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**AN EXPERIMENTAL STUDY COMPARING A TRADITIONAL TEACHER-LECTURE
METHOD WITH AN INDIVIDUALIZED METHOD OF INSTRUCTING
BUSINESS REPORT WRITING**

**A Dissertation
Presented to the
Department of Secondary Education and Foundations
Brigham Young University**

**In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education**

**by
James Rulon Bradshaw**

August 1974

This dissertation, by James Rulon Bradshaw is accepted in its present form by the Department of Secondary Education and Foundations of Brigham Young University as satisfying the dissertation requirement for the degree of Doctor of Education.

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AN EXPERIMENTAL STUDY COMPARING A TRADITIONAL TEACHER-LECTURE
METHOD WITH AN INDIVIDUALIZED METHOD OF INSTRUCTING
BUSINESS REPORT WRITING

JAMES RULON BRADSHAW

Department of Secondary Education and Foundations

Ed.D. Degree, August 1974

ABSTRACT

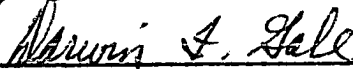
The purpose of this study was to determine if any significant differences existed in the achievement scores of students who complete a business report writing course in an individualized instruction method as compared with those students who complete the same course in a traditional teacher-lecture method. Five hypotheses were analyzed for differences. A t-test procedure was used to compare each teacher's individualized section with his traditional section to determine if any significant differences existed.

The individualized method of instruction obtained significantly better results than the traditional teacher-lecture method on the final objective examination. The individualized students performed equally as well on the final written examination as the traditional students. The different semesters had no significant effect on student achievement. When the experimental sections were compared, different teachers had a significant effect on the students performance for the final written examination but not on the final objective examination. The results for the traditional sections indicated that the different teachers in the study had a significant effect on the students performance for both the final objective and written examinations.

COMMITTEE APPROVAL:



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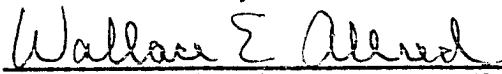
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Chapter 1

INTRODUCTION

Lack of research in the area of business writing has been a concern of business educators for some time. Gerfen in 1953 when writing conclusions and recommendations for his study commented on the great lack of research that had been done at that time in the business writing area:

The dearth of educational research in the area of business report writing has become apparent during the course of this study. It is believed that a series of research studies in this field would pay dividends in the form of better teaching and greater student growth.¹

Gerfen continued by stating that additional research should try to determine to what extent business report writing courses are accomplishing their stated objectives and to determine the best procedures for measuring student growth in report writing ability.

Although much growth and improvement through research has taken place during the past twenty years, business teachers still find a need to improve their business writing techniques so that students will have greater ability in business writing. Quite recently in a study of businessmen the need was still indicated that work in improving students' writing ability in business was necessary. In

¹Richard C. Gerfen, "A Study of Current Practices in The Administration, Organization, and Teaching of Business Report Writing and Related Courses in Colleges and Universities of the United States" (unpublished Ph.D. dissertation, Northwestern University, 1953), p. 402.

this study Knapper stated, "There is need for research in controlled experimentation to devise programs of education which will produce greater writing competencies of students as well as businessmen."²

A number of researchers have stressed the need for more research regarding new methods of instruction, especially those which accommodate individual differences. Howes states, "Today, individualization of instruction is one of the most important directions for innovation and reform in American education."³ Unruh and Alexander have stated that after a comprehensive investigation of schooling in relation to segregation, the Coleman Report revealed that the differences between segregated and nonsegregated education are less dramatic than the fact that most students are in some degree shortchanged in their education due to individual differences.⁴ Goodlad points to the necessity for eliminating the obsolescent and embracing the innovative:

The incidence of nonpromotion, dropouts, alienation, and minimal learning in schools suggests that today's schools are obsolete. They were designed for a different culture, a different conception of learners and learning, and a different clientele.

Success in school as measured by grades appears to bear little relationship to good citizenship, good work habits, compassion, happiness, or other significant human values which our civilization prizes. . . .⁵

²Arno F. Knapper, "Written Communication--The Results of a Study of 89 Businessmen," The ABWA Bulletin, February, 1962, p. 23.

³Virgil M. Howes, Individualization of Instruction, A Teaching Strategy (New York: The Macmillan Company, 1970), p. v.

⁴Glenys G. Unruh and William M. Alexander, Innovations In Secondary Education (New York: Holt, Rinehart and Winston, Inc., 1970), p. 4.

⁵John I. Goodland, "Learning and Teaching in the Future," NEA Journal, 57:49, February, 1968.

Bloom reported that his investigations on individual differences in learning supported the point of view that the conventional school reduces opportunities for further learning and contributes to the alienation of youth. Bloom observed that teachers seem to expect about one third of their students to fail or barely pass, another third to fall into an average or mediocre category, and about a third to learn adequately what is being presented. As the year goes on, these expectations become a self-fulfilling prophecy and are conveyed to the students through the materials and methods of instruction and through the grades and marks which they receive.⁶

Major deficiencies in present educational programs were revealed by the extensive study of high schools and their students conducted under Project TALENT. Listed among the deficiencies were:

1. Inadequate provision for individual differences, especially providing appropriate educational opportunities for the large percent of children who fail to complete the twelfth grade.
2. Failure to assist the student in developing a sense of responsibility for his educational, personal, and social development.
3. Failure to develop decision-making ability in students and need for emphasis on learning how to learn, how to think, and how to make choices.
4. Lack of adequate planning and preparation for appropriate occupational roles.
5. Lack of emphasis on preparing students for the responsibilities of citizenship.
6. Insufficient attention to the humanistic aspects of general education.

⁶Benjamin S. Bloom, "Learning for Mastery." Evaluation Comment, (University of California, Los Angeles: Center for the Study of Evaluation of Instructional Programs, May 1968), p. 1.

7. Lack in current curricula and instructional methods.⁷

Unruh and Alexander indicate that nearly 17 million students are enrolled in the public schools. With multiple differences among students, secondary schools can no longer afford to offer single approaches, methods, sequences, and grouping plans to fit extremely varied individuals.⁸ Knowledge is increasing by phenomenal leaps and bounds. In science alone, it is said that a five-foot shelf of books containing new knowledge is produced every day. Effective uses of the growing mountains of knowledge require that students learn new ways of approaching and utilizing knowledge. The individual's continuing effectiveness will depend on his ability to solve problems, continue learning, and adapt to changing conditions.⁹

The traditional school, too commonly, has viewed students in relation to group norms, grade averages, and stereotyped classifications of humanity and has applied mass instruction. Teachers have expected certain percentages and categories of students to drop out of school. Recognition of individual differences as opposed to mass instruction is one of the most important concepts behind several of the innovations in secondary education. One of the significant contributions of research and development in education has been in the assistance offered in diagnosis of individual differences in learners.¹⁰

⁷John C. Flanagan, "Functional Education for the Seventies," Phi Delta Kappan, 49:27-32, September, 1968.

⁸Unruh and Alexander, loc. cit.

⁹Ibid., p. 8.

¹⁰Ibid., p. 12.

Harmful side effects are produced as teachers convince students that they can do only "C" or "D" work and as they proceed in teaching as though only a small minority of students will be able to learn what the teachers have to teach. Bloom has expressed the view that, if sufficient time and appropriate types of assistance are given, 95 percent of the students could master a subject up to a high level of learning.¹¹ Howes states that human beings are not alike. Their differences are real, inevitable, more subtle and more numerous than we as teachers often recognize, and essential to the very survival of the human race. Born different, children are reared differently in a great variety of home environments. They come to school with extremely divergent behavior patterns, interests, attitudes, and levels of readiness for formal learning. Educators have several alternatives for dealing with variability. They can ignore individual differences--deny they exist; they can tolerate them as a nuisance and a liability; they can attempt to eradicate them and try to get all pupils to conform to some arbitrary standard; or they can cultivate and nurture differences as an asset and precious resource.¹²

In a democratic society, citizens must be able to think for themselves, be willing to question, and be prepared to dissent. Schools must permit pupils to make choices and to take the responsibility for those choices. Students who have had everything decided for them--including what the right answer should be for that which they are expected to "discover"--will not be able to bring themselves

¹¹Bloom, op. cit., p. 2.

¹²Howes, op. cit., p. 6.

to make decisions as adults.¹³ The explosion of knowledge and the quickening pace of technological advances make it imperative that schools turn out citizens capable of independent action, self-direction, and self-propulsion. This underscores the idea that teachers cannot and should not feed pupils the same educational diet.¹⁴

There is no single theory of learning--there are many. Boys and girls do not learn in a single way nor to the same degree. They differ in how they learn, how much they learn, and how adept they are at using what they learn. To ignore the fact of different learning styles is both inefficient and wasteful both of teacher time and of student effort. Nurturing individuality is particularly essential in developing the self-concept of the student. If a student's assignments are always handed to him so that he does not practice taking the responsibility of setting his own goals or does not learn to accept his own mistakes, the student grows to depend on others to make his decisions for him. Boys and girls will vary as to how soon and to what degree they can handle responsibilities and make decisions connected with their educational program, but the time to begin "practice" is the day they enter the school and begin formal schooling.¹⁵

Although a great deal of research has been done and teachers generally know that motivation is higher when pupils are involved in planning their educational programs, most educational programs are

¹³Virgil M. Howes, Individualization of Instruction: A Teaching Strategy (New York: The Macmillan Company, 1970), pp. 6-7, citing Robert E. Keuscher, "Why Individualize Instruction?" Individualization of Instruction: A Search, Los Angeles, California (ASUCLA Students' Store) 1967, pp. 10-29.

¹⁴Ibid., p. 10.

¹⁵Ibid., p. 13.

planned for and not by the students.¹⁶

STATEMENT OF THE PROBLEM

Although some research has been done comparing various types of student-paced course work with the traditional teacher-lecture method in some areas of business, little has been done in the area of comparing an individualized method with a traditional method of teaching business report writing. For several years the business report writing class in the Business Education Department at Brigham Young University has been taught by using an individualized instruction approach. More students can be enrolled in each class and most of the teachers prefer using this method over the traditional teacher-lecture method because it requires less time in the classroom and because the teachers can be available for more student consultations.

The instructors in the Business Education Department were at a point of seriously evaluating the individualized method and were concerned as to whether the students were gaining as much through the individualized approach as through a traditional teacher-lecture method. The problem to be investigated should help to determine which of these two methods was actually better for the students in the writing course.

The purpose of this study was to determine if any significant differences existed in the achievement scores of the students enrolled in Business Education 320, Business Report Writing, as a result of the method of instruction.

¹⁶Ibid., p. 14.

The following null hypotheses were tested:

1. There will be no significant difference in student achievement as measured by a final objective examination and by a final written examination, between those in the individualized instruction (experimental) sections and those in the traditional teacher-lecture (control) sections of the business report writing class.
2. There will be no significant difference in the achievement of the business report writing students as a result of the different semester in which the class is taken.
3. There will be no significant difference in the achievement of the business report writing students between their final objective examination score and their final written examination score.
4. There will be no significant difference in the achievement of the students enrolled in the five control sections.
5. There will be no significant difference in the achievement of the students enrolled in the five experimental sections.

DEFINITION OF TERMS

The following terms are used as defined in this section for the purposes of this study.

Business Report Writing Course

The "business report writing course" was a one-semester college course in which the theory and application of effective business report writing principles were presented. The course was also organized to develop competency in the skills of basic writing and competency in the principles and tools of effective business report writing.

Individualized Instruction Class

The "individualized instruction class" refers to the experimental sections taught by an instructor with the aid of a student assistant. The course was mainly self-paced by the students as long as they met pre-established deadlines. (See Appendix B for a copy of the course outline and time schedule.) Quizzes on assigned sections could be taken when the students were ready, anytime within the pre-established deadlines. Students were required to retake quizzes when a grade of below "C" was received. Quizzes with a grade of "C" or "B" could be retaken by the student if he desired to receive a higher grade.

All written assignments receiving a grade of "C" or below were required to be rewritten and submitted to the instructor. The instructor was available for individual consultation whenever necessary to give individual help.

Traditional Teacher-lecture Class

The term "traditional teacher-lecture class" refers to the control course taught by the instructor mainly through the use of classroom lectures and discussions without the aid of a student assistant.

Classroom attendance was required and examinations were taken by the entire group as scheduled by the instructor. Students had no opportunity to retake the examinations or rewrite any assignments.

DELIMITATIONS

This study was limited in the following manner:

1. The study included ten sections of Business Education 320,

Business Report Writing, at Brigham Young University, Provo, Utah, during the Fall and Winter semesters of 1973-1974. Five of the ten sections were offered during the Fall Semester, and the remaining five sections were offered during the Winter Semester.

2. The sections were limited to approximately 25 students in each of the control sections and to approximately 50 students in each of the experimental sections. The course included sophomores, juniors, seniors, and graduate students.

SUMMARY OF THE CHAPTER

Research has indicated that business students need improvement in the area of business writing to meet the needs of the business world. Although the need for better writing ability is known, how to achieve better writing ability with present instructional methods is still a topic of much discussion, concern, and research.

Several researchers such as; Howes, Goodland, and Bloom have written that individualization of instruction is one of the important directions that educators can take to reform American education and to improve the quality of instruction.

Individual differences need to be taken into account in whatever method teachers use as one student does not learn in the same way or to the same extent as other students. Major concern for the individual student's ability to solve problems and to adapt to changing conditions is needed in instructional methodology. Schools must permit pupils to make choices and to take the responsibility for those choices. To ignore the fact of different learning styles is both inefficient and wasteful both of teacher time and of student effort.

The purpose of this study was to determine if any significant differences existed in the achievement scores of the students enrolled in Business Education 320, Business Report Writing, as a result of the method of instruction.

The results derived from this study will help determine the most effective way of teaching business report writing.

Chapter 2

RELATED LITERATURE AND RESEARCH

INTRODUCTION

In this section will be presented a general survey of the literature and research that relates to: (1) the importance of and the need for improvement of business writing, (2) the importance of individualized instruction in education, and (3) the importance of individualized instruction in business writing and in other business courses.

THE IMPORTANCE OF AND THE NEED FOR IMPROVEMENT OF BUSINESS WRITING

The importance of business communication and the effective teaching of such principles by teachers was expressed by Bonner:

It is important for teachers to recognize that the efficient handling of any communication problem--written or oral--requires the student to have (1) an understanding of the wants and the thinking of the people involved, (2) an understanding of business policies and practices, and (3) the ability to use words properly for effective communication.¹

Bonner continued by stating that business executives indicated college graduates have weaknesses in their abilities in business communications. These executives continue to look for graduates who can

¹William H. Bonner, "The Teaching of Business English and Communication," Contributions of Research to Business Education, Ninth Yearbook of the National Business Education Association (Washington, D.C.: National Business Education Association, 1971), p. 105.

spell, punctuate, and compose grammatically correct paragraphs.²

A business survey of company presidents in major business centers in the United States was conducted to determine how well the colleges prepared students to meet the needs of business. Sixty-three percent said that graduates lacked skill in business writing. Fifty percent said that graduates lacked proficiency in grammar, and 45 percent indicated that students were poor in spelling.³

In another survey, business executives were asked to identify the main cause of trouble among employees. Inability to communicate effectively was named first in 75 percent of the cases.⁴ When these same business executives were asked to rank college courses in order of importance to their jobs, the first four courses listed in order were, (1) business letter writing, (2) human relations in business, (3) English composition, and (4) public speaking. One businessman expressed the importance of business writing by saying ". . . the individual who can write well has a significant 'promotable' edge over the one who cannot." The proper use of grammar was listed by 31 percent of the business managers as the area of business letter writing which should be specially emphasized.⁵

Rainey surveyed 105 American Association of Collegiate Schools of Business professors and 50 corporate executives to obtain an

²Ibid.

³"Is There a Gap between Education and Business?" The Delta Pi Epsilon Journal, 10:1, November, 1967, p. 9.

⁴Rollin H. Simonds, "College Courses Executives Say They Use," The ABWA Bulletin, December, 1961, p. 10.

⁵Ibid.

appraisal of business communication education. He reported in his findings that:

1. There is general agreement by both professors and corporate executives that courses in Business Communication and Business Report Writing are highly desirable offerings in business.
2. Corporate executives attach more importance to the ability to write proposals than do professors.
3. A course devoted to analysis of letters, reports, and proposals is considered most important by corporate executives; likewise, a formal course in report writing.
4. Little thought has been given by collegiate schools of business to the establishment of a business communication minor or to the requirement of communication courses other than Principles of Business Communication and Business Report Writing for business majors.⁶

One way to improve business writing was explained by Stoddard and Warner as a competency-based approach to business writing. The responsibility of the instructor was that:

If the instructor in business writing is ready to be accountable for the outcomes of his teaching, he should make plans to change his traditional methods. Above all, he must commit himself to the individual student and adopt a system of individualized instruction which reflects the competencies with which any particular course is concerned.

In business writing courses, most students typically have mastered some competencies before they enroll. Also, some students are capable of mastering specific competencies much quicker and easier than other students. The instructor's role in a competency-based approach to business writing is to determine which specific competencies represent proficiencies and deficiencies on the part of the individual student. A system is then set up to meet the needs of the individual in relation to his proficiencies and his deficiencies.⁷

⁶Bill G. Rainey, "Professors and Executives Appraise Business Communication Education," The Journal of Business Communication, 9:4, Summer, 1972, p. 23.

⁷Ted D. Stoddard and S. ElVon Warner, "A Competency-Based Approach for Teaching Business Writing Concepts and Skills." The Journal of Business Communication, 10:4, Summer, 1973, p. 11.

Stoddard and Warner concluded by stating:

The most desirable outcome of a competency-based approach to business writing is the product. That is, if the instructor implements the system successfully, he will be able to guarantee that the student can perform the competencies of business writing satisfactorily. If the system works as it should, the student will not be permitted to graduate with a degree from the college of business until he demonstrates that he can write competently. The maxim, "Where much is expected, much is given" is applicable in this instance, since students tend somehow to do that which they are required to do if they know what is expected, have faith in the system, and get the necessary help to overcome their deficiencies.

The instructor of business writing who uses a competency-based system successfully will be able to say, "I am a professional, and I'm willing to be accountable." By turning out only competent business writers, the instructor and his school will reflect a degree of professionalism heretofore impossible to achieve. Successes, not failures, will be accented in the competency-based business writing program. Instructors will look at their "product" before they produce it. Moreover, instructors will be able to guarantee what the terminal behaviors of their students will be. Above all, the teacher will become a director of learning rather than a dispenser of knowledge.⁸

Cole conducted a study to obtain specific information from industry that could serve as a guide to business educators regarding the business writing knowledges and skills that undergraduate students should acquire and the experiences that they should undergo in their pre-employment written communications training. He reported the following in his findings and conclusions:

1. The fact that many new employees who work in management-trainee positions have written responsibilities soon after employment suggests that business writing teachers emphasize to young people the immediacy of writing in jobs with industry.
2. Instruction in business letter writing can help young people write clearly and effectively on jobs in industry.
3. The modern textbooks in business writing are presenting writing theory that is applicable to the types of writing found.

⁸Ibid., pp. 14-15.

4. Business writing instructors could better inform students about communication situations in industry if instructors would accept jobs in industry during the summer months or during vacation periods. Industry should make jobs available to business writing teachers.

5. Written communication continues as an important method of communicating company information because company personnel consider the written message to be more reliable than the oral message.

6. Business writing teachers need to know more about how to help students develop the proper attitude toward writing.

7. Business educators should motivate students in the business writing classes by emphasizing the fact that success and advancement in industry depends upon the ability to communicate.

8. The teaching of business letter writing to students in all secretarial programs would help these students adjust to writing responsibilities they will have in industry.

9. Conciseness, correctness in grammar and spelling, and the principles of the communication process are important aspects of written communication instruction.

10. Effective business communication depends upon the use of a combination of communication media.⁹

In suggesting ways that business writing courses could be improved, Knapper recommended that, "Business-writing courses should be critically analyzed in terms of purposes, goals, and objectives."¹⁰ Minter also found in her study a need for improvement in the qualifications of business writers. She reported in her findings that:

One hundred reports were analyzed and 57 reports revealed errors in English, the most common being incorrect punctuation, incorrect word division, lack of agreement between subject and verb, incorrect spelling, and poor sentence structure. Application

⁹Wayne Henry Cole, "The Characteristics of Written Communications and Attitudes Toward Communication in a Selected Corporation with Implications for Improvement in Business Writing Instruction," Dissertation Abstracts, 31:3708, February, 1971.

¹⁰Arno Franklin Knapper, "Written Communication: A Critical Analysis of the Writings of Business Correspondents," Dissertation Abstracts, 22:2619, January, 1962.

of Gunning's readability formula showed a range of 8 to 22, with the average at 14.

Difficulties expressed by report writers were: lack of knowledge about report format, no previous experience with report writing, deficient knowledge of English fundamentals, insufficient time for report preparation, inexperienced assistants, incomplete instructions from authorizer, writing for readers without technical background, making the report brief and complete, selection of precise words, and elimination of unnecessary and trite words.

Criticisms of reports expressed by executives were: too much unnecessary information, poor wording, not enough information, poor organization, uninteresting reading, poor use of statistics and figures, poor definition of problem, and failure to consider reader's knowledge.¹¹

THE IMPORTANCE OF INDIVIDUALIZED INSTRUCTION IN EDUCATION

Individualized instruction falls under many different names and descriptions, but Keller summarized those features which seem to distinguish it most clearly from conventional or tradition teaching procedures as follows:

1. The go-at-your-own-pace feature, which permits a student to move through the course at a speed commensurate with his ability and other demands upon his time.
2. The unit-perfection requirement for advance, which lets the student go ahead to new material only after demonstrating mastery of that which preceded.
3. The use of lectures and demonstrations as vehicles of motivation, rather than sources of critical information.
4. The related stress upon the written word in teacher-student communication; and, finally:
5. The use of proctors, which permits repeated testing, immediate scoring, almost unavoidable tutoring, and a marked

¹¹Joyce Minter, "Essential Qualifications for Writers of Original Business Reports," Dissertation Abstracts, 28:3823-3824, April, 1968.

enhancement of their personal-social aspect of the educational process.¹²

In his studies using the above method at Arizona State University, Keller emphasized the value of such instruction by citing that out of a class of 25 students in an introductory general education course only 4 students received less than a "B" rating. He continued his discussion on this method of teaching by stating, "Students who are presumably inferior may show up better upon examination than presumably superior students taught by more conventional procedures."¹³

Keller stated that the future holds even greater changes for the instructor, and, unless he keeps up with new innovations and better methods in teaching, he will fall behind. The teacher's main concern should be that of facilitation of learning in others. The teacher then becomes an educational engineer with the responsibility of serving the great majority, rather than the small minority, of students who come to him for schooling in the area of his competence.¹⁴

Keller concluded by stating:

The teacher of tomorrow will not, I think, continue to be satisfied with a 10% efficiency (at best) which makes him an object of contempt by some, commiseration by others, indifference by many, and love by few. No longer will he need to hold his position by the exercise of functions that neither transmit culture, dignify his status, nor encourage respect for learning in others. No longer will he need to live, like Ichabod Crane, in a world that increasingly begrudges providing him room and lodging for a doubtful service to its young. A new kind of teacher is in the making. To the old kind, I for one, will be glad to say, "Good-Bye!".

¹²Fred S. Keller, "Good-bye, Teacher . . .", Journal of Applied Behavior Analysis, Number 1, Spring, 1968, p. 83.

¹³Ibid., p. 85.

¹⁴Ibid., p. 88.

The student is not asleep, not unmotivated, not sick, and he can learn a great deal if we provide the right contingencies of reinforcement. But if we don't provide them, and provide them soon, he too may be inspired to say, "Good-bye!" to formal education.¹⁵

The need for modification in the present system of education, especially in the area of methodology is continually being stressed by many people in education. In another article describing a personalized system of instruction, Keller strongly emphasized the need for change in basic teaching procedure.

We all know that this is a time of great concern for the future of American education. Eminent critics have dramatically described the deplorable features of the present scene and offered their own prescriptions for improvement. They have invited us to raise the status of the teacher in society, to enhance the quality of training within our teachers' colleges, to put more pressure upon our students, and to make more use of the marvels of modern industrial arts. Rarely has it been suggested, however, that our basic teaching procedure should be drastically overhauled in the light of what we know about the learning process.¹⁶

Almost everyone will admit that individual differences exist among students. They have observed these differences in students' physical abilities, mental abilities, talents and interests. These and other differences have been observed as the student moves through the educational program. Yet, anyone can still observe the average classroom with the teacher standing in front of some thirty or so students, teaching all as though all students learn at the same rate and are all interested in the same subject matter.

Lewis¹⁷ observed that in order to allow for some of these

¹⁵Ibid.

¹⁶Fred S. Keller, "A Programmed System of Instruction," Educational Technology Monograph, No. 1, 2, 1969.

¹⁷James Lewis, Jr., Administering the Individualized Instruction Program (New York: Parker Publishing Company, Inc., 1971), p. 12.

differences, the teacher will divide the class into two or three groups, which only means that the teacher teaches three groups instead of one. Using educational technology made many educators feel that mechanization was surely a method to accommodate the individual differences among students. However, most of these attempts have only partially brought individualized instruction programs into the classroom.

In writing about his concern for making education more relevant, Bishop stated:

It is my basic contention that educational systems and their related instructional programs, in order to be relevant in the seventies, must be more individually and humanistically oriented. Group-oriented instructional techniques and materials are no longer appropriate or effective in meeting the needs of today's youth. Teachers equipped with methods and techniques designed only for group activities in the conventional self-contained classroom must be retrained in order to provide appropriate instructional alternatives for the individual. Conventional educational programs are inadequate and obsolete when we consider the diversity of skills, conceptual development, attitudes and values, and capabilities required by students for survival in our complex technological society.¹⁸

West also has pointed out that schools should exist for the learner and not for the teacher as he stated:

The chief fault is the tendency to march all students along some predetermined route, at a predetermined pace, and in a predetermined fashion convenient for or familiar to the teacher. It is too often forgotten that the schools exist for learners, not for teachers; that the teacher is the servant, not the master, of instruction.¹⁹

¹⁸Lloyd K. Bishop, "Individualizing Educational Programs," Business Education Forum, XXV (May, 1971), p. 14.

¹⁹Leonard J. West, "Individualization of Instruction," Business Education Forum, XXV (May, 1971), p. 21.

Several studies have been conducted comparing an individualized approach of teaching with a traditional teacher-lecture approach and have shown significant results. Webb's study compared a continuous progress method of instruction with a lecture-discussion method in a college education class and concluded the following:

The statistical treatment of the data yielded a significant difference in content learning in favor of the experimental group; the difference was significant at the .01 level of confidence. The grade point average comparisons indicated no significant difference between the ten highest in each group and a significant difference in favor of the experimental group at the .05 level between the ten lowest in each group.

The following conclusions are derived from the results of this study: (1) The Continuous Progress approach to teaching and learning, as applied at Brigham Young University, produces a knowledge of course content at least equal to that produced by standard teaching procedures. (2) The Continuous Progress approach to teaching apparently benefits the student of lower academic ability more than it does the student of higher ability.

When one considers that the formal in-class hours of the the students proceeding under the Continuous Progress method were reduced by more than 95%, yet these students out-performed, statistically, the control group on a measure of learning of course content, the conclusion is inescapable: a firm basis for further, more extensive, more sophisticated investigation of teaching methods has been established.²⁰

A study at Michigan State University evaluated the effectiveness of an individualized method with a lecture-discussion method. Twenty-nine Michigan high schools located in central Michigan participated in the study and the following were listed as findings:

1. There was a significant difference between the averaged mean post-test scores of students of the individualized and lecture-discussion methods of instruction and the non-instruction (control) method, as measured by univariate and multivariate analyses of variance and covariance. The data indicate that the

²⁰Clark D. Webb, "A Comparison of a Continuous Progress Method of Instruction with Regular Lecture-Discussion Classroom Instruction in a College Education Class" (unpublished Master's thesis, Brigham Young University, 1966), pp. 27-28.

averaged higher mean post-test scores obtained by students of the two instructional methods over the non-instruction (control) group was a result of instruction, not chance.

2. There was a significant difference between the mean post-test scores of students of the individualized and lecture-discussion methods of instruction as measured by univariate and multivariate analyses of variance and covariance with each covariable considered individually.

3. There was no significant difference between the mean post-test scores of students of the individualized and lecture-discussion methods of instruction as measured by univariate and multivariate analyses of covariance with six covariables.

4. Students using the individualized instruction method scored significantly higher than students of the lecture-discussion method on the following subject areas: A. Exploring career opportunities; B. Salesmanship and human relations; C. Turfgrass establishment, care, and maintenance; D. Identification and control of weeds; and E. Interpretation and location of information in turfgrass references.

5. The averaged effects of the two instructional methods were significantly better than the non-instruction (control) method in developing in students the ability to locate and interpret information contained in turfgrass references. The individualized method was significantly better than the lecture-discussion method of instruction in developing in students the ability to locate and interpret information contained in turfgrass references.²¹

Bull conducted a study where the achievement of geometry students taught by individualized instruction and traditional instruction was compared and again the results were in favor of the individualized students. He stated in his findings:

The t test showed the mean score of the students taught by the individualized method to be significantly better at the .05 level than the mean score of those taught by the traditional method. When both morning classes were placed in one group and both afternoon classes were placed in one group, there was a significant difference between the mean scores of the first and seventh period groups. The significant difference at the .05 level favored the seventh period group.

²¹Urban Theodore Oen, "An Experimental Study Designed to Evaluate the Effectiveness of an Individualized Learning Method of Instruction When Compared to the General Lecture-Discussion Method of Instruction," Dissertation Abstracts, 32:325, July, 1971.

The following conclusions were presented: Students taught geometry by individualized instruction achieved more than students taught geometry by traditional instruction; students taught geometry during the seventh period of the day achieved more than students taught geometry during the first period of the day; there was no significant interaction effect between teaching methods and times of day; and students taught by the individualized instruction method proceeded at a faster rate than students taught by traditional instruction method.²²

Individualized instruction has been tested in many subject areas and the results have indicated significant differences in favor of individualized instruction in many of the studies. One additional study in the area of basic mathematics for college students was conducted at the University of Pennsylvania. The results indicated that:

One criterion by which the program was to be evaluated was its effectiveness in overcoming a student's diagnosed deficiencies. An analysis of individual pre-program and post-program scores on the Mastery Test indicated significant gains. The percents of students who got each item correct were computed for all items on the Mastery Test when used as a pre and post-program test. These percents were converted to Davis Difficulty indices and compared. On 45 of the 48 items the increases were significant. These results indicate that the program was successful both in raising individual scores and in meeting the objectives reflected in the test items.

Another criterion on which the investigator evaluated the program was its efficiency for the students. The correlation coefficient between number of subunits skipped and final test score was not significantly different from zero. This result indicates that the diagnoses and prescriptions made on the basis of the unit pretests were sufficiently accurate and adequate. The study has demonstrated that a systematically designed audio-tutorial program with diagnostic-prescriptive tests is a viable approach to individualizing remedial instruction for college students. This particular program has been successful in identifying and overcoming basic mathematical inadequacies for suburban community college students in the northeastern section

²²Scott Spragg Bull, "A Comparison of the Achievement of Geometry Students Taught by Individualized Instruction and Traditional Instruction," Dissertation Abstracts, 31:4616, March, 1971.

of the United States.²³

An individualized instruction program must be oriented to allow each student to move at his own pace, through a learning program that is custom-tailored to meet his own interests, needs, and abilities. This type of program would provide for differences in entering levels of ability, differences in rate of learning to achieve the goals; and provisions for behavioral objectives. Such a program would have to place more of the responsibility for learning upon the student.

THE IMPORTANCE OF INDIVIDUALIZED INSTRUCTION
IN BUSINESS WRITING AND IN OTHER
BUSINESS COURSES

Although a great many studies dealing with individualized instruction in the area of business writing have not been completed, the number that has been done in other business areas is increasing. Dickey conducted a study related to the effectiveness of three different schedules of reinforcement in a programmed business mathematics course. From the test results the following conclusions were made:

1. Subjects receiving no reinforcement, those receiving complete reinforcement, and those receiving one-third reinforcement learn equally well; programmed instruction employing any of these reinforcement schedules is an effective method for teaching business mathematics.

2. Subjects receiving complete reinforcement, those receiving one-third reinforcement, and those receiving no reinforcement retain what they have learned equally well.²⁴

²³ Joanna S. Burris, "The Construction, Implementation, and Evaluation of an Individualized Audio-Tutorial Program in Basic Mathematics for College Students," Dissertation Abstracts, 33:1581, October, 1972.

²⁴ Ouida W. Dickey, "A Study of the Effect of Three Schedules of Reinforcement Upon Achievement and Retention in a Linear Program in College Business Mathematics" (unpublished Doctor's dissertation, University of Georgia, Athens, 1966).

In 1963, Taylor conducted a study to compare a traditional presentation of shorthand with a programmed presentation. Her study revealed the following information:

1. There was no significant difference between the control and the experimental classes on final achievement measures.
2. There was a significant difference in favor of the experimental classes on intermediate achievement measures.
3. There was a significant difference in favor of the experimental classes based on the amount of time required to complete the material content.²⁵

A study concerning the achievement of intermediate collegiate typewriting students when instructed using three different teaching methods was conducted by Warner at Brigham Young University in 1969. Warner concluded that:

1. The three teaching methods do not produce any significant differences in the terminal typewriting achievement of the students after one semester of intermediate collegiate typewriting instruction.
2. Intermediate collegiate typewriting can be taught effectively through the use of programmed instructional materials and audio tape recordings.
3. The teaching methods do not favor any specific ability group or experience group; students achieve the same terminal typewriting achievement with any of the three teaching methods regardless of their initial ability levels or the amount of previous typewriting instruction.²⁶

Smith conducted a study at the University of Idaho to determine the effectiveness of an instructional system using three instructional

²⁵Helen W. Taylor, "Development and Evaluation of Programmed Materials in the Presentation of Theory in Beginning Shorthand Classes" (unpublished Doctor's dissertation, University of Tennessee, 1963).

²⁶Sherman ElVon Warner, "An Experimental Study Utilizing Programmed Instructional Materials and Tape Recordings in the Teaching of Intermediate Collegiate Typewriting" (unpublished Doctor's dissertation, Arizona State University, 1969).

methods for teaching interpersonal relations to high school distributive education students. He utilized a device known as an audiscan, which is a machine that uses film cartridges with an accompanying audio presentation. From the test results, he made the following conclusions:

1. No significant difference existed between subjects receiving the programmed instruction treatment and those not receiving the programmed instruction treatment.
2. A significant difference existed between subjects receiving the audiscan instruction treatment and those not receiving the audiscan instruction treatment.
3. A significant interaction existed between subjects receiving the programmed instruction and the audiscan instruction treatments.
4. A significant difference existed in the amount of time required to complete the three instructional strategies. This difference existed because the combined group took more time due to physical reasons.²⁷

The effectiveness of individualized pacing for improving typewriting speed and accuracy was the basis of a study at the University of Pittsburgh. From the results of the study, it was concluded that:

Individualized pacing appears to contribute to the improvement of speed and accuracy of high school typists on tests of straight copy, numbers, and surnames. Gains in speed achieved through individualized pacing are apparently not subject to decline as a result of cessation of training on straight copy and surname material. It appears, however, that gains in speed on number material tend to dissipate after training. Gains in accuracy achieved through individualized pacing appear to decline slightly when training is terminated.

Intelligence apparently has no bearing on the success with which individualized pacing may be used in typewriting classes.

²⁷Gary Richard Smith, "An Experimental Study Utilizing a Proto-type System for Teaching Interpersonal Relations Concepts in Salesmanship" (unpublished Doctor's dissertation, University of Idaho, Moscow, Idaho, 1969).

Although the results by instructional levels varied, the technique of individualized pacing appears to contribute to both speed and accuracy at each level.

Gains in speed and accuracy by proficiency levels achieved in this study indicate that students of low typewriting ability appear to benefit from individualized pacing to a greater degree than average or high-level students. Student and teacher reactions toward individualized pacing as part of the daily classroom routine appear to be favorable and enthusiastic.²⁸

A more recent study in typewriting was conducted by comparing individualized large-group, multi-media instruction with a traditional approach. Thoreson reported the following results and conclusions as a result of the study:

1. The students taught in experimental large-group individualized multi-media classes type significantly faster on straight copy timings and production timings than students taught by traditional methods.

2. The students taught by traditional methods make significantly fewer errors on straight-copy timings than students taught by a large-group individualized multi-media method.

3. The students taught by means of a large-group individualized multi-media method make significantly fewer errors on production timings than students taught by traditional methods.²⁹

Pinkerton conducted a study on the feasibility of using programmed instruction in teaching business communications. As a result of the study, he concluded that:

1. The classes using programmed instruction achieved significantly (.01) higher test scores than the classes in the control group. Based on the mean score of the control groups, the programmed classes achieved 20% higher scores on the examinations than the control classes.

²⁸Cecil Joseph Tranquill, "The Effectiveness of Individualized Pacing in Improving Typewriting Speed and Accuracy," Dissertation Abstracts, 27:2018, January, 1967.

²⁹Laverne Dennis Thoreson, "An Experimental Study to Determine the Validity of Individualized Large-Group Multi-Media Instruction Compared with Traditional Instruction in First-Year Typewriting," Dissertation Abstracts, 33:227, July, 1972.

2. Programed classes using the programed text-lecture-discussion combination, programed test-quiz combination, and no-regular-class-quiz-programed text combination achieved test scores significantly (.05) higher than classes using the program text-in-class-only and regular text outside class combination.

3. Different instructors produced significantly (.01) different class results even when programed instruction was used. The scores of students in the highest classes were 13% higher than scores of students in the lowest classes.

4. In classes not using programed instruction the classes of different instructors achieved results which were significantly (.01) different. The scores in the highest classes were 25% higher than the scores in the lowest classes.

5. The programed class of each instructor achieved significantly (.01) higher test scores than his control class. The programed classes had scores 25% higher than the control classes.

6. Generally, the students were favorably disposed toward programed instruction.

7. All things considered, the instructors favored programed instruction, even though they had to adjust to a new role as a teacher.³⁰

In 1968, Ivarie compared three treatment groups at two ability levels of collegiate students in business communications using three different teaching methods. The methods that were compared included the lecture-discussion classroom teaching method, an overt response programmed instructional unit, and a covert response programmed instructional unit. The three main areas of instruction were grammar, punctuation, and capitalization. He gathered two series of data during the study. One series resulted from the administration of alternate forms of the California Language Test as pretests and posttests. The other series of data came from the alternate use of two forms of the Criterion Test for collecting pretest, posttest, and delayed retention

³⁰James Egan Pinkerton, "A Study of the Feasibility of Using Programed Instruction in Teaching Business Communications," Dissertation Abstracts, 24:1012, September, 1963.

test scores.

Ivarie found that the teaching methods had no significant effect on achievement as measured by the California Language Test or as measured by the Criterion Test. Low ability students learned significantly more than high ability students regardless of treatment experienced, as measured by the California Language Test but not as measured by the Criterion Test. The lecture-discussion method of presentation took significantly more time than either of the programmed instruction methods of presentation; however, the time required to complete the programmed learning unit when students used overt responses was not significantly different from when students used covert responses.³¹

In explaining the importance of individualization of instruction in business education, the Policies Commission for Business and Economic Education has recently stated:

Individualization of instruction is psychologically sound and educationally valid. Individualization of instruction has particular merit for all subject areas in business education.

When instruction is to be individualized, business teachers have a responsibility to: (1) Become informed about the philosophy and appropriate uses of individualization of instruction. (2) Develop, refine, and research appropriate materials, methods, techniques, and evaluation procedures that provide for continuous student progress.³²

³¹Theodore W. Ivarie, Jr., "An Experiment to Determine the Effectiveness of Teaching Grammar, Punctuation, and Capitalization by Programmed Instruction to Collegiate Business Communications Students," National Business Education Quarterly, Number 38, 1969-1970, p. 19.

³²The Policies Commission for Business and Economic Education, "This We Believe About Implementing Individualization Of Instruction In Business Education," Business Education Forum, May , 1974, pp. 18-19.

SUMMARY OF THE CHAPTER

Although research has revealed that competence in business writing is important, it has also revealed that college graduates have weaknesses in their abilities in business communications. Employers continue to look for graduates who can spell, punctuate, and compose grammatically correct paragraphs. Business executives have ranked the following college courses in order of importance to their jobs: (1) business letter writing, (2) human relations in business, (3) English composition, and (4) public speaking. All four of these courses which were ranked the most important, tie into business writing in some degree or another.

The value of individualizing instruction was emphasized by Keller, Lewis, Bishop, and West as they indicated that students do better and receive higher grades when the students are in an individualized approach. The need for keeping up with innovations and increasing the teacher efficiency in the classroom has been stressed by various writers. The teacher was defined as becoming an educational engineer, with the responsibility of serving the great majority, rather than the small minority.

Individualized instruction is oriented to allow each student to move at his own pace, through a learning program that is custom-tailored to meet his own interests, needs, and abilities. This type of program would provide for the various learning differences that exists among students. Such a program would also place more of the responsibility for learning upon the student.

In the area of business, research has shown that students in

a business mathematics course learned equally as well through a programmed instructional approach as through a traditional approach. Other studies have shown that shorthand and typewriting can be taught effectively using a programmed approach. In business communications, research has shown that students have done equally as well in a programmed situation as in the teacher-lecture method.

Chapter 3

METHODS AND STATISTICAL PROCEDURES

ORGANIZATION OF THE STUDY

The experiment for this study was conducted at Brigham Young University, Provo, Utah, during the 1973-1974 school year. The study involved the students in five sections of Business Report Writing, Business Education 320, during both the Fall and Winter Semesters. Four of the sections were in the morning between 8 and 12:10 p.m. and the fifth section was at 1:10 p.m. All of the sections met on Monday, Wednesday, and Friday for fifty minutes for each section. The sections were limited to approximately fifty students for the experimental sections and twenty-five students for the control sections. The sections were further limited to sophomore, junior, senior, and graduate students.

Sample Selection

The sample was selected by using a stratified random sampling technique at the time of the final examination. Using a table of random numbers, ten students were selected from each section. Thus, a total of fifty students for the Fall Semester and fifty students for the Winter Semester was selected. A total sample of 100 students was selected, fifty students from the experimental sections and fifty students from the control sections.

Instruments Used

The examination used as a pretest to determine equal randomization of students was Form A, McGraw-Hill Basic Skills System Writing Test,¹ which was designed to measure the student's ability to write correctly and effectively. The final objective examination or posttest, was prepared using the textbook² as the main source of information. (See Appendix A for a copy of the Final Examination.) The final objective examination was revised based upon suggestions from the Business Education Department Research Coordinator for Business Communications. However, instructors involved in the study were not given access to the examination during the course of the study. The examination was then administered to a section of Business Education 320 that was not involved in the study. A reliability test of the examination was made and found to have a reliability of .85 which was considered very adequate for this type of examination. Minor revisions were made and the examination was prepared for the use of all sections in the study.

The final written examination or final case, was a business case selected from a group of fifteen cases based upon the recommendations of the instructors involved in the study. (See Appendix A for a copy of the Final Case.) The evaluation form used by the jury members to evaluate the final case was prepared and revised based upon suggestions from the research coordinator and the instructors involved in the study. (See Appendix B for a copy of the Evaluation Form.)

¹Alton L. Raygor, ed., "Writing Test," Mc-Graw-Hill Basic Skills System (Monterey, California: McGraw-Hill, Inc., 1970).

²Raymond V. Lesikar, Report Writing for Business, 4th Edition (Homewood, Illinois: Richard D. Irwin, Inc., 1973).

The evaluation score sheet used to assign points to the evaluation forms used by the jury members was prepared and revised with the suggestions of the instructors involved in the study. (See Appendix B for a copy of the Evaluation Score Sheet.)

Jury Members

Five jury members were selected from among business educators and business people. Those selected were qualified in the area of business communications by having taught the course or by having worked in a business situation where communications was a major part of their job. Each of the jury members was visited personally by the researcher and his duties for evaluating the cases were explained. The jury members were the same for both semesters.

Statistical Treatment and Models Used

The statistical method used for the study was an Analysis of Variance using the Modified Abbreviated Doolittle (MAD) computer routine at Brigham Young University Computer Center. The variance in test scores among the sections was analyzed according to the following models:

$$Y_{ij} = + T_i + M_j + TM_{ij} + E$$

Where: Y = Score

T = Teacher

M = Method

E = Error

and i = 1 - 5

j = 1, 2

$$Y_{ij} = u + T_i + S_j + TS_{ij} + E$$

Where: Y = Score

T = Teacher

S = Semester

E = Error

and $i = 1 - 5$

$j = 1, 2$

$$Y_{ij} = u + S_i + M_j + SM_{ij} + E$$

Where: Y = Score

S = Semester

M = Method

E = Error

and $i = 1 - 5$

$j = 1, 2$

The main interactions that were checked in the study were:

1. Significant differences between the different teachers.
2. Significant differences between the different methods.
3. Significant interactions between teacher and method.
4. Significant interactions between teacher and semester.
5. Significant interactions between method and semester.

Statistical Procedure

The pretests were scored manually and recorded as a raw score. The final objective examination answers were recorded by the students on IBM answer sheets and scored by a scanning machine at the Brigham Young University Testing Center. The final case scores from each of the jury members were scored manually by the researcher. The scores from the five jury members were averaged together to obtain a final

case average score for each student. The data were key punched and the information was analyzed at the Brigham Young University Computer Center using the (MAD) computer routine.

VARIABLES

During the Fall Semester, the experimental sections were designated FE1 and FE2. The control sections were designated FC1, FC2, and FC3. During the Winter Semester, the experimental sections were designated WE1, WE2, and WE3. The control sections were designated WC1 and WC2.

Independent Variables

1. Instruction Variable. The experimental sections FE1, FE2, WE1, WE2, and WE3 were presented the business report writing principles using individualized instruction. The students were self-paced as long as they met pre-established deadlines. They received individual help as either the student or instructor felt it was needed or necessary. The student assistant administered the exams and helped clarify minor points of instruction when necessary. Basically, the lecture method to the entire group was not utilized.

The control sections FC1, FC2, FC3, WC1, and WC2 were presented the business report writing principles using the traditional teacher-lecture method. The sections were expected to progress as a group and followed a pre-established schedule as designated by the instructor. The control sections did not have the aid of a student assistant, but the students could consult with the instructor individually during consultation periods other than classroom time.

2. Instructor Variable. During the course of the two semesters, each of the five instructors taught one experimental and one control section of business report writing. Those who taught an experimental section in the Fall Semester taught a control section in the Winter Semester. The instructors who taught a control section in the Fall Semester taught an experimental section during the Winter Semester. Each of the instructors taught at the same hour for both semesters.

3. Hour Variable. The five sections of Business Education 320 were taught at the same hours for both semesters. The experimental and control sections exchanged hours between the semesters allowing for the time-of-day variable.

4. Course Content Variable. The course goals and objectives were the same for all sections. (See Appendix B for a copy of the Course Outline.) Each instructor was at liberty to establish his own daily schedule.

Dependent Variable

The dependent variable in this study was the measure of achievement between the students of the experimental and control sections as determined from the results of an objective examination and a written examination.

PROCEDURES

Registration

The students registered for the section of their choice and were not randomly assigned to any section. The teachers were randomly

assigned either an experimental section or a control section for the Fall Semester and alternated for the Winter Semester so that each teacher taught one section of each method.

Organization of the Course

On the first day of class, the students attended their respective sections and the instructors explained the goals and objectives for the course. On the second day, the students were given the pretest, Form A, McGraw-Hill Basic Skills System Writing Test, which was used to determine equal randomization of the student sample and to measure the student's ability to write correctly and effectively.

During the remainder of the semester, the students followed the schedule as outlined by the instructor of their section. All sections used the same text and had the same course goals and objectives.

The experimental sections were mainly self-paced by the student as long as he met pre-established deadlines. Quizzes could be taken anytime within the established time schedule. Quiz grades below a "C" were required to be retaken. Quiz grades of a "C" or "B" could be retaken if the student desired to raise his grade. All written assignments receiving a "C" or below were required to be rewritten and resubmitted to the instructor. Individual consultation was arranged whenever either the instructor or student felt help was necessary. The experimental sections had the help of a student assistant to give examinations and to answer routine questions.

In the control sections, classroom attendance was required; and

the students were required to take the examinations in a group when scheduled by the instructor. Students were not required to retake any examinations or to rewrite any assignments.

The final objective examination or posttest, a two-hour test, was given during the last week of the semester. The examination was administered by the student assistant or the researcher as the instructors were not to have access to the examination during the course of the study.

The final written examination or final case, was done in class and carefully controlled by either the student assistant or the instructor. The students were permitted to study the final case outside of class during the week prior to the examination, but all writing had to be done in the classroom during a four-day period between December 7-12, 1973, for the Fall Semester and between April 3-10, 1974, for the Winter Semester. After the case had been written, the cases for the students involved in the study were typed in draft form by students in an advanced typewriting class. The typists were instructed to type the report exactly as written, making no changes. After the cases had been typed, each student had an opportunity to edit his report making any final changes that he desired to make. The students were instructed to edit the typewritten copy during their final editing. The cases were then typed in final form and carefully proofread to insure that the typewritten copy was exactly the same as the student had written it.

The cases were then photocopied and a copy of each student's case with an evaluation sheet was given to each of the five jury members. The evaluation forms from the jury members were scored manually by the researcher and averaged together to obtain a final case

score for each student.

SUMMARY OF THE CHAPTER

The sample used for this study was comprised of ten randomly selected students from each of the ten sections of Business Education 320, Business Report Writing, at Brigham Young University during the Fall and Winter Semesters, 1973-1974, making a total of 100 students. Five sections were taught during the Fall Semester and the remaining five sections were taught during the Winter Semester.

The students were given a pretest at the beginning of each semester. This pretest score was used to determine randomization of the sample. A final objective test score and final case score were used for analyzing the differences between the experimental and the control sections.

The final objective examination or posttest, was developed from the textbook used for the class and cleared through the research coordinator for the department. This examination was tested by using a separate section of the business report writing class that was not involved in the study. A reliability test was conducted through the Brigham Young University Testing Center and the examination was found to have a reliability of .85, which was considered very adequate for the purposes of the study.

The final written examination or final case, was selected from a group of cases and with the approval of the five instructors in the study. An evaluation form for evaluating the final case was completed from a pilot form incorporating the suggested changes of the instructors and the research coordinator for the department.

The statistical method used for the study was an Analysis of Variance using the Modified Abbreviated Doolittle (MAD) computer routine at Brigham Young University Computer Center. This method was used to determine any significant differences between the experimental and control sections in the study.

Chapter 4

FINDINGS

INTRODUCTION

The data presented in this chapter represent the findings from randomly selected students in ten sections of Business Education 320, Business Report Writing, taught during the Fall and Winter Semesters at Brigham Young University, 1973-1974. The data were collected from 100 students, 50 from five experimental sections and 50 from five control sections. Each student had data from a pretest, a final objective examination and a final written examination. (See Appendix C for a list of the raw scores.) The chapter is organized as follows: (1) introduction, (2) experimental group data, (3) control group data, (4) experimental compared with control group data, and (5) summary.

The data were analyzed using the Modified Abbreviated Doolittle (MAD) computer routine for Analysis of Variance at the Brigham Young University Computer Center. Correlation of the final objective examination or posttest and final written examination or final case scores were also run for each student. A t-test was used to compare each teacher's experimental section with his control section.

EXPERIMENTAL GROUP DATA

An analysis of variance comparing the pretest data indicated that the experimental and control groups were not significantly

different. Such a finding would be expected if the groups were, as anticipated, random samples of the same population. Table 1 shows the analysis of variance of teachers in the experimental group from data of the final objective examination. The results indicated no significant difference between the teachers in the individualized method when the results of the student's final objective examination scores were analyzed. This finding was somewhat expected, as the students in the individualized method did not have a significant amount of teacher contact when they were studying the information in the textbook.

Table 1

Analysis of Variance of teachers in the Experimental Method
using data from the final objective examination

Source	df	ms	F	P
Teacher	4	21.07	.71	NS
Error	45	29.86		

The results of an analysis of variance of teachers in the experimental method when data from the final written examination are analyzed are shown in Table 2. The findings indicated a significant difference existed at the .01 level among the teachers in the experimental or individualized method. These results suggest that different sections under the direction of different teachers did not perform at the same level although the same method of instruction was being utilized. Based on the data presented in Table 2 the hypothesis that there will be no significant difference in the achievement of the

students enrolled in the five experimental sections was rejected at the .01 level of significance.

Table 2

Analysis of Variance of teachers in the Experimental Method using data from the final written examination

Source	df	ms	F	P
Teacher	4	1,404.02	5.78	.01
Error	45	243.09		

CONTROL GROUP DATA

Table 3 indicates the analysis of variance of teachers in the control group, traditional teacher-lecture group, from data of the final objective examination.

Table 3

Analysis of Variance of teachers in the Control Method using data from the final objective examination

Source	df	ms	F	P
Teacher	4	267.68	5.99	.01
Error	45	44.70		

A significant difference was found among the different teachers of the traditional group at the .01 level. These results also indicate that the students in the different sections of the traditional or control group performed differently although they were in the same method, but

the difference existed because of the teacher effect. These results could be somewhat expected as in the traditional method of instruction the teacher has constant classroom contact with the students and the teacher influence was indicated in the significant difference found when the final objective examination data were analyzed.

The results of an analysis of variance of teachers in the traditional or control group with data from the final written examination, final case, are presented in Table 4. A significant difference was again indicated for the teacher effect at the .01 level between the teachers in the control group. As with the experimental group, the teacher influence or teacher effect on the students in regards to student performance on the final written examination was significant. These results indicate that different sections of students did not perform at the same level although the same method of instruction was being utilized. Based on the results presented in Table 4, the hypothesis that there will be no significant difference in the achievement of the students enrolled in the five control sections was rejected at the .01 level of significance.

Table 4

Analysis of Variance of teachers in the Control Method
using data from the final written examination

Source	df	ms	F	P
Teacher	4	1,698.37	3.96	.01
Error	45	429.05		

EXPERIMENTAL COMPARED WITH CONTROL GROUP DATA

Teacher and Method
Relationship Data

Analysis of variance results comparing teacher and method relationships with final objective examination data for both semesters are shown in Table 5. A significant difference at the .01 level was found between the teachers in the study. The method effect was nonsignificant as was the teacher and method interaction nonsignificant. These results tend to indicate that regardless of the method of instruction, some teacher's students perform better than do others, which was indicated by the significant difference shown in these results.

Table 5

Analysis of Variance comparing Teacher and Method Relationships using data from the final objective examination for both semesters

Source	df	ms	F	P
Teacher	4	212.17	5.69	.01
Method	1	228.01	2.98	NS
Teacher X Method	4	76.59	2.05	NS
Error	90	37.28		

An analysis of variance comparing teacher and method relationships with final written examination data for both semesters also found a significant difference between teachers at the .01 level. The method effect and the teacher and method interaction were again nonsignificant. These results are shown in Table 6.

Table 6

**Analysis of Variance comparing Teacher and Method Relationships
using data from the final written examination
for both semesters**

Source	df	ms	F	P
Teacher	4	2,339.62	6.96	.01
Method	1	72.25	.09	NS
Teacher X Method	4	762.78	2.27	NS
Error	90	336.07		

Teacher and Semester
Relationship Data

Table 7 is the analysis of variance summary for the teacher and semester relationship for the two semesters the study was conducted using the data from the final objective examination. As with the teacher and method relationship, a significant difference was indicated at the .01 level for the teacher effect. The semester effect was nonsignificant, but the teacher and semester interaction was significant at the .05 level. These results indicated that some teachers performed better in one semester than another semester because of the method of instruction each teacher was using.

An analysis of variance comparing teacher and semester relationships with final written examination data for the two semesters also found a significant difference between the teachers in the study at the .01 level. The semester effect and the teacher and semester interaction were nonsignificant. The results seem to indicate that the semester or the method did not have a significant effect on student

performance for the final written examination. These results are shown in Table 8.

Table 7

Analysis of Variance comparing Teacher and Semester Relationships using data from the final objective examination for both semesters

Source	df	ms	F	P
Teacher	4	212.17	5.69	.01
Semester	1	22.09	.17	NS
Teacher X Semester	4	128.07	3.43	.05
Error	90	37.28		

Table 8

Analysis of Variance comparing Teacher and Semester Relationships using data from the final written examination for both semesters

Source	df	ms	F	P
Teacher	4	2,339.62	6.96	.01
Semester	1	1,218.01	2.56	NS
Teacher X Semester	4	476.34	1.42	NS
Error	90	336.07		

Method and Semester Relationship Data

Table 9 presents the analysis of variance results for the method and semester relationship using the data from the final objective examination scores. A significant difference at the .05

occurred for the method variable. No significant differences occurred for the semester variable or for the method - semester interaction. These results indicated that the different semester did not have an effect on student achievement but the method used did have an effect on student achievement significant at the .05 level.

Table 9

Analysis of Variance comparing Method and Semester Relationships using data from the final objective examination for both semesters

Source	df	MS	F	P
Method	1	228.01	4.88	.05
Semester	1	2.94	.06	NS
Method X Semester	1	26.46	.57	NS
Error	96	46.68		

The analysis of variance summary for the method and semester relationship using the data from the final written examination scores is presented in Table 10. No significant differences were indicated for either the method effect, the semester effect, or for the method and semester interaction. These results suggest that the individualized and traditional groups performed with no significant difference on the final written examination. Based on the data presented in Tables 7,8,9, and 10, the hypothesis that there will be no significant difference in the achievement of the business report writing students as a result of the different semesters in which the class is taken was accepted as no significant differences were reported from the data analyzed.

Table 10

**Analysis of Variance comparing Method and Semester Relationships
using data from the final written examination
for both semesters**

Source	df	ms	F	P
Method	1	249.62	.58	NS
Semester	1	1,395.37	3.24	NS
Method X Semester	1	13.20	.03	NS
Error	96	429.66		

Experimental and Control
Group Data

Table 11 shows the analysis of variance summary which compared the experimental and control groups for the two semesters with the data from the final objective examination. The results indicated that the experimental, individualized group, did significantly better at the .05 level than did the control, traditional group. An analysis of variance comparing the two methods using the final written examination data found no significant differences existed between the two groups. Based on these results, the hypothesis that there will be no significant difference in the student achievement as measured by a final objective examination and by a final written examination, between those in the traditional teacher-lecture (control) sections and those in the individualized instruction (experimental) sections of the business report writing class was rejected as a significant difference at the .05 level in favor of the experimental method was reported.

Table 11

Analysis of Variance comparing Experimental and Control Groups
using data from the final objective examination
for both semesters

Source	df	ms	F	P
Method	1	228.01	6.11	.05
Error	90	37.28		

Correlation Data

A correlation between the final objective examination and final written examination scores was run on the total sample resulting in a coefficient of determination of .22. These results indicated that a correlation of .22 existed between each student's final objective examination score and his final written examination score. Based on these results twenty-two percent of the performance on a student's final written examination can be explained by what he obtained on the final objective examination. Based on the correlation data, the hypothesis that there will be no significant difference in the achievement of the business report writing students between their final objective examination score and their final written examination score was accepted based on a coefficient of determination of .22.

T-test Data

A t-test was used to compare each teacher's individualized section with his traditional section to determine if any significant differences existed. Table 12 shows the t-test results comparing each teacher's individualized section with his traditional section using the

final objective examination scores. Four of the five instructors had no significant difference reported between the two methods at the .05 level. One of the five instructors had a significant difference at the .05 level in favor of the individualized method.

Table 12

T-test Results comparing each Teacher's Individualized Section with his Traditional Section using final objective examination scores

Teacher	Individualized Mean	Traditional Mean	P
1	53.9	51.9	NS
2	51.7	49.5	NS
3	51.6	43.9	.05
4	54.4	56.9	NS
5	51.3	45.6	NS

Although some of the differences in Table 12 were not statistically significant, four out of the five instructors had higher mean scores in their individualized section than in their traditional section.

The t-test results comparing each teacher's individualized section with his traditional section using the final written examination scores are reported in Table 13. The same four instructors again showed no significant difference between the two methods at the .05 level. One of the five instructors again showed a significant difference at the .05 level in favor of the individualized method of instruction. Three of the five instructors had higher mean scores in

their individualized section. One instructor had almost equal scores for both sections and one instructor had a higher score in his traditional section than in his individualized section.

Table 13

T-test Results comparing each Teacher's Individualized Section with his Traditional Section using final written examination scores

Teacher	Individualized Mean	Traditional Mean	P
1	137.2	137.5	NS
2	108.4	125.8	NS
3	123.4	106.8	.05
4	128.9	123.8	NS
5	112.2	107.7	NS

SUMMARY

The following null hypotheses were tested to determine if significant differences existed among and between the experimental, individualized method and the control, traditional teacher-lecture method of teaching business report writing and the results are given in this chapter:

Hypothesis 1

There will be no significant difference in student achievement as measured by a final objective examination and by a final written examination, between those in the individualized instruction (experimental) sections and those in the traditional teacher-lecture (control) sections of the business report writing class.

Hypothesis 1 was rejected at the .05 level as a significant difference was reported from the results of the final objective examination in favor of the individualized group as shown in Table 11.

Hypothesis 2

There will be no significant difference in the achievement of the business report writing students as a result of the different semester in which the class is taken.

There were found no significant differences between the different semesters; therefore, Hypothesis 2 was accepted.

Hypothesis 3

There will be no significant difference in the achievement of the business report writing students between their final objective examination score and their final written examination score.

Based on a coefficient of determination of .22, Hypothesis 3 was accepted.

Hypothesis 4

There will be no significant difference in the achievement of the students enrolled in the five control sections.

There were significant differences reported at the .01 level for both the final objective examination and the final written examination for the control sections as shown in Tables 3 and 4. Therefore, Hypothesis 4 was rejected.

Hypothesis 5

There will be no significant difference in the achievement of the students enrolled in the five experimental sections.

This hypothesis was rejected as there was a significant difference between the experimental sections at the .01 level on the final written examination as shown in Table 2.

T-test Data

The t-test was used to compare each teacher's individualized section with his traditional section. Four of the five instructors had no significant difference reported between the two methods. One of the five instructors had a significant difference at the .05 level in favor of the individualized method based on both the final objective examination and the final written examination. These results are shown in Table 12 and 13.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

Statement of the Problem

The purpose of this study was to determine if any significant differences existed in the achievement scores of the students enrolled in business report writing classes that were taught by two different methods of instruction. The following null hypotheses were tested to determine whether significant differences existed:

1. There will be no significant difference in student achievement as measured by a final objective examination and by a final written examination between those in the individualized instruction (experimental) sections and those in the traditional teacher-lecture (control) sections of the business report writing class.
2. There will be no significant difference in the achievement of the business report writing students as a result of the different semester in which the class is taken.
3. There will be no significant difference in the achievement of the business report writing students between their final objective examination score and their final written examination score.
4. There will be no significant difference in the achievement of the students enrolled in the five control sections.

5. There will be no significant difference in the achievement of the students enrolled in the five experimental sections.

Procedures Used in the Study

The sample used for this study was comprised of ten randomly selected students from each of ten sections of Business Education 320, Business Report Writing, at Brigham Young University during the Fall and Winter Semesters, 1973-1974, making a total of 100 students. Five sections were taught during the Fall Semester and the remaining five sections were taught during the Winter Semester.

At the Beginning of each semester the students were given a pretest, Form A, McGraw-Hill Basic Skills System Writing Test. Analysis of the pretest scores verified randomization of the sample.

The final objective examination was developed from the textbook used for the class. This examination was tested in a separate business report writing section that was not involved in the study. The examination was found to have a reliability of .85, which was considered very adequate for the purposes of the study.

The final written examination, or final case, was selected from a group of cases and with the approval of the five instructors in the study. A form for evaluating the final case was prepared and approved in advance by the instructors.

The statistical method used for the study was an Analysis of Variance using the Modified Abbreviated Doolittle (MAD) computer routine at Brigham Young University Computer Center. This method was used to determine any significant differences between the experimental and control sections in the study.

Summary of the Findings

The results of the study were as follows:

1. The analysis on the pretest data showed no significant difference among the different sections of students involved in the study at the beginning of each semester, which also indicated an effective randomization of students for the student sample involved in the study.

2. A significant difference at the .01 level existed among the teachers involved in the study on both the final objective examination and the final written examination. These results tend to indicate that regardless of the method of instruction, some teacher's students perform better than do others.

3. On the final objective examination a significant difference at the .05 level existed between the teacher - semester interaction. These results indicated that some teachers performed better in one semester than another semester because of the method of instruction each teacher was using.

4. An analysis of the teacher - semester relationship with data from the final written examination, or final case, indicated a significant difference at the .01 level existed between teachers. No significant difference on the final written examination was indicated between the teacher - semester interaction. Apparently the semester or the method did not have a significant effect on student performance for the final written examination.

5. When data from the final objective examination was used to study method - semester interaction, there was a significant difference at the .05 level for method. These results indicated that

the different semester did not have an effect on student achievement but the method used did have an effect on student achievement significant at the .05 level.

6. No significant difference was indicated between method and semester when the results of the final written examination were used in the analysis. Therefore, based on these results the experimental and traditional groups performed with no significant difference on the final written examination.

7. Final objective test scores from the five sections of the experimental group were not significantly different. The five sections of the experimental group did have some significant differences reported at the .01 level when the results of the final written examination, or final case, were used in the analysis. These results suggest that the teachers did not have any significant influence on student achievement on the final objective examination, but the teachers did have significant influence on student achievement on the final written examination at the .01 level.

8. The five sections of the control or traditional group had a significant difference between the sections found at the .01 level for both the final objective examination and the final written examination. These results indicated that the five sections of the control group performed significantly different with different teachers on both the final objective and final written examinations.

9. When the experimental group was compared with the control group, the experimental group did significantly better at the .05 level on the final objective examination than did the control group. However,

no significant difference was found between the two groups when the results of the final written examination were analyzed.

10. A coefficient of determination of .22 existed between each student's final objective examination score and his final written examination score. In other words, twenty-two percent of the performance on a student's final written examination can be explained by what he obtained on the final objective examination.

11. Hypothesis one, which stated that there would be no significant difference between the achievement of students in the individualized and traditional groups was rejected at the .05 level as a significant difference was reported from the results of the final objective examination in favor of the individualized group.

12. Hypothesis two, stated that there would be no significant difference in student achievement as a result of the different semester in which the class was taken. This hypothesis was accepted as no significant difference was reported at the .05 level.

13. Hypothesis three, which stated that there would be no significant difference in achievement of students between their final objective examination score and their final written examination score was accepted based on a coefficient of determination of .22.

14. Hypothesis four stated that there would be no significant difference in achievement of the students enrolled in the five control sections. This hypothesis was rejected as there were significant differences reported at the .01 level for both the final objective examination and the final written examination.

15. Hypothesis five, that there would be no significant difference in achievement of the students enrolled in the five experi-

mental sections was rejected. There was a significant difference at the .01 level on the final written examination. The students performed equally well on the final objective examination as no significant difference was reported.

16. A t-test was used to compare each teacher's individualized section with his traditional section. Four of the five instructors had no significant difference reported between the two methods. One of the five instructors had a significant difference at the .05 level in favor of the individualized method based on both the final objective examination and the final written examination. Although four of the five instructors had no statistical difference reported between the two methods, the majority of the teachers had higher scores reported for their students in the individualized method for both the final objective examination and the final written examination. Only one of the five instructors had higher scores in favor of the traditional method on the final written examination and one teacher had higher scores on the final objective examination in favor of the traditional method.

CONCLUSIONS

The findings of the study led to the following conclusions:

1. The groups comprising the two methods involved in the study were equal in ability in business writing at the beginning of each semester.
2. The different semesters had no effect statistically on student achievement.

3. When the five experimental sections were compared the different teachers had a significant effect on the student's performance for the final written examination but not on the final objective examination.

4. A comparison of the five control or traditional sections indicated a significant difference existed among the sections on both the final objective examination and on the final written examination. These results indicated that the different teachers in the study had a significant effect on the student's performance for both the final objective and written examinations.

5. A student who does well on the textbook related examination will not always do equally as well on the written examination. Likewise, a student who does less than satisfactory on the textbook examination may do better than expected on the final written examination. Further, textbook knowledge alone is not a successful predictor of a student being able to write well on a case-type examination.

6. Teachers are different and students will achieve differently depending upon the instructor they might have for the business report writing class. As the results of this study have indicated, one out of the five instructors seemed to do significantly better using the individualized method.

7. The teacher had less effect on the students when the final objective examination was considered than when the final written examination was considered. In an individualized method these results should be expected as the preparation for the final objective examination is largely the student's responsibility. The teacher's influence is felt more on the final written examination, as the students are

normally expected to have individual consultations with the instructor; and through these meetings the teacher could be expected to influence the students' writing ability.

8. The individualized method of instruction obtained significantly better results than the traditional teacher-lecture method on the final objective examination. The individualized students performed equally as well on the final written examination as the traditional students.

9. As teachers taught using both individualized and traditional methods, the students' test scores were generally in favor of the individualized method, statistically however, there were no significant differences indicated between the two methods for four out of the five instructors. However, with reference to both conclusions 8 and 9 no difference is still significant in the sense that the individualized method proved to be as valuable while accommodating more students and the individualized students progressed equally as well as the traditional students.

RECOMMENDATIONS

Based upon the findings in this study, the following recommendations are made:

1. The individualized method of instruction as defined herein, in Business Education 320, Business Report Writing should be utilized instead of the traditional teacher-lecture method of instruction. In so doing, the individualized method should capitalize on the possibility of increased student - teacher interaction.

2. The individualized method of instruction as defined for this study, should definitely be considered and tried as a method of instruction in other classes in the Business Education Department at Brigham Young University.

3. In grading papers teachers in the business report writing area should be careful not to assume that a student who does well on the textbook examination will also be successful on written-case-type examinations.

4. Both objective and written-case-type final examinations should be used in business report writing classes.

5. Additional study should be conducted in the College of Business, Brigham Young University in areas other than business report writing to extend the scope and to verify the results of this study.

6. A study similar to this one should be repeated using business report writing classes at Brigham Young University and business report writing classes at other universities.

7. Further research should be conducted to identify the various factors that have the greatest amount of influence upon individual student achievement.

8. Additional research should be conducted in the area of predicting achievement of students from test results.

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APPENDIXES

APPENDIX A

FINAL EXAMINATION AND FINAL CASE

MRS. B. D. STOCKS

In June, 1972, Mrs. B. D. Stocks, then living in Cambridge, Massachusetts, received a letter from her rental agent, Mr. R. D. Allred, of Beeville, a town in the southwestern United States. In this letter, Mr. Allred requested Mrs. Stocks to select from three applicants the one she felt would be the most satisfactory tenant of a small store building she owned in Beeville. The three applicants and their respective rental offers were as follows: (1) Mr. J. Donel Martindale, who planned to open a self-service laundry and was willing to take a one-year lease at \$140 a month; (2) Mr. Mitchell, owner and operator of the Columbine Water-Softening Service, who wanted a five-year lease at \$100 a month; and (3) the local office of the Soil Conservation Service of the United States Department of Agriculture, whose manager wanted a one-year lease at \$120 a month with a provision that the lease could be terminated by the government upon 30 days' notice.

In the past, when Mrs. Stocks had been required to select a new tenant, she had worried about the condition in which the vacating tenant had left the building, the process of finding a new tenant, and the question of his reliability and his permanence. Since she was not dependent upon the rental as a source of income, she was concerned primarily with continued occupancy by one tenant rather than with the possibility of obtaining higher income at the risk of changing tenants more frequently.

Although Mrs. Stocks had not lived in Beeville since 1964, she had visited friends there for a short time each summer and had thus kept in contact with the condition of her property and affairs of the community in general. Mr. Allred has acted as her rental agent since she left the town. He had been in the real estate business in Beeville for many years and was respected in the community for being entirely trustworthy in his dealings. Mrs. Stocks had complete confidence in his judgment and business ability.

Beeville, the county seat of Carson County, is located about 20 miles south of the business district of Malone, a city of 200,000 persons. The population of Carson County was divided approximately as follows:

Beeville	4,500
Mason (a suburb of Malone)	4,000
Small towns	8,500
Farms	7,000

Estimated total (1972) 24,000

Though Beeville served as a local shopping center for about half of the small town and farm population, most of the residents of Carson County did a large part of their shopping in near-by Malone. A trunk railroad line and a federal highway which ran through the town greatly influenced the location of Beeville's business district. Because of these two factors there was divided opinion among the townspeople regarding future growth or movement of the business district. Some believed it would extend north and south along the highway (west of the railroad); others felt that eventually it would move east of the railroad tracks. Exhibit 1 contains a sketch of the main business area together with a listing of the types of business in each location.

Except for a few houses just south of the business district along the highway, the entire residential section was east of the railroad tracks. It extended about 12 blocks east of the business area shown in Exhibit 1 and was divided by Bridge Street with approximately two-thirds of it to the south and one-third to the north. The area immediately west of blocks A and C in Exhibit 1 was farm land.

Mrs. Stocks building, which had a frontage of 35 feet and a depth of 60 feet, was a one-story brick structure similar to the majority of store buildings in the town. It had a plate glass front with red brick trim, a gas-fired forced-air heating unit, a lavatory, and a concrete floor (no basement). The lot on which the building stood extended 90 feet beyond the rear of the building. It was built in the early 1950's and until 1960 had been used as a plumbing fixture display room and service shop. Next it was occupied by a sheet metal shop which did subcontracting work during the war. From late in 1965 until May 31, 1972, the occupant was the local sales agency of a well-known farm machinery manufacturer. Increased sales of the farm machinery handled by this agency were such that the owner thought that larger quarters were required. As a result he had constructed a new building for his occupancy at the east edge of the town on Bridge Street.

At the beginning of this last tenant's occupancy the rental had been \$100 a month. On June 1, 1967, it had been increased to \$120 a month, and a year later to \$140 a month. The lease agreement with this tenant, as with previous tenants, provided that the tenant was responsible for maintaining the building in good repair and for all expenses such as water, electricity, and heating, except for taxes, which were paid by the owner. The tax rate for all business property in the town was \$15.60 on each \$1,000 of assessed valuation of the property.

North of Beeville, on the main highway, were located the only two manufacturing concerns in the immediate vicinity: a beet sugar factory, and a canning factory. Both of these factories were seasonal operations; the canning factory operated actively only during the summer months and the sugar factory opened in the autumn and normally ran for about four or five months.

The rural areas surrounding Beeville were largely comprised of vegetable truck gardens and sugar beet farms, the products of which to a considerable extent were sold to these two factories. A large percentage of the truck gardens were owned and operated by families of Japanese descent. These families were accepted by the community and were considered an exceptionally hard-working group of people. All the labor in the sugar beet fields was done by workers of Mexican extraction. In contrast to the Japanese families, these farm workers were not generally accepted by the community and were considered by many of the townspeople to be a burden on the community. This feeling stemmed from the fact that these workers had no means of support other than the summer work they did on the farms. During the remainder of the year, they were carried on the relief rolls of the county. Of these two minority groups, the Mexicans were the larger and consisted of an estimated 5% of the county population.

In his letter to Mrs. Stocks, Mr. Allred attached information he believed might be of value to her in deciding which of the three establishments would be the most desirable tenant. Mr. Martindale, who planned to open the self-service laundry, worked in a local grocery store while going through high school. Following the war, in which he served as a sergeant in the Army, Mr. Martindale worked on a retail milk route for a large dairy earning from \$110 to \$120 per week. In his letter, Mr. Allred enclosed estimated operating data (Exhibit 2) which Mr. Martindale had shown him. These estimates had been prepared for the most part by the manufacturer of the automatic washing machines Mr. Martindale planned to install. Mr. Martindale believed that he could obtain at least 4,300 machine loads per month, or approximately 30% of capacity; according to the estimates, this volume would permit profitable operation. In his estimates he assumed that 10% of the families from the small towns and farms around Beeville, together with 20% of the Beeville families, would use the laundry. There was no self-service laundry in Beeville and only one commercial laundry. The laundry specialized in large-scale laundering for hotels and restaurants in Malone, and as a side line it took in local domestic laundry charging \$1.20 for 20 pounds of wet wash (the minimum amount accepted), with additional fees for drying and ironing of these services when requested. Mr. Martindale said he had \$5,100 of personal funds with which to start the business. Mr. Allred seemed to think highly of Mr. Martindale and believed "he would make a go of it."

Mrs. Stocks talked to several experts in the self-service laundry business about the chances of success of an installation in a community like Beeville. One man told her of a friend who was successfully operating a chain of self-service laundries in small towns in Texas. Another told her that the only such laundry in a small city in Vermont was apparently not doing well. The consensus was that Beeville might be large enough to support Mr. Martindale's laundry; but, the mixed shopping habits of the rural and urban populations created special conditions. No one felt that the success or failure of the laundry could be predicted.

Regarding the Columbine Water-Softening Service, Mr. Allred stated that the average home installation was priced between \$200 and \$250. Under normal use, each installation needed servicing every 10 or 12 weeks, a job which required about an hour for Mr. Mitchell to perform, and for which he charged \$5. Mitchell had mentioned to Mr. Allred that his income from servicings alone was almost \$250 monthly. The Columbine Water-Softening Service was the only such establishment located in Beeville. Mr. Mitchell had run the business alone since its inception in 1958. His office and shop were located in his home, but by 1972 the business had grown so much that location in the business district was desirable. A certain amount of business to such an establishment was assured because the town water was very hard. Although the water's hardness did not affect its taste, it had disadvantages particularly in certain uses. For example, suds made in this water were quickly dissipated into a film on top of the water. Hair washed with it was left somewhat stiff and unruly.

The Soil Conservation Service maintained a staff of three engineers, three field agents, and two secretaries, all of whom were working on a long-range program for improving the condition of the beet lands surrounding Beeville. For several years the staff had occupied an office on the second floor of a building on North Main Street. As this building was to be torn down, the agency had to move. Mr. Allred explained that paneling to form offices and additional lighting fixtures would be installed at government expenses and would be removed at termination of occupancy. He further explained that it was "merely a policy" of the government to include in the lease agreement a cancellation privilege on notice of 30 days by the government.

Each of the three prospective tenants expected to enter into a lease agreement, the main provisions of which are summarized below:

1. That the tenant keep all improvements in good repair, including sewer connections, plumbing, wiring, and glass.
2. That the property be used for no improper or questionable purpose whatsoever.
3. That the tenant keep the sidewalk in front of the premises free from ice and snow.
4. That the tenant keep premises free from all litter, dirt, debris, and obstructions (in compliance with the health ordinances and police regulations of the town).
5. That the tenant neither hold nor attempt to hold the lessor liable for any injury or damage caused by the building or by neglect or default on the part of the owner or the tenant in connection with the building or the surrounding premises.

6. That the tenant pay all assessments for water, rent and all charges for heating and electricity during his occupancy.

7. That the tenant agree to surrender and deliver up the premises peaceably to the lessor upon termination of the lease in as good order and condition as when entered upon, loss by fire, inevitable accident or ordinary wear excepted.

Other provisions in the lease specified the place, time, and manner of monthly payment, prohibited subleasing, and specified protection for the owner of the building in the event of termination of the business of the tenant or default in the monthly rental payments.

In Block A at the intersection of Bridge Street and the highway was situated the only bank in the town. From the bank to the north were a drug store, a barber shop, a J. C. Penney Store, a bar, an appliance store and a 10 cent store. West from the bank along Bridge Street were a liquor store, a photographer, a real estate office, a dry cleaning shop, a florist, and the Post Office.

In Block B at the main intersection was a furniture and hardware store. From this store to the north (along the highway) were a barber shop, a bakery, a florist, a dry goods store, and a dress shop. East of the furniture and hardware store along Bridge Street were a doctor's office, a barber shop, and another hardware store.

In Block C along Bridge Street were a lawyer's office, a real estate office, a beauty shop, a barber shop, a dry goods store, and a jewelry store at the main intersection. Along the highway a cafe, a doctor's office, an automobile agency, the bus station, and a filling station were located.

In Block D a drug store was at the main intersection. To the east along Bridge Street were a jewelry store, a dry cleaning shop, a lawyer's office, and an electrical appliance store. South of the drug store was a large independent supermarket. There were no other buildings south of the supermarket except a bar and a cafe at the corner.

In Block E were a hotel, a lunchroom, a doctor's office, the town's only movie, a lumberyard, and a chain supermarket.

In Block F along Bridge Street was the telephone company office at the intersection of Bridge Street and So. 3rd Ave. West from the telephone office was a furniture store, a taxicab office, a hotel, and a radio repair shop. South from the telephone office along So. 3rd Ave. was an automobile agency, an electrical appliance shop, and the building owned by Mrs. Stocks. The remainder of the block was residential although it was zoned for business.

In Block G were a filling station, a garage, and the office of one of the local weekly newspapers.

EXHIBIT 1

M A P OF BUSINESS SECTION OF BEEVILLE

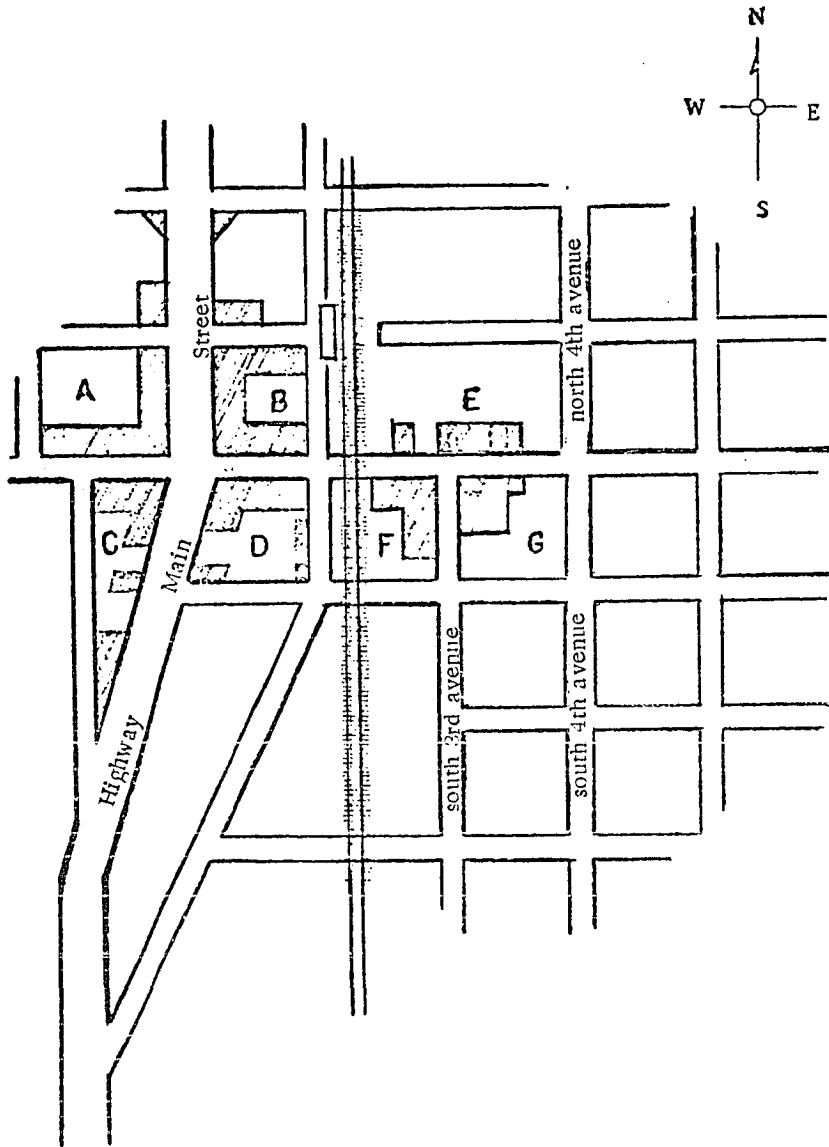


EXHIBIT 2

Estimated Costs and Returns on 10-unit Self-service Laundry

Equipment:*	10 Automatic washers at \$335.00	\$3,350.00
	3 Dryers at \$575.00	1,725.00
	1 Parts and tool kit	187.50
	Heating equipment (gas) complete	1,180.00
		<hr/>
		\$6,443.50
Installation:#	Plumbing	\$ 900.00
	Electrical	400.00
	General (asphalt tile, fixtures)	500.00
		<hr/>
		\$1,800.00
		<hr/>
	Total	\$8,243.50
Operational:#	Rent	\$ 140.00
	Heat, Electricity, water	98.00
	Depreciation	124.00
	Salary (other than owner)	250.00
	Loan Payment (3 year including interest for equipment)	105.00
	Maintenance and repair	144.00
	Miscellaneous (Taxes, insurance, supplies, etc.)	85.00
		<hr/>
		\$ 946.00

Returns+

1. Most self-service laundries must operate at least 30-40% of capacity to be successful.
2. Capacity per machine is 1,440 washings per month (24-hour day; 26-day month); 36-minute cycle to load, wash, and unload.
3. Experience has indicated that 90% of the patrons also make use of the Dryer (suggested price for use 20¢)
4. Suggested charges: 25¢ per wash, plus 10¢ soap, 10¢ for bleach. Regarding location: A high traffic location is best; for example, near a large supermarket. Preferably, the economic status of the inhabitants of the neighborhood should be such that they normally could not afford their own automatic washers.

* Based on the then current prices of the manufacturer.

Mr. Martindale's estimated costs.

+ From literature of the manufacturer.

BE 320 FINAL EXAM

Directions: DO NOT WRITE ON THIS EXAMINATION! You must use a pencil to mark all answers on the accompanying answer sheet. Each multiple-choice question has one best answer.

1. Work on a business report logically begins when someone in an organization recognizes a need for a report. Logically, this someone is
 - a. any employee who discovers the need.
 - b. usually someone at a lower level of management because that is where they are usually working with the problems.
 - c. usually in a position of authority with the responsibility of having something done about the problem.
 - d. usually a line supervisor who is most likely to be knowledgeable about the need.
2. The development of reports over the years is most related to
 - a. the development of report writing skills.
 - b. technological development.
 - c. the invention of computers.
 - d. the growth of organized activity.
3. The Chamber of Commerce of Denver, Colorado, publishes a factual report (no interpretation or analysis) on tourism in the area. It is intended for anyone interested in the subject and, it is hoped, will be an annual publication. Which of the following classifications best fits this report?
 - a. special.
 - b. analytical.
 - c. memorandum.
 - d. independent.
4. Which of the following statements of a problem is in the form of a hypothesis?
 - a. To determine whether Company X should decentralize its purchasing.
 - b. Company X will profit from a change to decentralized purchasing.
 - c. Should Company X decentralize its purchasing?
 - d. If Company X does decentralize its purchasing, how should it be done?
5. All of the following supply information that a company needs in its operations except
 - a. past production records.
 - b. present and future sales statistics.
 - c. sales department personnel reviews.
 - d. determining which of two machines to buy.
6. The problem statement can be expressed in all of the following forms except
 - a. question.
 - b. infinitive phrase.
 - c. declarative statement.
 - d. noun phrase.
7. The most reliable and accurate of all research methods is the
 - a. observation method.
 - b. experimental method.
 - c. interrogation method.
 - d. library research method.
8. If replies to a questionnaire are not sufficient to conclude a study, what should be done to obtain a sufficient number?
 - a. send follow-up letters.
 - b. compile a new mailing list.
 - c. select alternate participants.
 - d. contact by telephone those who did not respond.

9. The greatest of all limitations of personal interviewing is the
- amount of time involved.
 - expense.
 - human factor.
 - difficulty in obtaining trained interviewers.
10. Which of the following methods of sampling does not require the researcher to have a list of all members of the universe or to know their proportionate makeup of characteristics?
- area sampling.
 - quota sampling.
 - stratified random sampling.
 - random sampling.
11. A researcher seeking to take a sample of housewives from all income levels in a city of 3,000,000 would most appropriately use
- random sampling.
 - stratified random sampling.
 - systematic sampling.
 - area sampling.
12. All of the following statements regarding the experimental method of research are true except
- experimentation is an orderly form of testing.
 - all variables remain unchanged except those subject to the investigation.
 - the investigator reports the findings without trying to apply them to his problem.
 - the investigator measures quantitatively any changes resulting from these manipulations.
13. Mark the outline caption which is inconsistent with the others.
- Chicago has highest growth pattern.
 - California gains at a steady pace.
 - Growth is erratic in Ohio.
 - Iowa has lost momentum.
14. Mark the outline caption that is not parallel to the others
- adequacy of natural gas.
 - nearness to raw materials.
 - abundance of skilled labor.
 - high tax rate is a problem.
15. All of the following captions utilize correct grammatical parallelism except
- Region I sales lagging.
 - moderate increase seen for Region II.
 - decrease indicated for Region IV.
 - Region III sales remain strong.
16. All of the following captions are logically consistent with the others except
- agricultural production continues to increase.
 - slight increase is made by manufacturing.
 - salaries remain high.
 - service industries show no change.
17. Which of the following arrangements is best in presenting a report on the history of an organization?
- logical.
 - chronological.
 - deductive.
 - inductive.
18. All of the following captions are parallel with the others except
- adequacy of natural gas.
 - nearness to raw materials.
 - high tax rate is a problem.
 - abundance of skilled labor.

19. The letter of transmittal appropriately begins with a/an
- description of the report.
 - review of authorization information.
 - direct statement to the recipient.
 - acknowledgement of completion of an assignment.
20. Which of the following represents a form of personal communication between the writer and the reader?
- synopsis.
 - letter of authorization.
 - preface.
 - abstract.
21. All of the following may be dropped from the short, informal report except
- title fly.
 - table of contents.
 - letter of transmittal.
 - title page.
22. The following parts of a formal report should appear in which of the following sequences at the beginning of the report.
- title page, letter of transmittal, synopsis, table of content.
 - letter of transmittal, title page, table of contents, synopsis.
 - letter of transmittal, title page, synopsis, table of contents.
 - title page, letter of transmittal, table of contents, synopsis.
23. All of the following are true of a letter of authorization except
- the primary objective is to explain the limitations and scope of the report.
 - the letter gives the authorization for the investigation.
 - the letter should explain the use of the report.
 - the letter describes the areas of the problem.
24. A recommendation on how the report information might be put to use should be included in the
- synopsis.
 - letter of transmittal.
 - summary.
 - report body.
25. Definitions of words unfamiliar to the reader most likely will be included in the
- summary.
 - letter of transmittal.
 - synopsis.
 - introduction.
26. All of the following are correct except
- conclusions are drawn by inference from facts.
 - conclusions are subject to opinions.
 - conclusions are stated even though the conclusion is obvious.
 - conclusions are placed at the beginning of some reports.
27. In the recommendations section the writer should do all of the following except
- state his opinions based on the conclusions.
 - recommend who should do what, when, where, why and how.
 - include alternative courses of action.
 - state his opinion but not his preference.
28. Compared to the long report, the short report has all of the following except
- less need for introductory material.
 - a predominance of indirect order.
 - more personal writing style.
 - less need for coherence aids.

29. A researcher involved with a short but somewhat formal problem would use which of the following reports?
- | | |
|----------------|-----------|
| a. letter. | c. short. |
| b. memorandum. | d. staff. |
30. In preparing a credit evaluation of a customer it is best to utilize a
- | | |
|-----------------------|------------------|
| a. letter report. | c. short report. |
| b. memorandum report. | d. staff report. |
31. The appropriate length of a letter report is
- | | |
|---------------|--|
| a. 1-2 pages. | c. 6-8 pages. |
| b. 3-4 pages. | d. whatever number of pages may be required. |
32. All of the following may be properly classified as special report forms except
- | | |
|------------------|-----------------------|
| a. staff report. | c. memorandum report. |
| b. audit report. | d. technical report. |
33. The branches of the Armed Forces are the major users of the
- | | |
|------------------|-----------------------|
| a. audit report. | c. technical report. |
| b. staff report. | d. memorandum report. |
34. The technical report is very similar to other reports in all of the following except
- | | |
|---------------------------|-----------------------|
| a. subject matter. | c. title page. |
| b. letter of transmittal. | d. table of contents. |
35. The mean, median and mode are measures of .
- | | |
|------------------------|----------------------|
| a. sample reliability. | c. central tendency. |
| b. relative position. | d. variability. |
36. An investigator found a close correlation between data on soft drink consumption and admissions to public swimming pools. Which of the following statements most likely explains the correlation?
- | |
|--|
| a. There is no relationship. |
| b. Both have a common cause-effect relationship with another factor. |
| c. There appears to be an attempt to compare non-comparable data. |
| d. The data are probably unreliable. |
37. When a report writer uncovers data which he is not capable of interpreting he should
- | |
|--|
| a. present the data with appropriate qualifications. |
| b. disqualify the data. |
| c. present the data and interpret them to the best of his ability. |
| d. repeat the study with tighter controls. |
38. A highly subjective mental process which gives meaning to facts is known as
- | | |
|-----------------|--------------------|
| a. transmittal. | c. encoding. |
| b. description. | d. interpretation. |
39. The text suggested that certain human frailties contribute to interpretation error. Identify the most common error of this nature.
- | | |
|----------------------------------|---|
| a. bias. | c. desire for the spectacular. |
| b. neglect of important factors. | d. attempted comparison of non-comparable data. |

40. Sound interpretation may best be achieved by doing all of the following except
- cultivating a critical point of view.
 - subjecting all interpretations to objective tests.
 - consulting with others unfamiliar to the problem to remove bias.
 - developing judicial attitude.
41. The measure which best shows the distance between the highest and lowest values in a distribution of scores is the
- mean.
 - median.
 - percentile rank.
 - range.
42. In writing for an audience comprised of people ranging from low to high mentality the report writer should adapt to the
- highest level.
 - lowest level.
 - middle group.
 - largest group.

After computing the Gunning-fog index for the following excerpt, answer the succeeding three questions (#43, 44, 45) which relate to it.

Humans can never, apparently, stop learning. They make for themselves an environment that is vastly more dynamic than that to which animals must learn to adapt, for this human environment includes the actions of their fellows and the dynamic realm of intellectual and nervous change within each individual. This means that humans must acquire the ability to teach themselves so that they can maintain their equilibrium in these two changing worlds. They must learn how to learn, and they must acquire the ability to direct their own learning. They must plan to continue developing and exercising this skill, moreover, long after their physical powers have begun to decline. This learning process can increase until "cerebral accidents" seriously impair the functioning of the brain.

43. The readability index of the above excerpt is
- 14.4.
 - 12.3.
 - 13.5.
 - 14.6.
44. The word difficulty index is
- 20.5.
 - 16.0.
 - 15.4.
 - 15.0.
45. The average sentence length is
- 19.0.
 - 20.5.
 - 17.5.
 - 16.0.
46. All of the following are true of the communications process except
- imperfect communication is largely the result of unsatisfactory symbols.
 - symbols have no inherent meaning.
 - effective communication is almost entirely dependent on one's ability to select symbols which give expression to his thought.
 - words are inadequate to account for numerous variations and complexities of reality.
47. When individuals react differently to the same word, the difference can be traced to which step of the communication process?
- transmittal.
 - pre-verbal.
 - encoding.
 - reception.

48. The primary factors which determine the readability level are
- word difficulty and sentence design.
 - sentence length and word difficulty.
 - paragraph organization and word difficulty.
 - word origin and sentence structure.
49. Placement of topic sentences at key points in a paragraph is a useful way to give emphasis. The preferred placement for the topic sentence is
- in the middle of a paragraph.
 - as the last sentence in a paragraph.
 - as the first sentence in a paragraph.
 - as the second sentence in a paragraph.
50. The most complex part of the communication process occurs in the
- transmittal stage.
 - pre-verbal stage.
 - encoding stage.
 - reception stage.
51. Writing for the middle level of adult American readers should have an average sentence length of about
- 10-12 words.
 - 16-18 words.
 - 22-24 words.
 - 28-30 words.
52. Which of the following utilizes the most concrete language in describing a shave?
- a 2-minute shave.
 - a lightning shave.
 - a soothing shave.
 - a tingling shave.
53. Repetition of words or thoughts is best justified for reasons of
- rhythm.
 - concreteness.
 - emphasis.
 - clarity.
54. In order to give a fact or item of information the most emphasis possible, it should appear in a
- short, simple sentence.
 - sentence free of adjectives.
 - sentence containing no abstract nouns.
 - sentence with an active verb.
55. Which of the following sentences contains the weakest verb construction?
- The foreman reports that his workers favor the plan.
 - It is expected that the proposal will be defeated.
 - Mr. Ford cancelled the contract last month.
 - Department 12 produced 143 units last month.
56. Which of the following sentences is the best illustration of using active voice in the wording of the sentence?
- We must give consideration to this proposal.
 - The district manager effected a cancellation of the contract.
 - He recorded the transaction promptly.
 - Construction of the bridge was done by the Baird Company.
57. The ideal paragraph length is
- 6-8 lines.
 - 8-10 lines.
 - 10-12 lines.
 - 12-14 lines.

58. All of the following sentences use roundabout construction except
- The department budget can be observed to be decreasing each year.
 - The president is of the opinion that the tax was paid.
 - The supervisor should determine whether the time cards are being inspected.
 - During the time she was employed by this company, Miss Carr was absent once.
59. All of the following sentences use words economically except
- Because we financed the experiment, we were entitled to some profit.
 - We must take the actions necessary to correct the problem.
 - The job requires a minimum of three years of experience.
 - You should study all new innovations in your field.
60. The major positions of captions ranging from highest order to lowest are
- centered, marginal, run-in and box caption.
 - marginal, run-in, centered and box caption.
 - centered, marginal, box and run-in caption.
 - box, marginal, centered and run-in caption.
61. The report most likely to be considered the least formal in writing is the
- audit report.
 - letter report.
 - memorandum report.
 - short report.
62. In a report which consists of a title page, letter of transmittal, table of contents and a synopsis, the page number of the synopsis is
- 4.
 - ii.
 - iv.
 - 2.
63. If a quoted passage is four lines or less in length, it is
- indented from side margins and enclosed in quotes.
 - indented from side margins and single spaced.
 - indented from side margins, single spaced, and enclosed in quotes.
 - typed with text and set in quotes.
64. The short form of a footnote for an article contains
- author's surname, journal title, page number.
 - author's surname, journal title, date, page number.
 - author's surname, article title, page number.
 - author's full name, article title, date, page number.
65. Successive references to the same author in a bibliography are indicated by
- a uniform line.
 - a long space.
 - op. cit.
 - loc. cit.
66. When quoting the same source twice in succession but referring to a different page from that source, the correct footnote notation for the second reference is
- Ibid., author, page number.
 - Ibid., page number.
 - Op. cit., author, page number.
 - Op. cit., page number.
67. Graphic aids that are not designed specifically to help tell a part of the report story, but do belong within the report for completeness should be placed in the
- conclusion-summary section.
 - introduction to the report.
 - appendix.
 - first main section following the introduction.

68. Which of the following graphic-aid types is best for comparing sales volumes of two companies for a twenty-five year period?
- line chart.
 - pie chart.
 - bilateral bar chart.
 - simple bar chart.
69. For comparisons of two or three variables within a single chart, which of the following graphic-aid types should be used?
- simple bar chart.
 - bilateral bar chart.
 - multiple bar chart.
 - subdivided bar chart.
70. All of the following sentences are correct except
- Graphic aids are used to give special emphasis to certain points.
 - Graphic aids serve to improve the physical appearance of the report.
 - Graphic aids should be used to some degree in all reports.
 - Graphic aids assist the words to communicate the report's contents.
71. All of the following sentences are correct except
- Graphic aids are logically placed within the report text and near the part of the text they illustrate.
 - If the illustration is small, it is best placed so that it is surrounded by the writing that covers it.
 - A full-page illustration is placed on the obverse side of a page, facing the text it supports.
 - When a discussion covers several pages, a full-page illustration is best placed on the page following the discussion.
72. When it is necessary to show plus or minus deviations, which of the following graphic aids should be used?
- multiple bar chart.
 - bilateral bar chart.
 - subdivided bar chart.
 - simple bar chart.
73. Wanting to show the changes of weekly sales totals, a manager would use which of the following graphic aids?
- line chart.
 - statistical map.
 - pictogram.
 - bar chart.
74. Which of the following charts should be used to compare sales for 1972 and 1973 of a company's seven districts
- bilateral bar chart.
 - subdivided bar chart.
 - line chart.
 - statistical map.
75. Which of the following charts should be used to show the average amount of life insurance owned by ABC Life Insurance Company policyholders?
- line chart.
 - pie chart.
 - bilateral bar chart.
 - simple bar chart.
76. All of the following sentences are correct except
- The report of the Director of our division was well received.
 - The Director's report of our division activities was well received.
 - The taxpayer's wife's signature does not appear on the joint return.
 - The suggestion of the committee's chairman was adopted.
77. All of the following sentences are correct except
- Mr. Jones, whose counsel had requested a conference next Wednesday, called to confirm the date.
 - It's difficult to decide between the two well-qualified applicants.
 - Who's going to represent the office at the meeting?
 - The committee has submitted it's report of the survey.

78. All of the following sentences are correct except
- Neither the Director nor the Division chief is planning to attend the meeting.
 - Neither the secretary nor the stenographers have the copy of the report.
 - Neither the Director nor his two assistants plans to attend the conference.
 - Neither the taxpayers nor their attorney is able to attend the conference.
79. The following sentence is incorrect. Select the statement that best explains why.
- Neither of the alternatives which are open to us are acceptable.
- Which are should be which is to agree with the singular antecedent, neither.
 - One must be inserted after neither.
 - Are acceptable should be is acceptable to agree with the singular subject neither.
 - Which are should be which is and are acceptable should be is acceptable to agree with the singular antecedent and subject.
80. The typist having completed the proofreading, the report was assembled and bound.
- Since the underscored expression is a nominative absolute, it does not dangle.
 - The underscored expression is a participial phrase, but it does not dangle because it refers to the subject of the main clause.
 - The underscored expression is an independent clause; since it can stand alone, it does not dangle.
 - The underscored expression is a dependent clause; since it ties in with the main clause, it does not dangle.
81. While visiting the X District office during the filing period, the National Office recruits were impressed by both the volume of work and industry of employees.
- The underscored expression is a main clause which can stand alone.
 - The underscored expression is an elliptical clause; it does not dangle because it refers to the subject of the main clause.
 - The underscored expression is a nominative absolute and so does not dangle.
 - The underscored expression is a participial phrase, but it does not dangle because it refers to the subject of the main clause.
82. While we have received your order, we cannot fill it from our present stock.
- When is a more exact connective than while.
 - While may not be used to express a time relationship.
 - While is a weak substitute for although.
 - None of the above describe correctly the error in the sentence.
83. My supervisor complimented me on the appearance of the finished report and on my promptness.
- The coordinate conjunction and is misused.
 - The sentence contains incorrect subordination.
 - The preposition on should not be repeated before my promptness.
 - The sentence is correct the way it is written.

APPENDIX B

EVALUATION FORMS AND COURSE OUTLINE

BE 320 Final Report
Evaluation Form

Student's Name _____

	Above		Below	
	Excellent	Average	Average	Poor
1. Title and Introduction to the Problem:				
a. Is the title complete; does it tell at a glance what is covered in the report?				
b. Is the Problem(s) clearly stated and identified?				
2. Coherence:				
a. Is the report easy to read and understand?				
b. Does the report have good transition; does it flow smoothly from one section and paragraph to the next?				
3. Writing Style:				
a. Is the report tailored to the educational level of average management-level personnel?				
b. Is the language clear, readable, and easily understood?				
c. Is the writing concise and to the point without wasting the reader's time?				
4. Physical Characteristics:				
a. Does the report utilize a consistent pattern of headings and sub-headings?				
b. Does the report use correct punctuation and grammar?				
c. Is the report free of spelling errors?				
5. Analysis:				
Has the problem(s) stated in the introduction been resolved?				
6. Conclusions and Recommendations:				
a. Are the conclusions based on the analysis of the report?				
b. Are the recommendations based on the conclusions?				
7. Composite Evaluation:				
How do you rate the entire report on an overall basis?				

Evaluator's Initials _____



**BE 320 Final Report
Evaluation Form**

Student's Name _____

	Excellent	Above Average	Average	Below Average	Poor
1. Title and Introduction to the Problem:					
a. Is the title complete; does it tell at a glance what is covered in the report?	10	8	6	4	2
b. Is the Problem(s) clearly stated and identified?	10	8	6	4	2
2. Coherence:					
a. Is the report easy to read and understand?	20	16	12	8	4
b. Does the report have good transition; does it flow smoothly from one section and paragraph to the next?	20	16	12	8	4
3. Writing Style:					
a. Is the report tailored to the educational level of average management-level personnel?	20	16	12	8	4
b. Is the language clear, readable, and easily understood?	20	16	12	8	4
c. Is the writing concise and to the point without wasting the reader's time?	20	16	12	8	4
4. Physical Characteristics:					
a. Does the report utilize a consistent pattern of headings and sub-headings?	12	10	8	6	4
b. Does the report use correct punctuation and grammar?	12	10	8	6	4
c. Is the report free of spelling errors?	16	13	10	7	4
5. Analysis:					
Has the problem(s) stated in the introduction been resolved?	20	16	12	8	4
6. Conclusions and Recommendations:					
a. Are the conclusions based on the analysis of the report?	10	8	6	4	2
b. Are the recommendations based on the conclusions?	10	8	6	4	2
7. Composite Evaluation:					
How do you rate the entire report on an overall basis?	5	4	3	2	1

Evaluator's Initials _____

BUSINESS EDUCATION 320

Course Outline

Course Description

Experience in the organization and preparation of business writing problems with emphasis on the refinement of language skills and the techniques of collecting, analyzing, interpreting, and presenting useful information for management decisions.

Textbook

Lesikar, Raymond V., Report Writing for Business (4th ed.; Homewood, Illinois: Richard D. Irwin, Inc., 1973).

Course Goals

The Business Education 320 course is designed to provide you with ample opportunity to develop:

1. Competency in the skills of basic writing.
2. Competency in the principles and tools of effective business writing.
3. Ability in analyzing and interpreting business-type data.
4. Ability in integrating (a) the skills of basic writing, (b) the principles and tools of effective business writing, and (c) the skills of analysis and interpretation.

Course Content

This course is divided in into four content sections:

SECTION I: SKILLS OF BASIC WRITING

1. Case (handout materials)
2. Agreement and Reference (handout materials)
3. Modification (handout materials)
4. Connectives (handout materials)

SECTION II: PRINCIPLES OF EFFECTIVE BUSINESS WRITING

1. Determining the Problem (Chapter 2)
2. Collecting Information: Primary Data (Chapter 4)
3. Organizing Information (Chapter 5)
4. Constructing the Report (Chapter 6)
5. Constructing the Short Report (Chapter 7)

SECTION III: TOOLS OF EFFECTIVE BUSINESS WRITING

1. Interpreting Information (Chapter 8)
2. Writing to Communicate: General (Chapter 9)
3. Writing to Communicate: Specific (Chapter 10)
4. Physical Presentation of a Report (Chapter 11)
5. Mechanics of Documentation (Chapter 12)
6. Graphic Presentation (Chapter 13)

SECTION IV: INTEGRATION OF SKILLS, PRINCIPLES AND TOOLS OF BUSINESS WRITING

Course Evaluation

SECTION I: SKILLS OF BASIC WRITING	5%
SECTION II: PRINCIPLES OF EFFECTIVE BUSINESS WRITING . .	15%
SECTION III: TOOLS OF EFFECTIVE BUSINESS WRITING	20%
SECTION IV: INTEGRATION OF SKILLS, PRINCIPLES AND TOOLS	35%
FINAL EXAMINATIONS	25%

Time Schedule

SECTION I:	One Week
SECTION II:	Three Weeks
SECTION III:	Five Weeks
SECTION IV:	Five Weeks
FINAL EXAMINATIONS:	Two Weeks

APPENDIX C

RAW TEST SCORES

Raw Scores for the Students in the Traditional Sections

<u>Student</u>	<u>Pretest¹</u>	<u>Posttest²</u>	<u>Final Case³</u>
01	61	58	146
02	59	63	105
03	58	62	154
04	47	51	110
05	60	62	134
06	45	54	119
07	37	50	94
08	54	55	122
09	62	59	120
10	57	55	134
11	48	49	128
12	35	28	91
13	35	48	102
14	43	42	127
15	57	55	79
16	54	43	129
17	42	40	98
18	58	42	76
19	58	39	127
20	50	53	111
21	55	51	102
22	57	49	106
23	51	38	97
24	45	50	97
25	53	51	111

Total Possible Points: 1 = 71

2 = 83

3 = 200

Traditional (Continued)

<u>Student</u>	<u>Pretest</u>	<u>Posttest</u>	<u>Final Case</u>
26	53	27	97
27	51	54	139
28	35	40	89
29	60	55	145
30	39	41	94
31	42	50	120
32	58	48	150
33	40	45	109
34	45	59	156
35	45	47	149
36	50	61	173
37	55	49	131
38	55	53	139
39	45	59	120
40	54	48	128
41	42	41	104
42	41	49	88
43	53	59	162
44	53	51	122
45	51	52	120
46	50	54	147
47	56	52	166
48	48	49	118
49	44	42	112
50	55	46	119

Raw Scores for the Students in the Individualized Sections

<u>Student</u>	<u>Pretest¹</u>	<u>Posttest²</u>	<u>Final Case³</u>
01	54	46	95
02	44	49	93
03	59	50	118
04	45	55	102
05	56	48	107
06	63	53	117
07	58	55	137
08	60	55	126
09	53	50	129
10	56	52	98
11	49	57	116
12	48	58	140
13	63	51	145
14	58	57	145
15	49	60	164
16	55	61	135
17	57	49	137
18	55	45	131
19	52	57	140
20	43	44	119
21	44	44	118
22	41	59	111
23	48	50	98
24	62	62	123
25	48	46	98

Total Possible Points: 1 = 71

2 = 83

3 = 200

Individualized (Continued)

<u>Student</u>	<u>Pretest</u>	<u>Posttest</u>	<u>Final Case</u>
26	31	47	67
27	53	54	126
28	45	47	101
29	61	46	116
30	61	62	126
31	61	54	140
32	50	53	107
33	45	47	124
34	52	56	117
35	54	61	119
36	55	57	140
37	59	53	114
38	50	64	157
39	58	52	149
40	53	47	122
41	54	60	112
42	49	49	135
43	49	50	133
44	53	56	126
45	56	57	130
46	48	46	121
47	60	49	137
48	46	46	109
49	47	53	96
50	49	50	135