group who completed at least 75 percent of the special proofreading exercises designed by the researcher were included in the study.

Statistical Analysis

Since one of the major purposes of the study was to determine the

value of using specific proofreading exercises, it was necessary to make several comparisons of the two groups involved to determine whether or not there were differences in the two groups that were statistically significant.

A proofreading pre-test was given near the beginning of the semester and a \underline{t} -test was used to determine if there was any statistically significant difference in the two groups in their proofreading performance at that time.

Other data were collected concerning the backgrounds of the students, such as their grade point averages, ACT scores, majors, and grade classifications. A <u>t</u>-test was used to determine if there was any statistically significant difference in the two groups in their grade point averages and ACT scores. Differences in majors and grade classifications were studied by comparing percentages of students in each group.

During the semester, data were collected concerning students' proofreading records on five-minute timed writings and on twenty-minute production measurements. A <u>t</u>-test was used to determine if there was a statistically significant difference in the proofreading performance of the two groups on timed writings and production measurements during the semester.

A record of absences from class was also kept for each student, and a \underline{t} -test was used to determine if there was a statistically significant difference in the number of absences from class in the two groups.

Near the end of the semester, a proofreading post-test was given to the two groups. A \underline{t} -test was used to determine if there was a

statistically significant difference in the proofreading performance of the two groups on the post-test.

CHAPTER IV

FINDINGS

Background Information About the Students

In order to help determine how much similarity existed between the two groups of students being studied, data were gathered on the students in addition to their proofreading records during the semester. Additional data used included grade point averages, ACT scores, majors, grade classifications, and the number of absences from the typewriting class.

An analysis of the grade point averages of the two groups indicated that there was very little difference. As shown in Table I, the control group had a mean grade point average of 2.792, and the experimental group had a mean grade point average of 2.849, a difference in the two groups of 0.057.

TABLE I GRADE POINT AVERAGES

Data	Contro1 Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	s/ns .01
Grade Point Average	2.792	2.849	.456	ns

Difference in means = 0.057; df = 82; critical value = 2.638

A <u>t</u>-test was used to assess the difference in the grade point averages of the two groups. The <u>t</u>-test value was .456. As shown in Table I, this value indicated that there was no statistically significant difference in the grade point averages of the control and experimental groups at the .01 level of significance.

The individual grade point averages of each student in the two groups are shown in Table XVIII in Appendix B, page 81.

ACT scores were also obtained to help in making comparisons of the background information of the two groups. As Table II indicates, the mean ACT score of the control group was 18.868, and the mean ACT score of the experimental group was 18.371, a difference in the two means of 0.497.

TABLE II

ACT SCORES

Data	Control Group	Experimental Group	t-test	n/ns
	Mean N=38	Mean N=36		.01
ACT Score	18.868	18.371	.917	ns

Difference in means = 0.497; df = 72; critical value = 2.648

A <u>t</u>-test was used to assess the difference in the ACT scores of the two groups. As shown in Table II, the <u>t</u>-test value was .917. This value indicated that there was no statistically significant difference in the ACT scores of the control and experimental groups at the .01 level of significance.

The individual ACT scores for the students in the two groups are shown in Table XIX in Appendix B, page 82.

Another area of background information studied was the majors of the students in the two groups. They were classified for purposes of this study as either business majors or nonbusiness majors. As shown in Table III, business majors made up 92.857 percent of the students in the control group and 80.952 percent of the students in the experimental group.

TABLE III
BUSINESS VERSUS NON-BUSINESS STUDENTS

Data	Contro1 Group		Experimental Group		
	No.	Percent	No.	Percent	
Business Majors	39	92.857	34	80.952	
Nonbusiness Majors	3	7.143	_8_	19.048	
Totals	42	100.000	42	100.000	

Percentages were used in this area for ease of comparison of the two groups. By inspection of these percentages, it appeared that the difference in the majors of the control and experimental groups was not great enough to have an appreciable effect on the results of the study.

Specific information as to the majors of the individual students in the two groups can be found in Table XX in Appendix B, page 83.

Another area of background information considered was the grade classifications of the students. As can be determined by studying the information in Table IV, 90.477 percent of the students in the control group were freshmen and sophomores, while 83.333 percent of the students in the experimental group were freshmen and sophomores. All other students in the two groups were classified as juniors, seniors, or special students. (Special students are regularly enrolled in the course but are not taking the course to satisfy a degree requirement.)

TABLE IV

GRADE CLASSIFICATIONS

Grade Classification	Control Group		Experimental Group	
	No.	Percent	No.	Percent
Freshman	28	66.667	23	54.762
Sophomore	10	23.810	12	28.571
Junior	2	4.761	3	7.143
Senior	1	2.381	3	7.143
Special	_1	2.381	_1	2.381
Totals	42	100.000	42	100.000

Percentages were used in this area for ease of comparison of the two groups. By inspection of these percentages, it appeared that the difference in the grade classifications of the control and experimental groups was not great enough to have a significant effect on the results of the study.

Specific information concerning grade classifications of the students in the two groups can be found in Table XXI in Appendix B, page 84.

Another area of comparison was the number of males and females in each group. As shown in Table V, there were 41 females and 1 male student in each group. Since the groups were identical in this area, no statistical testing was done.

TABLE V
MALE/FEMALE RATIO

Data	Control Group N=42	Experimenta1 Group N= 42
Number of Males Number of Females	1 <u>41</u>	1 <u>41</u>
Totals	42	42

Another area studied was the number of absences from the type-writing class by each student. As shown in Table VI, the mean number of absences of the control group was 4.929 and the mean number of absences of the experimental group was 9.500, a difference in the means of the two groups of 4.571.

A <u>t</u>-test was used to assess the difference in the class absences of the two groups. As shown in Table VI, the <u>t</u>-test value was 3.800.

This value indicated that there was a statistically significant difference in the number of class absences of the control and experimental groups at the .01 level of significance. This significant difference occurred although the students who had not completed 75 percent of the classwork had been eliminated from the study and were not included in this comparison.

TABLE VI
CLASS ABSENCES

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	s/ns
Class Absences	4.929	9.500	3.800	s

Difference in means = 4.571; df = 82; critical value = 2.638

Specific numbers of absences by each student in the two groups are given in Table XXII in Appendix B, page 85.

As previously indicated, there was no significant difference in the backgrounds of the students in the control and experimental groups in their grade point averages, ACT scores, majors, and grade classifications. However, there was a statistically significant difference indicated in the number of absences from class, as the experimental group had an average of class absences that was almost double the number of class absences of the control group. These absences from

class could have had a considerable effect on the results of this study.

Pre-Test

A pre-test was given to the two groups at the same stage of learning in the course to determine if there was a significant difference in their proofreading abilities before the beginning of the specific proofreading instruction. Students in both groups were instructed that the evaluation of the test would be based on their proofreading skill.

As shown in Table VII, the mean number of proofreading errors on the pre-test by the control group was 2.143, and the mean number of proofreading errors on the pre-test by the experimental group was 3.095. The difference in the means of the two groups was 0.952.

TABLE VII
PROOFREADING ERRORS ON PRE-TEST

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	n/na .01
Proofreading Errors	2.143	3.095	1.440	ns

Difference in means = 0.952; df = 82; critical value = 2.638

The number of proofreading errors made on the pre-test by each student in the two groups is shown in Table XXXV in Appendix E, page 105.

A $\underline{\mathsf{t}}\text{-}\mathsf{test}$ was used to determine if there was a significant difference in the means of the control and experimental groups on the

pre-test. As shown in Table VII, the \underline{t} -test value was 1.440. This value indicated that there was no statistically significant difference in the pre-test proofreading error means of the control and experimental groups at the .01 level of significance.

Proofreading Records During Course

During the semester (after the pre-test but before the post-test), numerous production measurements and straight-copy timed writings were given to the two groups. Identical material was used for the two groups, and this material included fourteen production measurements and nineteen timed writings. Records were kept of the number of proofreading errors made by each student, and this information is shown in Tables XXIII, XXIV, XXVI, and XXVII in Appendix C, pages 87, 89, 92, and 94, respectively.

From the proofreading record for each student, several comparisons were made. Proofreading error averages were determined for each student on the timed writings as well as on the production Measurements. Proofreading error averages were also determined for the two groups on each timed writing and on each production measurement. These data were compared to determine if there was a significant difference in the proofreading performance of the control and experimental groups on their regular classwork during the semester.

As shown in Table VIII, the mean number of proofreading errors on timed writings by students in the control group was 1.872, compared with a mean of 1.581 for the experimental group. This was a difference in means of 0.291.

TABLE VIII

STUDENT PROOFREADING ERROR AVERAGES
ON TIMED WRITINGS

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	s/ns
Proofreading Error Average	1.872	1.581	.793	ns

Difference in means = 0.291; df = 82; critical value = 2.638

A <u>t</u>-test was used to assess the difference in the average number of proofreading errors by each student in the control and experimental groups. As shown in Table VIII, the <u>t</u>-test value was .793. This value indicated that there was no statistically significant difference in the average number of proofreading errors on timed writings by students in the two groups at the .01 level of significance.

A comparison was also made of the proofreading error averages by students in the two groups on production measurements during the semester. As indicated in Table IX, the mean number of proofreading errors on production measurements by students in the control group was 1.918, compared with a mean of 2.608 for students in the experimental group. This was a difference in means of 0.690.

As shown in Table IX, the \underline{t} -test value was 2.226. This value indicated that there was not a statistically significant difference in the average number of proofreading errors on production measurements by students in the two groups at the .01 level of significance.

TABLE IX
STUDENT PROOFREADING ERROR AVERAGES
ON PRODUCTION MEASUREMENTS

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	s/ns .01
Proofreading Error Average				

In addition to the comparisons made of proofreading error averages by each student, comparisons were also made of the average number of proofreading errors on each timed writing and production measurement. As shown in Table X, the mean number of proofreading errors made on timed writings by the control group was 1.927, compared with a mean of 1.553 for the experimental group. This was a difference in means of 0.374.

TABLE X

AVERAGE NUMBER OF PROOFREADING ERRORS
ON TIMED WRITINGS

Data	Control Group	Experimental Group		s/ns
			<u>t</u> -test	
	Mean	Mean		
	N=42	N=42		
•	•			
Proofreading Error Average				

Difference in means = 0.374; df = 82; critical value = 2.638

As shown in Table X, the <u>t</u>-test value was 2.125. This value indicated that there was not a statistically significant difference in the two groups in the average number of proofreading errors on timed writings at the .01 level of significance.

The comparison that was made of the proofreading error averages on production measurements by the control and experimental groups is shown in Table XI. The mean number of proofreading errors on production measurements by the control group was 1.894, compared with a mean of 2.598 by the experimental group, a difference in means of 0.704.

TABLE XI

AVERAGE NUMBER OF PROOFREADING ERRORS
ON PRODUCTION MEASUREMENTS

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	n/ns
Proofreading Error Average (14 production measurements)	1.894	2.598	2.029	ns

As shown in Table XI, the \underline{t} -test value was 2.029. This value indicated that there was not a statistically significant difference in the two groups in the average number of proofreading errors on production measurements at the .01 level of significance.

Analysis of the data in Tables VIII, IX, X, and XI indicates that

the experimental group had a lower average number of proofreading errors on timed writings, and the control group had a lower average number of proofreading errors on production measurements during the course. While there were differences in the means of the two groups on their proofreading work during the course, these differences were not statistically significant.

The individual student information used for Tables VIII, IX, X, and XI can be found in Tables XXIII, XXIV, XXV, XXVI, XXVII, XXVIII, XXIX, and XXX in Appendix C, pages 87, 89, 91, 92, 94, 96, 97, and 98.

Since two types of data about students were being studied (back-ground information and proofreading records), some comparisons were made between specific areas of background information and students' proofreading records. As some measure of proofreading performance was needed for this comparison, the proofreading records on production measurements during the semester were used. The production measurement data were used as an indicator of student proofreading performance during the semester because that type of material seemed more representative of realistic proofreading situations, because it represented proofreading performance over an entire semester, and because it was the same type material as that used for the pre-test and post-test.

The first comparison made was of students' grade point averages and their proofreading performance on production measurements. In making this comparison, the record of each student was compared with the mean in that category and determined to be either above the mean or below the mean.

As shown in Table XII, 38.095 percent of the students in the control group were above the grade point average mean and below the

proofreading error mean, compared with the same percentage for the experimental group. There were 19.048 percent of the students in the control group above the proofreading error mean and below the grade point average mean, compared with 30.952 percent for the students in the experimental group. All other students in both groups were either above both the grade point average mean and the proofreading error mean or below both means.

TABLE XII

COMPARISON OF GRADE POINT AVERAGE
AND PROOFREADING ERROR AVERAGE*

Data	Control Group		Experimental Group	
	No.	Percent	No.	Percent
Above Grade Point Average Mean/				
Below Proofreading Error Mean Below Grade Point Average Mean/	16	38.095	16	38.095
Above Proofreading Error Mean	8	19.048	13	30.952
Above Grade Point Average Mean/ Above Proofreading Error Mean	6	14.286	4	9.524
Below Grade Point Average Mean/ Below Proofreading Error Mean	<u>12</u>	28.571	_9	21.429
Totals	42	100.000	42	100.000

^{*}Proofreading error average on production measurements

If the grade point average were a predictor of proofreading performance, it seems logical that those students who were above the grade point average mean would be below the proofreading error mean, and vice versa. As shown in Table XII, a majority of the students in each group

showed this to be the case; over half of the students who were above the grade point average mean were below the proofreading error mean and vice versa.

Specific information gathered for use in making the comparisons shown in Table XII can be found in Table XXXI in Appendix D, page 100.

A comparison was also made of the business and nonbusiness majors and their proofreading error averages on production measurements. As shown in Table XIII, 33.333 percent of the business majors in the control group were above the proofreading error mean and 66.667 percent were below, compared with 38.235 percent of the business majors in the experimental group who were above the proofreading error mean and 61.765 percent below. Nonbusiness majors in the control group had 33.333 percent who were above the proofreading error mean and 66.667 percent below. In the experimental group, 50.000 percent of the non-business majors were above the proofreading error mean and 50.000 percent were below the proofreading error mean.

It would seem that business majors might indicate a better proofreading performance than nonbusiness majors. This was the case with the experimental group, but there was no difference in the comparison in the control group.

Specific information showing the comparisons of individual business and nonbusiness majors with their proofreading error averages is shown in Table XXXII in Appendix D, page 102.

Another comparison made was of the grade classifications of the students and their proofreading error averages on production measurements. As indicated in Table XIV, 39.286 percent of the freshmen in the control group were above the proofreading error mean and 60.714

TABLE XIII

COMPARISON OF BUSINESS AND NONBUSINESS MAJORS
WITH THEIR PROOFREADING ERROR AVERAGES*

Data		Control Group		Experimental Group	
	No.	Percent	No.	Percent	
D. C Waisan					
Business Majors	1.3	33.333	13	38.235	
Above Proofreading Error Mean		66.667		61.765	
Below Proofreading Error Mean	<u>26</u>	00.007	21	01.703	
Total Business Majors	39	100.000	34	100.000	
Nonbusiness Majors			_		
Above Proofreading Error Mean	1	33.333	4	50.000	
Below Proofreading Error Mean	_2	66.667	_4	50.000	
Total Nonbusiness Majors	3	100.000	8	100.000	

^{*}Proofreading error average on production measurements

TABLE XIV

COMPARISON OF GRADE CLASSIFICATIONS
WITH PROOFREADING ERROR AVERAGES**

Data		ontrol Group	_	rimental roup
	No.	Percent	No.	Percent
Freshmen				
Above Proofreading Error Mean	11	39.286	9	39.130
Below Proofreading Error Mean	<u>17</u>	60.714	<u>14</u>	60.870
Total Freshmen	28	100.000	23	100.000
Sophomores				
Above Proofreading Error Mean	3	30.000	6	50.000
Below Proofreading Error Mean	7	70.000	_6	50.000
Total Sophomores	10	100.000	12	100.000
Juniors				
Above Proofreading Error Mean	0	0.000	1	33.333
Below Proofreading Error Mean	2	100.000	2	66.667
Total Juniors	2	100.000	3	100.000
Seniors				
Above Proofreading Error Mean	0	0.000	1	33.333
Below Proofreading Error Mean	1	100.000	2	66.667
Total Seniors	1	100.000	3	100.000
	Y			
Special)-		
Above Proofreading Error Mean	0	0.000	0	0.000
Below Proofreading Error Mean	<u>1</u>	100.000	1	100.000
Total Special	1	100.000	1	100.000

^{*}Proofreading error average on production measurements

percent were below, compared with 39.130 percent of the freshmen in the experimental group who were above the proofreading error mean and 60.870 percent below. On the sophomore level, 30.000 percent in the control group were above the proofreading error mean and 70.000 percent were below, while 50.000 percent in the experimental group were above the proofreading error mean and 50.000 percent were below. There were no juniors, seniors, or special students above the proofreading error mean in the control group, so in all three cases 100.000 percent were below the mean. At both the junior and senior levels in the experimental group, there were 33.333 percent of the students above the proofreading error mean and 66.667 percent below. In the special student category in the experimental group, 100.000 percent of the students were below the proofreading error mean.

Upperclassmen (juniors and seniors) might be expected to have a better proofreading performance than freshmen and sophomores. This was found to be true in this study. Table XIV indicates that in both groups the juniors and seniors had a higher percentage of students who were below the proofreading error mean than was the case with freshmen and sophomores.

Specific information concerning individual students' grade classifications and their proofreading error averages can be found in Table XXXIII in Appendix D, page 102.

Another comparison made was of the number of absences by each student with his proofreading error record on production measurements. If attendance had an effect on performance, it seems logical to expect that students with a high absence rate would also have a high proof-reading error average, and those with a low absence rate would have a

low proofreading error average.

As Table XV indicates, 33.333 percent of the students in the control group were below the absence mean and below the proofreading error mean, compared with 40.476 students in the experimental group who were below both means. In the control group, 9.524 percent of the students were above both the absence mean and the proofreading error mean, and in the experimental group 21.428 percent of the students were above both means. All other students in the two groups were above the mean in one category and below the mean in the other category.

TABLE XV

COMPARISON OF CLASS ABSENCE AVERAGES
WITH PROOFREADING ERROR AVERAGES*

Data	Control Group		Experimental Group	
	No.	Percent	No.	Percent
Above Class Absence Mean/				
Below Proofreading Error Mean Below Class Absence Mean/	14	33.333	8	19.048
Above Proofreading Error Mean Above Class Absence Mean/	10	23.810	8	19.048
Above Proofreading Error Mean Below Class Absence Mean/	4	9.524	9	21.428
Below Proofreading Error Mean	14	33.333	<u>17</u>	40.476
Totals	42	100.000	42	100.000

^{*}Proofreading error average on production measurements

It would be expected that students with high absence rates might not perform as well as those with lower absence rates. In other words,

students who were above the mean of class absences would be expected to be above the mean of proofreading errors and vice versa. This was not true in the control group but was true in the experimental group, with approximately two-thirds of the students either above both means or below both means.

Specific information concerning individual students' class absence averages and their proofreading error averages can be found in Table XXXIV in Appendix D, page 103.

Post-Test

Near the end of the semester, a post-test was given to the two groups of students. It consisted of production-type material of a similar nature to the work completed during the semester. Both groups were informed that their work would be evaluated based on their proof-reading performance.

As shown in Table XVI, the mean number of proofreading errors by the control group on the post-test was 2.786, and the mean number of proofreading errors by the experimental group on the post-test was 2.595. This was a difference in the two means of 0.191.

The number of proofreading errors made by each student in the two groups on the post-test is shown in Table XXXVI in Appendix E, page 107.

A <u>t</u>-test was used to assess the difference in the post-test scores of the two groups. As shown in Table XVI, the <u>t</u>-test value was .311. This value indicated that there was no statistically significant difference in the proofreading performance of the two groups on the post-test at the .01 level of significance.

TABLE XVI
PROOFREADING ERRORS ON POST-TEST

Data	Control Group Mean N=42	Experimental Group Mean N=42	<u>t</u> -test	s/ns .01
Proofreading Errors	0.706	0 505	211	
(Post-Test)	2.786	2.595	.311	ns

Difference in means = 0.191; df = 82; critical value = 2.638

For ease of comparison, Table XVII was prepared to show the mean number of proofreading errors by the control and experimental groups on both the pre-test and post-test. As Table XVII indicates, the experimental group had a mean difference of 0.952 more proofreading errors on the pre-test than the control group. However, on the post-test, the experimental group had a mean difference of 0.191 fewer proofreading errors than the control group.

TABLE XVII

COMPARISON OF PRE-TEST AND POST-TEST RESULTS

and the second s	Control	Experimental
Data	Group	Group
Pre-Test Proofreading Error Mean	2.143 (Difference	3.095 e = 0.952)
Post-Test Proofreading Error Mean	2.786 (Differenc	2.595 ee = 0.191)

It appears from analysis of the information in Table XVII that the experimental group's proofreading performance improved in relation to that of the control group. This improvement occurred even though the experimental group had a poorer performance than the control group on proofreading of the same type of material (production measurements) during the semester. In addition, the experimental group's improved performance occurred even though they had a class absence average that was almost twice as high as that of the control group.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Since a definite need for improvement in proofreading skill of typewriting students seemed apparent, this study was conducted to develop some proofreading materials for classroom use and to evaluate the effectiveness of using these materials. This study was done at Oklahoma State University during the 1974-1975 school year and involved two intermediate typewriting classes. The approach used was to give a pre-test to both groups, to use some specific proofreading exercises in the experimental group, and to give a post-test to both groups near the end of the semester.

Background information was obtained about the students in the two groups to determine how much similarity seemed to exist between the groups. In the area of scholastic ability, the information obtained indicated that the experimental group had a slightly higher grade point average than did the control group, but the control group had a slightly higher mean ACT score than did the experimental group. In studying other background information, it was determined that there were more business majors in the control group than in the experimental group, and there were more upperclassmen in the experimental group than in the control group. There was no statistically significant difference in the two groups in their grade point averages and ACT scores at the .01

level of significance, indicating that there was no significant difference in these areas that would have an effect on the results of the study.

The other area of information studied that did not deal specifically with proofreading was the number of absences from the typewriting class. The experimental group, which met during the Spring semester, had almost twice as many average absences from class as did the control group, which met during the Fall semester. A t-test was used to determine if there was a significant difference in the class absences of the two groups, and it was found that the difference in class absences was statistically significant at the .01 level of significance.

In studying the proofreading records of the two groups, it was determined that the control group had a lower average number of proofreading errors on production measurements than did the experimental group. However, the experimental group had a lower average number of proofreading errors on timed writings than did the control group. A tetest was used to assess the difference in the two groups on timed writings and production measurements, and no statistically significant difference was found in the proofreading performance of the two groups at the .01 level of significance on either the timed writings or the production measurements.

After making comparisons of students' background information with their proofreading error records on production measurements, there did not appear to be large differences between the two groups in any area except attendance. There was a considerably larger percentage in the experimental group who had more absences than the mean and also had more proofreading errors than the mean. The control group had a higher

percentage of students who were above the mean in number of absences and below the mean in number of proofreading errors, but the mean number of absences being used for the control group was lower than that for the experimental group because of the difference in absence rates of the two groups.

The pre-test and post-test given to the two groups consisted of production-type work, with the students being instructed in advance that the evaluation of their work would be based on the accuracy of their proofreading. These two tests were used as the basis for determining any change in proofreading ability which might have occurred during the course. The results of the pre-test indicated that the mean number of proofreading errors by the experimental group was somewhat higher than that of the control group, but the difference in the means of the two groups was not statistically significant at the .01 level of significance. The post-test results indicated that by the end of the semester the experimental group had a mean number of proofreading errors that was lower than that of the control group, but the difference in the means of the two groups was not statistically significant at the .01 level of significance.

Conclusions

Based on the literature reviewed and on the number of proofreading errors made by students in the study, there is an apparent need for improvement in proofreading skill.

Background information about the students in the areas of grade point averages, ACT scores, majors and grade classifications did not appear to have a significant effect on the results of the study.

However, the number of absences from class could have had an effect on the results of this study since the average number of absences by the experimental group was almost twice as high as the average number of absences by the control group. It is conceivable that the experimental group's proofreading record could have been better if their attendance record had been better.

Although there was not a statistically significant difference in the means of the two groups on the post-test, there did appear to be a noticeable change indicated by the results. Some improvement in proof-reading skill was indicated by the experimental group in relation to the control group. The control group had a lower mean number of proof-reading errors on the pre-test than the experimental group, but the experimental group had a lower mean number of proofreading errors on the post-test than the control group. Since there was an indication that improvement was made by the experimental group in comparison with the control group, it is possible that the improvement could have been greater if the experimental group's attendance had been as good as that of the control group.

Recommendations

Emphasis should continue to be placed on efforts to improve proofreading skill of typists, as there is evidence of a need for more skill
in this area. Further studies should be made at the beginning level of
typewriting skill before proofreading habits have been formed so that
proofreading materials can be used as a teaching device rather than as
remedial training.

Any further studies of this nature should give consideration to

having both groups in the study meet during the same semester to avoid possible attendance variations between Fall and Spring semesters.

Further studies should be considered in which only those students are included who demonstrate a need for improvement in proofreading skill; when an entire class is used, there may be some students included who are already accurate proofreaders and who have little or no room for improvement.

As there appeared to be some improvement indicated by the group which had access to proofreading exercises when compared with the group which did not use the proofreading exercises, the use of the supplementary proofreading exercises should be considered for further development and implementation into typewriting courses at the collegiate level.

BIBLIOGRAPHY

- Archer, Fred C., Raymond F. Brecker, John C. Frakes and Jeffrey R. Steward, Jr. <u>General Office Practice</u>. 3rd Ed. New York: McGraw-Hill Book Company, 1968.
- Ashby, Patricia. "Assign Typewriting Related Activities Outside the Classroom." The Balance Sheet, Vol. LII, No. 8 (May, 1971), pp. 346-347.
- Bishop, Inez Euline. "The Comparison of a Conventional Method of Teaching Spelling With a Method Emphasizing Proofreading as an Integral Part of Spelling Program." (Unpub. Ed.D. dissertation, University of Illinois at Urbana-Champaign, 1965.)
- Bundel, Leroy A. "Pinpointing Critical Areas of Proofreading."

 Business Education World, Vol. 47, No. 4 (December, 1966),

 pp. 14, 20.
- Goss, James E. "Analysis of Accuracy of Spelling in Written Compositions of Elementary School Children and the Effects of Proofreading Emphasis Upon Accuracy." (Unpub. Ed.D. dissertation, University of Oklahoma, 1959.)
- Harms, Harm, B. W. Stehr and E. Edward Harris. Methods of Teaching
 Business and Distributive Education. 3rd Ed. Cincinnati:
 South-Western Publishing Company, 1972.
- Harris, Clyta L. and Bill G. Rainey. "Collegiate Typewriting--Fact or Fiction." The Balance Sheet, Vol. LII, No. 5 (February, 1971), pp. 214-215.
- Holmes, Elizabeth Haworth. "An Analysis of the Effect of Direct Instruction in Proofreading Upon Spelling Accuracy of Fifth Grade Children as Reflected in Improvement in Basic Vocabulary Lists." (Unpub. Ed.D. dissertation, Wayne State University, 1965.)
- Laubner, George Francis. "The Effect of a Series of Lessons on Proofreading Abilities in Capitalization and Punctuation." (Unpub. Ed.D. dissertation, Boston University, 1964.)
- Lessenberry, D. D., S. J. Wanous and C. H. Duncan. <u>College Typewriting</u>. 8th Ed. Cincinnati: South-Western Publishing Company, 1969.
- Meehan, James R., Mary Ellen Oliverio and William R. Pasewark. Secretarial Office Procedures. 8th Ed. Cincinnati: South-Western Publishing Company, 1972.

- Odell, William R. and Esta Ross Stuart. <u>Principles and Techniques for Directing the Learning of Typewriting</u>. Boston: D. C. Heath and Company, 1935.
- Oswalt, William W. "The Effect of Proofreading for Spelling Errors on Spelling Achievement of Fifth Grade Pupils." (Unpub. Ed.D. dissertation, Temple University, 1962.)
- Peterson, John C. and John Staples. "Declare War on Undetected Typing Errors." Business Education World, Vol. 49, No. 7 (March, 1969), pp. 9-10, 22-24.
- Robinson, Jerry W. (ed.). <u>Strategies of Instruction in Typewriting</u>. Cincinnati: South-Western Publishing Company, 1972.
- Rowe, John L. "Typewriting in the Seventies--An Overview." <u>National</u>
 <u>Business Education Association Yearbook</u>. Vol. 12, Reston, Virginia:
 National Business Education Association, 1974, p. 63.
- Runyon, Richard P. and Audrey Haber. <u>Fundamentals of Behavioral</u>
 <u>Statistics</u>. 2nd Ed. Reading, Massachusetts: Addison-Wesley
 <u>Publishing Company</u>, 1972.
- Russon, Allien R. and S. J. Wanous. <u>Philosophy and Psychology of Teaching Typewriting</u>. 2nd Ed. <u>Cincinnati: South-Western Publishing Company</u>, 1973.
- Ryan, LaVerne C. "Wanted: Secretary." <u>Business Education Forum</u>, Vol. 28, No. 8 (May, 1974), pp. 35-36.
- Sobolik, Gayle A. "It Pays to be Sure--Proofread." The Journal of Business Education, Vol. 50, No. 5 (February, 1975), pp. 188-189.
- Staples, John. "An Experimental Study to Identify Basic Abilities Needed to Detect Typescript Errors With Implications for Improvement of Instruction in Typewriting." (Unpub. Ed.D. dissertation, University of North Dakota, 1965.)
- Stuart, Eudene May. "The Relationship Between Selected Language Arts and Proofreading Performance." (Unpub. Ed.D. dissertation, University of North Dakota, 1971.)
- Wanous, S. J. <u>Personal and Professional Typing</u>. 3rd Ed. Cincinnati: South-Western Publishing Company, 1967.
- West, Leonard J. <u>Acquisition of Typewriting Skills</u>. New York: Pitman Publishing Corporation, 1969.
- Winger, Fred E. "Skill Building in Typewriting." <u>National Business</u>
 <u>Education Association Yearbook</u>. Vol. 12, Reston, Virginia:
 National Business Education Association, 1974, p. 67.

- Wise, Elva Lea. "Training for Today's Office." The Balance Sheet, Vol. LV, No. 6 (March, 1974), pp. 257-260.
- Wong, Shirley. "A Study to Compare the Effects of Three Different Methods of Reading Copy When Proofreading Straight Paragraph Copy by First-Year Typewriting Students." (Unpub. Ed.D. dissertation, Oregon State University, 1971.)

APPENDIX A

PROOFREADING EXERCISES

Name	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

Name	:

Final Copy

Name		

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

Dale Carnegie has written many books and articles on how to win friends and influence people. He also has established training courses to help people win friends. The recommendations that he gives in one of his books for making people like you are to become genuinely interested in other people, to smile, to remember that a man's name is to him the most important sound in any language, to be a good listener, to talk in terms of the other man's interest, and to make the other person feel important.

Name		

Final Copy

Dale Carnegie has written many books and articles on how to win friends and influence people. He aslo has established training courses to help people win freinds. The recommendations that he gives in one of his books for making people like you are to become genuineley interested in other people, to smile, to rememember that a man's mane is to him the most important sound in any language, to be a good lisetener, to talk in terms of the other mans' interest, and to make the other person feel important,

Name	
Manic	,

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

23.77 15.60 1,472.64 16.34 92.86

> 121.75 122.21 33.30 94.55 166.38

8,344.42 423.67 18.96 221.77 5,680.21

314.05 6,780.44 275.98 44,365.81 12,220.02

657,321.85 3,714.25 57,222.31 72.22 565.02

Name	

Final Copy

23.77 1.56 1,472.64 16.34 98.86

> 121.57 121.21 33.00 94.55 166.38

8,344.42 422.67 81.96 221.79 5,680.12

134.05 6,780.44 275.98 44,653.81 12,220.00

857,321.85 3,714.25 51,222.31 72.22 565.02

Name	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

292 Peachtree Street Atlanta, GA 30308 May 5, 1975

Sheraton-Plaza Hotel Copley Square Boston, MA 02116

Attention Reservations Desk

Gentlemen:

Please reserve a single room for me in the \$25 a day range from Friday, May 16, until Monday, May 19. I expect to arrive at the Sheraton-Plaza sometime after 6 p.m. on May 16 and plan to leave about 3 p.m. on May 19.

Please send a confirmation of this reservation to my office at the above address.

Very truly yours,

Horace O. Ransom

Name	

Final Copy

299 Peachtree Street Atlanta, GA 30038 May 5, 1974

Sheraton-Plaxa Hotel Copely Square Boston, MA 02116

Attention Reservations Desk

Gentleman:

Please reserve a single room for me in the \$35 a day range from Friday, May 16, until Monday, May 19. I expect to arrive at the Shereton-Plaza sometime atfer 6 p.m. on May 16 and plan to leave about 3 p.m. on May 19,

Please send a confirmation of this reservations to my office at the above address.

Very truly yours

Horace Q. Ransom

Name	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

Mr. Harold Hite 1816 Willow Road Troy, New York 12180

Mrs. Allice Hanson 3655 Duncan Drive Atlanta, Georgia 30318

Mr. Jerry Walters 935 Harris Avenue Milwaukee, Wisconsin 53216

Mr. Richard Peters 1336 Christine Fremont, CA 94538

Mrs. Ramona Craben 73 Perry Place New York, New York 10017

Mr. Ronald Meeker 522 Ellen Lane Collegeville, Maine 04192

Mrs. Mary Lloyd 2775 Central Avenue Hartford, Connecticut 06100

Mrs. John Simmons 401 Maple Avenue St. Petersburg, Florida 33713

Mr. Milton Morris 1221 West Lincoln Atlanta, GA 30312

Mrs. Gary Lambe 2101 Evanston Newkirk, Alabama 35213

NT		
Name		

Final Copy

Mr. Harold Hite 1815 Willow Road Troy, New York 12180

Mrs. Alice Hanson 3655 Duncan Drive Atlanta, Georgia 30318

Mr. Jerry Walters 935 Harris Avenue Milwaukee, Wisconsin 52316

Mr. Richard Peters 1336 Christine Fremont, CA 94538

Mrs. Ramona Graben 73 Perry Place New York, New York 10017

Mr. Ronald Meaker 522 Ellen Lane Collegeville, Maine 04992

Mrs. Mary Lloyd 2775 Central Avenue Hartford, Connecticutt 06100

Mrs. John Simons 401 Maple Avenue St. Petersburg, Florida 33113

Mr. Milton Morris 1212 West Lincoln Atlanta, CA 30312

Mrs. Gary Lambe 2101 Evanston Newkirk, Alabama 35123

Name	
Manie	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

142001/47

Name	

Final Copy

3.7	
Name	
иашс	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

when you apply for a job, you will be asked to state what you can do. Most jobs require some special skill. For example, some firms may want to know if you can tippewrite, and others if you can handle figures. Most firms will want to know something about you as a person—whether or not you are lazy, how well you can work with others, and how much pride you have in your work.

Name	•	

Final Copy

When you apply for a job you will be asked to state what you can do. Most jobs require some special skill. For examlpe, some firms may want to now if you can typewrite, and others of you can handle figures. Most firms will want to know something about your as a person—whether or not you are lazy, how will you can work with ohters, and how much pride you have in you work.

Name		

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

111,888.21 665,321.14 311,737.37 8,827.40 651, 372.00 1,355.04 752, 365.99 66, 424.00 37, 514.92 83, 833,38 66, 341.11 1,411.77 327.49 992,000.47 64, 271.01 32,584.61 41, 761.07 23,509.76 1, 446.83 141,835.92 65, 221.84 11, 340,00 29,856.63 44, 221. 15 111, 356.29

Name	

Final Copy

777,888.12

65,321.14

371,237.37

8,827.40

657,312.00

1,533.04

152,365.99

99,424.00

37,514.92

83,883.38

66,341.00

1,411.77

327.49

992,000.47

64,277.01

32,584.61

47,161.07

32,509.76

1,446.83

141,835.92

56,221.84

71,340.00

29,856.63

44,221.15

771,356.29

Name	2		

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

July 15, 1975

MissLynn Kasater 4907 Westmont Drive Cripple Creek, CO 80813 Door Miss Xosater

Thankyou for your order of 3 copies of Walden by Henry David Thoreau. We have in stock 3 editions of this book;

1. Modern Library Edition, hardbound, # 2.69 2. Doubleday Edition, paperback # .95 3. Peter Pauper Press Edition, hardbound, # 6.50

All editions are complete; differences imprives represent differences in quality by books. The leter lawper edition is the only one that his attractive sketches throughout the book and a special cloth binding. It is especially appropriate for gift-giving.

We have enclosed a stamped, self-addressed postcard that will simplify your task of informing us of your croice. We will send your order promptly upon receipt of this postcard. Sincerely yours

Robert Mannford, Manager

fjd Enclosure

Name	

Final Copy

July 15, 1975

Mrs. Lynn Kosetar 4707 Westmont Drive Cripple Creek, CO 80813

Dear Mrs. Kosater

Thank you for your order of 3 copies of <u>Walden</u> by Henry David Thoraeu. We have in stock 3 editions of this book:

- 1. Modern Library Edition, hardbound, \$2.69
- 2. Doubleday Edition, paperback, \$,95
- 3. Peter Pouper Press Edition, hardbound, \$5.60

All editions are complete; differences in prices represent differences in quality of books. The Peter Pauper editoin is the only one that has attractive sketches throughout the book and a special clothe binding. It is especially appropirate for gift-giving.

We have inclosed a stamped, self-addresed postcard that will simplify your task of infroming us of you choice. We will send your order promptly upon reciept of this postcard.

Sincerely yours

Robert Manford, Manager

Name	

Instructions: Compare the original copy with the final copy. If there are any differences, circle them on the final copy.

Original Copy

Mr. Walter Stribling 8645 Meliose Lane Seattle, Washington 98122 Mr. Clifford Canfield 2101 Biggers Boulevard Aberdeen, South Dakota 41990 Mrs. George Jackson 1449 Liverside Drive Covington, Kentucky 41010 Dr. Frederick Jones 3149 Harrison Street Aaronsburg, Pennsylvania 15926 Mrs. Marshall Smither 5522 Beech Lane Albuquerque, New Mexico 81104 Mr. Edward Benson 1820 East 22nd Drive Julsa, Oklahoma 74129 Mr. David Milburn 1919 Evergreen Cincinnati, Ohio 45240 Mrs. William Carnes 100 Stanford Tyler, Tepas 75701 Mr. Howard Graham 128 Gast 26th Kalamazov, Michigan 49002 Mrs. Jerry Chamberlain 92751 Holly Avenue San Jose, California 91520

Name	
and the state of t	

Final Copy

Mr. Walter Stribling 8645 Melrose Lane Seattle, Washington 99122

Mr. Clifford Canfield 2011 Biggers Boulevard Aberdeen, South Dakota 41990

Mrs. George Jackson 1449 Riverside Drive Covington, Kentucky 41019

Mr. Frederick Jones 3144 Harrison Street Aaronsburg, Pennsylvania 15926

Mrs. Marshall Smithe 5522 Beech Lane Albuquerque, New Mexico 87104

Mr. Edward Benson 7824 East 32nd Drive Tulsa, Oklahoma 74129

Mr. David Milbern 1919 Evergreen Cinncinnati, Ohio 45240

Mrs. William Carnes 100 Stanford Tyler, Texas 75701

Mr. Howard Graham 128 East 26th Kallamazoo, Michigan 49002

Mrs. Terry Chamberland 92751 Holly Avenue San Jose, California 91520

Name	<u> </u>

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

Name	

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

All letters convey two messages. One is expressed in words; the other, by the impression it makes on the reader. The second is the hidden quality you put into an envelope each time you mail a letter. The written message is important; let there be no doubt on this point. A letter must say what it should, and it should say it clearly and succinctly. Nobody likes to receive fuzzy letters in which ideas defy interpretation. A clear letter is usually a welcome caller.

Almost everyone disapproves of men or women who overdress or who do not dress appropriately for their calling. As a writer remarked, "I hate to see men overdressed; a man ought to look like he is put together by accident, not added up on purpose." How you dress is very important; so are the letters you send out to represent you. They should reflect a company at its very best. Letters gain admittance more easily than callers, but this privilege should not be abused.

In an office setting, you must be observant of the many hidden qualities that are part of any good letter. A firm will often be judged on the typing and on the care you take in spelling, punctuating, and proofreading your work. Somehow, a letter that is faulty in these basic points does not impress a reader with the purpose of its message. The letters you type must express the dignity and sincerity with which a company conducts business affairs.

Name	<u> </u>

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

13,570.32 2,456.80 13.85 3,870.49 14,899.77

14,875.66 2,980.95 85,432.50 100.89

3,580.41 295.88 2,750.65 18,451.87 23,405.00

> 2,586.36 11.23 500.49 385.60 2,780.41

4,358.49 256.15 298.30 5,781.10 11,183.33

Name	

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

March 14, 1975

Mr. A. A. Allen 445 Davis Drive Billings, MT 59102

Dear Mr. Allen:

SUBJECT: Loan No. 3758

We wrote you last month concerning the delinquency of payments on your loan. As yet, we have received neither a reply nor a remittance. Two installments, amounting to \$548.00, are now due.

It has always been our policy to be lenient whenever possible; however, we feel that we are entitled to some explanation when payments are not made on time.

Can you make a substantial payment on your account within the next ten days? If not, we shall have to request the trustees to institute sales proceedings in accordance with the terms of your trust deed. The expense of this action will be chargeable to you.

We sincerely hope that you will give this account your prompt attention and avoid the expense and inconvenience of the action mentioned above.

Very truly yours,

GRIGGS FINANCE ASSOCIATION

F. E. Blount, Secretary

Name____

PROOFREADING EXERCISE NO. 15

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

Mr. Walter Davis 3285 Jefferson Avenue Salt Lake City, UT 84121

Mrs. Eugene Jones 3175 Smith Street Newport News, VA 23601

Mrs. Judith Morris 2800 Loveland Trenton, NJ 08610

Mrs. Ira Hancock 3813 Evergreen Street Riverside, CA 92501

Morris Sporting Goods Store 258 Pinewood Avenue Jersey City, NJ 07302

Baker and Baker, Inc. 401 Brady Building Hartford, CT 06107

Miss Janice Meeker 450 Hancock Drive Durham, NC 27703

Mrs. A. J. Davids 1334 Charleston Dayton, OH 45427

Miss Angela Applebury 3140 Cottonwood Street Wichita, KS 67203

Mrs. Mark Sims 485 Combs Building Augusta, GA 30904

Name	ž		

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

1583 ...

Name	<u>,</u>	

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

There are only a half dozen operating parts of a typewriter that are used frequently for cowards several works to your rate by using expertly any one of the six. Betting high typing rates is more often a case of eliminating useless motions than working more rapidly. Gust analyze what you do when you use the shift and tabular keep, the space bar, the carriage return, the margin release, or backspace key. Note the movements your make. Out out any that are not necessary.

Manipulating the shift is part of the typing thu should employ the correct method in shifting for a capital. If you are using a standard machine, hold your left elbow in regular position, stretch the little finger to the shift key, depressand hold down until the capital has been struck and released. If you do an inadequate job on have a capital suspended in misairor only partly visible, there is a better way to type, instice until you improve.

No spec begin without a pause after a carriage return is made on a manual typewriter? I not, practice to improve when you return the carriage, use a short throw with the elbow held close to the today. When a return is completed, drop the hand to normal position, and begin tipping on the next line without pausing: The entire operation takes only split seconds; and it will, if you practice the techniques correctly.

Name	

Instructions: Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

85, 321.96 2,788.30 5,912.25 301.45 27.50 345.90 2,710.46 291.49 23,886.98 4,810.35 5,988.66 65, 432.81 4,212.00 3,771.17 8,388.85 9,141.00 285,33 6,124.27 325,418,70 456.81 3,910.25 7,874.12 29,685,31 4, 786.29

Name	

Instructions: Type the information below on another page. compare your typing with the original copy. are any differences, circle them on your typed copy.

Original Copy

May 24, 1975

Mr Steven F. Scott 256 Crockett Drine austin Legas 18705

Dear Mr. Scott:

Subject: Meeting of June 13

The Board of Directors will meet on Friday, June 13.

Shew are several items that must be considered before our meeting date in July. It is very important that the special committee reports be presented for criticism so that any suggested revisioned can be considered by the committee. Tetron must also be taken on two new resolutions that will greatly affect our aperations during the coming months.

The meeting will begin cromptly at 1:30 in the Brand banjerence Room. a copy of the agenda is enclosed for your information.

Verytruly yours,

Robert alcock

jed Exclosure

Instructions:

Type the information below on another page. Then compare your typing with the original copy. If there are any differences, circle them on your typed copy.

Original Copy

Bond-Barnes Equipment Company South Bend, Indiana 46637 Mr. Ralph Morton 21855 Civic Vircle Ft. Lauderdale, Florida 33311 Mr. Francis Cossell 951 Washington Quenue Commerce Building Phoenix, arizona 85022 Mrs. Albert Greeman 7610 Stanfield Lane Ogden, Utah 84403 Peter allen Connecticut 06607 Mr. Whitney Greene 4452 Mavis Drive Newark, New Gersey 07104 Dr. Charles a. Cochran 8750 Memorial Drive Spokane, Washington Miss anne Jamison 2765 Leventeenth Avenue Houston, Jepas Mr. James Ziemer 40. Livingston Lane oringfield, Missouri 65821

APPENDIX B

BACKGROUND INFORMATION

TABLE XVIII
INDIVIDUAL GRADE POINT AVERAGES

Contr	col Group	Experime	ental Group
Student	Grade Point	Student	Grade Point
No.	Average	No.	Averag e

1	3.028	. 1	3.322
2	2.619	2	2.321
3	2.866	3	3.456
4	3.087	4	3.522
5	1.285	5	1.958
5 6	2.155	6	2.413
7	1.892	7	2.034
8.	1.941	8	2.245
9	3.000	9	2.900
10	4.000	10	2.774
11	2.300	11	3.307
12	2.043	12	2.215
13	3.414	13	
		14	3.000
14	3.172		2.750
15	2.557	15	2.916
16	3.178	16	3.900
17	3.633	17	2.203
18	3.285	18	3.000
19	2.088	19	3.266
20	2.625	20	3.269
21	3.157	21	2.000
22	2.900	22	3.300
23	2.833	23	2.357
24	2.389	24	3.016
25	2.642	25	2.362
26	2.343	26	2.266
27	3.896	27	2.612
28	2.111	28	2.180
29	1.542	29	3.250
30	2.892	30	3.508
31	3.700	31	3.344
32	2.733	32	2.793
33	3.048	33	2.766
34	3.531	34	3.655
35	2.653	35	2.516
36	2.616	36	2.472
37	3.000	37	3.482
38	3.800	38	2.503
39	2.806	39	3.127
40	2.750	40	2.431
41	2.965	41	3.823
42	2.774	42	3.125
Mean	2.792	Mean	2.849
		rican	2.047

TABLE XIX
INDIVIDUAL ACT SCORES*

Con	trol Gr			Experiment	al Cassa
Student No	0.	ACT Score		Student No.	ACT C
				bradent No.	ACT Score
•					
1		22		1	1 =
1 2		18		2	15
3		14			16
4		21		3	22
5		24		4	19
6				5	10
7		17	•	6	23
8		15		· 7	
				8	
9		18		·· 9	16
10		28		10	16
11		12		11	. 10
12		07		12	00
13		19		13	09
14		17			
15		16		.14	19
16		21		15	17
17		24		16	25
18		17		17	17
19				18	19
20		19		19	
		23		20	15
21		18		21	11
22		17		22	22
23		19		23	21
24		None Great		24	18
25		17		25	
26		21		26	20
27		28			13
28		17		27	23
29		17		28	24
30		19		29	18
31				30	23
32		29		31	23
		14		32	21
33				33	13
34		28		34	21
35		20		35	
36				36	20
37		16		37	
38		21		38	21
39		10		39	
40		16			13
41		18		40	15
42		20		41	24
Mean		18.868		42	21
		20,000		Mean	18.371

^{*}No ACT score was available for transfer students.

TABLE XX

INDIVIDUAL BUSINESS/NON-BUSINESS MAJORS

	rol Group		Experi	mental Group
Student	Business/		Student	Business/
No.	Non-Business		No.	Non-Business
1	Business		1	Business
2	Non-Business		2	Business
3	Business		3	Non-Business
4	Business		4	Business
5	Business		5	Business
6	Business	•	6	Business
7	Business		7	Non-Business
8	Non-Business	, ·	8	Business
9	Business		9	Business
10	Business	4 · · · · · · · · · · · · · · · · · · ·	10	Non-Business
11	Business		11	Business
12	Business		12	Business
13	Business		13	Business
14	Business		14	Non-Business
15	Non-Business		15	Business
16	Business		16	Business
17	Business		17	
18	Business		18	Business
19	Business		19	Business
20	Business		20	Business
21	Business		21	Business
22	Business		22	Business
23	Business		23	Business
24	Business		24	Non-Business
25	Business		25	Business
26	Business		25	Business
27	Business		27	Business
28	Business			Business
29	Business		28	Business
30	Business		29	Business
31	Business		30	Business
32			31	Non-Business
33	Business		32	Business
34	Business		33	Business
35	Business Business		34	Business
36			35	Business
37	Business		36	Non-Business
38	Business		37	Non-Business
39	Business		38	Business
40	Business		39	Business
41	Business		40	Business
42	Business		41	Business
44	Business		42	Business

TABLE XXI
INDIVIDUAL GRADE CLASSIFICATIONS

Student 1 2	No.	Classification	Student No.	ntal Group
			Deddelle NO.	Classification
2		Freshman	1	Freshman
		Sophomore	2	Freshman
3		Freshman	3	Sophomore
4	'	Senior	4	Freshman
5		Freshman	5	Freshman
6		Sophomore	6	Sophomore
7		Freshman	7	Freshman
8		Freshman	8	Sophomore
9		Freshman	9	Freshman
10		Freshman	10	Freshman
11		Freshman	11	Freshman
12		Freshman	12	Sophomore
13		Sophomore	13	~
14		Freshman	14	Special
15		Sophomore	15	Freshman
16		Freshman	16	Sophomore
17	,	Freshman	17	Freshman
18		Freshman	18	Sophomore Freshman
19		Sophomore	19	
20		Freshman	20	Freshman
21		Sophomore	21	Freshman
22		Freshman	22	Freshman
23		Freshman	23	Sophomore Freshman
24		Special	24	
25		Freshman	25	Sophomore
26		Junior	26	Junior
27		Sophomore	27	Freshman
28		Freshman	28	Freshman
29		Sophomore	29	Junior
30		Freshman	30	Freshman
31		Sophomore	31	Sophomore
32		Freshman	32	Freshman
33		Sophomore	33	Freshman
34		Freshman	34	Freshman
35		Freshman	35	Freshman
36		Junior	36	Junior
37		Freshman	36 37	Sophomore
38		Freshman	38	Senior
39		Freshman	39	Senior
40		Freshman	40	Senior
41		Freshman	41	Sophomore
42		Freshman	41 42	Freshman Sophomore

TABLE XXII
INDIVIDUAL CLASS ABSENCES

	ntrol (tal Group
Student	No.	Absences	·	Student No.	Absences
	•	*		•	
7		· •			
1		1		1	6
2		1		2	11
3		12		3	9
4		2		4 .	14
5		10		. 5	17
6		13		6	30
7		3	•	7	13
8		3		8	8
9	_	4	t t	9	1
10		-5		10	12
11		1		11	6
12		. 0		12	6
13	. ,	.5		13	2
14		0		14	9
15		8		15	Ó
16	~	4		16	13
17		3		17	11
18		11		18	21
19		12		19	
20		11		20	7
21					1
		5		21	23
22		2		22	0
23		2	en de la companya de	23	17
24		2		24	10
25		7		25	17
26		2		26	14
27		9		27	9
28		2		28	8
29		10		29	6
30		. 4		30	3
31		6		31	5
32		0		32	7
33		10		33	19
34		1		34	5
35		9		35	16
36		11		36	6
37		3		37	. 8
38		3 0		38	14
39		2		39	3
40		2 4		40	3
41		0		40	3 7
42		7			2
				42 Wa an	
Mean		4.929		Mean	9.50

APPENDIX C

PROOFREADING ERROR RECORDS

TABLE XXIII

INDIVIDUAL PROOFREADING ERRORS ON TIMED WRITINGS
BY CONTROL GROUP

	,				· ······														
Student									T	imed	Writi	ng No				Nicolar Anna Anna Anna Anna Anna Anna Anna An			
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		:												1	1		1	1	+
1	1	1	0	2	1	0	1	2	0	1	2	0	0	1	0	0	0	0	1
2	3	3	2	2	2	0	1	3	3	2	1	1.	0	1	2	1	1	1	1
3	0	0	0	1	1	2	1	-	-	2	0	0	2	3	4	2	1	2	1
4	0	0	1	0	0	0	0	_	-	0	0	1	0	0	1	0	0	1	0
5	2	0	3	1	1	1	1	-	-	0	1	0	0	0	0	0	0	1	2
6	3	6	1	6	5	1	2	5	3	3	2	1	1	0	0	-	-	2	7
7 8	8	8	9	5	8	9	3	8	-	28	19	5	8	11	8	6	26	22	8
9	4	0	2	0	3	4	4	-	-	2	3	0	0	2	0	1	2	1	3
10	2	0	0	3	2	1	0	3	4	1	5	_	-	3	2	0	0	5	5
11	0	1	0	0 2	0	0	1 7	-	-	3	0	0	0	0	1	0	0	0	2
12	0	0	3	0	2	6	1	11	8	16	16	3	4	3	. 6	6	8	3	12
13	2	0	0	1	2	0	1	0	1	1	0	0	1	3	2	1	0	1	1
14	4	0	3	2	1	2	3	0 3	0	1	1 .	1	1	3	0	1	0	0	0
15	0	_	-	2	3	3	2	-	_	1 2	0 4	0	0	0	2	2	0	4	2
16	1	0	2	0	0	1	3	1	4	0	1	3	0	1 3	0	3	2	1	1
17	0	0	ō		_	0	1	1	1	0	0	0	1	0	0	3	6	1	0
18	3	0	1	_	_	0	0	0	2	Ö	1	Ô	0	1	0	1	0	0	0
19	-	0	0	1	1	0	1	3	ō	_	-	ő	1	0	1	0	0	0	1 1
20	3	-	-	3	0	3	3	_	_	1	12	6	4	3	0	1	0	4	2
21	-	1	0	_	_	0	0	0	0	0	1	0	0	1	1	0	0	0	0
22	0	0	0	2	4	0	1	3	1	8	5	1	1	2	1	2	2	0	1
23	2	4	4	1	2	1	3	0	1	3	3	4	ī	1	3	2	1	2	0
24	0	0	0	0	0	0	0	0	1	2	1	0	0	Ō	Ō	0	ō	1	2
25	4	9	2	-	_	6	3	-	-	2	5	0	0	3	1	Ö	0	1	2
26	0	1	1	1	1	1	2	1	4	2	2	0	1	2	0	0	Ō	1	-

TABLE XXIII (Continued)

Student					•					Timed	l Writ	ing N	o.						
No.	1	1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
										ŀ						<u> </u>		1	
27	2	-	-	0.	1	_	-	1	0	0	0	1	1	0	0	1	1	2	1
28	4	10	3	3	6	5	1	7	4	6	3	0	1	10	8	4	2	6	4
29	1	9	5	6	3	8	8	15	31	13	12	1	4	16	6	6	8	11	8
3 0	2	1	0	6	1	3	5	-	-	1	2	0	0	1	1	1	2	3	1
31	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	3	0	1	1
32	2	0	1	3	2	2	7	3	1	1	1	2	3	2	1	2	3	8	6
33	0	2	1	1	1	1	1	-	-	1	1	1	0	0	0	-	-	1	2
34	1	0	0	0	1	1	1	0	2	0	0	0	0	1	0	1	2	2.	0
35	-	1	1	0	1	2	2	-	-	0	3	-	-	1	0	2	0	0	0
36	0	0	1	5	0	2.	2	1	1	1	1	1	3	1	1	0	0	1	2
.37	0	0	2	1	0	1	1	4	3	4	5	-	-	0	2	2	3	2	0
38	0	0	. 1	1	-	1	3	2	9	0	1	1	0	3	2	0	1	0	0
39	0	0	0	1	3	0	3	-	-	4	4	1	4	0	0	0	0	1	1
40	2	0	-	3	1	-	-	-	-	2	1	3	2	3	1	0	2	3	4
41	1	1	1	2	3	3	1	1	1	1	1	1	1	0	0	1	2	2	1
42	0	1	1	0	-	0	-	0	0	1	0	1	1	1	0	0	1	0	0

TABLE XXIV

INDIVIDUAL PROOFREADING ERRORS ON TIMED WRITINGS
BY EXPERIMENTAL GROUP

	,																		
Student									T	imed	Writi	ng No	•						
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	0	1	0	1	-	0	1	2	0	1	3	0	3	1	2	0	4	1	6
2	2	0	1	1	-	2	0	3	4	0	1	0	-	0	0	0	0	0	0
3	4	4	8	5	4	2	0	1	10	1	15	6	0	2	4	2	7	2	3
4	3	0	1	4	-	1		1	-	1	1	2	1	2	1	-	-	5	3
5	-	4	4	3	3	1	2	5	8	-	-	2	4	0	0	2	1	2	5
6	0	2	0	1	-	1	1	1	0	1	2	0	0	3	0	0	4	0	0
7	0	-	-	2	0	3	1	0	1	1	1	0	0	1	0	4	0	1	1
8	-	3	3	0	2	2	0	2	4	4	1	0	2	6	2	6	5	3	2
9	0	6	5	3	2	3	1	1	7	0	1	1	0	1	1	5	2	0	1
10	5	3	10	4	- 8	4	3	7	4	2	1	2	0	0	0	0	1	7	2
11	0	3	1	1	0	1	1	0	2	0	1	2	0	2	1	0	3	1	3
12	1	3	2	2	0	0	-	2	4	0	2	0	1	0	1	2	1	0	4
13	2	2	2	2	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3
14	2	1	1	0	0	1	0	0	0	1	7	0	3	3	1	2	0	2	4
15	2	0	0	1	0	1	0	7	1	0	1	0	0	1	2	0	0	4	0
16	0	1	2	2	-	1	-	0	1	1	1	3	7	1		6	6	3	4
17	1	1	0	0	0	1	0	1	3	1	2	0	0	1	3	2	1	4	0
18	1	1	1	1	1	2	0	0	0	0	1	1	0	0	1	2	1	2	1
19	1	2	6	4	0	2	0	-	-	0	-	0	1	3	0	0	1	1	1
20	0	0	0	1	0	0	0	0	5	0	0	2	1	0	0	3	-	4	1
21	1	1	0	4	-	1	0	1	0	1	1	0	0	0	0	3	0	2	1
22	1	2	3	1	0	0	0	0	0	0	0	1	0	0	0	0	2	1	3
23	0	0	0	0	0	0	-	1	1	-	-	1	1	1	0	0	2	0	1
24	3	1	2	4	7	3	0	-	-	3	4	2	0	1	3	1	6	3	2
25	0	2	1	0	-	2	3	1	-	0	0	0	0	1	4	2	1	0	0
26	3	4	5	3	2	3	0	-	-	4	4	4	3	2	-	3	-	2	0

TABLE XXIV (Continued)

											,								
Student								٠		Timed	Writ	ing N	о.				•		
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
27 28 29 30	4 3 0 1	2 2 0 0	4 1 1 0	2 2 1 1	2 1 - 1	3 1 2 0	1 - 1 0	- - 1 0	 - 2 2	3 4 1 0	2 2 1 0	0 0 0	- - 0 1	1 1 0 0	0 3 1 0	_ 2 1 1	- 2 0 0	1 4 1 0	3 2 1 0
31 32 33 34 35 36 37 38 39 40	2 0 7 0 2 2 1 1 -	0 1 4 1 - 2 5 2 1 3	2 2 16 0 - 2 2 2 1 2	3 5 0 3 - 0 1 0	2 1 - 0 2 - 1 0 1 2	1 2 4 0 4 0 0 2 3	1 - 0 0 1 4 - 0 2	8 3 5 0 13 0 1 1 2	1 9 2 0 1 2 2 3 1 3	2 0 5 1 0 1 0 0	1 1 2 0 0 1 2 1 0 2	0 3 - 1 2 - 0 0 0 3	1 2 - 1 - 2 2 0 6	0 0 0 2 2 3 1 2 0 1	- 1 3 1 0 2 3 1 0 0	2 3 0 2 2 0 0 0 3	3 0 2 0 5 0 1 1 0 2	2 0 1 0 2 2 - 1 0 2	2 2 2 1 0 3 - 1 0 1
41 42	0 2	0 3	0	1	1	0 2	0	6	0 2	0	0	0	1 2	0 3	0	0	1 2	0	1

TABLE XXV

PROOFREADING ERROR AVERAGES
ON TIMED WRITINGS

<u> </u>	Control			Experime	ntal Group
Student	No.	Error Average		Student No.	Error Average
1		.684		· • • • • • • • • • • • • • • • • • • •	1 ///
2		1.579		1 2	1.444
3		1.294			.824
4		.235		3	4.211
5	•	.765		4	1.857
6		2.824		5	2.875
7				6	.889
8		11.056		7	.941
9		1.824		8	2.611
		2.118		9	2.105
10		.412		10	3.316
11		6.000		11	1.158
12		•947		12	1.389
13		.737		13	.684
14		1.579		14	1.474
15		1.800		15	
16		1.579		16	1.053
17		.176		17	2.438
18		.588			1.105
19		.563		18	.842
20		3.000		19	1.375
21		.250		20	•944
22		1.789		21	.889
23				22	.737
24		2.000		23	.500
25		.368		24	2.647
26		2.533		25	1.000
		1.111		26	2.800
27		.733		27	2.000
28		4.579		28	2.000
29		9.000		29	.778
30		1.765		30	.368
31		.421		31	1.833
32		2.632		32	1.778
33		.867		33	4.067
34		.632		34	
35		.929		35	.421
36		1.211	•	36	2.438
37		1.765		37	1.467
38		1.389		37 38	1.529
39		1.294			1.167
40		1.929		39	.500
41		1.263		40	1.895
42				41	.526
Mean		.412		42	1.526
ricail		1.872		Mean	1.581

TABLE XXVI

INDIVIDUAL PROOFREADING ERRORS ON PRODUCTION MEASUREMENTS
BY CONTROL GROUP

	<u> </u>	 												
Student						Pr	oductio	n Measu	rement	No.				
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
														·
1	0	0	1	5	2	1	2	0	0	0	1	2	3	1
2	0	0	3	2	1	2	0	0	3	0	2	-	1	1
3	1	3	1	2	2	5	1	5	0	0	0	0	2	1
4	1	0	1	3	2	0	1	0	2 -	0	0	2	1	1
5	2	0	0	2	2	0	0	3	0	0	0	2	0	3
6	4	5	11	1	3	5	3	2	2	2	1	2	-	8
7	2	5	1	9	2	1	3	3	4	0	2	1	2	6
8	1	2	0	1	2	5	0	1	4	1	3	2	0	0
9 .	0	0	0	1	0	7	1 .	2	0	1	2	5	6	2
10	0	0	0	1	2	4	2	1	1	0	0	0	. 0	0
11	2	3	4	7	. 7	14	0	5	7	7	5	3	3	6
12	0	1	2	2	2	6	1	1	2	0	2	2	2	1
13	0	0	1	1	2	1	2	0	0	1	0	0	1	0
14	2	1	24	5	1	2	1	2	0	1	1	2	2	0
15	0	3	3	5	2	1	1	0	2	2	1	3	1	3
16	0	0	1	4	2	4	3	, 1	1	0	1	0	7	1
17	0	0	-	1	0	1	0	0	2	3	0	1	0	0
18	0	3	0	2	1	9	.0	1	1	0	0	1	0	0
19	0	2	0	0	4	2	0	0	2	0	2	0	2	2
20	1 -	2	1	14	0	0	1	0	-	0	0	4	1	1
21	0	4	3	0	3	1	0	2	0	1	2	0	0	1
22	10	0	4	1	2	12	1	0	0	0	0	4	1	4
23	1	1	2	4	2	6	1	3	2	3	2	1	0	3
24	0	1	0	3	2	2	0	1	0	0	1	0	2	1
25	2	0	1	1	3	2	0	1	1	0	0	2	2	1
26	3	2	1	1 4	1	1 0	2	1	1 0	1	1	1	2	1

TABLE XXVI (Continued)

2	1 2	l 3	,		Pr	oductio							
2	1 2	1 3				Oddetto	n Measu	rement	No.			e .	
ı			4	5	6	7	. 8	9	10	11	12	13	14
ı					_	0	2	-	0	0		0	2
	1 1	1	0	0	0	0	2	1	0	_	1	8	1
1	4 0	4	1	4	/	Ţ	1	Ţ	4	0	4		
13	15 13	16	7	- 1	6	3	-	4	2	17	14	8	/
2	0 2	3	1	0	4	0	4	-	0	0	2	2	3
0	1 0	0	2	0	0	0	2	0	1	0	0	1	1
0	2 0	1	6	2	5	0	4	2	2	1	3	1	0
4	1 4	2	2	3	0	1	0	1	1	2	3	_	4
0	i - i	0	1	0	2	0	0	0	0	<u>o</u>	0	3	1
0	1 . 1	2	2	2	3	0	1	1	2	_	3	1	0
l 0		3	5	2	5	0	0		1	1	0	3	3
0	1 0	5	2	6	8	0	8	3	0	2	3	3	4
1	0 1	1	3	0	1.	0	0	_	1	1	4	4	1
1	0 1	1	2	5	2	0	1	0	3	3	0	2	2
2	0 2	h .	1	2	3	0	1	3	2	0	1	1	1
1	1 - 1 -	ı	1	1	-	-		1		1	2	3	C
1 -		1	2	i -		1	i –	i i		0	1 1	2	1
	0 0 1 0	1 2 6 5	1 2 2 6 2	2 2 3 6 2 1	2 2 3 2 6 2 1 5	2 2 3 2 3 6 2 1 5 3	2 2 3 2 3 0 6 2 1 5 3 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c c c c c c c c c c c c c c c c c c c $	$egin{array}{c c c c c c c c c c c c c c c c c c c $	$egin{array}{c c c c c c c c c c c c c c c c c c c $	$egin{array}{c c c c c c c c c c c c c c c c c c c $

TABLE XXVII

INDIVIDUAL PROOFREADING ERRORS ON PRODUCTION MEASUREMENTS
BY EXPERIMENTAL GROUP

Student		_					Product	ion Mea	asuremen	t No.				
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
			-											
1	4	2	2	0	3	1	0	2	0	11	0	2	0	1
2	13	4	6	2	3	5	0	11	3	1	1	3	0	2
3	3	5	32	2	1	2	3	1	2	2	2	4	3	5
4	2	1	2	5	8	1	1	2	2	2	2	7	-	0
5	-	3	8	-	3	3	2	5	1	_	12	4	1	3.
6	4	3	. 3	1	2	2	3	6	2	3	8	4	2	2
7	2	-	4	0	4	-1	1	2	0 -	0	2	5	1	1
8	25	6	3	4	3	1	5	7	3	5	7	5	2	7
9	14	2	2	2	0	3	0	4	0	1	3	4	1	2
10	9	8	4	6	6	17	2	6	0	1	1	4	1	4
11	0	2	1	2	2	1	1	0	3	1	0	3	2	0
12	3	1	1	2	1	0	0	_	2	-0	0	2	1	0
13	5	1	1	2	3	3	0	1	2	1	0	1	. 0	- 0
14	8	1 -	1	3	3	0	0 -	2	0	1	1	1	3	2
15	13	2	1	4	4	3	1	0	0	3	3	4	1	3
16	4	3	2	4	4	3	0	0	1	0	2	2	6	3
17	4	6	6	7	1	2	0	4	0	1	1	2	0	2
18	3	1	1	0	4	2	0	0	0	0	1	2	1	1
19	3	5 -	7	1	0	1	0	2	2	3	2	2	1	1
20	2	- 5	1	0	2	0	1	0	2	0	1	5	0	1
21	13	3	4	3	9	2	2	_	0	3	3	6	4	3
22	2	4	0	0	1	1	0	3	0	0	0	10	. 0	3
23	1	8	1	1	2	1	_	1	1	3	1	0	0	4
24	1	2	6	1	2	4	0	2	1	2	0	2	3	1
25	5	0	2	0	0	2	1	4	1	1	1	2	7	4
26	2	2	4	6	3	1	1	3	3	2	4	10	1	8

TABLE XXVII (Continued)

Student							Product	ion Mea	suremen	t No.				
No.	- 1	2	3	4	5	6	7	8	9	10	11	12	13	14
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	11 3 2 3 16 1 1 1 3 9 4 2 - 8	1 2 0 2 0 0 6 0 5 4 2 0 1 5 2	6 1 4 1 2 2 5 0 10 4 4 1 4 1	2 3 3 3 2 4 5 0 2 7 5 1 0 4 2 3	5 2 0 2 0 2 1 2 8 9 2 1 2 4 1	1 3 0 0 1 21 4 1 8 6 1 1 1	0 0 2 0 1 0 5 0 4 3 2 - 2 0	1 2 2 2 0 1 5 1 5 1 2 3 2 0	1 0 0 1 1 3 0 3 2 0 0	2 3 3 0 5 2 3 0 1 5 2 4 1 3 1 2	2 3 2 1 1 1 - 2 9 - 2 3 2 5 1	0 1 0 2 3 1 10 2 5 4 5 2 4 1 2 3	1 0 4 1 0 1 12 1 4 1 4 3 1 1	2 3 1 1 2 4 2 1 2 9 - 1 1 3 1

TABLE XXVIII

PROOFREADING ERROR AVERAGES
ON PRODUCTION MEASUREMENTS

•	Control	Group		Experime	ntal Group
Student		Error Average		Student No.	Error Average
,					
1		1.286		. · · · 1 ·	2.000
2		1.154		2	3.857
2 3		1.643		3	4.786
4		1.000		4	2.692
5		1.000		5	4.091
6		3.769		6	3.214
7		2.929	•	7	1.769
8		1.571		8	5.929
9		1.929		9	2.714
10		.786		10	4.929
11		5.214		11	1.286
12		1.714		12	1.000
13		.643		13	1.429
14		3.143		14	1.857
15		1.929		15	3.000
16		1.786		16	2.429
17		.615		17	2.571
18		1.286		18	1.143
19		1.143		19	2.143
20		1.923		20	1.429
21		1.214		21	4.231
22		2.786		22	1.714
23		2.214		23	1.846
24		.929		24	1.929
25		1.143		25	2.143
26		1.429		26	3.571
27		.714		27	2.500
28		3.286		28	1.857
29		9.333		29	1.643
30		1.615		30	1.286
31		.571		31	2.429
32		2.071		32	2.929
33					
		1.846		33	4.769
34		.571		34	.786
35		1.308		35	4.929
36		1.769		36	5.231
37		3.214		37	2.615
38		1.308		38	1.615
39		1.571	•	39	1.692
40		1.500		40	3.143
41		1.929		41	.929
42		1.786		42	1.500
Mean		1.918		Mean	2.608

TABLE XXIX

AVERAGE NUMBER OF PROOFREADING ERRORS
ON EACH TIMED WRITING

Control (•	Experimenta	l Group
Measurement	Error		Measurement	Error
Number	Average		Number	Average
1	1.461		1	1.513
2	1.513		2	1.825
2 3	1.342		3	2.350
4	1.763		4	1.805
5	1.722		. 5	1.375
6	1.850		6	1.452
7	2.077		7	.706
8	2.689		; 8	2.108
9	3.071		9	2.457
10	2.829		10	1.000
11	2.927		11	1.692
12	1.077		12	.975
13	1.179		13	1.250
14	2.071		14	1.143
15	1.357		15	1.051
16	1.375		16	1.625
17	1 .9 00		17	1.763
18	2.310		18	1.634
19	2.098		19	1.780
Mean	1.927		Mean	1.553

TABLE XXX

AVERAGE NUMBER OF PROOFREADING ERRORS
ON EACH PRODUCTION MEASUREMENT

Control (Group		Experimenta:	l Group
Measurement Number	Error Average		Measurement Number	Error Average
1	1.381		1	5.250
2	1.762		2	2.707
. 3	2.634		3	3.690
4	3.024		4	2.537
5	2.146		5	2.833
6	3.476		. 6	2.786
7	.762		7	1.125
8	1.537		8	2.500
9	1.395		9	1.024
10	1.048		10	2.049
11	1.390	Λ.	11	2.300
12	1.976		12	3.357
13	2.075		13	1.854
14	1.905		14	2.366
Mean	1.894		Mean	2.598

APPENDIX D

COMPARISONS OF BACKGROUND INFORMATION
WITH PROOFREADING ERROR RECORD

TABLE XXXI

COMPARISON OF INDIVIDUAL GRADE POINT AVERAGES
WITH PROOFREADING ERROR AVERAGES

Co	ntrol Group		Experimental Group			
Student		low Mean	Student	Above/Below	Mean	
No.	GPA*	PR*	No.	GPA*	PR	
1	Above	Below -	1	Above	Belo	
2	Below	Below	2	Below	Abov	
3	Above	Below	3	Above	Abov	
4	Above	Below	4	Above	Abov	
5	Below	Below	√ 5	Below	Abov	
6	Below	Above	6	Below	Abov	
7	Below	Above	7	Below -	Belo	
8	Below	Below	· 8	Below	Abov	
9	Above	Above	9	Above	Abov	
10	Above	Below	10	Below	Abov	
11	Below	Above	11	Above	Belo	
12	Below	Below	12	Below	Belo	
13	Above	Below	13	Above	Belo	
14	Above	Above	14	Below	Belo	
15	Below	Above	15	Above	Abov	
16	Above	Below	16	Above	Belo	
17	Above	Below	17	Below	Belo	
18	Above	Below	18	Above	Belo	
19	Below	Below	19	Above	Belo	
20	Below	Above	20	Above	Be1	
21	Above	Below	21	Below	Abov	
22	Above	Above	22	Above	Belo	
23	Above	Above	23	Below	Belo	
24	Below	Below	24	Above	Belo	
25	Below	Below	25	Below	Belo	
26	Below	Below	26	Below	Abov	
27	Above	Below	27	Below	Belo	
28	Below	Above	28	Below	Belo	
29	Below	Above	29	Above	Belo	
30	Above	Below	30	Above	Belo	
31	Above	Below	31	Above	Belo	
32	Below	Above	32	Below	Abor	
33	Above	Below	33	Below	Abor	
34	Above	Below	34	Above	Be1	
35	Below	Below	35	Below	Abo	
36	Below	Below	36	Below	Abor	
37	Above	Above	37	Above	Abo	
38	Above	Below	38	Below	Be1	
39	Above	Below	39	Above	Belo	
40	Below	Below	40	Below	Abo	
41	Above	Above	41	Above	Be1	
42	Below	Below	42	Above	Belo	

^{*} Grade Point Average

^{**}Proofreading Error Average on Production Measurements

TABLE XXXII

COMPARISON OF INDIVIDUAL BUSINESS AND NON-BUSINESS MAJORS
WITH PROOFREADING ERROR AVERAGES

	Control Group			perimental Group	
Student	Business/	Above/	Student	Business/	Above
No.	Non-Business	Below*	No.	Non-Business	Below;
1	Business	Below	1	Business	Below
2	Non-Business	Below	2	Business	Above
3	Business	Below	3	Non-Business	Above
4	Business	Below	4	Business	Above
5	Business	Below	5	Business	Above
6	Business	Above	6	Business	Above
7	Business	Above	7	Non-Business	Below
8	Non-Business	Below	8	Business	Above
9	Business	Above	9	Business	Above
10	Business	Below	10	Non-Business	Above
11	Business	Above	11	Business	Below
12	Business	Below	12	Business	Below
13	Business	Below	13	Business	Below
14	Business	Above	14	Non-Business	Below
15	Non-Business	Above	15	Business	Above
16	Business	Below	16	Business	Below
17	Business	Below	. 17	Business	Below
18	Business	Below	18	Business	Below
19	Business	Below	19	Business	Below
20	Business	Above	20	Business	Below
21	Business	Below	21	Business	Above
22	Business	Above	22	Business	Below
23	Business	Above	23	Non-Business	Below
24	Business	Below	24	Business	Below
25	Business	Below	25	Business	Below
26	Business	Below	26	Business	Above
27	Business	Below	27	Business	Below
28	Business	Above	28	Business	Below
29	Business	Above	29	Business	Below
30	Business	Below	30	Business	Below
31	Business	Below	31	Non-Business	Below
32	Business	Above	32	Business	Above
33	Business	Below	33	Business	Above
34	Business	Below	34	Business	Below
35	Business	Below	35	Business	Above
36	Business	Below	36	Non-Business	Above
37	Business	Above	37	Non-Business	Above
38	Business	Below	38	Business	Below
39	Business	Below	39	Business	Below
40	Business	Below	40	Business	Above
41	Business	Above	41	Business	Below
42	Business	Below	42	Business	Below

^{*}Proofreading error mean on Production Measurements

TABLE XXXIII

COMPARISON OF INDIVIDUAL GRADE CLASSIFICATION
WITH PROOFREADING ERROR AVERAGES

	Control Group			Experimental Group	
Student	Grade	Above/	Stude	nt Grade	Above
No.	Classification	Below*	No.	Classification	Below:
1	Freshman	Below	1	Freshman	Below
2	Sophomore	Below	2	Freshman	Above
3	Freshman	Below	3.	Sophomore	Above
4	Senior	Below	4	Freshman	Above
5	Freshman	Below	5	Freshman	Above
6	Sophomore	Above	6	Sophomore	Above
7	Freshman	Above	7	Freshman	Below
8	Freshman	Below	8	Sophomore	Above
9	Freshman	Above	9	Freshman	Above
10	Freshman	Below	10	Freshman	Above
11	Freshman	Above	11	Freshman	Below
12	Freshman	Below	12	Sophomore	Below
13	Sophomore	Below -	13	Special	Below
14	Freshman	Above	14	Freshman	Below
15	Sophomore	Above	15	Sophomore	Above
16	Freshman	Below	16	Freshman	Below
17	Freshman	Below	17	Sophomore	Below
18	Freshman	Below	18	Freshman	Below
19	Sophomore	Below	19	Freshman	Below
20	Freshman	Above	20	Freshman	Below
21	Sophomore	Below	21	Freshman	Above
22	Freshman	Above	22	Sophomore	Below
23	Freshman	Above	23	Freshman	Below
24	Special	Below	24	Sophomore	Below
25	Freshman	Below	25	Junior	Below
26	Junior	Below	26	Freshman	Above
27	Sophomore	Below	27	Freshman	Below
28	Freshman	Above	28	Junior	Below
29	Sophomore	Above	29	Freshman	Below
30	Freshman	Below	30	Sophomore	Below
31	Sophomore	Below	31	Freshman	Below
32	Freshman	Above	32	Freshman	Above
33	Sophomore	Below	33	Freshman	Above
34	Freshman	Below	. 34	Freshman	Below
35	Freshman	Below	35	Junior	Above
36	Junior	Below	36	Sophomore	Above
37	Freshman	Above	37	Senior	Above
38	Freshman	Below	38	Senior	Below
39	Freshman	Below	39	Senior	Below
40	Freshman	Below	40	Sophomore	Above
41	Freshman	Above	41	Freshman	Below
42	Freshman	Below	42	Sophomore	Below

^{*}Proofreading error mean on Production Measurements

TABLE XXXIV

COMPARISON OF INDIVIDUAL CLASS ABSENCES WITH PROOFREADING ERROR AVERAGES

	Control C			Experimental Group		
Student	Above/	Below Mean	Student	***************************************	Below Mean	
No.	Absences	Proofreading*	No.	Absences	Proofreading ²	
1	Below	Below	1	Below	Below	
2	Below	Below	2	Above	Above	
3	Above	Below	3	Below	Above	
4	Below	Below	4	Above	Above	
5	Above	Below	5	Above	Above	
6	Above	Above	6	Above	Above	
7	Below	Above	7	Above	Below	
8	Below	Below	8	Below	Above	
9	Below	Above	9	Below	Above	
10	Above	Below	10	Above	Above	
11	Below	Above	11	Below	Below	
12	Below	Below	12	Below	Below	
13	Above	Below	13	Below	Below	
14	- Below	Above	14	Below	Below	
15	Above	Above	15	Below	Above	
16	Below	Below	16	Above	Below	
17	Below	Below	17	Above	Below	
18	Above	Below	18	Above	Below	
19	Above	Below	19	Below	Below	
20	Above	Above	20	Below	Below	
21	Above	Below	21	Above	Above	
22	Below	Above	22	Below	Below	
23	Below	Above	23	Above	Below	
24	Below	Below	24	Above	Below	
25	Above	Below	25	Above	Below	
26	Below	Below	26	Above	Above	
27	Above	Below	27	Below	Below	
28	Below	Above	28	Below	Below	
29	Above	Above	29	Below	Below	
30	Below	Below	30	Below Below	Below	
31	Above	Below	31	Below	Below	
32	Below	Above	32	Below	Above	
33	Above	Below	33	Above	Above	
34	Below	Below	34	Below	Below	
35	Above	Below	35	Above	Above	
36	Above	Below	36	Below	Above	
37	Below	Above	37	Below	Above	
38	Below	Below	38	Above	Below	
39	Below	Below	39	Below	Below	
40	Below	Below	40	Below	Above	
41	Below	Above	41	Below Below	Below	
42	Above	Below	42	Below	Below	

^{*}Proofreading error mean on Production Measurements

APPENDIX E

PRE-TEST AND POST-TEST RESULTS

TABLE XXXV
INDIVIDUAL PRE-TEST RESULTS

Cont	rol Group		Experi	mental Group
Student	Proofreading		Student	Proofreading
No.	Errors		No.	Errors
1	0		1	3
2	1		2	5
3	1		. 3	5. 5
4	$ar{f 1}$	V.	4	1
5	$ar{f 1}$		5	14
6	1		6	1
7	10		7	2
8	6	* **	8	4
			•	1
9	2		9	
10	0		10	3
11	3		11	1
12	2		12	0
13	0		13	10
14	2		14	13
15	4		15	1
16	: 1 ° .		16	1
17	1		17	2
18	0 .		18	0
19	1		19	0
20	2		20	2
21	3		21	2
22	1		22	1
23	2		23	0
24	1		24	4
25	1		25	0
26	6		26	3
27	2		27	1
	7			7
28		•	28	
29	13		29	4
30	1		30	1
31	0		31	2
32	2		32	2
33	• 1		33	5
34	1		34	0
35	2	•	35	10
- 36	2	•	36	4
37	1		37	4
38	0		38	1
39	0		39	4
40	2		40	4
41	2		41	1
42	1		42	1
. —	2.143			-

TABLE XXXVI
INDIVIDUAL POST-TEST RESULTS

Cont	rol Group	any arang-alba arang	Exper	imental Group
Student	Proofreading			Proofreading
No.				
Student No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	rol Group Proofreading Errors 1 1 1 1 1 1 1 1 1 3 9 0 2 6 0 0 0 0 1 1 1 1 1 5 3 0 2 1 1 0 3 3 3 3 3 3 3		Student No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	imental Group Proofreading Errors 1 3 2 5 5 5 1 1 1 1 2 1 1 2 1 1 1 1 1 2 0 0 0 1 1 1 1
36 37 38 39 40 41 42 Mean	3 3 2 1 2 5 1 0 2.786			

APPENDIX F

STATISTICAL DATA

Statistical Data Used = \underline{t} -test

To test:
$$\mu_0$$
: $\mu_1 = \mu_2$
$$t = (\overline{x}_1 - \overline{x}_2) - (\mu_1 - \mu_2)$$

$$\overline{x}_1 - \overline{x}_2$$

where

 μ_1 - μ_2 = expected value as stated in null hypothesis (0)

$$s_{x_1}^{-} - \frac{1}{x_2} = \sqrt{\frac{(\sum x_1^2 + \sum x_2^2)}{(n (n-1))}}$$

$$\sum_{x_1}^2 = \sum_{x_1}^2 - \frac{(\sum_{x_1}^2)^2}{N}$$

$$\sum x_2^2 = \sum x_2^2 - \frac{(\sum x)^2}{N}$$

$$df = N_1 + N_2 - 2$$

VITA

Judith Canfield Simon

Candidate for the Degree of

Doctor of Education

Thesis: THE EFFECT OF DIRECTED PROOFREADING PRACTICE ON THE DEVELOPMENT OF PROOFREADING SKILL IN A COLLEGE-LEVEL TYPEWRITING CLASS

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Tennessee Business Education Association, Delta Pi Epsilon,
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