A Survey of the Huntington, Indiana, Employment Area to Determine Minimum Employment Requirements for Typewriting, Shorthand, and Transcription of Machine Recorded Dictation in Entry-Level Jobs.

Marda J. Hoffman
Northern Michigan University

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A Survey of the Huntington, Indiana, Employment Area to Determine Minimum Employment Requirements for Typewriting, Shorthand, and Transcription of Machine Recorded Dictation in Entry-Level Jobs

by

Marda J. Hoffman

Bachelor of Science, 1969
Northern Michigan University

An Independent Research Study

Submitted to

Dr. Thomas V. Buchl, Associate Professor
Office Administration and Business Education Department
at
Northern Michigan University

Submitted in partial fulfillment of the requirements for the degree of
Master of Arts in Education

Marquette, Michigan

August
1974
This independent study submitted by Marda J. Hoffman in partial fulfillment of the requirements for the degree of Master of Arts in Education at Northern Michigan University, Marquette, Michigan, is hereby approved by the advisor under whom the work was done.

Thomas V. Buchl, Advisor
ACKNOWLEDGEMENTS

The writer expresses her appreciation to Dr. Thomas V. Buchl for his guidance and assistance in the writing of this study. In addition, the writer thanks the members of the faculty and staff of the Office Administration and Business Education Department, Northern Michigan University, Marquette, Michigan, for their assistance in the preparation of this study.
# TABLE OF CONTENTS

LIST OF TABLES ................................................. v
ABSTRACT ......................................................... vi

Chapter
   I. INTRODUCTION ............................................ 1
      Purpose of the Study
      Need for the Study
      Definitions
      Limitations
      Delimitations

   II. REVIEW OF RELATED LITERATURE ....................... 5
      Introduction
      Typewriting
         Production and Straight Copy Skill
         Criteria for Typewriting--NOBELS
         Surveys of Employment Requirements
         Government Employment Requirements
         Educational Requirements
      Shorthand and Transcription
         Criteria for Shorthand--NOBELS
         Studies of Employment Requirements
         Government Employment Requirements
         Minimum Employable Writing Speed
         Transcription of Machine Recorded Dictation
         Trend in Use of Recording Equipment
         Studies of Employment Requirements
      Summary

   III. PROCEDURES ............................................. 21
   IV. FINDINGS ............................................... 22
      Typewriting
      Shorthand
      Transcription of Machine Recorded Dictation

   V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS .......... 28

APPENDIX ....................................................... 34
SELECTED BIBLIOGRAPHY ....................................... 39
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Typewriting Standards--Gross Words a Minute</td>
<td>23</td>
</tr>
<tr>
<td>2. Shorthand Standards</td>
<td>25</td>
</tr>
</tbody>
</table>
ABSTRACT

A SURVEY OF THE HUNTINGTON, INDIANA, EMPLOYMENT AREA TO DETERMINE MINIMUM EMPLOYMENT REQUIREMENTS FOR TYPEWRITING, SHORTHAND, AND TRANSCRIPTION OF MACHINE RECORDED DICTATION IN ENTRY-LEVEL JOBS

Marda J. Hoffman, Master of Arts in Education
Northern Michigan University, 1974

Purpose

The purpose of this study was to determine minimum employment requirements for typewriting, writing and transcribing shorthand, and transcribing machine recorded dictation for entry-level jobs in the Huntington, Indiana, employment area.

Method and Sources

Fifteen businesses and industries in selected categories in the Huntington, Indiana, employment area were randomly selected. Data were received from personnel directors or their designated representatives of the selected businesses by telephone interviews during July, 1974.

Summary of Findings

1. Of the 3,620 workers employed by the 15 businesses, 244 (6.74 percent) were non-administrative office workers.

2. The minimum educational requirement for non-administrative office workers was a high school diploma.
3. The majority of non-administrative office workers use typewriting on the job. More than one-fifth of the workers use shorthand, and more than one-fourth transcribe machine recorded dictation on the job.

4. All of the businesses interviewed employ workers who type on the job. Approximately half of the businesses employ workers who use shorthand and transcribe machine recorded dictation.

5. Three-fifths of the businesses interviewed use gross typing speed. Approximately one quarter of the businesses did not set a minimum typing speed.

6. Approximately one-half of the businesses interviewed require a minimum typing speed of 40 to 55 gross words a minute.

7. All businesses interviewed are more interested in typewriting accuracy than speed, but most do not specify an error limit.

8. Approximately half the businesses using typewriting and shorthand give typewriting and shorthand tests. About one-fourth of the businesses using machine transcription give machine transcription tests.

9. All businesses giving a shorthand dictation test require the dictation to be transcribed into mailable or rough draft copy.

10. Minimum shorthand dictation speeds specified ranged from 70 to 100 words a minute. About half the businesses
employing workers using shorthand did not set a minimum speed.

11. Applicants for jobs using machine transcription are expected to know how to operate the equipment even though the majority of businesses using machine transcription did not have minimum employment requirements.

12. The majority of the businesses interviewed consider an applicant more employable with shorthand skill versus an applicant with ability to transcribe machine recorded dictation.
CHAPTER I

INTRODUCTION

Huntington North High School, Huntington, Indiana, serves high school students of the entire Huntington County. The population of Huntington County is approximately 35,400; and the City of Huntington is the county seat and the largest urban area with a population of 16,217.\(^1\) The City of Huntington and the immediate surrounding radius represent the main employment community to residents of the area.

An important goal of the high school business department is that students be given the opportunity for business training that will assure them of employment and job success upon graduation from high school. The responsibility of business teachers is to know and to provide for the students the type of education needed to achieve vocational competency in clerical and stenographic office employment. Teachers must know what job opportunities exist as well as the skills and job competencies that will enable the graduate to obtain the job.

Typewriting and shorthand instruction have long been included in the high school curriculum, and current office needs show that they should remain in the curriculum. Training in the transcription of machine recorded dictation has been provided in the secondary business curriculum; and with the trend of increased use of recording equipment and word processing centers in business, there is need for machine transcription to remain in the curriculum. Business teachers are concerned that proficiencies of graduates in these three skill areas are equal to or exceed standards of proficiencies required by employers for entry-level jobs.

It is important to discover if the graduates' skill competencies are sufficient to meet the employment requirements of the employment community, and the responsibility of this discovery lies with the educator. Requisite to this discovery is a determination of employment requirements.

**Purpose of the Study**

The purpose of this study was to determine minimum employment requirements for typewriting, writing and transcribing shorthand, and transcribing machine recorded dictation for entry-level jobs in the Huntington, Indiana, employment area.

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Need for the Study

It is important to train and educate students to meet demands of the employment area in which the school is located. To obtain a job, a graduate must possess entry-level job competencies. Very little specific knowledge of employment requirements in the areas of typewriting, shorthand, and machine transcription is presently known to business teachers at Huntington North High School. This study is needed to determine prevailing employment standards in those three skill areas.

Definitions

The following definitions apply to this study:

1. Huntington, Indiana, employment area - The geographic area of the City of Huntington and the surrounding 15-mile radius.

2. NOBELS Project (New Office and Business Education Learning Systems) - The UCLA Study of 300 office jobs in the Los Angeles, California, area. The UCLA Study was part of a larger, nationwide study which identified, classified, and analyzed those job tasks basic to current beginning and intermediate level office jobs, primarily those held by workers in the 16-25 age group who had earned less than the baccalaureate degree. (See Lawrence W. Erickson, Basic Components of Office Work--An Analysis of 300 Office Jobs, Monograph 123, South-Western Publishing Co., 1971, p. 5.)

Limitations

This study is limited to the accuracy of the data collected through the telephone interviews.
Delimitations

The following delimitations apply to this study:

1. Information was gathered from the following sources:

   A. One industry was randomly selected from each of the following size categories:

       1,000 to 2,500 employees
       500 to 1,000 employees
       250 to 500 employees
       100 to 250 employees

   B. One business or institution was randomly selected from each general descriptive category on the following list:

       Financial institutions
       Government offices
       Insurance agencies
       Legal offices
       Medical physicians
       Utilities
       Accounting firms
       Public schools
       Private colleges
       Real estate agencies
       Hospitals

2. The instrument used in gathering the data was a telephone interview guide.
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A review of related literature was conducted at Northern Michigan University, Huntington College, and from personal professional books and periodicals. Periodicals were reviewed for the past five years. Other literature was reviewed from 1961 to the present. Examination of primary source research studies was confined to the studies contained in the Northern Michigan University library.

The review of related literature is organized into three main sections as follows: Typewriting, Shorthand and Transcription, and Transcription of Machine Recorded Dictation.

An examination of related literature showed that most often employment requirements are stated in the form of job descriptions, activities performed, duties and responsibilities required, and personal traits required. There was little literature found which specified degrees of proficiency in terms of minimum performance standards.

Following is a typical expression of employment requirements:

Employers look for good spelling ability, reading and following directions, good telephone
technique, filing knowledge, use of proper vocabulary, and proficiency on the electric typewriter when considering applicants.\textsuperscript{4}

Some authorities are of the opinion that office standards do not exist in abundance; or when they can be found, they differ vastly between businesses. Lamb says that teachers cannot be arbitrary about the degrees of skill that must be acquired ". . . , when office standards are so flexible and in many cases non-existent."\textsuperscript{5} Many companies have not adopted specific standards for measuring the performance of clerical workers according to Douglas, Blanford, and Anderson.\textsuperscript{6}

Criteria for successful performance of the components of an office job often become employment requirements. Therefore, results of the NOBELS Project (New Office and Business Education Learning Systems) have been included where appropriate in the review of related literature. Studies of the components of office work provide valuable background into the investigation of employment requirements. The NOBELS study


\textsuperscript{5}Marion M. Lamb, Your First Year of Teaching Short-hand and Transcription, (2nd ed., Cincinnati: South-Western Publishing Co., 1961), p. 179.

identified and analyzed job components basic to most beginning and intermediate level office work. 7

**Typewriting**

The literature dealing with typewriting is discussed in five parts: (1) production and straight copy skill, (2) criteria identified in the NOBELS study for successful typewriting performance, (3) results of surveys of employment requirements, (4) government employment requirements, and (5) minimum educational requirements.

**Production and Straight Copy Skill**

Production and straight copy skill are the two typewriting proficiencies most often measured in some form or degree to determine whether an applicant meets employment requirements. Classroom performance objectives are stated mainly in terms of production and straight copy skill. Terminal training performance objectives are based on the premise that they are equal to or exceed minimum entry-level job requirements. Winger states:

> The major objective of any typewriting course has to be the development of a useable skill in doing all those job tasks that are encountered in business and personal-use activities. The skilled typists must be able to apply basic skills and techniques at the production of office-type projects within realistic quantity and quality standards of performance. 8

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7Erickson, *Basic Components,* p. 1.

According to West, the principle objective of instruction in typewriting is the achievement of a useable level of skill at the production of job tasks. Real-life typing such as a business letter is a job task and the performance of such tasks for a period of time is production work. The characteristics that distinguish job-task typing from ordinary copy work are decision making and planning.\(^9\)

In discussing the measurement of production skill, West states that practice and tests which measure how many mailable letters can be produced in half an hour, or how many envelopes can be addressed in twenty minutes, would lead to proficiency measures of a kind and in a form that are pertinent and useful. "That they have not been common is unfortunate, and appropriate reeducation of teachers and employers is perhaps the greatest single need in all typewriting instruction and in hiring practices for typists."\(^10\)

Straight copy skill is defined by West as "... word-for-word copying of cleanly printed or typed matter, without erasing and without requiring format decisions by the typist except for reasonably even right-hand margins, with word division at the ends of lines as may be necessary."\(^11\)

Discussing straight copy testing, West points out the tendency of employers to hire on the basis of straight copy proficiency:

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\(^10\) Ibid., p. 396.

\(^11\) Ibid., p. 227.
Anderson and Pullis (1965, pp. 191-192) mention a survey of 36 companies in the Los Angeles area, 92 percent of whom used only straight copy proficiency as a basis for hiring. Of 23 large St. Louis employers of office workers who use employment tests for their typists, 18 administered only straight copy timings (Mann, 1966). Findings like these might well be quite typical across the nation. Similarly, these firms appear to set maximum-error standards in such tests that seem wildly unrealistic on two counts: (a) few typists can meet the standards, and (b) the heavy focus on copying accuracy flies in the face of the fact that production quality is quite independent of copying accuracy.12

Since businesses place heavy emphasis on straight-copy accuracy, West hopes employers will change their employment practice and measure quality of production. He points out the dilemma of business teachers in knowing whether to act in accordance with the present facts of employment testing or in accordance with the demonstrated irrelevance of straight copy accuracy to on-the-job proficiency.13

Criteria for Typewriting--NOBELS

Typewriting was identified as a basic component of 49 percent of the jobs studied. It occurred as a supportive activity in 6.7 percent of the other jobs.14

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13 Ibid., p. 561.

14 Erickson, Basic Components, p. 11.
The criteria identified for the successful performance of each component in the NOBELS study actually become employment requirements for those beginning and intermediate level office jobs. Criteria for the successful performance of typewriting activity are listed as:

Criteria for the successful performance of this component emphasized the importance of accuracy rather than speed. What really was intended was the importance of good proof-reading skills. An average speed of 50-60 words per minute was reported to be adequate. These standards, however, are somewhat misleading as actual observed production rates were much lower. The ability to copy with pressure of time, to complete multiple tasks, and to work with many interruptions was considered important. The need for high statistical typing skills was reported by 37 workers. The need for specialized vocabulary, especially a technical vocabulary, was reported by 22 workers.\textsuperscript{15}

\textbf{Surveys of Employment Requirements}

Entry requirements established by business for beginning typists were the object of a study reported by O'Brien. The majority of the 210 businesses surveyed scored straight copy timed writings in net words a minute and set 40 net words a minute as a minimum speed. Over 55 percent said they did not set an error limit on the employment tests.\textsuperscript{16}

The primary factor in scoring the typewriting test was the straight copy timed writing score in about 71 percent of the forms, while about 2.50 percent regarded the ability to

\textsuperscript{15}\textit{Ibid.}, p. 11.

set up forms, such as letters, most important. The ability of an applicant to produce job-type problems in acceptable form was tested by 34 percent of the responding firms; and of this group, 47 percent required the acceptable typing of a business letter.  

Inaccuracy was described as the chief reason for failure on the employment tests. Personnel managers indicated they have been unable to hire accurate typists and end up hiring the least inaccurate.  

Minimum entry-level standards for junior stenographers in shorthand, typewriting and transcription of 300 companies in the Los Angeles-Orange County area were surveyed by Wiswell. Typewriting performance was measured in net speed by 54 percent of the businessmen responding, and gross speed was used by 47 percent of the businessmen. 

Gross words per minute required were as follows: 38 percent required 60 to 69 gross words; 45 percent, 50 to 59; and 12 percent, 40 to 49. There was general agreement at 50 to 59 gross words a minute. Sixty percent allowed 4 to 7 errors and 34 percent allowed up to 3 errors.  

Of the businesses using net words a minute, 61 percent required 50 to 59 net words a minute, and 23 percent required

17Ibid.  
18Ibid.  
20Ibid., p. 20.
40 to 49 net words a minute. Forty percent required 95 to 100 percent accuracy; 38 percent required 90 to 94 percent accuracy.  

The majority of businesses used tests up to five minutes in length. Mailable standards were required by 15 percent, 69 percent used straight copy, and 16 percent used a combination of the two as requirements.  

Lamb investigated requirements for typewriting activities non-stenographic in nature required for initial employment of beginning stenographers. All of the firms required pre-employment training--20 percent at the acquaintance level, 47 percent at the operational level, and 33 percent at high level proficiency.  

Weeks received data on the type of test used in the selection of new office employees. The majority (71.50 percent) used performance tests. Minimum acceptable standards were demanded on performance tests most frequently for typing from straight copy, taking dictation, and arithmetic. The only standards from which sufficient data was reported to permit generalizations to be drawn were for typing from straight copy:  

Firms giving information as to minimum required standards for typing from straight copy:  

21Ibid., p. 21.  
22Ibid.  
copy generally administer a 10-minute timed writing on which they require applicants to typewrite at a rate of 40 to 50 gross words a minute with not more than one error per minute.24

In Rumsey's survey of businesses, all responding firms considered accuracy in typewriting performance as a requisite. Speed with accuracy would guarantee employment to beginners.25

Government Employment Requirements

Government has become a major source of office employment. Employment requirements in the form of standards are well established as applicants must pass a state or federal civil service examination as a requisite for employment. The State of Michigan publicly announces job openings, and employment requirements are specified on the announcement. Fifty percent of the Typist Clerk 04 test score is based on the applicant's ability to type from clear copy at a rate of approximately 50 net words per minute.26


Educational Requirements

The minimum requirement for office jobs using typewriting is mainly a high school diploma. Rumsey found almost all businesses surveyed employed high school graduates as typists. 27 Weeks also found 95 percent of the new workers studied indicated the necessity for applicants to be at least high school graduates. 28 High school graduation was required for initial employment in 92 percent of the firms in Berry's study. 29

Shorthand and Transcription

The literature dealing with shorthand and shorthand transcription is discussed in four parts: (1) criteria identified in NOBELS study for success in shorthand activities, (2) results of studies of employment requirements, (3) government employment requirements, and (4) minimum employable shorthand writing speed.

Criteria for Shorthand--NOBELS

Shorthand is an office skill which is important in terms of demand and pre-employment training. Taking dictation was a basic component of 10 percent of the 300 jobs studied in the NOBELS project. Shorthand occurred one percent

27 Rumsey, Opportunities, p. 47.
as a supporting activity.\textsuperscript{30} The study concluded that shorthand is a basic course now offered in the business education curriculum, and should continue to be offered.\textsuperscript{31}

According to the NOBELS study, criteria for the successful performance of shorthand emphasized the importance of accuracy. An average dictation speed of 90 to 100 words per minute was reported to be adequate.\textsuperscript{32}

Studies of Employment Requirements

In a study conducted in the Los Angeles-Orange County area, Wiswell found nine percent of the 300 companies surveyed required speeds of 100 to 109 words a minute. Twenty-two percent required 90 to 99 words a minute, and 54 percent required 80 to 89 words a minute. As many as 11 percent accepted 70 to 79 words a minute.\textsuperscript{33}

The majority of businesses did not set a standard for speed in transcribing the dictation. The most important factors relating to shorthand are that the "... stenographer takes shorthand at an acceptable rate of speed for a specified period of time and transcribes within a certain error range."\textsuperscript{34}

An informal study exploring the relevancy of stenography in the business office gathered data from twenty corporations

\textsuperscript{30}Erickson, Basic Components, p. 18.
\textsuperscript{31}Ibid., p. 23.
\textsuperscript{32}Ibid., p. 18.
\textsuperscript{33}Wiswell, Job Standards, p. 21.
\textsuperscript{34}Ibid.
in New York City. Shorthand applicants were required to perform at rates anywhere from 80 to 100 words a minute, but 80 words a minute was the most commonly accepted minimum rate. A few said they might consider an applicant whose rate was below 80 words a minute. Every corporation used dictation tests to evaluate applicants, and the tests differed vastly from company to company in terms of length and dictation rates used. All companies except one had no time limit for transcription of the tests, while the one set a limit of 20 minutes for the transcription of two letters dictated at 80 words a minute.\textsuperscript{35}

Lamb explains the job requirements established by a major steel company for stenographic positions:

First, a personnel representative of the steel company gives each applicant for a stenographic position an entrance examination covering stenographic skills. Successful applicants must have a typing copy rate of 50 net words a minute and must be able to record matter dictated at 100 words a minute.\textsuperscript{36}

In a survey conducted in the Dallas-Fort Worth and Shreveport-Bossier City areas, Pullis found mailable copy was required of all shorthand transcripts. Rather than producing verbatim transcripts, secretaries were expected to reword the dictation in more appropriate form while retaining original meaning.\textsuperscript{37}

\begin{footnotes}
\item \textsuperscript{35} Hornstein, \textit{Is Stenography Still Relevant}, p. 48.
\item \textsuperscript{36} Marion M. Lamb, \textit{Teaching Shorthand}, p. 304.
\item \textsuperscript{37} Joe M. Pullis, \textit{Methods of Shorthand Instruction}, Monograph 126 (Cincinnati: South-Western Publishing Co., 1973), p. 47.
\end{footnotes}
Lamb described initial employment requirements for stenographic activities in three pre-employment training levels: acquaintance, minimum operational, and high-level proficiency. "Pre-employment training for shorthand dictation and transcription of letters was required in 100 percent of the firms; 22 percent specified the acquaintance level; 47 percent, the operational level; and 31 percent, high-level proficiency."  

Rumsey found businessmen were concerned with quality of performance rather than speed requirements. A lack of definite standards was found to exist in stenographic test requirements.  

**Government Employment Requirements**

Minimum employment requirements for entry-level stenographic positions for the State of Michigan are given as representative of civil service requirements. One-third of Stenographer Clerk 04 position test score is based on the applicant's ability to transcribe from copy at a rate of approximately 100 net words per minute. Also, one-third of the test score is based on the applicant's ability to type from clear copy at a rate of approximately 50 net words per minute.  

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38Mary Lou Lamb, Relevance of Instruction, p. 39.  
39Rumsey, Opportunities, p. 48.  
Minimum Employable Writing Speed

According to Douglas, Blanford, and Anderson, eighty words a minute represents the minimum level students should reach if they are to secure employment. And not only must they be able to record dictation at 80 words a minute, but they must also be able to transcribe mailable letters quickly.\(^4\) Hornstein concluded:

. . . if the results that were received regarding standards for stenographic skills are typical of other companies, then the majority of stenographers need to achieve a maximum speed of 80-100 words per minute for initial employment whereas only a handful need to advance their skill beyond this level.\(^5\)

Transcription of Machine Recorded Dictation

The literature dealing with machine recorded dictation is discussed in two parts: (1) the trend in business use of recording equipment and (2) results of studies of employment requirements.

Trend in Use of Recording Equipment

The transcription of machine recorded dictation is a relevant skill in the modern business office. Businesses are using dictating machines much more extensively than they did formerly. In certain areas of work, they make possible cost reductions; and some businessmen find the machines convenient for recording dictation after office hours.\(^6\)


\(^5\) Hornstein, Is Stenography Still Relevant, p. 48.

Word processing centers and stenographic pools using recording equipment are beginning to spring up. Four of the 20 corporations surveyed in the New York City study reported by Hornstein have stenographic pools using dictation machines to some degree.\textsuperscript{44}

\textbf{Studies of Employment Requirements}

Activities involving transcription of machine recorded dictation were required of beginning stenographers in more than 50 of the 55 business firms surveyed by Lamb. Eighty percent of the firms requiring these activities required initial employment proficiency on an operational level.\textsuperscript{45}

Thirty-three percent of the businesses surveyed by Berry required a specified level of competency (the specified level was not reported) for employment of a worker who would transcribe machine recorded dictation.\textsuperscript{46} Acquaintance level was required by 39 percent,\textsuperscript{47} and 45 percent required pre-employment technical training.\textsuperscript{48} Also, 93 percent of the firms indicated high school graduation was a requirement for initial employment in this area of activity.\textsuperscript{49}

\begin{itemize}
\item \textsuperscript{44}Hornstein, \textit{Is Stenography Still Relevant}, p. 47.
\item \textsuperscript{45}Mary Lou Lamb, \textit{Relevance of Instruction}, p. 40.
\item \textsuperscript{46}Berry, \textit{Role of Office Practice}, p. 49.
\item \textsuperscript{47}\textit{Ibid.}, p. 48.
\item \textsuperscript{48}\textit{Ibid.}, p. 47.
\item \textsuperscript{49}\textit{Ibid.}, p. 69.
\end{itemize}
Summary

A review of literature related to employment requirements was organized in three main sections according to the skill areas of typewriting, shorthand, and machine transcription. A summary of each area follows:

1. Employers tend to hire applicants for typewriting activities on the basis of straight copy proficiency. Only a small percentage use some type of production test. Both net words a minute and gross words a minute are widely used as methods of scoring typing tests. Minimum acceptable typing speeds range from 40 to 60 words a minute, and accuracy requirements range from 90 to 100 percent, or 0 to 7 allowable errors.

2. The most commonly required minimum shorthand writing speed is 80 words a minute. Most dictation speed requirements fall in the range of 80 to 100 words a minute. Accuracy in transcription is very important, but most businesses do not set definite transcription rate requirements.

3. A high degree of proficiency of machine transcription does not seem to be required as an entry-level job requirement. However, many employers do require at least operational knowledge.
CHAPTER III

PROCEDURES

The procedures in conducting this study are as follows:

1. The topic of the study was approved by the researcher's Graduate Advisor at Northern Michigan University in June, 1974.

2. A review of related literature was conducted at the Northern Michigan University library, Huntington College Library, and from personal professional books and periodicals.

3. The interview guide was submitted for approval to the Graduate Advisor at Northern Michigan University in June, 1974. The interview guide was approved.

4. The interview guide was duplicated on a fluid duplicating machine. (See Appendix, page 34.)

5. Personnel directors or designated representatives of selected Huntington, Indiana, area businesses were interviewed by telephone during July, 1974.

6. The results of the interviews were compiled. A number count and a percentage figure were used to summarize the findings of the interviews.
CHAPTER IV

FINDINGS

This chapter contains a presentation of the data secured through telephone interviews held with fifteen selected businesses and industries in the Huntington, Indiana, employment area. The findings are divided into three main parts: typewriting, shorthand, and transcription of machine recorded dictation.

The fifteen businesses and industries interviewed employed 3,620 persons, and 244 (6.74 percent) were non-administrative office workers. The minimum educational requirement for non-administrative office workers of each business interviewed was a high school diploma.

Typewriting

One hundred percent of the businesses surveyed employ workers who use typewriting on the job. Of the 244 total non-administrative office workers, 228 (93.44 percent) use typewriting on the job.

Eleven businesses (73.33 percent) specified a minimum rate of typing speed as a requirement for employment. Nine (60.00 percent) use gross speed; one (6.66 percent) uses net speed, subtracting one word for each error; and one (6.66 percent) uses corrected words a minute. Four (26.67 percent) of
the employers do not specify a minimum speed as an employment requirement.

The largest percentage of businesses specifying a minimum speed required 40 gross words a minute with 50 gross words a minute ranking second. The following table presents gross speed typewriting standards.

**TABLE 1**

**TYPEWRITING STANDARDS--GROSS WORDS A MINUTE**

<table>
<thead>
<tr>
<th>Words a Minute</th>
<th>Number of Total Businesses</th>
<th>Percent of Total Businesses</th>
<th>Number Specifying Minimum Speed</th>
<th>Percent Specifying Minimum Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>1</td>
<td>6.67</td>
<td>1</td>
<td>9.09</td>
</tr>
<tr>
<td>50</td>
<td>2</td>
<td>13.33</td>
<td>2</td>
<td>18.18</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>26.66</td>
<td>4</td>
<td>36.37</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>6.67</td>
<td>1</td>
<td>9.09</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>6.67</td>
<td>1</td>
<td>9.09</td>
</tr>
<tr>
<td>Do not use gwan</td>
<td>6</td>
<td>40.00</td>
<td>2</td>
<td>18.18</td>
</tr>
</tbody>
</table>

One business requires 50 net words a minute, which is 6.67 percent of the total businesses interviewed and 9.09 percent of the businesses specifying a minimum speed requirement. Also, one business requires 50 corrected words a minute, which is 6.67 percent of the businesses interviewed or 9.09 percent of those indicating a minimum speed requirement.

To determine an applicant's typing ability, six (40 percent) of the businesses give an applicant a typing test. One (6.67 percent) simply asks the applicant. The remainder ask the applicant; but, in addition, five (33.33 percent) check references and three (20 percent) check references and school records.
The only kind of typing test given requires the applicant to type a letter or other business form copying from one already arranged. No employer used straight paragraph copy or production tests. All employers giving a test indicated the duration of the test was up to five minutes.

Twelve (80.00 percent) of the businesses do not specify a maximum number of errors allowed. Two (13.33 percent) allow approximately one error per minute. The one business (6.67 percent) using corrected words a minute does not expect an error.

All of the businesses indicated accuracy is important on the job, and they are more concerned with accuracy than speed. They prefer a slow, accurate typist to a fast, inaccurate typist. Some of their comments concerning accuracy follow:

1. Accuracy is more important than speed.
2. The work must be accurate when completed.
3. What is done must be accurate.
4. Work must be done in a reasonable length of time with close to 100 percent accuracy.
5. Accuracy is important as we type legal documents.

**Shorthand**

Nine (60.00 percent) of the 15 companies interviewed employ one or more persons who use shorthand; six (40.00 percent) do not have employees using shorthand. Of the 244 total non-administrative office workers, 22 (9.01 percent) use shorthand on the job. One business indicated they do not presently have any employees who use shorthand simply because they cannot find an applicant with shorthand skill.
The largest percentage of businesses specifying a minimum writing speed require 90 to 100 words a minute. Over half of the businesses interviewed do not set a minimum writing speed. Of those who do, one indicated the speed must be maintained for five minutes; the others set no time period. The table below presents minimum shorthand standards.

**TABLE 2**

**SHORTHAND STANDARDS**

<table>
<thead>
<tr>
<th>Minimum Words a Minute</th>
<th>Number of Businesses Using Shorthand</th>
<th>Percent of Businesses Using Shorthand</th>
<th>Number of Businesses Specifying Minimum Speed</th>
<th>Percent of Businesses Specifying Minimum Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>2</td>
<td>22.22</td>
<td>2</td>
<td>50.00</td>
</tr>
<tr>
<td>80-90</td>
<td>1</td>
<td>11.11</td>
<td>1</td>
<td>25.00</td>
</tr>
<tr>
<td>70-80</td>
<td>1</td>
<td>11.11</td>
<td>1</td>
<td>25.00</td>
</tr>
<tr>
<td>No limit specified</td>
<td>5</td>
<td>55.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To determine an applicant's shorthand writing ability, five (55.56 percent) of the nine companies using shorthand give a dictation test. Three (33.33 percent) of the nine ask the applicant, and one (11.11 percent) asks the applicant and also checks school records.

One hundred percent of the five businesses who give a dictation test require the applicant to transcribe the dictation on a typewriter. Mailable copy is accepted as minimum quality and accuracy requirements by three (60.00 percent) of those businesses. The other two (40.00 percent) accept a rough draft from which a mailable letter is typed.
Three (60.00 percent) of the five businesses who give a dictation test indicated they set a time limit of 15 to 20 minutes for transcription of the test. Two (40.00 percent) do not set a time limit.

**Transcription of Machine Recorded Dictation**

Eight (53.33 percent) of the 15 companies interviewed employ workers who transcribe machine recorded dictation; seven (46.67 percent) do not record dictation. Of the 244 total non-administrative office workers, 28 (11.47 percent) transcribe machine recorded dictation.

Minimum performance standards are not specified by five (62.50 percent) of the eight businesses using machine transcription. One (12.50 percent) business accepts mailable copy transcribed in ten minutes as a minimum performance requirement. One (12.50 percent) accepts a rough draft that can be typed in mailable form, which must be done in a reasonable length of time. One (12.50 percent) business indicated they expect an applicant to be able to type a rough draft from which mailable copy can be typed even though they do not give tests.

To determine an applicant's transcription ability, two (25.00 percent) of the businesses ask an applicant to transcribe a letter. Four (50.00 percent) ask the applicant, and the remaining two (25.00 percent) check references and school records in addition to asking the applicant.

One business indicated they wish high school graduates received more training in machine transcription in school so that they would not need so much on-the-job training.
Three businesses considered typewriting ability the only requirement for machine transcription. They said anyone who can type can transcribe machine recorded dictation. Several indicated a worker can learn machine transcription on the job.

The businesses were asked whether an applicant would be considered more employable if they possess ability to take shorthand versus the ability to transcribe machine recorded dictation. Twelve (80.00 percent) of the 15 businesses interviewed responded "yes." Three (20.00 percent) said "no." One of the three indicating no, said his answer would be "yes" if the applicant did not mind not using her shorthand skill. Some comments indicating reasons for affirmative responses follow:

1. A person who has had shorthand can spell and punctuate better.

2. It is not required for any job here, but it would be a timesaver for me.

3. Shorthand skill is becoming a premium.

4. Even though no employee uses shorthand now, I would consider a girl with shorthand more employable for some of our jobs.

5. I would take a girl with even a trace of shorthand.

6. Because none of our jobs require it, if a girl did not care whether she got a chance to use it, I would take her over one that didn't have it. It shows she is interested in advancing herself.

7. Persons with shorthand seem to be better all-around workers.

On the other hand, one business indicated they might turn down an applicant with shorthand skill for a non-shorthand job if they anticipated the employee might become dissatisfied.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was conducted to determine the minimum employment requirements for typewriting, shorthand, and the transcription of machine recorded dictation in the Huntington, Indiana, employment area. Fifteen selected businesses were surveyed. Personnel directors or their designated representatives were interviewed by telephone. Listed below is a summary of the findings as presented in Chapter IV.

1. Of the 3,620 workers employed by the 15 businesses, 244 (6.75 percent) were non-administrative office workers.

2. The minimum educational requirement for non-administrative office workers was a high school diploma.

3. The majority of non-administrative office workers use typewriting on the job. More than one-tenth of the workers use shorthand and more than one-tenth transcribe machine recorded dictation on the job.

4. All of the businesses interviewed employ workers who type on the job. More than half of the businesses employ workers who use shorthand or transcribe machine recorded dictation.

28
5. Three-fifths of the businesses interviewed use gross typing speed. Approximately a quarter of the businesses do not have a specific minimum typing speed.

6. Approximately one-half of the businesses interviewed require a minimum typing speed of 40 to 55 gross words a minute. This is the majority of those businesses who use a minimum typing speed.

7. Slightly less than half of the businesses interviewed give applicants typewriting tests. A little more than half determine typing ability by asking the applicant and checking references and school records.

8. All typewriting tests given require the applicant to copy a business form and are up to five minutes in length.

9. The majority of businesses do not specify a typewriting error limit, but all businesses are more interested in accuracy than speed.

10. Slightly more than half of the businesses employing workers who use shorthand set no minimum shorthand dictation speed. The requirements of the remaining businesses range from 70 to 100 words a minute.

11. A dictation test is given by a little more than half of the businesses who use shorthand. The remaining businesses ask the applicant and check school records and references to evaluate shorthand ability.

12. All businesses giving a shorthand dictation test require the applicant to transcribe the test. Of these businesses, three (60.00 percent) require mailable copy, and
two (40.00 percent) accept a rough draft from which a mailable copy is then typed.

13. A transcription time limit of 15 to 20 minutes is set by three-fifths of the businesses giving a dictation test, while the others set no time limit.

14. Minimum machine transcription performance requirements are not specified by the majority of businesses using machine transcription. However, they expect applicants to know how to operate the equipment. About one-third of the businesses accept mailable copy or rough draft copy as minimum performance standards.

15. Most of the businesses using machine transcription determine an applicant's transcription ability by asking the applicant and checking references and school records. Only one-quarter of the businesses give a transcription test.

16. The majority of the 15 businesses interviewed consider an applicant more employable with shorthand skill versus an applicant with ability to transcribe machine recorded dictation.

Conclusions

The following conclusions are based on the findings of this study as presented in the summary:

1. There is sufficient demand for a school serving the Huntington employment area to train students in the skills of typewriting, shorthand, and transcription of machine recorded dictation.
2. A high school diploma is essential for employment in the three skill areas studied.

3. An applicant can expect a typewriting and/or shorthand test in approximately half of the job interviews and a machine transcription test in a quarter of the job interviews.

4. Applicants can expect employment tests to consist of business forms typically produced in that particular office.

5. The majority of typists need to achieve a gross typing speed of 40 to 55 words a minute for initial employment.

6. Typists need to achieve accuracy even though employers tend not to specify a maximum error limit as an employment requirement.

7. If results that were received regarding standards for shorthand are typical of other companies, then the majority of stenographers need to achieve a minimum speed ranging from 70 to 100 words a minute for initial employment.

8. Applicants for stenographic positions should be able to transcribe shorthand dictation into mailable copy.

9. Applicants for positions requiring transcription of machine recorded dictation are expected to be able to operate the recording equipment and produce mailable copy even though performance standards are not specified for initial employment.

10. Applicants for almost any office position who possess shorthand ability have an advantage in obtaining initial employment.
Recommendations

1. Employers are concerned about accuracy, yet do not tend to specify standards or objectively measure an applicant's degree of accuracy. Perhaps there is need for some type of standardized procedure that might be developed for the purpose of testing applicants that can be adopted by all businesses. A production-type test using business forms typical to each business would be a relevant test. A school serving this employment area should also use this kind of testing procedure in terminal courses.

2. Employment requirements should be compared to performance objectives in the relevant courses in the high school serving the Huntington employment area to determine whether graduates are meeting employment requirements.

3. Occupational information concerning kinds of work available and the requirements for employment should be presented to high school students at the appropriate time in their high school career.

4. More research should be done in areas other than the skills investigated in this study to determine other important employment requirements. Some important areas are personal traits, communication skills, and inter-personal relationships.

5. Research needs to be done to determine whether persons receiving shorthand training and achieving shorthand ability really are superior employees compared to those who do not have shorthand ability. Since so many employers in
this study indicated they would consider a person with shorthand more employable even though they did not require shorthand for a particular job, the elements of performance valued should be identified. Perhaps the training that contributes to the superiority of a stenographer as an office worker could be supplied in courses other than shorthand.
INTERVIEWER'S GUIDE

A. What is your total number of employees?

B. What is your total number of non-administrative office workers?

C. What is your minimum educational requirement for non-administrative office workers?
   High school diploma _______ Other

Typewriting

D. How many office workers do you employ who use typing on the job?

E. Do you use net words a minute or gross words a minute to measure typing performance?
   Net____ If net, how many words are subtracted for each error?
   Gross____

F. What is the minimum speed for typing and maximum number of errors allowed for an applicant to be considered for such a job?
   Speed____ Errors____________________

G. How do you determine the applicants typing ability?
   __ 1. Ask applicant or application blank response
   __ 2. Test. If test, which kind of test?
   ___ Production test (describe)
      ___ Straight copy letter: ______ medium ______ short
      ___ Rough draft letter: ______ medium ______ short
      ___ Copy an arranged letter or some other business form.
      ___ Other (describe)
   __ 3. Other (describe)
Shorthand and Transcription

H. How many office workers do you employ who write shorthand on the job?

I. What is the minimum speed of writing shorthand that you will accept for an applicant to be considered for such a job?

_______ words a minute for ______ minute.

Other ________________________________

J. How do you determine the applicant's speed of writing shorthand?

__ 1. Ask applicant or application blank response.

__ 2. Dictation test

__ 3. Other ________________________________

K. Do you require the applicant to transcribe the dictation if a test is given?

__ yes

__ no

__ read back

L. What are the minimum acceptable requirements of quality and accuracy of the test transcript?

__ 1. Mailable copy

__ 2. Transcript can be corrected to produce mailable copy

__ 3. No more than ___ errors in transcript.

__ 4. Rough draft which is checked, and then applicant types a mailable copy from rough draft.

__ 5. Rough draft of transcript.

__ 6. Other ________________________________

M. Do you set a time limit for transcribing the dictation test?

Yes ___ If so, what?

No ___
Transcription of Machine Recorded Dictation

N. How many office workers do you employ who transcribe recorded dictation on the job?

O. What are minimum performance requirements of transcription of recorded dictation for an applicant to be considered for such a job?

_ 1. Mailable copy
_ 2. Errors can be corrected to produce mailable copy.
_ 3. No more than ___ errors allowed in transcript.
_ 4. Other ____________________________

P. How do you determine the applicant's machine transcription ability?

_ 1. Ask applicant or application blank response
_ 2. Applicant transcribes a letter
_ 3. Other ____________________________

Q. If a test is given, do you set a time limit for transcribing the test?

Yes ___ If so, what? ____________________________

No ___

R. Is an applicant more employable if able to take shorthand versus ability to transcribe recorded dictation?

Yes ___

NO ___
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