THE SPECIAL TECHNIQUES FOR DEVELOPING COMPETENCIES IN WORD PROCESSING TAUGHT IN THE TYPING CLASS

by

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This paper has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

The purpose of this study was to determine the techniques to be used in a typewriting class that would develop competencies in word processing. The study was done to identify techniques and drills that relate to typing to improve competencies in word processing.

To gather the data and information needed to complete the study, questionnaires were developed and completed by students in Intermediate Typing, Advanced Typing and Word Processing classes at Ronan High School. Fifty-one students responded to the questionnaire. The data collected were presented in tabular form so the responses could be compared and interpreted.

The conclusions were: 1) a majority of the respondents surveyed rated all the techniques as above average of importance; 2) a significant number indicated more stress should be placed on speed and accuracy; 3) when doing production skill development, over two-thirds indicated more emphasis is needed on practice material that is similar to the job and to correct errors; 4) sixty percent indicated that proofreading was important for success in terms of the overall ability to make a good typist; 5) the ability to spell, punctuate, and capitalize was rated very important by 77 percent of the respondents; 6) competence in listening and following directions emerges as being of primary importance by almost three-fourth of the respondents.

The writer made the following recommendations in regard to the study: 1) business teachers need to continue to emphasize correct technique at the typewriter, especially the home row, eyes on your copy, and the position of the body including the fingers; 2) teachers at all levels of learning need to place more emphasis on speed and accuracy; 3) business teachers need to place more emphasis on proofreading in the typewriting class to include reading the material for content, grammar, numbers, and statistics; 4) business teachers need a thorough mastery of grammar, punctuation, capitalization, and the use of rules for writing numbers, dividing words, so they can incorporate them into a typewriting class; 5) it is recommended that this study be replicated with business teachers, and secretaries to determine their perceptions on this topic.
CHAPTER 1

INTRODUCTION

The typing area of the business education curriculum has taken on a new interest for business education teachers with the introduction of word processing. Never before has there been such an interest created by and for typewriting skills. This is an exciting time for typing classes.

Word processing has taken the world by storm because there are such endless possibilities of use. According to Beaumont: (1981:67)

"The literature of today abounds with superlatives which describe the influence of word processing upon business and education. We read that word processing will cause dramatic changes in the business education curriculum, that word processing will revolutionize the way we teach business subjects, and that word processing will force business educators to make drastic changes in the standards of achievement for students who wish to become office employees."

It will be the charge of educators to assume that students receive the proper techniques in a typewriting class. As a result, this investigator became interested in examining and evaluating techniques used in typewriting classes that develop competencies in word processing.
Statement of the Problem

This study was done to determine what techniques should be emphasized in a typewriting class that will transfer as instruction in a word processing class. The findings of this study should help business educators to know the techniques and standards that could be used in a typewriting class that will help to develop competencies in word processing.

Questions to be asked:

1. What typewriting techniques should be emphasized?
2. Why teach straight-copy skills including speed and accuracy?
3. Why are production skills important in the final stages of typewriting?
4. Why the renewed emphasis on proofreading skill development?
5. Why are English skills important?
6. Why should listening and following directions be stressed in school?
7. Why should the use of references be stressed in typewriting?
8. What skills or competencies are necessary to operate word processing equipment successfully?

Need for the Study

The purpose of this study was to determine the techniques to be used in a typewriting class that would develop competencies in word processing. The study was done
to identify techniques and drills that relate to typing to improve competencies in word processing.

"The following appear to be the major competencies required by entry-level Word Processing Operators/Correspondence Secretaries and Administrative Support Secretaries: typing with accuracy from typed copy, from handwritten copy, and from rough draft within a satisfactory length of time; correctly applying grammatical and transcription rules in typing letters, memos, and other kinds of typing of varying lengths; following directions; and listening." (Scriven, 1981:329)

With the development of the electronic office, many businesses are hiring word processing operators. Therefore, business educators must be concerned about maintaining a good image in the eyes of business, so they must be sure they are turning out students who possess competency-based skills in word processing.

Those competencies can be developed in a typewriting class through the use of special drills and techniques that are taught by business teachers. This study was completed to determine the content that could be taught in typing to develop those skills.

Limitations of the Study

This study was limited to typewriting and word processing classes. The materials reviewed and the information obtained for this study were limited to: the Library at Montana State University and the researchers
own personal business library. The information obtained to
do the study was limited to the classes at Ronan High
School.

**Definition of Terms**

The following definitions are presented to assist the reader. These definitions have been developed from sources used by the researcher in the review of literature and are generally accepted educational references. (Curley, 1984:17)

**competency** knowledge, skill, or attitude required to perform a specific task on the job.

**word processing** use of prepared programs to edit and format documents such as correspondence and manuscripts.

**technique** the method of procedure, or way of using basic skills, in rendering an artistic work or carrying out a mechanical operation.

**Keyboarding** the activity involving the manipulation of the keys and controls, via the touch method on a standard typewriter-like keyboard to produce copy which appears either on a display screen or is recorded and stored in memory for later access and use.

**Organization of the Study**

This research project is organized into five chapters. Chapter I contains the statement of the problem, the need for the study, the limitations of the study and the definition of terms.

Chapter II includes a review of literature and is divided into nine distinct sections:
1. Keyboarding skills.
2. Typewriting techniques
3. Basic Straight Copy Skills
4. Production Skills
5. Proofreading Skills
6. English Skills
7. Using references
8. Listening and following directions
9. Word Processing Competencies

Chapter III summarizes the procedures used in carrying out the study. This chapter covers the sources of data, design of the survey instrument, administration of the survey instrument, and compilation and analysis of the data.

Chapter IV is an interpretation of the data collected and reported in the findings of the study.

Chapter V summarizes and serve as a synopsis of the entire study. Conclusions are then drawn from the findings of the study and recommendations are presented.
CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter was to review recent literature most relevant in the area of typewriting techniques that would develop competencies in word processing. Since no studies were found which dealt specifically with this concern, the information presented is general in nature and covers the topic from a variety of leading journals, textbooks and position papers.

Many revolutionary changes are taking place today because of the electronic office. "Straight-copy speed and accuracy are not enough; the electronic typewriter and the computer have changed office procedures so that more is expected of typist." (Morrison, 1982:14)

Many schools cannot afford to make these changes and purchase new equipment because of budget cuts or the loss of funding. According to Beaumont (1981:68) "the cost and diversity of word processing equipment available at this time make it almost impossible for high schools to provide hands-on training in sophisticated word processing equipment."

Business educators should familiarize students with the theory and practices of word processing. The changes will
be slow that affect the curriculum, courses and teaching methods of business education. It is apparent, that typewriting techniques are available, if used, to develop competencies in word processing. This chapter will address some of the more significant findings and conclusions of the related literature in the following areas.

1. Keyboarding skills.
2. Typewriting techniques.
3. Basic straight-copy skills.
4. Production skills.
5. Proofreading skills.
6. English skills.
7. Using references.
8. Listening and decision making skills.

**Keyboarding Skills**

Keyboarding differs from typewriting in the basic purpose it serves. The target populations for keyboarding are those whose typewriting skill will be primary to their vocations, those whose skill will be secondary to their vocations, and those who will use typewriting for personal use.

Since it should be an essential part of the curriculum, it is important to point out the competencies that should be achieved. The competencies listed below were taken from a

1. Demonstrate correct "touch" system techniques for operating the alphanumeric keys of a keyboard by showing the correct hand and body placement at the machine and efficient finger movements.

2. Demonstrate the correct "touch" system techniques to be used on a ten-key numerical pad by showing correct hand and body placement at the machine and efficient finger movements.

3. Demonstrate knowledge of the key locations by correctly entering information from new copy without looking at either the hands, the screen, or the finished copy. (Note: Some individuals disagree here, suggesting that some visual reinforcement should be permitted and, indeed, may be necessary when applications require use of at least two fingers simultaneously.)

4. Produce a straight-copy speed of 30 words per minute with an accuracy level of not more than two errors per minute. (Speed requirements may vary according to grade level of student and length of course.)

5. Demonstrate the ability to proofread accurately from copied material, recognizing and using appropriate proofreader's marks.

6. Demonstrate the ability to backspace and correct errors by producing copy with all errors restruck.

7. Demonstrate the ability to follow oral and written directions by completing assignments given in both media by the instructor.

8. Demonstrate an understanding of the basic vocabulary and concepts used in keyboarding operations for inputting and retrieving information.

9. Demonstrate proficiency in keyboarding technical input including BASIC, FORTRAN, and COBOL programs and data base information.
Many careers today, from entry-level positions to those in top management, require the use of keyboarding. Technique and keyboard learning must be the first step in the learning cycle. One approach was the pretest-practice-posttest approach which has been very successful. Another approach has been the "technique-with-appropriate-speed" approach. In this approach, "students are led from clumsy and haphazard techniques to a refinement of movements which lead to typewriting skill." (Robinson, et al., 1979:42)

Typewriting techniques usually are construed to mean position of the body, arms, wrists, and fingers as well as the keyboard. Also included in techniques is the use of manipulative parts of the typewriter. What follows is a brief explanation of each technique given by (Ackley 1981:7).

Posture  The student should be shown the correct sitting position for typing: feet flat on the floor and slightly apart to take pressure off the spinal column and to reduce fatigue.

Position of the Body  Students should be instructed to sit a "hand span" from the typewriter with the center of their bodies aligned with the "J" key.

Position of Arms  Students upper arms should be almost parallel with their upper body's, elbows in a natural
position slightly ahead of their bodies. Their lower arms should parallel the slant of the keyboard.

**Position of Wrist and Fingers** Students should be instructed to keep their wrists low but not resting on the frame of the typewriter and to keep their fingers curved. The finger tips should lightly touch the keys.

**Keystroking** The teacher should demonstrate the "scratch stroke".

**Manipulative parts** The manipulative parts include the space bar, carriage return, shift key, backspace key and tabulator key. Specific drills on these manipulative parts should be given as often as needed.

When operating these parts, students should be given several reminders:

1. When operating the space bar, students should be encouraged to think of the "ending space" (the space between words) as part of the word preceding the space.

2. When returning the carriage, all fingers not involved with the carriage return should remain "close to home" and eyes should remain on the copy. Typing should be resumed without hesitation after the carriage has been returned.

3. When using the shift key, backspace key, and tabulator key, continuity in typing, proper form, and eyes on copy should be stressed. (Ackley, 1981:7)

If students are to properly master the techniques of typewriting, the teacher must demonstrate, model, and refine these techniques. Also, students self-evaluation and teacher-evaluation should be performed on a regular basis.
Basic Straight Copy Skills

Whether a student has a good knowledge of word processing procedures and concepts or not their straight-copy typing skills cannot be deficient or they will have a difficult time securing a job in an automated office. Straight-copy typing tests continue to be the most frequently used employment test in industry. Speed and accuracy serve as the foundation upon which other typing skills are built.

According to Showel (1974:279) one of the most effective ways to build speed is through paced typing. In this kind of copy the student strives to be at the designated point in the copy as each passing time interval (e.g., 1/4 minute, 1/2 minute, or minute) is announced. In developing typing skill, Showel hypothesized some of the reasons contributing to the success of paced typed (1) the use of a variety of copy, (2) individually set goals, and (3) immediate feedback.

Accuracy must be stressed in the development of straight-copy skill. In terms of accuracy, there are two separate, but complementary skills that are involved (1) keystroking accuracy (2) proofreading accuracy. In order to be a good typist, the typist must be competent in both skills. A balanced approach is needed between accuracy and proper technique. Once a respectable level of accuracy has been attained, refining it to a higher level may take a long
time but is not all that difficult. A Diagnostic Typing Program can be utilized to individualize students practice by focusing their effort on their demonstrated weaknesses. (Ober, 1983:12)

Straight-copy skills are of value in only two respects: for students to take employment tests and as a modest contribution to production speed. (McLean, 1984:31)

Production Skills

The development of typing production skill is the end goal of typing instruction. Once students reach this level in the development of their typing skills they should become familiar with word processing capabilities. Now they should be shown some similar operations on a typewriter which would be performed on a word processor or on a computer with word processing capabilities.

In an article by Scot Ober, (1984:12) it was pointed out that in order to maximize productivity, word processing centers are simplifying and standardizing procedures wherever possible. He mentioned using a standard letter placement with a 6 inch line and standard spacing between table columns of six spaces.

According to McLean (1984:32) some recommendations for improving the skill of production typists are the following.

1. Use sufficient practice material like that encountered in the real world (e.g., handwritten, typed drafts, composition) to develop competency.
2. Use material matching the difficulty of that encountered in the real world (e.g., syllabic intensity = 1.66; stroke intensity = 6.1)

3. Provide guidance in beginning stages of any topic and confirmation beyond the beginning stages. Develop decision-making skills.

4. Teach only the essentials of complex items such as number of rules, word division rules, etc., as well as the use of appropriate reference tools.

5. Drill on the individual parts of a production task.

6. Time all production work.

7. Use time scores in timing production work.

8. Move constantly about the classroom identifying student errors and providing models for students as soon as the task is completed.

9. Be innovative and creative in meeting the needs of your students.

10. Use class time for typing.

11. Teach the students how to make eye judgment placements and provide practice.

12. Begin correcting keystroking errors when placement decisions are being made reasonably well by the majority of the class.

13. Use massed practice in beginning stages and distribution of practice later.

By using these recommendations business educators will be able to help students make the transfer from a personal use setting to a competency that could be used in word processing.

Proofreading Skills

Proofreading skill is one of the two components of typing accuracy. It is a non-typing skill.
Scot Ober (1984:10) listed three types of errors that students must be taught to proofread on their typing papers.

1. **Typographical errors** They are the most frequent type and include errors due to transposition, added copy, omitted copy, and incorrect spacing.

2. **Format errors** They include such errors as incorrect spacing between parts of a letter, leaving out parts, and incorrect or inconsistent punctuation.

3. **Content errors** They are perhaps the most difficult to locate and include such errors as (Mr. Fran Smith) in the address but typing (Ms. Smith) in the salutation.

Dr. Ober said teachers can prepare their own proofreading exercises in a typewriting textbook involving any one of the three types of errors listed above.

According to Camp (1983:16), with the coming of sophisticated word processing equipment there is a renewed emphasis on accuracy and proofreading. Expensive and sophisticated automated office equipment will never correct all errors, therefore, the error detecting ability of the typist must be combined with the error correction capability of the equipment.

In another article by Sue C. Camp, (1979:26) she gives several ways to proofread. Here are those suggestions.

1. Read the material once for content.

2. Read the material again, this time for accuracy in grammar, spelling, punctuation—the mechanics.

3. Check numbers and statistics carefully. Be sure that the decimal point is in the correct place. Read long numbers in groups. Be sure that no digits have been omitted.

4. Read the material aloud.
5. Scan the material for obvious errors, such as the omission of the closing.

6. Wait thirty minutes or so and proofread the material again.

7. Read the material from right to left, a trick that will help you catch spelling errors you missed when reading for content.

8. Ask someone else to proofread the material. It is easier to see another person's errors than your own, and very important material should always be proofread by at least two people.

9. If you are typing from a rough draft, have someone read the rough draft aloud as you read the retyped copy word for word.

If proofreading is to be taught, Camp (1984:26) suggests that you spend twenty minutes of each class period everyday for three weeks concentrating on this skill alone. Then be sure you review the skill frequently through the course.

In addition to proofreading skills, students need to know proofreaders' marks. One way to reinforce the learning of proofreaders' marks is by requesting students to use the appropriate marks to identify errors on timed writings. (Boyce, 1980:14)

**English Skills**

One of the most important skills that students need to develop is good English skills. These skills should not be overlooked in a typing class. In fact, regardless of the purpose that a student learns typewriting, whether for
personal use or vocational use, they need to develop good writing skills.

Skills that need to be emphasized by the typing teacher are:

1. Spelling
2. Punctuation
3. Capitalization
4. Number expression
5. Subject/verb agreement
6. Abbreviations
7. Word choice

From the review of literature probably the best way to develop these English skills was through composition. According to Eileen B. Low (1979-80:148) through the use of a "progressional method of composition instruction," students can develop composition skill.

Low lists five basic steps that have been developed for teaching composition, taking the student from a simple one-word response to a complex, multipage paper. These steps are:

1. **Word responses** The students must respond to a dictated word by the teacher with a one-word response.

2. **Phrases** The students must respond to a dictated word with a phrase.

3. **Sentences** The teacher dictates the input or word and the student must respond with a sentence. At first this could be short sentences.
4. **Short paragraphs** The teacher gives a list of several words. Then the student must respond by writing a three to four sentence paragraph.

5. **Multipage report** The students select a topic, research the topic, make notes, then type a rough draft and then a final copy.

According to Low "experimentation has proven that a three-page paper, plus bibliography and title page, researched on a subject of the student's choice is of sufficient length to provide the complete learning experience." (Low, 1979-80:150)

Other ideas that might be used are:

1. If students are rotating from typewriter to typewriter every quarter. Have the next user of their machine describe its idiosyncrasies and give any helpful hints on its operation.

2. Type a letter to a friend.

3. Type the directions in sentence form for the procedures for a fire drill.

4. Write a news release.

5. Write a personal business letter asking for information, ordering goods, making reservations, or registering complaints.

Word processing operators in a study completed by Scriven (1981:157) indicated that a major weakness they had was English skills—ineffective grammar skills, inadequate knowledge of punctuation, inadequate vocabulary or lack of specialized terminology, and lack of skill in using the dictionary. Throughout all of this the basic English skills should be applied. Include word processing terms along with other vocabulary words.
Using References

The students should be taught how to use reference materials and they should be expected to use references at all times. Three important reference sources in word processing are: (Clack, 1982:9)

1. The dictionary
2. Thesaurus
3. Secretaries' manuals or guides

Since the principal function of word processing is transforming handwritten or dictated material into typed copy, it is important that students know how to use reference sources. Students need to be encouraged to use reference material when they need help. Tasks can be assigned that involve locating and then using information.

Listening and Following Directions

In the study completed by Scriven, (1981:131) it was stated that most of the respondents (90 percent) said that the ability to demonstrate competency in listening and following directions was very important. Also, in the same study 49 percent indicated that the competency could best be learned both in school and on the job.

Listening and following directions are very important. In the beginning stages of a course the instructions should not vary with instructions given in textbook. As you
progress through the course with similar assignments, then less instructions could be given.

It is important that students learn to set priorities. As Boyce points out in her article, it is important for students to develop the skill and do a little planning as to when work must be completed. The use of a priority sheet will help students in deciding when a job must be completed immediately or if it is routine and can wait until later. (Boyce, 1980:13)

Word Processing Competencies

Word processing, the four-syllable term which emerged during the late sixties, has come to affect the most basic form of the office, the relationship between employees and the employer. (Rider, 1981-82:127)

Word processing entry level skills may vary from one job to another, but the common requirements include correspondence formatting experience: grammar, punctuation, spelling, and communications skills; and knowledge of word processing theory and concepts.

According to Clack (1981:7) one place to integrate these skills is in an advanced typewriting class. The use of log sheets should be considered too, since they are commonly used by word processing operators.

Through the review of several articles some common competencies appeared to be apparent to this researcher. The
following are the major competencies mentioned by (Beaumont, 1981:65), (Myatt, 1984:7), (Scriven, 1981:331) that are needed to be successful on the job in word processing.

1. Develop keyboarding skill with accuracy of at least 50 wpm.

2. Be able to use English correctly which includes spelling, punctuation, capitalization, subject/verb agreement and word choice.

3. Be able to listen and follow directions.

4. Be able to utilize reference manuals.

5. Be able to set priorities.

6. Be able to proofread with accuracy.

7. Be able to prepare letters, memos, reports from handwritten of rough-draft copy.

Summary

The items covered in this chapter are briefly summarized as followed.

Keyboarding skill development was important for many vocations. After reviewing the literature the point can be made that keyboarding will become a competency for many careers. It should be an essential part of the business education curriculum.

Typewriting techniques are the cornerstone for the development of typewriting skill. The teacher direction and demonstration of proper technique are essential for students.
to gain maximum skill results. Also, proper technique should be emphasized early in the course.

Basic straight copy skill is the measure that is most frequently used by industry on employment tests. Several of the experts mentioned accuracy as an essential skill particularly in word processing.

Production skill is the end goal of typing instruction. All work in a typewriting class where production skill is emphasized should be timed. Students must be introduced to the types of material encountered in the real world such as, handwritten, rough-draft, and difficult material used in various industries.

Proofreading skill has gained a renewed emphasis because of word processing equipment. Therefore, according to the experts, proofreading needs to be reviewed frequently throughout the course so students learn all the possible ways to detect errors.

English skills are one of the most important skills that students need to develop. Skills that need attention are grammar, punctuation, capitalization, number expression, subject/verb agreement, abbreviations, and word choice. From the review of literature probably the best way to develop these English skills was through composition.

Using references was emphasized and should be taught so that students will use them when needed. Three important
references were mentioned, the dictionary, thesaurus, and secretarial manuals or guides.

Listening and following directions was probably the most important competency to develop. It was mentioned that this competency could be learned both in school and on the job. Also, it is important that the students learn to set priorities.

Word processing competencies can be taught in typewriting classes. With the coming of the automated office it is important that business education teachers take steps to teach formatting, grammar, punctuation, spelling, communication skills and a knowledge of word processing theory and concepts. From the review of literature these skills could be integrated into typewriting classes when word processing equipment is not available.
CHAPTER III

PROCEDURES

Introduction

This study was undertaken to determine techniques for developing competencies in word processing taught in a typing class. The study also recommends what techniques would develop competency in word processing.

Chapter III is organized into the following sections:
1. Sources of Data
2. Construction of a Survey Instrument
3. Administration of the Survey Instrument
4. Analysis of Data

Sources of Data

The sources of data for this study were obtained by questionnaire conducted in the Intermediate Typing, Advanced Typing, and Word Processing classes at Ronan High School.

Data for the review of literature was obtained from the Roland R. Renne Library, Montana State University; and from periodicals that the researcher subscribes to through his place of employment.
Construction of the Survey Instrument

The questionnaire consisted of 45 questions (appendix A). The questions dealt mainly with the skills that could be taught in a typing class, such as:

1. Typewriting techniques
2. Basic-straight copy skills
3. Production skills
4. Proofreading skills
5. English skills
6. Use of references
7. Listening and following directions

The survey instrument was developed by the writer, with the assistance of Dr. Daniel Hertz. The questions were submitted in rough draft form to be reviewed by the BUED 524 Research in Business Education class on July 17, 1985. After a series of revisions, the questionnaire was considered appropriate for the study.

The questionnaire was used to determine how important is learning the seven skills in terms of the overall skill development in typewriting.

Administration of Survey Instrument

In September 1985 a pre-questionnaire was administered to the students in Intermediate Typing, Advanced Typing and Word Processing at Ronan High School. As indicated in Table
1, 51 students completed the questionnaire. Of the 51 students, 20 were Sophomores, 12 were Juniors, and 19 were Seniors in high school. The information contained in the 51 completed questionnaires is presented and analyzed in the tables and explanatory paragraphs in Chapter IV.

**TABLE 1**

Summary of Respondents

<table>
<thead>
<tr>
<th>Explanation</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomores</td>
<td>20</td>
<td>39.2</td>
</tr>
<tr>
<td>Juniors</td>
<td>12</td>
<td>23.5</td>
</tr>
<tr>
<td>Seniors</td>
<td>19</td>
<td>37.3</td>
</tr>
</tbody>
</table>

Then in January 1986 a post questionnaire was administered to the students in Intermediate Typing, Advanced Typing and Word Processing.

**Analysis of Data**

Once the survey had been completed, responses were compiled in order to summarize the data.

Tables were constructed from the data in order to present the findings in a readable and understandable form. The statistics given in these tables relate to the number of responses to each category and how those answers compared as a percentage of the total responses for that table. The
tables and explanations were presented in Chapter IV.

A scale from 5 to 1 (5 being the most important) was used for the respondents to record their answers. The tables were set up to show the total number responding to each question, the listing of possible answers to each question, and the percent responding to each answer.

The analysis of the data relates to Chapter IV in which the writer presents, analyzes, and interprets the data from the survey. After analyzing the results of the study, conclusions and recommendations are presented in Chapter V of this study.
CHAPTER IV

FINDINGS

Introduction

This chapter presents a tabulation and analysis of the data obtained from this survey of the Intermediate Typing, Advanced Typing, and Word Processing classes at Ronan High School.

The primary objective of this Study was to determine the techniques to be used in a typewriting class that would develop competencies in word processing. The study was done to identify techniques and drills that relate to typing to improve competencies in word processing.

All percentages were rounded to one decimal place. Because of this rounding process, some column totals will not add to exactly 100 percent.

The questionnaire contained 45 questions. A scale from 5 to 1 (5 being the most important, 4 being important, 3 being neutral, 2 being unimportant, and 1 being not important) was used for the respondents to record their answers. The survey instrument was administered twice, as a pre-questionnaire and as a post-questionnaire to reflect any attitude changes by the respondents.
The tables were set up to show the total number responding to each question, the listing of possible answers to each question, and the percent responding to each answer.

Summary of Responses

In Part I there were ten questions that dealt with typing technique. Each question was asked to determine from the respondent how important is the learning of typing techniques in terms of the overall skill to make a good typist. According to Ackley, (1981:7) technique means position of the body, arms, wrist, fingers, keyboards as well as the manipulative parts of the typewriter.

How important is learning the home row?

TABLE 2
Home Row Importance

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 % 4 % 3 % 2 % 1 %</td>
</tr>
<tr>
<td>Pre 51</td>
<td>47 92.2 4 7.8</td>
</tr>
<tr>
<td>Post 51</td>
<td>41 80.4 8 15.7 2 3.9</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 92.2 percent in the pre-questionnaire said it was very important to learn the home row; 7.8 percent rated it a 4.

On the post-questionnaire 80.4 percent rated it important; 15.7 percent rated it a 4; and 3.9 percent rated it a 3.
How important is good posture at the typewriter, body centered adjacent to the "J" key?

**TABLE 3**

Good Posture At The Typewriter

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>13</td>
<td>25.5</td>
<td>20</td>
<td>39.2</td>
<td>13</td>
</tr>
<tr>
<td>Post</td>
<td>19</td>
<td>37.3</td>
<td>13</td>
<td>25.5</td>
<td>15</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question 25.5 percent in the pre-questionnaire said it was very important to have good posture at the typewriter; 39.2 percent rated it a 4; 25.5 percent rated it a 3; 7.8 percent rated it a 2; and 1.9 percent rated it not important.

On the post-questionnaire 37.3 percent rated it very important; 25.5 percent rated it a 4; 29.4 percent rated it very important; 25.5 percent rated it a 4; 29.4 percent rated it a 3; and 7.8 percent rated it a 2.
How important is the forearms parallel to the slant of the keyboard; wrists low?

TABLE 4
Forearms Parallel; Wrist Low

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre 51</td>
<td>12</td>
</tr>
<tr>
<td>Post 51</td>
<td>11</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question 23.5 percent in the pre-questionnaire said it was very important to keep your forearms parallel; wrist low at the typewriter; 39.2 percent rated it a 4; 29.4 percent rated it a 3; and 7.8 percent rated it a 2.

On the post questionnaire 21.6 percent rated it very important; 35.3 percent rated it a 4; 27.5 percent rated it a 3; and 15.6 percent rated it a 2.
How important is maintaining eyes on your copy?

**TABLE 5**

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>38</td>
<td>74.5</td>
<td>10</td>
<td>19.6</td>
<td>2</td>
</tr>
<tr>
<td>Post</td>
<td>31</td>
<td>60.8</td>
<td>16</td>
<td>31.4</td>
<td>3</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question 74.5 percent in the pre-questionnaire said it was very important to keep your eyes on your copy while typing; 19.6 percent rated it a 4; 3.9 percent rated it a 3; 1.9 percent rated it a 2.

On the post-questionnaire 60.8 percent rated it very important; 31.4 percent rated it a 4; 5.9 percent rated it a 3; and 1.9 percent rated it a 2.
How important is use of the right thumb to strike the space bar?

TABLE 6
Right Thumb

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>5  %</th>
<th>4  %</th>
<th>3  %</th>
<th>2  %</th>
<th>1  %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>31</td>
<td>60.8</td>
<td>10</td>
<td>19.6</td>
<td>8</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>25</td>
<td>49.0</td>
<td>12</td>
<td>23.5</td>
<td>10</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 60.8 percent in the pre-questionnaire said it was very important to use the right thumb to strike the space bar; 19.6 percent rated it a 4; 15.7 percent rated it a 3; 3.9 percent rated it a 2.

On the post-questionnaire 49.0 percent rated it very important; 23.5 percent rated it a 4; 19.6 percent rated it a 3; 3.9 percent rated it a 2; and 3.9 percent rated it not important.
How important is using the correct finger to return the carriage?

**TABLE 7**

**Correct Finger To Return The Carriage**

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre  51</td>
<td>29</td>
</tr>
<tr>
<td>Post 51</td>
<td>29</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 56.9 percent in the pre-questionnaire said it was very important to use the correct finger to return the carriage; 23.5 percent rated it a 4; 11.8 percent rated it a 3; 5.9 percent rated it a 2; and 1.9 percent rated it as not important.

On the post-questionnaire 56.9 percent rated it very important; 21.6 percent rated it a 4; 15.7 percent rated it a 3; and 5.9 percent rated it a 2.
How important is learning to use the correct fingers to control the shift key?

TABLE 8
Correct Fingers To Control The Shift Key

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Post</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 62.7 percent in the pre-questionnaire said it was very important to learn to use the correct fingers to control the shift key; 17.6 percent rated it a 4; 15.7 percent rated it a 3; and 3.9 percent rated it a 2.

On the post-questionnaire 58.8 percent rated it very important; 17.6 percent rated it a 4; 15.7 percent rated it a 3; and 7.8 percent rated it a 2.
How important is learning to use the correct fingers to control the tabulator key?

TABLE 9

Correct Fingers To Control The Tabulator Key

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 47.1 percent in the pre-questionnaire said it was very important to use the correct fingers to control the tabulator key; 25.5 percent rated it a 4; 15.7 percent rated it a 3; 9.8 percent rated it a 2; and 1.9 percent rated it not important.

On the post-questionnaire 39.2 percent rated it very important; 35.3 rated it a 4; 19.6 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not important.
How important is learning to use the correct fingers to control the backspace key?

TABLE 10

Correct Fingers To Control The Backspace Key

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>17</td>
<td>33.3</td>
<td>10</td>
<td>19.6</td>
<td>14</td>
</tr>
<tr>
<td>Post</td>
<td>17</td>
<td>33.3</td>
<td>12</td>
<td>23.5</td>
<td>16</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question 33.3 percent in the pre-questionnaire said it was very important to learn to use the correct fingers to control the backspace key; 19.6 percent rated it a 4; 27.4 percent rated it a 3; 7.8 percent rated it a 2 and 11.8 percent rated it not important.

On the post-questionnaire 33.3 percent rated it very important; 23.5 rated it a 4; 31.4 percent rated it a 3; 7.8 percent rated it a 2 and 3.9 percent rated it not important.
How important is learning to use the correct fingers to control the margin release?

TABLE 11
Correct Fingers To Control The Margin Release

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>11</td>
<td>15</td>
<td>29.4</td>
<td>14</td>
<td>27.4</td>
</tr>
<tr>
<td>Post</td>
<td>13</td>
<td>25.5</td>
<td>14</td>
<td>27.4</td>
<td>13</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 21.6 percent in the pre-questionnaire said it was very important to use the correct fingers to control the margin release; 29.4 percent rated it a 4; 27.4 percent rated it a 3; 9.8 percent rated it a 2; and 11.8 percent rated it not very important.

On the post-questionnaire 25.5 percent rated it very important; 27.4 percent rated it a 4; 25.5 percent rated it a 3; 13.7 percent rated it a 2; and 7.8 percent rated not very important.
In part II there were seven questions that dealt with straight copy skills. Each question was asked to determine from the respondent how important learning straight copy skills is, in terms of your overall skill to make you a good typist. From the review of literature straight copy typing tests continue to be the most frequently used employment test in industry.

How important is the ability to type with speed?

**TABLE 12**

*Ability To Type With Speed*

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 56.9 percent in the pre-questionnaire said it was very important to have the ability to type with speed; 35.3 percent rated it a 4; and 7.8 percent rated it a 3.

On the post-questionnaire 41.2 percent rated it very important; 47.1 percent rated it a 4; 9.8 percent rated it a 3 and 1.9 percent rated it a 2.
How important is the ability to type with accuracy?

TABLE 13

Ability To Type With Accuracy

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>46</td>
<td>90.2</td>
<td>4</td>
<td>7.8</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>40</td>
<td>78.4</td>
<td>9</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 90.2 percent in the pre-questionnaire said it was very important to have the ability to type with accuracy; 7.8 percent rated it a 4; and 1.9 percent rated it a 3.

On the post-questionnaire 78.4 percent rated it very important; 17.6 percent rated it a 4; and 3.9 percent rated it a 3.
How important is the ability to type letters and memos?

TABLE 14

Ability To Type Letters And Memos

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>28</td>
<td>54.9</td>
<td>20</td>
<td>39.2</td>
<td>3</td>
</tr>
<tr>
<td>Post</td>
<td>26</td>
<td>50.9</td>
<td>17</td>
<td>33.3</td>
<td>5</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 54.9 percent in the pre-questionnaire said it was very important to have the ability to type letters and memos; 39.2 percent rated it a 4; and 5.9 percent rated it a 3.

On the post-questionnaire 50.9 percent rated it very important; 33.3 percent rated it a 4; 9.8 percent rated it a 3; and 5.9 percent rated it a 2.
How important is the ability to type reports?

**TABLE 15**

Ability To Type Reports

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of Respondents</strong></td>
<td>51</td>
<td>35</td>
<td>14</td>
<td>27.5</td>
<td>2</td>
</tr>
<tr>
<td><strong>RATINGS</strong></td>
<td></td>
<td>68.6</td>
<td>27.5</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Pre</strong></td>
<td>51</td>
<td>30</td>
<td>13</td>
<td>25.5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Post</strong></td>
<td>51</td>
<td>30</td>
<td>13</td>
<td>25.5</td>
<td>6</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 68.6 percent in the pre-questionnaire said it was very important to have the ability to type reports; 27.5 percent rated it a 4; and 3.9 percent rated it a 2.

On the post-questionnaire 58.8 percent rated it very important; 25.5 percent rated it a 4; 11.8 percent rated it a 3; and 3.9 percent rated it a 2.
How important is the ability to type business forms?

TABLE 16
Ability To Type Business Forms

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>RATINGs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>28</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 66.6 percent in the pre-questionnaire said it was very important to have the ability to type business forms; 27.5 percent rated it a 4; 5.9 percent rated it a 3.

On the post-questionnaire 54.9 percent rated it very important; 29.4 percent rated it a 4; 7.8 percent rated it a 3; and 7.8 percent rated it a 2.
How important is the ability to type tabulated material?

**TABLE 17**

Ability To Type Tabulated Material

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>26</td>
<td>15</td>
<td>7</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>21</td>
<td>41.2</td>
<td>17</td>
<td>33.3</td>
<td>7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 50.9 percent in the pre-questionnaire said it was very important to have the ability to type tabulated material; 29.4 percent rated it a 4; 13.7 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 41.2 percent rated it very important; 33.3 percent rated it a 4; 13.7 percent rated it a 3; and 11.8 percent rated it a 2.
How important is the ability to type statistical data?

TABLE 18
Ability To Type Statistical Data

<table>
<thead>
<tr>
<th></th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>No. of Respondents</td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>23   45.1</td>
</tr>
<tr>
<td>Post</td>
<td>18   35.3</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 45.1 percent in the pre-questionnaire said it was very important to have the ability to type statistical data; 37.3 percent rated it a 4; 15.7 percent rated it a 3; and 1.9 percent rated it not very important.

On the post-questionnaire 35.3 percent rated it very important; 33.3 percent rated it a 4; 25.4 percent rated it a 3; and 5.9 percent rated it a 2.
In part III there were five questions that dealt with production skills. Each question was asked to determine from the respondent how important is learning production skills in terms of your overall skill to make you a good typist. The development of typing production skill is the end goal of typing instruction.

How important is practice material that is similar to that on the job?

TABLE 19
Practice Material That Is Similar To That On The Job

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
<td>37</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>32</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 72.5 percent in the pre-questionnaire said it was very important to practice material that is similar to that on the job; 21.6 percent rated it a 4; and 5.9 percent rated it a 3.

On the post-questionnaire 62.7 percent rated it very important; 29.4 percent rated it a 4; and 7.8 percent rated it a 3.
How important is drill on the individual parts of a production task?

TABLE 20
Drill On Individual Parts Of A Production Task

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>15</td>
<td>29.4</td>
<td>28</td>
<td>54.9</td>
<td>6</td>
</tr>
<tr>
<td>Post 51</td>
<td>22</td>
<td>43.1</td>
<td>25</td>
<td>49.0</td>
<td>3</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 29.4 percent in the pre-questionnaire said it was very important to drill on the individual parts of a production task; 54.9 percent rated it a 4; 11.8 percent rated it a 3; and 3.9 percent rated it a 2.

On the post-questionnaire 43.1 percent rated it very important; 49.0 percent rated it a 4; 5.9 percent rated it a 3; and 1.9 percent rated it a 2.
How important is it for you to make eye judgment regarding placement?

TABLE 21
Eye Judgment Regarding Placement

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
<td>23</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>20</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 45.1 percent in the pre-questionnaire said it was very important for you to make eye judgment regarding placement; 25.5 percent rated it a 4; 23.5 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 39.2 percent rated it very important; 27.4 percent rated it a 4; 31.4 percent rated it a 3; and 1.9 percent rated it a 2.
How important is it to provide guidance in the beginning stages of a topic in production skill?

**TABLE 22**

**Guidance In The Beginning Stages Of A Topic In Production Skill**

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>20</td>
<td>39.2</td>
<td>22</td>
<td>43.1</td>
<td>8</td>
</tr>
<tr>
<td>Post</td>
<td>13</td>
<td>25.5</td>
<td>25</td>
<td>49.0</td>
<td>11</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 39.2 percent in the pre-questionnaire said it was very important to provide guidance in the beginning stages of a topic in production skill; 43.1 percent rated it a 4; 15.7 percent rated it a 3; and 1.9 percent rated it a 2.

On the post-questionnaire 25.5 percent rated it very important; 49.0 percent rated it a 4; and 21.7 percent rated it a 3; and 3.9 percent rated it a 2.
How important is it to correct errors when doing production work?

TABLE 23
Correct Errors When Doing Production Work

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>39</td>
<td>10</td>
<td>19.6</td>
<td>2</td>
<td>3.9</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>35</td>
<td>13</td>
<td>25.5</td>
<td>3</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 76.5 percent in the pre-questionnaire said it was very important to correct errors when doing production work; 19.6 percent rated it a 4; and 3.9 percent rated it a 3.

On the post-questionnaire 68.7 percent rated it very important; 25.5 percent rated it a 4; and 5.9 percent rated it a 3.
In Part IV there were eight questions that dealt with proofreading skills. Each question was asked to determine from the respondent how important is learning the different ways to proofread in terms of your overall skill to make you a good typist. From the review of literature, the expensive or sophisticated, automated office equipment will never correct all errors, therefore, the error detecting ability of the typist must be combined with the error correction capability of the equipment.

How important is it to read the material once for content?

TABLE 24

<table>
<thead>
<tr>
<th>Read The Material Once For Content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>RATINGS</strong></td>
</tr>
<tr>
<td>No. of Respondents</td>
</tr>
<tr>
<td>Pre</td>
</tr>
<tr>
<td>Post</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 47.1 percent in the pre-questionnaire said it was very important to read the material once for content; 15.7 percent rated it a 4; 19.6 percent rated it a 3; 15.7 percent rated it a 2; and 1.9 percent rated not very important.

On the post-questionnaire 50.9 percent rated it very important; 23.5 percent rated it a 4; 19.6 percent rated it
a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.

How important is it to read the material again for accuracy in grammar?

TABLE 25
Read The Material Again For Accuracy In Grammar

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>34 66.7</td>
</tr>
<tr>
<td>Post</td>
<td>32 62.7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 66.7 percent in the pre-questionnaire said it was very important to read the material again for accuracy in grammar; 17.6 percent rated it a 4; 11.8 percent rated it a 3; 1.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 62.7 percent rated it very important; 15.7 percent rated it a 4; 15.7 percent rated it a 3; 1.9 percent rated it a 2; and 3.9 percent rated it not very important.
How important is it to check numbers and statistics carefully?

TABLE 26
Check Numbers And Statistics Carefully

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>32 62.7</td>
</tr>
<tr>
<td>Post</td>
<td>32 62.7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 62.7 percent in the pre-questionnaire said it was very important to check numbers and statistics carefully; 23.5 percent rated it a 4; 11.8 percent rated it a 3; and 1.9 percent rated it not very important.

On the post-questionnaire 62.7 percent rated it very important; 17.6 percent rated it a 4; 11.8 percent rated it a 3; 3.9 percent rated it a 2; and 3.9 percent rated it not very important.
How important is it to read the material aloud?

**TABLE 27**

*Read The Material Aloud*

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>6</td>
<td>5</td>
<td>17</td>
<td>33.3</td>
<td>10</td>
</tr>
<tr>
<td>Post 51</td>
<td>8</td>
<td>15.7</td>
<td>10</td>
<td>19.6</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 11.8 percent in the pre-questionnaire said it was very important to read the material aloud; 9.8 percent rated it a 4; 33.3 percent rated it a 3; 19.6 percent rated it a 2; and 25.5 percent rated it not very important.

On the post-questionnaire 15.7 percent rated it very important; 19.6 percent rated it a 4; 33.3 percent rated it a 3; 15.7 percent rated it a 2; and 15.7 percent rated it not very important.
How important is it to scan the material for obvious errors?

**TABLE 28**

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>35</td>
<td>68.6</td>
<td>9</td>
<td>17.6</td>
<td>4</td>
<td>7.8</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>32</td>
<td>62.7</td>
<td>10</td>
<td>19.6</td>
<td>7</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 68.6 percent in the pre-questionnaire said it was very important to scan the material for obvious errors; 17.6 percent rated it a 4; 7.8 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 62.7 percent rated it very important; 19.6 percent rated it a 4; 13.7 percent rated it a 3; 1.9 percent rated it a 2; and 1.9 percent rated it not very important.
How important is it to wait thirty minutes, then read it again?

TABLE 29
Wait Thirty Minutes, Then Read It Again

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>2</td>
</tr>
<tr>
<td>Post</td>
<td>5</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 3.9 percent in the pre-questionnaire said it was important to wait thirty minutes, then read it again; 17.6 rated it a 4; 19.6 percent rated it a 3; 13.7 percent rated it a 2; and 45.1 percent rated it not very important.

On the post-questionnaire 9.8 percent rated it very important; 21.6 percent rated it a 4; 19.6 percent rated it a 3; 25.5 percent rated it a 2; and 23.5 percent rated it not very important.
How important is it to read the material from right to left?

**TABLE 30**

Read The Material From Right To Left

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 29.4 percent in the pre-questionnaire said it was very important to read the material from right to left; 11.8 percent rated it a 4; 9.8 percent rated it a 3; 15.7 percent rated it a 2; and 33.3 percent rated it not very important.

On the post-questionnaire 23.5 percent rated it very important; 13.7 percent rated it a 4; 25.5 percent rated it a 3; 17.6 percent rated it a 2; and 19.6 percent rated it not very important.
How important is it to ask someone else to proofread your material?

TABLE 31
Ask Someone Else To Proofread Your Material

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>20</td>
<td>16</td>
<td>8</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>Post 51</td>
<td>16</td>
<td>31.4</td>
<td>10</td>
<td>19.6</td>
<td>29.4</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 39.2 percent in the pre-questionnaire said it was very important to ask someone else to proofread your material; 31.4 percent rated it a 4; 15.7 percent rated it a 3; 5.9 percent rated it a 2; and 7.8 percent rated it not very important.

On the post-questionnaire 31.4 percent rated it very important; 19.6 percent rated it a 4; 29.4 percent rated it a 3; 7.8 percent rated it a 2; and 11.8 percent rated it not very important.
In Part V there were eight questions that dealt with English skills. Each question was asked to determine from the respondent how important is learning English skills in terms of your overall skill to make you a good typist. Questions in this study dealt with spelling, punctuation, capitalization, number expression, subject/verb agreement, abbreviations, and word choice.

How important is it to know correct spelling, punctuation, and capitalization?

TABLE 32

Know Correct Spelling Punctuation, and Capitalization

<table>
<thead>
<tr>
<th></th>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>51</td>
<td>42</td>
<td>82.4</td>
<td>8</td>
<td>15.7</td>
<td>1</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
<td>37</td>
<td>72.5</td>
<td>10</td>
<td>19.6</td>
<td>3</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 82.4 percent in the pre-questionnaire said it was very important to know correct spelling, punctuation, and capitalization; 15.7 percent rated it a 4; and 1.9 percent rated it not very important.

On the post-questionnaire 72.5 percent rated it very important; 19.6 percent rated it a 4; 5.9 percent rated it a 3; and 1.9 percent rated it not very important.
How important is it to know some basic rules of number expression?

TABLE 33

Know Some Basic Rules Of Number Expression

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>22</td>
<td>43.1</td>
<td>20</td>
<td>39.2</td>
<td>5</td>
</tr>
<tr>
<td>Post</td>
<td>22</td>
<td>43.1</td>
<td>20</td>
<td>39.2</td>
<td>7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 43.1 percent in the pre-questionnaire said it was very important to know some basic rules of number expression; 39.2 percent rated it a 4; 9.8 percent rated it a 3; 5.9 percent rated it a 2, and 1.9 percent rated it not very important.

On the post-questionnaire 43.1 percent rated it very important; 39.2 percent rated it a 4; 13.7 percent rated it a 3; and 3.9 percent rated it a 2.
How important is it to know subject/verb agreement?

TABLE 34

Know Subject/Verb Agreement

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5  %</td>
</tr>
<tr>
<td>Pre</td>
<td>23</td>
</tr>
<tr>
<td>Post</td>
<td>22</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 45.1 percent in the pre-questionnaire said it was very important to know subject/verb agreement; 29.4 percent rated it a 4; 19.6 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 43.1 percent rated it very important; 31.4 percent rated it a 4; 19.6 percent rated it a 3; and 5.9 percent rated it a 2.
How important is it to know correct abbreviations?

TABLE 35

Know Correct Abbreviations

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
<th>1.9 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>30</td>
<td>14</td>
<td>54.9</td>
<td>6</td>
<td>11.8</td>
<td>1</td>
</tr>
<tr>
<td>Post 51</td>
<td>26</td>
<td>50.9</td>
<td>14</td>
<td>54.9</td>
<td>9</td>
<td>17.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 58.8 percent in the pre-questionnaire said it was very important to know correct abbreviations; 54.9 percent rated it a 4; 11.8 percent rated it a 3; and 1.9 percent rated it not very important.

On the post-questionnaire 50.9 percent rated it very important; 54.9 percent rated it a 4; 17.6 percent rated it a 3; and 3.9 percent rated it a 2.
How important is it to know correct word choice?

TABLE 36
Know Correct Word Choice

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>30</td>
<td>16</td>
<td>31.3</td>
<td>5.9</td>
<td>2</td>
</tr>
<tr>
<td>Post 51</td>
<td>28</td>
<td>11</td>
<td>21.6</td>
<td>9</td>
<td>17.6</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 58.8 percent in the pre-questionnaire said it was very important to know the correct word choice; 31.3 percent rated it a 4; 5.9 percent rated it a 3; 3.9 percent rated it a 2.

On the post-questionnaire 54.9 percent rated it very important; 21.6 percent rated it a 4; 17.6 percent rated it a 3; and 5.9 percent rated it a 2.
How important is it to learn to compose from longhand notes?

TABLE 37
Learn To Compose From Longhand Notes

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 49.0 percent in the pre-questionnaire said it was very important to learn to compose from longhand notes; 29.4 percent rated it a 4; 13.7 percent rated it a 3; 3.9 percent rated it a 2; and 3.9 percent rated it not very important.

On the post-questionnaire 47.1 percent rated it very important; 17.6 percent rated it a 4; 19.6 percent rated it a 3; 11.8 percent rated it a 2; and 3.9 percent rated it not very important.
How important is it to learn to compose routine letters without directions?

TABLE 38

Learn To Compose Routine Letters Without Directions

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>27</td>
<td>52.9</td>
<td>15</td>
<td>29.4</td>
<td>5</td>
</tr>
<tr>
<td>Post</td>
<td>30</td>
<td>58.8</td>
<td>9</td>
<td>17.6</td>
<td>7</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 52.9 percent in the pre-questionnaire said it was very important to learn to compose routine letters without directions; 29.4 percent rated it a 4; 9.8 percent rated it a 3; and 7.8 percent rated it a 2.

On the post-questionnaire 58.8 percent rated it very important; 17.6 percent rated it a 4; 13.7 percent rated it a 3; 7.8 percent rated it a 2; and 1.9 percent rated it not very important.
How important is it to learn to compose business letters, memos, and other documents?

TABLE 39

Learn To Compose Business Letters Memos And Other Documents

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5%</th>
<th>4%</th>
<th>3%</th>
<th>2%</th>
<th>1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>36</td>
<td>70.5</td>
<td>9</td>
<td>17.6</td>
<td>1</td>
</tr>
<tr>
<td>Post</td>
<td>43</td>
<td>66.7</td>
<td>7</td>
<td>13.7</td>
<td>9</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 70.5 percent in the pre-questionnaire said it was very important to learn to compose business letters, memos, and other documents; 17.6 percent rated it a 4; 7.8 percent rated it a 3; 1.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 66.7 percent rated it very important; 13.7 percent rated it a 4; 17.6 percent rated it a 3; and 1.9 percent rated it a 2.
In Part VI there were four questions that dealt with references. Each question was asked to determine from the respondent how important is learning to use references in terms of your overall skill to make you a good typist. References that were dealt with in this study included the dictionary, secretarial manual, thesaurus, and word processing manual.

How important is it to know how to use a dictionary?

**TABLE 40**

<table>
<thead>
<tr>
<th>Know How To Use A Dictionary</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Respondents</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pre</td>
</tr>
<tr>
<td>Post</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 56.9 percent in the pre-questionnaire said it was very important to know how to use a dictionary; 27.5 percent rated it a 4; 11.8 percent rated it a 3; 1.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 60.8 percent rated it very important; 21.6 percent rated it a 4; 11.8 percent rated it a 3; and 5.9 percent rated it not very important.
How important is it know how to use a secretarial manual?

TABLE 41

Know How To Use A Secretarial Manual

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 %</td>
</tr>
<tr>
<td>Pre</td>
<td>51</td>
</tr>
<tr>
<td>Post</td>
<td>51</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 37.3 percent in the pre-questionnaire said it was very important to know how to use a secretarial manual; 37.3 percent rated it a 4; 17.6 percent rated it a 3; 5.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 43.1 percent rated it very important; 35.3 percent rated it a 4; 15.7 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.
How important is it to know how to use a thesaurus?

TABLE 42
Know How To Use A Thesaurus

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>19</td>
<td>37.3</td>
<td>14</td>
<td>27.5</td>
<td>9</td>
</tr>
<tr>
<td>Post 51</td>
<td>13</td>
<td>25.5</td>
<td>19</td>
<td>37.3</td>
<td>14</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 37.3 percent in the pre-questionnaire said it was very important to know how to use a thesaurus; 27.5 percent rated it a 4; 17.6 percent rated it a 3; 13.7 percent rated it a 2; and 3.9 percent rated it not very important.

On the post-questionnaire 25.5 percent rated it very important; 37.3 percent rated it a 4; 27.5 percent rated it a 3; 5.9 percent rated it a 2; and 3.9 percent rated it not very important.
How important is it to know how to use a word processing manual?

TABLE 43

Know How To Use A Word Processing Manual

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>23</td>
<td>45.1</td>
<td>15</td>
<td>29.4</td>
<td>9</td>
</tr>
<tr>
<td>Post</td>
<td>17</td>
<td>33.3</td>
<td>21</td>
<td>41.2</td>
<td>9</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 45.1 percent in the pre-questionnaire said it was very important to know how to use a word processing manual; 29.4 percent rated it a 4; 17.6 percent rated it a 3; 5.9 percent rated it a 2; and 1.9 percent rated it not very important.

On the post-questionnaire 33.3 percent rated it very important; 41.2 percent rated it a 4; 17.6 percent rated it a 3; 3.9 percent rated it a 2; and 3.9 percent rated it low.
In Part VII there were three questions that dealt with listening and decision making skills. Each question was asked to determine from the respondent how important is learning to listen and follow directions in terms of your overall skill to make you a good typist. According to Scriven, (1981:157) the ability to demonstrate competency in listening and following directions was very important.

How important is it to develop good listening skills?

TABLE 44
Develop Good Listening Skills

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>RATINGS</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>37</td>
<td>72.5</td>
<td>10</td>
<td>19.6</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>Post 51</td>
<td>36</td>
<td>70.6</td>
<td>10</td>
<td>19.6</td>
<td>2</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 72.5 percent in the pre-questionnaire said it was very important to develop good listening skills; 19.6 percent rated it a 4; 5.9 percent rated it a 3; and 1.9 percent rated it a 2.

On the post-questionnaire 70.6 percent rated it very important; 19.6 percent rated it a 4; 3.9 percent rated it a 3; 3.9 percent rated it a 2; and 1.9 percent rated it not very important.
How important is it to follow directions?

TABLE 45
Follow Directions

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>47</td>
<td>42</td>
</tr>
<tr>
<td>92.2%</td>
<td>82.4%</td>
<td></td>
</tr>
<tr>
<td>3%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>5.9%</td>
<td>13.7%</td>
<td></td>
</tr>
<tr>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>1.9%</td>
<td>1.9%</td>
<td></td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 92.2 percent in the pre-questionnaire said it was very important to follow directions; 5.9 percent rated it a 4; and 1.9 percent rated it a 2.

On the post-questionnaire 82.4 percent rated it very important; 13.7 percent rated it a 4; 1.9 percent rated it a 3; and 1.9 percent rated it a 2.
How important is it to know how to prioritize documents and tasks?

TABLE 46

Know How To Prioritize Documents And Tasks

<table>
<thead>
<tr>
<th>No. of Respondents</th>
<th>5 %</th>
<th>4 %</th>
<th>3 %</th>
<th>2 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 51</td>
<td>31</td>
<td>14</td>
<td>27.5</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>Post 51</td>
<td>23</td>
<td>45.1</td>
<td>20</td>
<td>39.2</td>
<td>6</td>
</tr>
</tbody>
</table>

Of the 51 responses to this question, 60.8 percent in the pre-questionnaire said it was very important to know how to prioritize documents and tasks; 27.5 percent rated it a 4; 9.8 percent rated it a 3; and 1.9 percent rated it a 2.

On the post-questionnaire 45.1 percent rated it very important; 39.2 percent rated it a 4; 11.8 percent rated it a 3; and 3.9 percent rated it a 2.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The objective of this paper was to determine what techniques should be emphasized in a typewriting class that will transfer as instruction in a word processing class.

To achieve this purpose, questionnaires were administered in Intermediate Typing, Advanced Typing, and Word Processing class at Ronan High School. 51 students responded to the questionnaire. The responses are tabulated and analyzed in Chapter 4 of this study.

From the information received, the researcher was able to make the following summary, conclusions, and recommendations.

Summary

A summary of the major findings of the study are listed on the following pages.

1. Most of the respondents (86.3 percent) indicated it was very important to know the home row as a typing technique.
2. Two-thirds (67.3 percent) of the respondents indicated that keeping your eyes on the copy was very important.

3. A majority of the respondents (57.5 percent) indicated it was very important to use the correct technique to control the shift keys, carriage return, and the space bar.

4. One-third of the respondents (33.3 percent) said it was important to use the correct technique to strike the margin release, tabulator key, and the backspace key.

5. About one-fourth of the respondents (26.9 percent) said it was important to use good technique in your posture at the typewriter with forearms parallel; wrist low.

6. Nearly half (49 percent) of the respondents indicated that the ability to type with speed was important.

7. Most of the respondents (84.3 percent) indicated that the ability to type with accuracy was very important.

8. Over 50 percent of the respondents indicated that it was very important to have the ability to type letters, memos, reports, business forms, and tabulated material.

9. When doing production skill work 67.6 percent of the respondents indicated that it was important to type practice material that is similar to that on the job.

10. A majority of the respondents (51.9 percent) rated drill on individual parts of a production task above average.
11. Two-thirds of the respondents (68.1 percent) rated eye judgment regarding placement above average in importance.

12. About one-third of the respondents (32.3 percent) rated guidance in the beginning stages of a topic in production skill above average.

13. Most of the respondents (72.6 percent) indicated that correcting errors when doing production work was very important.

14. A majority of the respondents (55.5 percent) indicated that it was important to read the material once for content, again for grammar and to check numbers and statistics carefully.

15. Most of the respondents (77.4 percent) indicated that it was important to know correct spelling, punctuation, capitalization.

16. The majority of the respondents (55.5 percent) indicated it was important to know correct abbreviations and word choice.

17. A majority of the respondents (55.8 percent) indicated it was important to compose routine letters without directions as well as business letters, memos and other documents.

18. Most of the respondents (58.8 percent) indicated it was very important to know how to use a dictionary.
19. A minority of the respondents (40.2 percent) indicated that it was important to know how to use a secretarial manual.

20. About one-third of the respondents (31.2 percent) indicated it was important to know how to use a thesaurus.

21. A minority of the respondents (39.2 percent) indicated it was important to know how to use a word processing manual.

22. Most of the respondents (71.5 percent) said that the ability to demonstrate competency in good listening skills was very important.

23. Most of the respondents (87.3 percent) indicated it was very important to follow directions.

24. A majority of the respondents (52.4 percent) indicated it was important to prioritize documents and tasks.

**General Conclusions**

In conclusion the findings indicate:

1. A majority of the respondents surveyed rated all the techniques included on the survey of above average importance in developing skill to make them a good typist.

2. A significant number (66.1 percent) indicated more stress should be placed on speed and accuracy to improve the students skill development in basic straight copy.

3. When doing production skill development, over two-thirds indicated more emphasis is needed on practice.
material that is similar to the job and to correct errors.

4. A majority of respondents (60.4 percent) indicated that proofreading was important for success in terms of the overall ability to make a good typist.

5. Many competencies related in English skills emerged as very important for word processing. The ability to spell, punctuate, and capitalize was rated very important by 77 percent of the respondents. Other competencies considered important were correct abbreviations and word choice.

6. Competence in using references such as the dictionary, secretarial manual, thesaurus, and word processing manual emerged as being of not high importance by 42.3 percent of the respondents.

7. Competence in listening and following directions emerges as being of primary importance by almost three-fourths of the respondents.

8. From the study, skills that must be taught in typing that could become competencies in word processing are: speed, accuracy, proofreading, spelling, punctuation, capitalization, listening, and following directions.

Recommendations

1. Business teachers need to continue to emphasize correct technique at the typewriter, especially the home row, eyes on your copy, and the position of the body including the fingers.
2. Teachers at all levels of learning need to place more emphasis on speed and accuracy.

3. Business teachers need to place more emphasis on proofreading in the typewriting class to include reading the material for content, grammar, numbers, and statistics. Students must be able to proofread typed documents.

4. Business teachers need a thorough mastery of grammar, punctuation, capitalization, and the use of rules for writing numbers, dividing words, word choice subject/verb agreement so they can incorporate them into a typewriting class.

5. It is recommended that this study be replicated with business teachers, and secretaries to determine their perceptions on this topic.
BIBLIOGRAPHY
BIBLIOGRAPHY


APPENDICES
QUESTIONNAIRE
THE SPECIAL TECHNIQUES FOR DEVELOPING COMPETENCIES
IN WORD PROCESSING TAUGHT IN THE TYPING CLASS

Present year in school ______________________

Amount of typing completed in terms of semesters? 1 2 3 4

AGREE STRONGLY 5 4 3 2 1 DISAGREE STRONGLY

I. Typing Techniques
How important is the learning of the following skills in terms of the overall skill to make a good typist.

How important is:
1. Learning the home row. 5 4 3 2 1
2. Good posture at the typewriter, body centered adjacent to the "J" key 5 4 3 2 1
3. Forearms parallel to the slant of keyboard; wrists low 5 4 3 2 1
4. Maintaining eyes on your copy 5 4 3 2 1
5. Use of the right thumb to strike the space bar 5 4 3 2 1
6. Using the correct finger to return the carriage 5 4 3 2 1
7. Learning to use the correct fingers to control shift key 5 4 3 2 1
8. Learning to use the correct fingers to control the tabulator key 5 4 3 2 1
9. Learning to use the correct fingers to control the backspace key 5 4 3 2 1
10. Learning to use the correct fingers to control the margin release 5 4 3 2 1

II. Straight Copy Skills
How important is learning the following straight copy skills in terms of the overall skill to make a good typist.

How important is:
1. The ability to type with speed 5 4 3 2 1
2. The ability to type with accuracy 5 4 3 2 1
3. The ability to type letters and memos 5 4 3 2 1
4. The ability to type reports 5 4 3 2 1
5. The ability to type business forms 5 4 3 2 1
6. The ability to type tabulated material 5 4 3 2 1
7. The ability to type statistical data 5 4 3 2 1

III. Production Skills
How important is learning the following production skills in terms of the overall skill to make a good typist.

How important is:
1. Practice material that is similar to that on the job 5 4 3 2 1
2. Drill on the individual parts of a production task 5 4 3 2 1
3. It for you to make eye judgment regarding placement 5 4 3 2 1
4. It to provide guidance in the beginning stages of a topic in production skill 5 4 3 2 1
5. It to correct errors when doing production work. 5 4 3 2 1
IV. Proofreading skills

How important is learning the different ways to proofread in terms of the overall skill to make a good typist?

How important is it:
1. To read the material once for content 5 4 3 2 1
2. To read the material again for accuracy in grammar 5 4 3 2 1
3. To check numbers and statistics carefully 5 4 3 2 1
4. To read the material aloud 5 4 3 2 1
5. To scan the material for obvious errors 5 4 3 2 1
6. To wait thirty minutes, then read it again 5 4 3 2 1
7. To read the material from right to left 5 4 3 2 1
8. To ask someone else to proofread your material 5 4 3 2 1

V. English Skills

How important is learning the following English skills in terms of the overall skill to make a good typist?

How important is:
1. It to know correct spelling, punctuation, and capitalization 5 4 3 2 1
2. It to know some basic rules of number expression 5 4 3 2 1
3. It to know subject/verb agreement 5 4 3 2 1
4. It to know correct abbreviations 5 4 3 2 1
5. It to know correct word choice 5 4 3 2 1
6. It to learn to compose from longhand notes 5 4 3 2 1
7. It to learn to compose routine letters without directions 5 4 3 2 1
8. It to learn to compose business letters, memos, and other documents 5 4 3 2 1

VI. References

How important is learning to use the following references in terms of the overall skill to make a good typist?

How important is:
1. It to know how to use a dictionary 5 4 3 2 1
2. It to know how to use a secretarial manual 5 4 3 2 1
3. It to know how to use a thesaurus 5 4 3 2 1
4. It to know how to use a word processing manual 5 4 3 2 1

VII. Listening and decision making skill

How important is learning to listen and follow direction in terms of overall skill to make a good typist?

How important is:
1. It to develop good listening skills 5 4 3 2 1
2. It to follow directions 5 4 3 2 1
3. It to know how to prioritize documents and tasks 5 4 3 2 1