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## Articulation of Shorthand and Typewriting in Four-Year Colleges Offering a Business Teacher Education Major in North Dakota, South Dakota and Montana

Darrell Morrison

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ARTICULATION OF SHORTHAND AND TYPEWRITING IN FOUR-  
YEAR COLLEGES OFFERING A BUSINESS TEACHER  
EDUCATION MAJOR IN NORTH DAKOTA, SOUTH  
DAKOTA AND MONTANA

by

Darrell Morrison

An Independent Study

Submitted to the Faculty

of the

University of North Dakota

in Partial Fulfillment of the Requirements

for the Degree of

Master of Science

Grand Forks, North Dakota

June  
1970

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This Independent Study submitted by Darrell D. Morrison in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota is hereby approved by the Advisor under whom the work has been done.

\_\_\_\_\_  
(Advisor)

345017

Permission

Title Articulation of Shorthand and Typewriting in Four-  
Year Colleges Offering a Business Teacher Education  
Major in North Dakota, South Dakota and Montana

Department Business Education

Degree Master of Science

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## ABSTRACT

This independent study was conducted through the perusal of the college catalogs for each college and an analysis of the survey instruments that were sent to all four-year colleges in North Dakota, South Dakota, and Montana that offer a business teacher education major.

### Findings

1. The average number of students in the sixteen schools that are majoring in business teacher education is 141.
2. Thirteen of the sixteen schools offer credit for the beginning course in shorthand, and twelve offer credit for the beginning course in typewriting.
3. As a general rule, the amount of credit granted for each course in shorthand ranges from 2.7 to 3.3 semester hours. The amount of credit granted for each course in typewriting ranges from 0 to 3.0.
4. The average number of minutes of class per week for each semester hour of credit granted in shorthand is 75.8. The average number of minutes of class per week for each semester hour of credit granted in typewriting is 119.
5. The number of courses completed in high school and consultation with the student are the most popular methods of placing students in shorthand and typewriting.
6. The faculty members are usually responsible for the construction of the placement tests that are given.
7. A majority of the schools do not give placement tests when placing students in shorthand and typewriting classes.
8. The standards used to bypass courses vary considerably. The mean dictation rate for bypassing courses in shorthand are as follows: 59 words per minute for the first course, 73 for the second course, 94 for the third, and 100 for the fourth.
9. The mean straight copy rate set for bypassing courses in typewriting are as follows: 35 words per minute for the first course, 48.5 for the second, 57 for the third, and 65 for the fourth course.



## CHAPTER I

### INTRODUCTION

Articulation practices between high schools and colleges seem to vary a great deal. This study is being conducted to determine what methods of course placement are presently being employed in North Dakota, South Dakota, and Montana colleges which offer a four-year Business Teacher Education major.

High school students often complete as many as four semesters of typewriting and/or shorthand while in high school; and, upon entering a Business Teacher Education program at the college level, they are frequently expected to repeat similar courses. Tonne states, "Due to the absence of a continuous and integrated program, considerable time, money, and effort have been wasted. In some cases studies overlap, in other cases, students are neglected."<sup>1</sup>

Articulation problems are further complicated by the fact that the standards used for grading by the high schools vary a great deal. Thus, the grades that a student receives in high school may not indicate the level of achievement that

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<sup>1</sup>Herbert A. Tonne, Principles of Business Education (New York: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1961), p. 507.

has been reached by the student. This may be substantiated by the fact that a student graduating from a certain high school may be able to type eighty words per minute or more, at the end of one year, whereas, a student graduating from another high school may be able to type only forty words per minute at the end of one year and receive the same letter grade as the student who typed eighty words per minute.

#### STATEMENT OF THE PROBLEM

The problem being investigated in this study is one of articulation of shorthand and typewriting from the high school level to the college level. The following aspects of the problem are being investigated.

1. The courses offered in both shorthand and typewriting at the college level.
2. How students who have high school credits in shorthand and/or typewriting are placed in courses at the college level?
3. If placement tests are given, what type of placement tests are given, what are the sources of these tests, and the standards required to bypass courses in shorthand and typewriting at the college level?
4. If the number of high school courses completed is the determining factor for advanced course placement, how are the courses completed at the high school level recognized in placing students in similar courses in college?

5. How much credit is presently being granted for the beginning courses in shorthand and typewriting is another phase of this study that is being investigated.

#### PURPOSE FOR THE STUDY

The purpose of this study is to identify the practices being employed concerning the placement of students in shorthand and typewriting courses at the college level. The number of courses offered by the colleges participating in this study and the amount of credit allowed for these courses will be presented. The types of placement tests given and the standards required for bypassing courses at the collegiate level will be presented.

#### NEED FOR THE STUDY

Problems concerning the placement of students in courses that would best utilize the students previous learning and also place these students in classes that will develop them to their maximum potential are not limited to the subjects of shorthand and typewriting. Similar problems exist in such subjects as mathematics, English, and science. In a study conducted by Estrin, it was found that English teachers of New Jersey have many questions regarding the smooth transition from high school to college. Some of the most frequently asked questions are as follows:

With which playwrights should a high school student be acquainted before he goes to college? How does

a professor grade a freshman theme? What readings are required of a college freshman? . . . What techniques can you recommend in the teaching of composition?<sup>1</sup>

An examination of numerous college catalogs revealed the following statement, which lends evidence to the fact that articulation problems exist in the field of mathematics:

Mathematics 9, a course for the college student not necessarily having a significant amount of high school mathematics. Entering college students having a strong background in mathematics have the option and are encouraged to enroll in course number 26, the beginning course in calculus and analytic geometry. However, the majority of students start college mathematics with course number 17, Introductory College Mathematics.<sup>2</sup>

A further examination of college catalogs reveals the fact that articulation problems exist in the skill subjects of shorthand and typewriting. The following are a few statements taken from these catalogs:

1. Beginning Typewriting: A student must take this course unless he has had one or more units of high school typewriting.
2. Advanced Typewriting: . . . prerequisite Intermediate typewriting or two units of high school typewriting.<sup>3</sup>
3. Beginning Typewriting: Students who have had a year or more of high school typewriting should

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<sup>1</sup>Herman A. Estrin, "Articulation of High School and College English: A Program in Action," English Journal LV (February, 1966), p. 211.

<sup>2</sup>Augustana College, Bulletin of Augustana College (Sioux Falls, South Dakota: Augustana College, 1966), p. 108.

<sup>3</sup>Dickinson State College, Catalogue of Dickinson State College (Dickinson, North Dakota: Dickinson State College, 1968), p. 70.

not register for 110 but see the instructor for placement.

4. Beginning Shorthand: Students who have had a year or more of high school shorthand do not register for 21<sup>4</sup> but should see the instructor for placement.<sup>1</sup>

The above statements, along with others encountered, have led the writer to believe that a survey of the current practices may reveal a practice that seems to be working quite well; and, therefore, may help to alleviate a few of the problems of articulation between the high school and college.

#### DELIMITATIONS

The purpose of this study is to obtain information regarding the articulation of shorthand and typewriting from the high school level to the collegiate level. The study will be delimited to the following areas:

1. The schools participating in this study will be those four-year institutions in North Dakota, South Dakota, and Montana that offer a Business Teacher Education major.
2. Shorthand and typewriting will be the only subjects under investigation.
3. This study is primarily concerned with the articulation problems that exist between the high school and college. No special consideration other than a few comments made by

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<sup>1</sup>Mayville State College, Bulletin of the Mayville State College (Mayville, North Dakota: Mayville State College, 1963), p. 47.

department heads, is given to the problems of college-to-college and other post-secondary-to-college articulation problems.

#### LIMITATIONS

The information obtained by this study is limited to that obtained by a study of the college catalogs and a survey instrument sent to department heads in the four-year colleges offering a Business Teacher Education major.

The background material for this study is limited to that available at the Chester Fritz Library and Registrar's office at the University of North Dakota.

#### DEFINITIONS OF TERMS

Business Teacher Education major: That major field of concentration designed to prepare prospective teachers to teach business subjects in the high schools and includes shorthand and typewriting.

Articulation: The cooperation between the high schools and colleges and universities which results in a minimum amount of relearning, and allows the student to develop to his fullest potential.

Placement Test: An examination given to evaluate previous learnings and meant to be used in determining the level of achievement reached by the student being tested.

Course Placement: Placement in courses beyond the beginning courses, such as the second course in shorthand rather than the beginning course.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter is devoted to a review of the literature related to the topic of articulation. The literature reviewed is summarized under the following topic headings: (1) typewriting and shorthand in the business education curriculum; (2) the existence of a problem in articulation; and (3) placement of students in shorthand and typewriting at the collegiate level.

#### Shorthand and Typewriting in The Business Education Curriculum

The amount of shorthand and typewriting instruction varies from one school to the next. Variations also exist as to the number of courses offered, the number of credit hours granted for each course, the standards that are set for these courses, and the titles of courses vary considerably. Rainey makes the following comment regarding the variations in typewriting course titles:

Articulation problems develop from this point on. For example the title "Production Typewriting" is used by some institutions to designate Typewriting II, by others, Typewriting III, and by still others to designate Typewriting IV. Other titles present similar difficulties, which presents headaches for admissions officers, department heads,



and students alike when transfer between institutions takes place.<sup>1</sup>

Similar problems, although probably not to such a great extent, exist in shorthand and transcription.

Selby explained the status of shorthand and typewriting, and he presented the following various ways in which credit in typewriting and shorthand are limited:

1. No credit at all.
2. No credit towards graduation.
3. Credit in a particular curriculum, but no credit as an elective in other curricula where anything except secretarial courses is freely accredited.
4. No credit for admission to a professional college. (Even many collegiate schools of business will not accept shorthand and typewriting among the sixty hours of prerequisite courses).
5. Credit allowed for shorthand but not for typewriting.
6. Credit not allowed for beginning courses.
7. Credit toward the Bachelor of Science Degree but not towards the Bachelor of Arts Degree.
8. Vocational typewriting allowed credit but personal typewriting given no credit.
9. Credit towards the requirements for a teacher's certificate but no credit towards graduation.
10. Credit towards a Bachelor of Science Degree in education but not towards a Bachelor of Science Degree in commerce.
11. Credit only to those concurrently registered in Special Methods of Teaching in Secondary Schools.

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<sup>1</sup>Bill G. Rainey, "Variations in Collegiate Typewriting Courses," Business Education World, XLVII (January, 1967), p. 11.

12. No credit for typewriting without shorthand.<sup>1</sup>

In a study of 222 institutions offering degrees in secretarial science completed by Campbell<sup>2</sup> at the University of North Dakota, it was revealed that the average number of shorthand courses prescribed for a major in secretarial science was 4 and ranged from a low of 2 to a high of 7. The average number of typewriting courses prescribed was 3, with a low of 2 and a high of 6. More than 50 per cent of the typewriting courses taught and more than 48 per cent of the shorthand courses taught could be waived by some method. The number of semester hours of typewriting prescribed ranged from 2 to 12 and averaged 7 for a student with no prior typewriting experience. The average number of semester hours of shorthand required for someone without prior training was 11.5 and ranged from 3 to 26.

In a similiar study of 299 public and private colleges and universities awarding majors in business teacher education conducted by Mitchell<sup>3</sup> at the University of North Dakota, it was found that 52 per cent of the 299 schools provided

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<sup>1</sup>Paul O. Selby, "Collegiate Discrimination Against Shorthand and Typewriting," The Business Education World, (January, 1944), p. 271.

<sup>2</sup>Donald Lee Campbell, Jr., "Curriculum Patterns in Four-Year Secretarial Science Programs in Selected Colleges and Universities of the United States," (Dr. Ed. Thesis, University of North Dakota, 1967), pp. 79-111.

<sup>3</sup>William Martin Mitchell, "Articulation of Selected Business Education Subjects Between Senior High Schools and Noncollegiate Post-Secondary Schools with Colleges and Universities in the United States Awarding Business Teacher Education Degrees," (Dr. Ed. Thesis, University of North Dakota, 1965), pp. 62-110.

12 or more semester hours of work in shorthand. Six or more semester hours of typewriting was provided in 73 per cent of the schools.

Mitchell<sup>1</sup> also found that approximately 93 per cent of the schools awarded credit for beginning shorthand, whereas, approximately 86 per cent of the schools surveyed awarded credit for beginning typewriting.

Mitchell further states, "It was estimated by the majority of respondents . . . that 90 per cent of the students entering their programs had completed at least one year of high school typewriting."<sup>2</sup> Concerning shorthand he states, "60-70 per cent of the students entering their program had completed at least one year of shorthand in high school."<sup>3</sup>

#### The Existence of a Problem in Articulation

There have been many comments made in regard to the seriousness of the problem of articulation, not only in shorthand and typewriting but also in other business subjects and in other fields of study. Although, a problem exists it may not be as serious a problem as expressed by Peterson when he referred to the problem of articulation between the elementary and secondary school, he states:

Generally speaking, there appears to be very little communication between the elementary and secondary schools either at the teacher or at the administrative level. In many cases the only time that the teachers

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<sup>1</sup>Mitchell, p. 84.

<sup>2</sup>Mitchell, p. 203.

<sup>3</sup>Mitchell, p. 203.

of all levels are together is at a general teacher's meeting during orientation week just prior to the opening of school.<sup>1</sup>

However, the seriousness of the problem is reflected in the following statements made by Tonne, Anderson, and Haynes and Parker. Tonne stated:

The problem of articulation has been one of the focal points of attack in the last decade. The American educational system is organized in units that often act independently of each other. Due to the absence of a continuous and integrated program, considerable time, money, and effort have been wasted. In some cases, studies overlap, in other cases, students are neglected.<sup>2</sup>

Anderson wrote, "One of the great wastes in the education of many college secretarial students is the failure of the high school and college to coordinate their work."<sup>3</sup>

Haynes and Parker made the following statement, "It doesn't seem fair to require a student in college to go through the monotonous process of repeating work done in high school."<sup>4</sup>

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<sup>1</sup>Raymond E. Peterson, "Coordinated Program Essential for Meeting Social Change," Minnesota Education Journal XLVIII (February, 1968), p. 27.

<sup>2</sup>Herbert A. Tonne, Principles of Business Education (New York: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1961), p. 507.

<sup>3</sup>Benjamin R. Haynes and G. H. Parker, "Teamwork Needed Between High School and College," Business Education World XXIII (June, 1942), p. 845.

<sup>4</sup>Ruth I. Anderson, "Desired Outcomes for the Building of a Foundation for Advanced Study, Part B," New Perspectives in Education for Business, National Business Education Year-book (Washington, D. C.: National Business Education Association, 1963), p. 249.

Ideal articulation practices between the high school and college would help to eliminate the amount of frustration that sometimes accompanies relearning of subject matter or that results from being placed in a class that is too advanced for the student. Charles states:

Good articulation insures smooth transition and continuity of the educational process, efficient development of pupils, and a minimum amount of conflict and time consuming re-adjustments which frequently result in confusion and sometimes frustration. Good articulation is a great aid in reducing failure and dropouts. The failure to articulate destroys the value of the program.<sup>1</sup>

Anderson supports the above statement when she makes the following statement while explaining the merits of a well coordinated program:

Colleges offering a program in secretarial administration should attempt to place the high school graduates in those courses which will best utilize their previous business training. It is no excuse for requiring students to enroll in beginning skill courses if they have already acquired sufficient skill to enroll in advanced classes. Neither should students be permitted to do so simply because they believe it will be easier and will give them a better grade average. The college student today has too crowded a curriculum to make such wasteful practices tolerable.<sup>2</sup>

Fisher<sup>3</sup> expresses his opinion when he states that the greatest challenge we have today is presented in the field of improved articulation between schools and colleges.

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<sup>1</sup>A. D. Charles, "Achieving Articulation of Subject Matter," School and Community LIV, No. 6 (February, 1968), p. 16.

<sup>2</sup>Anderson, "Desired Outcomes," p. 251.

<sup>3</sup>Lowell B. Fisher, "An Analysis of Problems of Articulation and Suggestions for Action," North Central Association Quarterly XXXV (July, 1960), p. 11.

Both the high school and the college are at fault. The high schools are at fault for having such a wide range of standards and the colleges for not recognizing the efficient work being done at the high school level. Anderson expresses her opinion concerning this thought:

Up to the present time, high school and college have not coordinated their efforts to the best interest of the students. Both the high school and college are at fault. Colleges frequently have had little respect for the work of the high schools. They have found in the past that some high school graduates received credit for courses in which they have little skill or ability. In too many cases these students could not even place in the second semester of the skills courses.<sup>1</sup>

More satisfactory provisions should be made to eliminate the overlapping of certain business subjects taken at the high school level, particularly in the areas of shorthand and typewriting. Mitchell recommends:

That college programs in business teacher education pick up where the previous education left off and not repeat unnecessarily. The entrance examination scores would serve as a sounding board of where to commence in the continuum of business education.<sup>2</sup>

Haynes and Parker<sup>3</sup> also support this point of view when they make a comment regarding the placement of college freshmen. They recommend that further adjustments be made in the entrance requirements to permit graduates of high

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<sup>1</sup>Anderson, "Desired Outcomes," p. 249.

<sup>2</sup>Mitchell, "Articulation of Selected Business Education Subjects," p. 203.

<sup>3</sup>Benjamin R. Haynes and G. H. Parker, "Teamwork Needed Between High School and College," Business Education World XXIII (June, 1942), p. 845.

school business departments to continue uninterrupted in their study of business at the advanced level.

To summarize the situation, the writer refers to two statements made by Fels and Long. Fels states, "Both school and college teachers should undertake a revision of the curriculum in several subjects . . . with the hope of avoiding duplication or gaps in the total learning process."<sup>1</sup> Long makes the following statement, ". . . an effective working relationship between secondary and higher education is long overdue."<sup>2</sup>

#### Placement of Students in Shorthand and Typewriting at the Collegiate Level

There are numerous methods of placing students in courses at the collegiate level. The method used at one institution will not necessarily be the best method to use at the next school. Some of the more common methods of placement are: by the use of a placement test, by the number of semesters of typewriting or shorthand completed at the high school level, in consultation with the student, and not recognizing the work completed at the high school level. A few colleges and universities do not offer any beginning courses in either shorthand or typewriting. By doing this they feel that they can alleviate the problem of placing

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<sup>1</sup>William C. Fels, "Articulation Between School and College," The Educational Record XXXIX (April, 1958), p. 113.

<sup>2</sup>Loren E. Long, "Some Changes Are Needed!" Balance Sheet XVII (April, 1962), p. 343.

students in beginning courses where they may receive an easy grade. Anderson states, ". . . in those schools where students are given credit for the beginning course, they soon learn that the work will be easier and that they will receive a better grade if they repeat the introductory course.<sup>1</sup>

In some institutions, all students who have had previous instruction in typewriting and shorthand are required to enroll in an intermediate or advanced level course. In other schools, an attempt is made to place students in the courses in which placement tests indicate they will do satisfactory work. Wanous made the following statement:

Several plans for articulating the courses in typewriting and shorthand have been suggested and adopted in some colleges. In order to avoid the duplication of high school work in college, some institutions do not offer any beginning training in typewriting and shorthand. Others give beginning training in these subjects, but the course must be taken without credit. Under a third plan, the college gives beginning training in typewriting and shorthand and allows credit for the courses to students who have not previously taken the work. Another group holds the point of view that colleges should offer beginning courses in shorthand and typewriting and give full credit for them to all who enroll, regardless of whether or not they have taken the work in high school.<sup>2</sup>

Jones<sup>3</sup> explained a program that seems to be working quite well at Colorado Womens College. Students with high school

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<sup>1</sup>Anderson, "Desired Outcomes," p. 246.

<sup>2</sup>S. J. Wanous, "Articulation of Collegiate Courses in Shorthand and Typewriting," Journal of Business Education XIV (April, 1939), p. 9.

<sup>3</sup>Edna M. Jones, "Policies in Determining Credit Allocation for Secretarial Science Courses on the Collegiate Level," Journal of Business Education XXXIII (May, 1957), p. 390.



shorthand have three possibilities. (1) They can enter a review class. (2) Those that can take and transcribe dictation at 100 words per minute, enter a practical dictation class to give the students practice so that they do not lose their skill. (3) They start at the beginning.

Mitchell<sup>1</sup> found that placement by examination or by the number of semesters completed in high school was used by 89 per cent of the schools that participated in his study. He indicated that 7 per cent did not recognize work completed at the high school level and the remaining 4 per cent used some other means of placement.

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<sup>1</sup>Mitchell, "Articulation of Selected Business Education Subjects," p. 109.

## CHAPTER III

### PROCEDURES

The development of a topic for an independent study was one of the projects completed for Dr. Rowe's Introduction to Research class offered during the first semester of the 1969-70 school year. Several topics were submitted for discussion; and, after much deliberation, the topic of Articulation Practices Used by Colleges in North Dakota, South Dakota, and Montana was considered a topic worthy of further investigation.

The writer referred to articles indexed in the Business Education Index and the Education Index. Some of the studies and periodicals reviewed also referred to sources, which were studied to determine their relevance to the topic being studied. An annotated bibliography, which contained all of the pertinent sources of information, was developed and filed for future use.

After studying the related literature, the writer obtained a listing of the four-year colleges in North Dakota, South Dakota, and Montana. (See Appendix A, page 51) The catalogs for most of these colleges were obtained from the Chester Fritz Library and the Business Office. These catalogs were examined to obtain information being sought. It was

decided that additional information was needed, and a survey instrument was developed. After submitting the survey instrument to the writers faculty advisor for suggested improvements, it was revised and submitted for final approval.

On March 3, 1970, the survey instruments were sent to the eighteen schools that offer a major in Business Teacher Education. (See pages 20-23 for a copy of the cover letter and survey instrument.)

By March 20, twelve, or 67 per cent, of the survey instruments were returned to the writer and a follow-up letter and a second survey instrument were mailed to the remaining six schools on the list. (See Appendix B, page 53, for a copy of the follow-up letter.)

By April 15, the cutoff date, five more returns were received making a 94.1 per cent return.

The information obtained from the catalog study and the survey instrument was analyzed. Chapter IV is devoted to an analysis of the data collected.

March 1, 1970

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_:

Articulation practices seem to vary a great deal from college to college. This study is being conducted to determine the policies and practices, regarding the placement of students in shorthand and typewriting, used by colleges that offer a Business Teacher Education major.

All the schools in North Dakota, South Dakota, and Montana that award a major in Business Teacher Education are being asked to participate in this study.

Please fill out the survey instrument and return it in the addressed envelope which is enclosed. Participants will receive a summary of the results of the study.

Sincerely,

Darrell Morrison

Enclosures (2)

1. Indicate the number of students in your business teacher education program. \_\_\_\_\_
2. Approximately what per cent of your business teacher education students have completed at least one year of shorthand and typewriting in high school.

shorthand \_\_\_\_\_  
 typewriting \_\_\_\_\_

3. Is credit allowed towards a major for the beginning courses in:

shorthand \_\_\_\_\_  
 typewriting \_\_\_\_\_

4. We have obtained information from your college catalog concerning the number of credits granted for each course in shorthand. We would like to obtain some additional information as to the number of minutes each class meets per week and the number of laboratory minutes required per week for each class.

	credits granted	minutes of class per week	minutes of lab. per week
beginning course	_____	_____	_____
second course	_____	_____	_____
third course	_____	_____	_____
fourth course	_____	_____	_____
fifth course	_____	_____	_____
sixth course	_____	_____	_____

5. We have obtained information from your college catalog concerning the number of credits granted for each course in typewriting. We would like to obtain some additional information as to the number of minutes each class meets per week and the number of laboratory minutes required per week for each class.

	credits granted	minutes of class per week	minutes of lab. per week
beginning course	_____	_____	_____
second course	_____	_____	_____
third course	_____	_____	_____
fourth course	_____	_____	_____
fifth course	_____	_____	_____

6. Is advanced placement beyond the beginning course used for those students who have completed work at the high school level:
- shorthand yes  no   
 typewriting yes  no
7. Who determines the placement of students in shorthand and typewriting:
- department chairman  
 faculty member(s)  
 registrar  
 other (please list) \_\_\_\_\_
8. Placement in college courses in shorthand and typewriting for students who have completed work in high school is determined by:
- |  | shorthand | typewriting |
|--|-----------|-------------|
| placement test                             | _____     | _____       |
| number of courses completed in high school | _____     | _____       |
| consultation with the student              | _____     | _____       |
| others (please list) _____                 | _____     | _____       |
9. Is placement provided without examination in shorthand for work completed in high school: yes  no . If yes, indicate the hours of credit bypassed for the following work completed at the high school level:
- 2 semesters  
 4 semesters
10. Is course placement provided without examination in typewriting for work completed at the high school level: yes  no . If yes, indicate the hours of credit bypassed for the following work completed at the high school level:
- 2 semesters  
 4 semesters  
 others (please indicate) \_\_\_\_\_
11. Is college credit granted for the work bypassed in:
- shorthand yes  no   
 typewriting yes  no
12. Indicate the type of placement examination given to place students beyond the introductory level for:
- shorthand \_\_\_\_\_  
 typewriting \_\_\_\_\_
13. How many semesters of high school shorthand and typewriting are required before the student is allowed to take the placement test:
- shorthand  
 typewriting

14. Indicate the source of the placement examination:
- |                                  | shorthand | typewriting |
|----------------------------------|-----------|-------------|
| constructed by department head   | _____     | _____       |
| constructed by faculty member(s) | _____     | _____       |
| constructed by book publisher    | _____     | _____       |
| other (please list) _____        |           |             |
15. Indicate the proficiency required to bypass the following shorthand courses
- |   | beginning<br>course | second<br>course | third<br>course | fourth<br>course |
|---|---------------------|------------------|-----------------|------------------|
| dictation rate                          | _____               | _____            | _____           | _____            |
| transcription rate                      | _____               | _____            | _____           | _____            |
| per cent of accuracy<br>on transcript   | _____               | _____            | _____           | _____            |
| per cent of accuracy<br>on theory tests | _____               | _____            | _____           | _____            |
| others (please indicate) _____          |                     |                  |                 |                  |
16. Indicate the proficiency required to bypass the following typewriting courses:
- |   | beginning<br>course | second<br>course | third<br>course | fourth<br>course |
|---|---------------------|------------------|-----------------|------------------|
| straight copy rate                        | _____               | _____            | _____           | _____            |
| length of straight copy<br>test (minutes) | _____               | _____            | _____           | _____            |
| number of errors per<br>minute allowed    | _____               | _____            | _____           | _____            |
| production rate                           | _____               | _____            | _____           | _____            |
| others (please indicate) _____            |                     |                  |                 |                  |
17. Indicate the number of times the student may take the placement examination:
- \_\_\_\_\_ shorthand  
 \_\_\_\_\_ typewriting
18. Students sometimes take courses in private business schools or they may have worked in a business office since graduation from high school; is any provision made for these students to bypass courses in shorthand and typewriting in the college business teacher education program? Please comment.
-

## CHAPTER IV

### FINDINGS

After obtaining a listing of the four-year colleges in the three state area, the college catalogs were studied to determine the schools that offer a Business Teacher Education major. Eighteen schools were thought to offer a Business Teacher Education major. However, after receiving the survey instruments from the department heads, it was learned that one of the schools originally included on the list as offering a Business Teacher Education major offers only a minor, and this school was excluded from the study. Table 1, below, summarizes the information regarding the percentage of schools that offer a major in Business Teacher

TABLE 1  
NUMBER OF SCHOOLS OFFERING A BUSINESS  
TEACHER EDUCATION MAJOR

State	Four Year Colleges	Offering a Major	Percentage
Montana	9	5	55.6
North Dakota	8	5	62.5
South Dakota	13	7	53.9
Total	30	17	56.6



Education. Of the 30 four-year colleges in the three state area; 17, or 56.6 per cent, offer a major in Business Teacher Education.

Returns were received from 16 of the 17 schools. This amounted to a 94.1 per cent return. Table 2, below, reviews the returns by the three states included in this study.

TABLE 2  
PERCENTAGE OF SURVEY INSTRUMENTS RETURNED

State	Schools	Instruments Returned	Per Cent
Montana	5	5	100.0
North Dakota	5	5	100.0
South Dakota	7	6	85.7
Total	17	16	94.1

The results of the preliminary catalog study and the information obtained from the survey instrument are given in the tables that follow. The information presented is grouped under the following headings: Students in Business Teacher Education, Shorthand and Typewriting in the Business Teacher Education Curriculum, Placing Students in Shorthand and Typewriting, Placement Examinations Used in Placing Students in Shorthand and Typewriting, and Proficiency Required to Bypass Courses in Shorthand and Typewriting.

Students in Business Teacher Education

Table 3, below, provides a summation of the information obtained in regard to the average number of students in Business Teacher Education. The states are listed separately, and the data is to be read as follows: The number of students seeking a Business Teacher Education major in Montana ranges from a low of 55 in one of the schools to a high of 190. The average number of students majoring in Business Teacher Education at any one school in Montana is 107. The total represents the average number of students in all Business Teacher Education programs in the three state area. The least number of students in any one program is 25, the largest is 206, and the mean number of students is 141.

TABLE 3

AVERAGE NUMBER OF STUDENTS IN BUSINESS TEACHER  
EDUCATION IN THE REPORTING SCHOOLS

State	Range		Mean
	From	To	
Montana	55	190	107
North Dakota	120	250	205
South Dakota	25	193	116
Total	25	250	141

One of the questions asked on the survey instrument was:  
"Approximately what per cent of your Business Education

students have completed at least one year of shorthand and typewriting in high school?" Table 4, below, presents a summarization of the replies received.

TABLE 4  
PERCENTAGE OF STUDENTS WITH AT LEAST ONE YEAR OF  
SHORTHAND AND/OR TYPEWRITING IN HIGH SCHOOL

Percentage of Students	Shorthand		Typewriting	
	Number of Schools	Percentage	Number of Schools	Percentage
95-100	0	0	9	64.3
85-94	0	0	2	14.3
75-84	3	21.4	2	14.3
65-74	2	14.3	0	0.0
55-64	1	7.1	0	0.0
45-54	3	21.4	0	0.0
35-44	3	21.4	1	7.1
Under 25	1	7.1	0	0.0
Total	14	99.8	14	100.0

It can be seen from the table that 9, 64.3 per cent of the schools indicated that at least 95 per cent of their students had at least one year of typewriting in high school. However, none of the schools indicated that at least 95 per cent of their students had shorthand in high school. It can also be seen that 3 schools, 21.4 per cent, indicated that

between 35 and 44 per cent of their students had taken shorthand in high school. Only one school indicated that below 75 per cent of its students had taken typewriting in high school. Two of the participants of this study did not answer the question related to this matter, therefore, the total number of schools under both shorthand and typewriting equals only 14.

Shorthand and Typewriting in the Business  
Teacher Education Curriculum

The results of the question asked to determine to what extent credit is allowed for the beginning courses in shorthand and typewriting are given below. The table lists the percentages by states, and it can be seen that of the five Montana schools offering a Business Teacher Education major,

TABLE 5

POLICIES REGARDING THE GRANTING OF CREDIT FOR  
THE BEGINNING COURSES IN TYPEWRITING  
AND SHORTHAND

State	Shorthand			Typewriting		
	Yes	No	% Granting Credit	Yes	No	% Granting Credit
Montana	3	2	60.00	3	2	60.00
North Dakota	4	1	80.00	4	1	80.00
South Dakota	6	0	100.00	5	1	100.00
Total	13	3	81.25	12	4	75.00

three of them offer credit towards a major for the beginning courses in shorthand and typewriting. Of the six schools representing South Dakota, all of them offer credit for the beginning course in shorthand and five of the six offer credit for the beginning course in typewriting.

Table 6 presents a summation of the number of courses offered and the range of semester hours of credit awarded for each course in shorthand. The range for the beginning course is from 2.7 to 3.3 and the mean number of credits awarded by the 16 schools that offer this course is 2.94.

TABLE 6  
SEMESTER HOURS OF CREDIT GRANTED FOR  
EACH COURSE IN SHORTHAND

Course	Schools Offering	Range of Credit Hours		
		From	To	Mean
Beginning Course	16	2.7	3.3	2.94
Second Course	16	2.7	3.3	2.94
Third Course	15	2.7	3.3	2.96
Fourth Course	10	2.0	3.3	2.84
Fifth Course	6	2.7	3.3	2.80
Sixth Course	3	.7	2.7	2.33
Seventh Course*	1	.7	.7	.70

\*Only one school indicated that it offers a seventh course in shorthand.

Six of the schools, those on a quarter system, offer a fifth course. The number of credits granted for this fifth course ranges from 2.7 to 3.3 and the average is 2.80. Table 7, below, shows the same information for the courses offered in typewriting. The number of semester hours of credit awarded for the beginning course ranges from 0 to 3 and the average is 1.70.

TABLE 7  
SEMESTER HOURS OF CREDIT GRANTED FOR  
EACH COURSE IN TYPEWRITING

Course	Schools Offering	Range of Credit Hours		
		From	To	Mean
Beginning Course	15	0.0	3.0	1.71
Second Course	16	1.3	3.0	1.84
Third Course	14	1.3	3.0	2.14
Fourth Course	5	1.3	2.0	1.20
Fifth Course	2	1.3	1.3	1.30

Table 8, page 31, lists the range and mean number of minutes each class in shorthand and typewriting meet each week. For the beginning course in shorthand, the number of minutes of class per week ranges from 200 to 250 with a mean of 223. For the beginning course in typewriting, the number of minutes of class per week ranges from 150 to 250 with a mean

of 213. The question regarding the number of minutes per week the students are required to spend in the shorthand and typewriting laboratory received answers such as: Depends upon the students needs, none required, it is up to the individual student, and no outside lab.--lab. included in class periods.

TABLE 8  
MINUTES OF CLASS PER WEEK FOR SHORTHAND AND  
TYPEWRITING COURSES

Course	Shorthand			Typewriting		
	From	To	Mean	From	To	Mean
Beginning Course	200	250	223	150	250	213
Second Course	150	250	217	150	250	206
Third Course	150	250	207	150	250	211
Fourth Course	150	250	210	150	250	220
Fifth Course	200	250	200	200	250	225

Table 9, page 32, and Table 10, page 33, present a summarization of the total number of credits awarded for each course in shorthand and typewriting offered at the sixteen participating schools. The tables also present the total number of minutes each course is taught per week. The last column of each table indicates the average number of minutes each course is taught for a semester hour of credit. It can be seen from Table 9, page 32, that the total number of semester hours of credit awarded for the beginning course in shorthand in the

participating institutions is 47.1, the total minutes of class per week is 3800, and a student attends an average of 80.7 minutes of class per week for each semester hour of credit earned in beginning shorthand. The third course in shorthand is offered for a total of 44.4 hours of credit and meets for a total of 2900 minutes each week. The average number of minutes that a student attends class each week for one semester hour of credit in the third course in shorthand is 70.9. When considering the total number of shorthand classes taught, the average number of class minutes per week for each semester hour of credit is 75.8.

TABLE 9

AVERAGE NUMBER OF MINUTES OF CLASS PER WEEK  
FOR EACH SEMESTER HOUR OF CREDIT  
GRANTED IN SHORTHAND

Course	Total No. of Credits Awarded	Total No. of Minutes Per Week	Minutes of Class Per Hours of Credit
Beginning Course	47.1	3800	80.7
Second Course	47.1	3500	74.3
Third Course	44.4	2900	70.9
Fourth Course	28.4	2300	81.0
Fifth Course	16.8	1300	77.4
Sixth Course	6.1	500	82.0
Seventh Course	.7	100	143.0
Total	190.6	14400	75.8



From Table 10, below, it can be seen that the beginning course in typewriting is offered for a total of 25.5 semester hours and that the average number of minutes of class per week for each semester hour of credit earned is 126. Typewriting courses comprise a total of 91.1 semester hours of credit in the 16 responding schools, and the average number of class minutes per week for each semester hour of credit is 119.

TABLE 10

AVERAGE NUMBER OF MINUTES OF CLASS PER WEEK  
FOR EACH SEMESTER HOUR OF CREDIT  
GRANTED IN TYPEWRITING

Course	Total No. of Credits Awarded	Total No. of Minutes Per Week	Minutes of Class Per Hours of Credit
Beginning Course	25.5	3200	126
Second Course	29.5	3300	112
Third Course	26.9	2950	110
Fourth Course	7.2	1100	153
Fifth Course	2.6	450	173
Total	91.7	11000	119

Placement of Students in Shorthand and Typewriting

One of the items on the survey instrument was designed to obtain information regarding the personnel responsible for the placement of students in shorthand and typewriting. A

variety of answers was obtained, and the various individuals and combinations are presented in Table 11, below.

At 3, 18 per cent, of the schools, the department chairman is responsible for the placement of students in shorthand and typewriting. A combination of sources, usually department chairman and faculty members, was reported as the personnel responsible for the placement of students in 9, 56.3 per cent, of the schools responding.

TABLE 11

PERSONNEL RESPONSIBLE FOR PLACING STUDENTS IN  
COURSES IN SHORTHAND AND TYPEWRITING

Determined By	Number Using This Method (Schools)	Percentage
1. Department Chairman	3	19.7
2. Faculty Member(s)	2	12.5
3. Combination of 1 and 2	9	56.3
4. Placement Bureau	1	6.3
5. Faculty Counselors	1	6.3
Total	16	100.1

A variety of methods are used for determining the placement of students in shorthand and typewriting. Placement tests alone are used in two of the schools for placing students in typewriting, but are used only in conjunction with other criterion for placing students in shorthand. Three of the

schools use the number of courses completed in high school as the criterion for placing students in shorthand and typewriting. Table 12, below, shows the various methods used for placement of students in shorthand at the schools participating.

TABLE 12  
METHODS OF PLACING STUDENTS IN SHORTHAND

Method of Placement	Number of Schools Using This Method	Percentage
1. Placement Test, Only	0	0.0
2. Number of Courses Completed in High School	3	18.7
3. Consultation With the Student	4	25.0
4. Combination of 1 and 2	1	6.3
5. Combination of 2 and 3	4	25.0
6. Combination of 1 and 3	2	12.5
7. Combination of 1, 2, and 3	1	6.3
8. Trial Class Assignment	1	6.3
Total	16	100.1

The school that uses trial class assignment for placing students indicated that the students are evaluated at the end of two weeks, and if an error has been made in placement, the students are reassigned to a class that is comparable to their level of achievement. A combination of the number of courses completed in high school and consultation with the student is used for placement in four, 25 per cent, of the schools.

Table 13, below, lists the various methods used in placing students in typewriting. The number of courses completed in high school is used as the criterion for placing students in three, 18.7 per cent, of the schools.

TABLE 13

## METHODS OF PLACING STUDENTS IN TYPEWRITING

Method of Placement	Number of Schools Using This Method	Percentage
1. Placement Tests, Only	2	12.5
2. Number of Courses Completed in High School	3	18.7
3. Consultation With the Student	3	18.7
4. Combination of 1 and 2 Above	4	25.0
5. Combination of 1 and 3 Above	1	6.3
6. Combination of 2 and 3 Above	1	6.3
7. Combination of 1, 2, and 3 Above	1	6.3
8. Trial Class Assignment	1	6.3
Total	16	100.1

The following comments regarding placement of students in shorthand and typewriting were received from one of the respondents: Students that have taken one year of typewriting in high school start in our second course in

typewriting. (Our first course is offered to those students who have not taken any previous typing.) This policy is also followed for shorthand students. Any student who has taken more than one year of shorthand or typewriting or has had office experience in addition to one year of shorthand or typewriting may petition for advanced standing. If such a student meets the requirements of our placement tests, he is given credit according to the results of his tests.

Table 14, below, shows the range and the mean number of courses bypassed for two and four semesters of high school shorthand.

TABLE 14

HOURS OF CREDIT BYPASSED FOR TWO AND FOUR SEMESTERS OF HIGH SCHOOL SHORTHAND

Course	2 Sem. in H. S.			4 Sem. in H. S.		
	From	To	Mean	From	To	Mean
Shorthand	2.0	6.7	3.5	2.7	12.0	7.1
Typewriting	1.3	3.0	2.2	2.0	4.0	2.6

The schools that used this method of placement indicated that they allowed from 2 to 6.7 semester hours of shorthand to be bypassed for two semesters of high school shorthand. They allowed from 2.7 to 12 semester hours of shorthand to be bypassed for 4 semesters of high school shorthand. Most of the respondents indicated that no credit was given for the

courses bypassed. However, the following is a comment made by one of the department heads: No hours of credit are given. If students have taken one year of high school shorthand, they start in our second course, and if they major in our Secretarial Science curriculum, they must take sixteen quarter hours of shorthand. They take an extra advanced course rather than the beginning course, unless they challenge a course by taking an advanced standing exam--credit is given for those tests passed.

Placement Examinations Used in Placing Students  
in Shorthand and Typewriting

Table 15, below, contains a listing of the sources of the placement examinations that are given in shorthand and typewriting.

TABLE 15

SOURCES OF PLACEMENT EXAMINATIONS GIVEN  
IN SHORTHAND AND TYPEWRITING

Source of Test	Frequency	
	Shorthand	Typewriting
Constructed by a Book Publisher	1	3
Constructed by Faculty Members	3	4
Constructed by Department Head	1	0
Constructed by Department Heads and Faculty Members	1	1

Three of the respondents indicated that their placement tests for shorthand were constructed by faculty members and four of the respondents indicated that their faculty members were responsible for the construction of typewriting tests.

Table 16 presents a list of the types of placement tests given for both shorthand and typewriting.

TABLE 16

TYPES OF PLACEMENT EXAMINATIONS GIVEN  
IN SHORTHAND AND TYPEWRITING

Type of Test Given	Schools Using This Type of Test
Shorthand	
Dictation and Transcription	2
Combination--Dictation, Transcription, Brief Forms, and Theory	3
Official Tests from Gregg Publishing Co.	1
No Test Given	10
Typewriting	
Gregg Publishing Co. Advanced Standing Tests	1
N. B. E. A. Tests	1
Production Tests	1
Straight Copy Tests	1
Timed Writings	1
Combination	1
No Test Given	10

Two of the respondents indicated that they gave dictation and transcription tests in placing students in shorthand, and ten indicated that no placement examination is given at their school. It was indicated that at least one semester of high school work must have been completed before a student could take the placement examination. Two of the respondents stated that two semesters of high school work must have been completed before taking the placement examination.

Proficiency Required to Bypass Courses in  
Shorthand and Typewriting

Various methods of placing students in shorthand and typewriting have been presented thus far. The following section presents the standards that are used in placing students beyond the beginning courses. Table 17, page 41, presents some of the criterion used for bypassing the various courses in shorthand. The range, and the mean standards are given for the first, second, third, and fourth courses in shorthand. To bypass the beginning course in shorthand, the rate of dictation ranges from 50 to 60 words per minute with a mean rate of 59. The per cent of accuracy required on theory tests ranges from 75 per cent to 95 per cent with a mean percentage of 87. To bypass the third course in shorthand, the transcription rate required, ranges from a low of 20 words per minute to a high of 35 words per minute with a mean of 26. Three schools indicated it was possible to bypass the fourth course. The rate of dictation required for bypassing ranges from 80 to 120 words per minute with a mean of 100.



TABLE 17

## PROFICIENCY REQUIRED TO BYPASS COURSES IN SHORTHAND

Criterion	Range					
	First Course			Second Course		
	From	To	Mean	From	To	Mean
Dictation Rate	50	60	59	60	80	73
Transcription Rate	0	35	13	0	40	16
Per Cent of Accuracy on Transcript	95	95	95	95	98	96
Per Cent of Accuracy on Theory Tests	75	95	87	85	95	90
Criterion	Third Course			Fourth Course		
	From	To	Mean	From	To	Mean
	Dictation Rate	80	100	94	80	120
Transcription Rate	20	35	26	0	45	23 <sup>a</sup>
Per Cent of Accuracy on Transcript	95	100 <sup>b</sup>	96	95	95	95
Per Cent of Accuracy on Theory Tests	85	90	89	c		

<sup>a</sup>Only one school reported using transcription rate as a standard for bypassing the fourth course.

<sup>b</sup>Three mailable letters out of four dictated at 100 words per minute was given with the 100 per cent accuracy requirement.

<sup>c</sup>None of the schools reported using this standard to bypass the fourth course.

Table 18, below, lists the standards for bypassing the first, second, third, and fourth courses in typewriting. To bypass the first course, the straight copy rate required ranges from 25 to 45 words per minute with a mean of 35.

TABLE 18  
PROFICIENCY REQUIRED TO BYPASS COURSES IN TYPEWRITING

Criterion	Range					
	First Course			Second Course		
	From	To	Mean	From	To	Mean
Straight Copy Rate	25.0	45	35.0	40.0	55	48.5
Length of Straight Copy Test (Minutes)	3.0	10	5.1	3.0	5	4.5
Number of Errors Per Minute Allowed	.6	7	2.5	.6	3	1.3
Production Rate	10.0	30	19.0	24.0	40	29.0
	Third Course			Fourth Course*		
	From	To	Mean	From	To	Mean
	From	To	Mean	From	To	Mean
Straight Copy Rate	50.0	65	57.0	60.0	70	65.0
Length of Straight Copy Test (Minutes)	3.0	5	4.5	5.0	5	5.0
Number of Errors Per Minute Allowed	.6	2	1.3	.6	2	1.1
Production Rate	35.0	50	42.5	60.0	60	60.0

\*Three schools allow students to bypass this course.

The length of the straight copy tests ranges from 3 to 10 minutes with a mean of 5.1 minutes. The production rate required to bypass the third course in typewriting ranges from 35 to 50 words per minute with a mean of 42.5. The number of errors allowed per minute ranges from .6 to 2 with a mean of 1.3.

The respondents were asked to respond to the following survey question: "Students sometimes take courses in private business schools or they may have worked in a business office since graduation from high school; is any provision made for these students to bypass courses in shorthand and typewriting in the college business teacher education program?" The following are some of the comments made: "Yes, by examination; no, other than procedure used for their high school credentials; Yes, placement examinations are given, if they pass, they get credit; an advanced standing test for credit can be taken on a pass-fail basis for a particular course provided the student is registered for the next higher course; they may challenge courses by taking an examination and obtaining a "B" in the challenge examination.

## CHAPTER V

### SUMMARY CONCLUSIONS, AND RECOMMENDATIONS

#### Summary and Conclusions

Of the thirty four-year colleges and universities in Montana, North Dakota, and South Dakota, seventeen offer a Business Teacher Education major. The catalogs for these schools were studied to determine: The number of shorthand and typewriting courses offered, the number of credits offered for each course, and the school's policy regarding the granting of credit for the beginning courses in shorthand and typewriting. Statements regarding the placing of students in courses beyond the beginning level were studied to obtain information regarding the basis for and methods of placement. The catalog study, along with a review of the related literature, provided the writer with the background information necessary for the development of a survey instrument. The survey instrument was designed to secure additional information concerning the methods used for placing students in shorthand and typewriting. Further information regarding courses offered in shorthand and typewriting was also sought.

The survey instruments were sent to eighteen schools. By April 15, seventeen returns had been received. After an examination of the returns, it was learned that one school

does not offer a major in Business Teacher Education. Thus, the findings of this study are limited to those obtained from the sixteen schools that offer a Business Teacher Education major.

The average number of students in Business Teacher Education programs ranges from a low of 107 in Montana to a high of 205 in North Dakota. The overall average for the three states is 141.

A majority of the students entering a Business Teacher Education program have had at least one year of typewriting in high school. However, the percentage of students that have had at least one year of shorthand in high school is much lower. Thirteen of the sixteen participating schools indicated that more than 75 per cent of their students had completed at least one year of typewriting in high school, whereas, only three of the schools indicated that at least 75 per cent of their students had completed at least one year of shorthand in high school.

Credit is awarded for the beginning college courses in shorthand at thirteen of the schools, and twelve schools offer credit for beginning college typewriting.

The number of credit hours granted for each course in shorthand varies; but, as a general rule, the number of semester hours granted ranges from 2.7 to 3.3. A few of the schools that are on a quarter system offer more than four courses in shorthand; but not as many hours of credit are granted for these courses. Most of the schools offer three courses in typewriting. The number of credit hours granted for each

course in typewriting varies considerably with a range of from 1.3 to 3.

The mean number of minutes of class per week for each course in typewriting and shorthand ranges from 211 to 250. Thus, it can be seen that the number of class periods per week is considerably more than the number of credit hours granted for the courses. A student spends an average of 75.8 minutes in class for each semester hour of credit received in a shorthand course; which, when considering 50 minutes as the length of the average class period, means that a student spends approximately one and one-half periods per week in class for each hour of credit received. The average typewriting class meets 119 minutes per week for each hour of credit granted. This figure would represent approximately 2.4 class periods per week for each hour of credit granted.

There is no definite pattern as to whom is responsible for the placement of students in shorthand and typewriting, however, a combination of both the department head and the faculty members seems to be the most popular.

Placing students solely on the results of a placement test is not a common practice. "The number of courses completed in high school" and "consultation with the student" are the most popular methods of placement being used.

The number of semester hours of shorthand bypassed for 2 semesters of high school shorthand ranges from 2 to 6.7. Expressed differently, the schools on a semester basis usually allow a student to bypass the first semester while those on

a quarter system allow the student to bypass the first 2 courses if they have completed 2 semesters in high school. The mean number of semester hours of credit bypassed for 4 semesters of high school shorthand is 7.1. The mean number of hours of typewriting bypassed for 2 semesters of high school typewriting is 2.2 and for 4 semesters the mean is 2.6.

The majority of schools that use placement examinations, either as the sole determining factor or in conjunction with other criterion, stated that the faculty members were responsible for the construction of the placement test. Three of the eight schools using placement tests for typewriting stated that the tests were constructed by a book publisher, and one school stated that it uses a shorthand test that is constructed by a book publisher. Various types of placement examinations are given. A combination of dictation, transcription, brief forms, and theory seems to be the most popular form of shorthand placement test given. No one type seems to be the most popular for typewriting.

The standards that are used to bypass courses vary with the school. The mean dictation rate standard for bypassing courses in shorthand are as follows: 59 words per minute for the first course, 73 for the second, 94 for the third, and 100 for the fourth course. The above rates of dictation must be transcribed with approximately 95 per cent accuracy. The standards set for transcription rate and per cent of accuracy on theory tests varies tremendously.

The mean straight copy rate set for bypassing courses in typewriting are as follows: 35 words per minute for the first course, 48.5 for the second, 57 for the third, and 65 for the fourth course. The mean number of errors allowed per minute ranges from 2.5 for the first course to 1.1 for the fourth course. The five-minute timed-writing seems to be the most popular for determining straight copy rate.

Only in isolated instances was special provision made for those students who may have had work experience or who may have taken courses in a private business school prior to entering a Business Teacher Education program.

#### Recommendations

Based on the conclusions drawn from this study, it is recommended that:

1. All schools use either a quarter or a semester system, thus, making the job of evaluation much easier.
2. Credit be given to all beginning courses in shorthand and typewriting to those students who have had less than one year of high school preparation.
3. The number of hours of credit granted for each course in shorthand and typewriting be made more uniform throughout the schools, and that the number of class periods per week be adjusted to match the number of hours of credit granted, with more provisions for outside preparation and/or laboratory work.
4. Placement tests alone should not be used as a basis for determining class placement.



5. The standards for bypassing courses in shorthand and typewriting become more uniform.

6. A study be conducted to develop a test that would serve as a basis for placing students in courses that would best utilize their backgrounds and potential.

7. A study be conducted to determine which is the better system--quarter or semester.

A P P E N D I X E S

A P P E N D I X   A

FOUR-YEAR COLLEGES IN NORTH DAKOTA,  
SOUTH DAKOTA, AND MONTANA

North Dakota

Dickinson State College\*  
Dickinson

Jamestown College  
Jamestown

Mayville State College\*  
Mayville

Minot State College\*  
Minot

North Dakota State University  
Fargo

University of North Dakota\*  
Grand Forks

University of North Dakota-  
Ellendale Branch  
Ellendale

Valley City State College\*  
Valley City

South Dakota

Augustana College\*  
Sioux Falls

Black Hills State College\*  
Spearfish

Dakota State College\*  
Madison

Dakota Wesleyan University  
Mitchell

Huron College\*  
Huron

Mount Marty College  
Yankton

Northern State College\*  
Aberdeen

Sioux Falls College\*  
Sioux Falls

South Dakota School of Mines  
Rapid City

South Dakota State University  
Brookings

Southern State College\*  
Springfield

University of South Dakota\*  
Vermillion

Yankton College  
Yankton

Montana

Carroll College  
Helena

College of Great Falls  
Great Falls

Eastern Montana College\*  
Billings

Montana School of Mines  
Butte

Montana State College\*  
Bozeman

Northern Montana College  
Havre

Rocky Mountain College  
Billings

University of Montana\*  
Missoula

Western Montana College\*  
Dillon

\*Schools offering a Business  
Teacher Education major

A P P E N D I X   B

March 20, 1970

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_:

Recently you received a survey instrument from me regarding articulation practices in shorthand and type-writing. I know that this is an extremely busy time for you, and the instrument may have been misplaced, I am, therefore, sending you another copy of the instrument with the request that you fill it out and return it at your earliest possible convenience.

Your participation will be greatly appreciated, and I am looking forward to receiving your reply.

Thank you very much for giving this matter your immediate attention.

Sincerely,

Darrell Morrison

Enclosures (2)

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- South Dakota: Augustana College, Sioux Falls; Black Hills State College, Spearfish; Dakota State College, Madison; Dakota Wesleyan University, Mitchell; Huron College, Huron; Northern State College, Aberdeen; Sioux Falls College, Sioux Falls; South Dakota State University, Brookings; Southern State College, Springfield; University of South Dakota, Vermillion.

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