

A COMPARISON OF METHODS IN TEACHING

GREGG SHORTHAND

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A COMPARISON OF METHODS IN TEACHING
GREGG SHORTHAND

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CHAPTER I

INTRODUCTION

The Statement of the Problem

The purpose of this problem is to make a comparative study of methods in teaching Gregg shorthand. These methods were studied: (1) anniversary or manual, (2) Frick's analytical, (3) Beers-Scott, (4) Skene-Walsh-Lomax, (5) Zimman-Strelsin-Weitz, (6) Leslie's functional, (7) Barnhart's direct association, (8) Brewington-Scutter, (9) Munkhoff, and (10) Odell-Rowe-Stuart. The problem is to compare the methods of approach, procedures, and techniques used, and to determine what has been accomplished in the way of experiments which have been performed by the different writers.

Delimitations

The study will be limited to ten methods of teaching shorthand. Criteria for comparison of findings and conclusions will be limited to recent professional writings in the field of business education.

Source of Data

The source of data is documentary and historical. Recent professional literature is utilized for the background reading

and for formulation of criteria for comparison of the ten methods used and the conclusions reached.

Proposed Treatment of Data

The first step in the study was an examination of the educational literature regarding the criteria for the methods of teaching shorthand. Sources used were books by educational writers in the field of business education, periodicals, and theses.

The second step was the selection of the methods to be used. These methods were selected in the field of teaching Gregg shorthand, and the two types chosen were: (1) manual method and (2) direct method.

The third step was the preparation of data for the comparison and analysis of the methods and experiments studied.

Related Studies

A recent study was made on the functional and non-functional methods in teaching shorthand by Dietrich¹ in the Colorado State College of Education in 1940. He reported on classroom comparisons between the two methods in classes in the high schools of three communities in the state of Kansas. Opinions and preferences were obtained from twenty-two Kansas

¹Francis F. Dietrich, "Functional and Non-Functional Methods of Teaching Gregg Shorthand" (Unpublished Master's thesis, Colorado State College of Education, 1940).

shorthand teachers who were familiar with the functional method and from twenty-nine graduate students who were experienced teachers. From his study he states the following conclusions:

1. The functional method ranks first in the emphasis upon the reading approach.
2. The functional method ranks first in the number of pages of printed context provided.
3. The functional method made the best showing in the teaching of reading skill.
4. The functional method ranked first in developing accuracy of the transcript.
5. The functional method ranked first in developing transcription speed, according to the two "opinion" studies.
6. One study indicated that the greater dictation speed was developed by the functional method. Another study gave the preference to the manual method.
7. Opinions of teachers and one battery of tests placed the manual methods in first ranking for the teaching of theory. Another group of tests gave the functional method first place.

The conclusions are drawn from five sources. They represent the majority of evidence obtained from testing and from the opinions of shorthand teachers. There is no wish or intention to set forth these conclusions as scientific or final. Too many unscientific and variable factors enter into the studies to justify any scientific claims.²

Regan³ completed her doctor's dissertation on the psychological background of the functional method at Boston in 1937. A brief summary of Regan's findings are taken from the Twelfth Yearbook.

²Ibid., pp. 4-5.

³Teresa A. Regan, "Improvement of Classroom Teaching in Elementary Gregg Shorthand," The Improvement of Classroom Teaching in Business Education, Twelfth Yearbook, Eastern Commercial Teachers Association, p. 267.

Teachers have proved that they can teach more elementary shorthand in fewer periods by the improvement of their general preparation and blackboard shorthand skill and by vigorous use of an integrated shorthand method. The functional method has shown that it is such a method and that it is skill building in its aims, activities, and outcomes.

In a master's thesis by Belanger at Tufts College in 1944 she chose two first-year shorthand classes to make a comparison of results to be achieved by the manual method and the functional method of teaching Gregg shorthand. The plan called for two classes to be conducted by two teachers.⁴

The data obtained in this experiment were comprised of test results on uniform examinations and material based on observations and experiences of the teachers.⁵

The comparison was based on four different types of tests: (1) brief form tests, (2) written transcription tests, (3) complete theory tests, (4) letter dictation--a short letter and a five-minute dictation letter. It was contrary to functional method principles to give the first type of test, word-lists or brief forms; and the complete theory test is never used.

1. On the basis of medians the functional and manual groups differed only by a small score on the brief-form tests.

2. The manual group had the upper quarter of its class doing 100 per cent accuracy in writing the shorthand forms from dictation for the entire nine months. The functional method failed in this respect for the first two months.

3. The two groups had the upper quarter of their classes receiving 100 per cent papers in the tests where they were required to transcribe the shorthand forms into longhand.

⁴Lillian A. Belanger, "A Comparison of the Functional and Non-Functional Methods of Teaching Shorthand" (Unpublished Master's thesis, Tufts College, 1944), p. 267.

⁵Ibid., p. 82.

4. In comparing the two columns of perfect scores received in the shorthand forms from dictation with the transcription of these shorthand forms, it appears that while the "reading approach" group achieved higher grades in merely the reading skill, the "writing and reading approach" group surpassed them in the writing of the shorthand forms.

5. The results of the transcription tests show that first-year pupils have to become familiar with the various plates of shorthand before true results can be expected.

6. The functional method group did read at a more normal rate of speed throughout the eight tests. The manual group never achieved as high an average rate of words per minute as the functional group.

7. The results of this test can be influenced by the normal writing rate of the pupil.

8. The mean rate of words per minute in transcription for the manual group was 14.75, while the functional group had a mean rate of 25.12. This shows that the reading skill achieved by the functional group was higher than the manual group.

9. In the short letter dictated to the two groups at 80 words per minute, the functional group had 9 perfect scores and the manual group had 5. The manual group received the lowest score received by either group.

10. The manual method group had 9 receiving this median score for the group; 97 or 3 errors or omissions in the short letter dictation. The median for the functional group was 98 per cent, or 2 errors or omissions. In addition to this higher median score, six of the functional method group received this median score.

11. The results of this test, short-letter dictation test, show that both groups had achieved the aim for the two groups--transcription of dictated material into satisfactory English.

12. Twenty-one pupils out of the twenty nine present would have received the 60-word per minute certificate in the functional group. The manual group would have received twenty certificates out of their possible thirty.

13. In the five-minute dictation letter, the functional method class averages were higher than the manual method group.

14. We may conclude that the functional method group showed a superior skill in the five-minute dictation test as 72.4 per cent of the functional class passed the test, while only 66.6 per cent of the manual method class passed. A difference of 6.5 per cent less in

error averages for the functional class further supports the statement that the functional method class achieved more in this test.

15. After this brief analysis of the four tests, it is evident that both the pupils and teachers secured better results in all four tests with the functional method of presentation.

16. The advanced class proved just the opposite to be true on the first test. The manual group evidently retained more of the theory during the long vacation than did the functional method group.

It has been decided by the teachers of the transcription that a thorough review of all the theory principles could be covered more rapidly with the functional method group than with the manual group. Review of theory would be easier with a group taught by the functional method due to the fact that drill of the manual type would be new to them. Besides, this group is accustomed to making generalizations from their readings of plate shorthand.⁶

Carder, in a "carefully controlled experiment" made to compare the functional methods of teaching shorthand in the Northeast Experimental Junior College of Kansas City, Missouri, arrived at the following conclusions:

The functional method greatly exceeded the non-functional method in developing transcription ability and shorthand reading ability The difference in reading ability of the two classes was very great.⁷

McConnell made a study of the functional method of teaching Gregg shorthand in the James Monroe High School, New York City, in 1936, which resulted in the entire shorthand department converting to the functional method. Trial

⁶Ibid., pp. 107-110.

⁷Carl C. Carder, "Comparison of Functional and Non-Functional Methods of Teaching Shorthand in Northeast Experimental Junior College, Kansas City, Missouri" (Unpublished Master's thesis, Kansas State Teachers College, 1936), p. iv.

classes were held in the James Monroe High School in order to see whether these unusual teaching techniques would bring results claimed and whether they would be workable under ordinary highschool conditions. McConnell reports that the classes contained twenty-six pupils, and Leslie's methods were followed faithfully. The two functional method books were not available at that time, so the class used the following texts: Gregg Shorthand Manual, Anniversary Edition; Gregg Speed Studies; Fundamental Drills; Graded Readings; and the "key" to these texts. "The seventy-fifth lesson was presented at the Commercial Education Association meeting of January 11, 1936, at the Hotel Pennsylvania and the success of the functional method, I think, was clearly demonstrated to the members at the association meeting on that occasion."⁸

In conclusion, she states that the functional method of approach in teaching shorthand seems to offer the following advantages:

1. From the administrative standpoint the teaching of the theory in less time leaves more time for the transcription which the pupils obviously need.
2. From the teacher's standpoint, it is a delightful way to present a very difficult subject to high-school students, with no papers to grade, no tests to give, and so forth.
3. From the pupil's standpoint, there is no discouragement, no irritation, no worry; and having the key in their hands for the homework, and using the

⁸H. M. McConnell, "An Experimental Class Using the Functional Method in Gregg Shorthand," High Points, XXXIII (December, 1936), 43.

"chorus" method of class recitation builds up confidence and courage and pleasure in their work.⁹

Sass made a study, "Suggested Adaptation of the Functional Method," which appeared in the magazine, The Business Education World.¹⁰ Her conclusions are as follows:

In conclusion, we may say that here is a fine method of teaching shorthand. It motivates, maintains interest, and gets the desired results. As the teacher's manual has been prepared, the method is nearly perfect for private school students, mature students, and selected students. It is not entirely applicable to the average highschool pupil in shorthand.¹¹

For purposes of comparison and review, the changes suggested by Sass for the first term of functional method teaching are copied in chart form in Table 1.

⁹Ibid.

¹⁰Esther R. Sass, "An Adaptation of the Functional Method," The Business Education World, XXIV (November, 1943), 135.

¹¹Ibid., p. 139.

TABLE 1

COMPARISONS AND ADAPTATIONS MADE BY ESTHER R. SASS
OF LOUIS A. LESLIE'S FUNCTIONAL METHOD

Item	Leslie's Method	Sass' Adaptation
Reading approach	Begin writing after 21 assignments	Begin writing 4th week of term
Rate of progress	One day an assignment	Two days for each assignment for at least two weeks, depending upon conditions
Written homework, longhand	None	Short daily assignment for the first three times
Written homework, shorthand	One assignment daily, written once	Half assignment, written two or three times
Teaching of brief forms	Through text material and charts in back of book	Through text, charts, writing of brief forms, daily tests
Analogicals	Teach as part of vocabulary	Teach as brief forms
Spelling	Spell each word when teaching vocabulary	Spell each word when teaching, when studying vocabulary, when confused in reading
Use of key	Frequent use of key	Sparing use--only when other methods fail
Writing	Start with assignment 22	Start with individual strokes, combinations, and assignment 1 (review)

CHAPTER II

METHOD OF PROCEDURE

Purpose of the Chapter

The purpose of this chapter is to study the types of methods recommended and to describe the procedures utilized in the investigation: selection of data, method of evaluating data, and the method of presentation.

Need for Methods in Teaching Shorthand

The same need for a method or plan in undertaking any enterprise exists in teaching shorthand. Some purpose or goal is necessary, and some preconceived plan to follow in achieving this goal makes it easier and quicker to attain. The first step in the study, then, is to determine the purposes of teaching shorthand.

The prime purpose in teaching shorthand, according to Gregg, the foremost authority in the field of shorthand teachers, is the acquisition of skill; actual facility in writing the symbols used is the ultimate aim.¹

¹John Robert Gregg, Gregg Shorthand Manual, Anniversary Edition, p. iii.

Selection of Methods for Study

What is method? What method will best achieve this objective? Answering these questions is the second step in this study. Method, according to Chapman and Counts, is "nothing more than a form of procedure; it is the manner in which the individual uses the materials at his disposal to produce or attain some end."² Dewey expresses a similar belief: "Method means that arrangement of subject matter which makes it most effective in use. Never is method something outside the material."³ Method, if these opinions of veteran educators are accepted as authoritative, is a form of procedure designed to best aid the learner in accomplishing his aim.

All shorthand teachers agree on the fundamental statement that the attainment of skill in writing is one of the basic aims in the teaching of shorthand. They have not all agreed, however, on the methods of teaching shorthand to attain this skill. Within the last fifteen years a number of shorthand teaching methods have been presented. These various procedures have aroused unusual interest and some confusion in the minds of shorthand teachers.

The third step in this study, therefore, was a selection of the number of methods to be studied. According to Odell,

²J. Crosby Chapman and George S. Counts, Principles of Education, p. 54.

³John Dewey, Democracy in Education, p. 94.

all shorthand methods can be divided into two main groups-- the traditional or manual method, and the direct method.⁴ The direct method can be sub-divided into the direct association method and the direct approach method. "Basically, the element of 'generalization' or the process of deciding how to write a shorthand outline for an unfamiliar word on the basis of learned outlines for other words is the inherent difference."⁵ Students in the field of shorthand teaching say that the generalization is done for the pupil in the manual method, and that is pupil initiated in the direct method, and the learning proceeds from the larger to the smaller unit. The development is descending paragraph, sentence, and words. It is evident that many differences in methods of teaching will be found in a comparison of methods chosen from each field. To determine these differences, it is necessary to select methods representative of both schools of thought.

The fourth step in the study, then, was the selection of methods to be used. Gregg writes that he is thoroughly convinced that the methods of teaching shorthand in the United States is far in advance of those of any other country.⁶ However, he goes further in saying that the methods of teaching shorthand in this country are at least ten years behind the

⁴William R. Odell, "Shorthand Methods and Materials," The Business Education World, XVII (May, 1937), 660.

⁵Ibid., p. 661.

⁶John Robert Gregg, The Teaching of Shorthand, p. 120.

methods of teaching typewriting, which shows that the author of this shorthand system of writing was not entirely satisfied with the method of presentation. Gregg was convinced, however, that steps would be made in the direction of a more scientific and better balanced treatment of all the factors involved in developing skill in writing.⁷

The methods that have been developed since Gregg's criticism may be divided in the following manner:

1. Manual methodologies
 - a. Anniversary or manual
 - b. Analytical, Frick
 - c. Skene-Walsh-Lomax
 - d. Beers-Scott
 - e. Zinman-Strelsin-Weitz
 - f. Leslie's functional
2. Direct methodologies
 - a. Barnhart
 - b. Odell-Rowe-Stuart
 - c. Brewington-Soutter
 - d. Munkhoff

The above classification of shorthand methods was taken from Davis, A Study of Teaching Shorthand.⁸

Procedure for Comparison of Methods

An analysis will be made of the ten methods on the basis of the techniques they recommend in teaching. The aims of all

⁷John Robert Gregg, "Improvement of Classroom Teaching in Shorthand," The Improvement of Classroom Teaching in Business Education, Twelfth Yearbook, Eastern Commercial Teachers Association, p. 271.

⁸Benjamin F. Davis, A Study of Shorthand Teaching, pp. 19-32.

shorthand teaching are approximately the same; the differences arise in the techniques used to achieve the aims.

Findings will be stated in the conclusion regarding the similarities and dissimilarities found in the comparison of the methods. The conclusions will be a digest of the opinions expressed pro and con in the study.

CHAPTER III

A COMPARISON OF SHORTHAND METHODS

During the last fifteen years a number of shorthand methods have been presented that have interested and sometimes confused shorthand teachers. The purpose of this chapter is to compare the methods as to the fundamental principles and techniques upon which each is based.

Teaching methods are gradually emerging from the realms of opinion into the realm of experimental procedure, and teachers of shorthand are beginning to apply the principle of psychological organization to shorthand. These principles are based on two laws of learning--the law of exercise and the law of effect as stated by Thorndyke. The law of exercise is that the oftener a person does a thing, the more readily he does it in the future. The law of effect is that a person will tend to do again the thing which gives him satisfaction.

The two general methods that have evolved are: (1) the logical or manual method and (2) the direct method.

The manual method presents shorthand in a logical, definite order. The pupil progresses from the simple to the complex by logical order.

The manual method, according to Harms, emphasizes rules; and on the basis of rules students formulate words, then write sentences, and finally take dictation. Rules are learned separately from writing.¹

At present the pupil is not required to memorize rules. In brief the manual method is:

1. A new rule is presented with outlines to illustrate new shorthand rule.
2. Practice in applying the new rule by writing the words that were given.
3. Statement of the new rule.
4. Presentation of other words not included in words first presented, new rule to be applied by the student.²

Reierson says of the manual method,

The pupil is taught to analyze outlines into their component parts with the aid of a sound alphabet, starting with units and working to larger units. Following each word and brief form list is a group of sentences illustrating the principles which have just been developed.³

The direct method of teaching shorthand means the procedure by which the teacher assists the learner in recognizing and recording meaning through the use of shorthand symbols

¹Harm Harms, Methods in Vocational Business Education, p. 124.

²Ibid., p. 126.

³Hattie G. Reierson, "A Comparative Study of Methods of Teaching Gregg Shorthand" (Unpublished professional paper, University of Idaho, 1941), p. 4.

without going around through the English symbols and then to the meaning. The direct method involves:

1. Ability to express meaning--the writing adaptation.
2. Ability to comprehend meaning--the reading adaptation.
3. Exactness, preciseness, and skill in the use of shorthand symbols--the refinement of the writing and reading adaptation.

Barnhart, one of the leading exponents of the direct method, says, "Learning shorthand means acquiring a progressive mastery of outline idea associations, using only ideas and meanings known to the learner; consequently, the learner needs only to acquire an association between the words he knows and will use, and their appropriate outline."⁴

The direct method advocates the automatizing of all high-frequency words. A vocabulary of 500 to 750 words make up the initial basic list.⁵ For the learning exercise and the learning procedures are always such as completely fill the attention span of the learner, thereby giving him the opportunity to learn essential relationships simultaneously with particular skills. Thus, the direct method makes it possible for the learner always to do his best, for the teacher to begin

⁴Benjamin Franklin Davis, A Study of Shorthand Teaching, p. 24.

⁵William R. Odell, "Shorthand Methods and Materials," The Business Education World, XV (May, 1935), 64-65.

with and to build upon what the learner already knows, and to base the entire learning situation upon relationships between the things being learned, according to Brewington.

"Basically, the element of 'generalization,' or the process of deciding how to write a shorthand outline for an unfamiliar word on the basis of learned outlines for other words, is the inherent difference"⁶ of the manual method and the direct method of teaching Gregg shorthand.

The areas chosen for comparison of the direct method and the manual method and their variations are: (1) approaches to shorthand, (2) techniques employed, (3) use of rules or principles, (4) contextual materials, (5) tests, (6) perman-ship drills, (7) word-lists, (8) formal review, (9) keys, and (10) repetition practice.

Manual Method

The basis of Gregg shorthand is the Gregg Shorthand Manual, which was first published in two pamphlets in 1888, under the title of "Light Line Phonography." Five years later, a revised and greatly improved edition was published under the title, "Gregg Shorthand," and in 1897, the author, John Robert Gregg, published his system in book form for the first time. The manual was again revised in 1901, 1916, and in 1929, this later edition being the one used at present. However, in 1949

⁶William R. Odell, "Shorthand Methods and Materials," The Business Education World, XVII (May, 1937), 660.

a new simplified manual was introduced, but so far there has been no opportunity for it to be used.

Each revision marked a step forward in simplifying and popularizing the study of shorthand. Each revision has placed increasing emphasis upon the desirability of teaching shorthand as a skill subject from the beginning and throughout the entire course. This method enables the teacher to direct the maximum of effort toward the training of the student in actual facility in writing, and the maximum of effort to expositions of rules and principles.⁷

From this original presentation of the Gregg system, many variations have been developed.

Gregg Shorthand Manual, anniversary edition.--The introduction to the manual method is the "alphabetic approach." The consonants are presented first, and then the words are listed to illustrate these consonants. The consonants also represent brief forms, which would constitute a word approach. The brief form words are then presented in sentences through plate shorthand, introducing drill context.⁸ The vowels are then introduced in a simple chart form with illustrative words, and shorthand plate material is given for the context drill. This enables the student to apply his knowledge of the system of the new words in sentences at the end of each chapter.

⁷ John Robert Gregg, Gregg Shorthand Manual, Anniversary Edition, p. iii.

⁸ John V. Walsh, "Modern Methods of Teaching Shorthand," Modern Methods of Teaching Business Subjects, Twelfth Year-book, Eastern Commercial Teachers Association, p. 126.

"These words become the tools by means of which the principles are taught."⁹ Reading and writing approaches, thus, are simultaneous. The all-important learning unit in the manual method is the rule. The material used serves to illustrate the rule, as stated by Belanger.¹⁰

The pupil is encouraged to drill in penmanship. Gregg states in his manual, "Write each outline many times and aim always at the attainment of fluency and exactness of execution."¹¹ Speed is secondary to accuracy of outline.

Tests are given frequently on words and on sentences.

The Anniversary Manual method of testing is as follows:

1. The Hoke Prognostic Test of Stenographic Ability should be given at the beginning of the course.
2. Short diagnostic tests should be given upon completion of each unit and chapter of the manual. Progressive Exercises in Gregg Shorthand and the Rollinson Diagnostic Tests should be used for this purpose.
3. New-matter tests should be given almost daily.¹²

Little contextual material is employed. There are only 332 pages of material in the entire first year's work as found in the Gregg Manual, with Speed Studies and Graded Readings.

⁹Lillian A. Belanger, "A Comparison of the Functional and Non-Functional Methods of Teaching Shorthand" (Unpublished Master's thesis, Tufts College, 1944), p. 32.

¹⁰Ibid.

¹¹Gregg, op. cit., p. xii.

¹²Research Department, The Gregg Publishing Company, A Course of Study in Gregg Shorthand for High Schools, p. 36.

No keys are used and formal review, other than tests, is the reading and dictation practice at the end of each chapter utilizing rules and words just taught.

Class time is spent in presentation of rules and word-lists, and in reading and writing practice. If any questions are asked, the teacher may take class time for a brief explanation and illustration. Long discussions on theory principles are not encouraged, as most of the student's time should be spent in reading and writing shorthand, mostly from dictation.

In this, as in practically all methods, the teacher should present the shorthand outlines on the board in order to demonstrate correct writing movements.

Although no changes have been made in the basic principles of the manual method since it was originated, much has been learned in the last few years concerning the basic content of the vocabulary in common use, and it has been possible to arrange the principles and practice of content of the manual so that the efforts of the teacher and student may be more economically and profitably directed, and the development of a writing vocabulary rendered more rapid.¹³

From an analysis of the Horn and the Harvard Studies of the comparative frequency of words, it was found that the twenty most common words in our language were spread through

¹³ Gregg, op. cit., p. iv.

seven lessons in the 1916 manual. In the Anniversary Edition these twenty words are presented in the first chapter.

Three devices for building a vocabulary and developing skill in speed, according to Gregg are: (1) The short words of high frequency are introduced in the first chapter in the order of their frequency, even though this means that in a few instances they are given in advance of the principles that govern their writing, (2) some of the principles have been developed earlier than they were in the old text, (3) analogy, one of the most helpful of teaching devices has been employed to a greater extent than it was in the 1916 manual.¹⁴

Other important features of the Gregg Shorthand Manual, Anniversary Edition are:

1. Phrasing principles have been moved forward to Chapters 1 and 2 to show the pupil the importance of phrase writing and to give him a longer time to acquire this habit of joining words.

2. To increase speed and accuracy, minor changes have been made in a few outlines and rules have been stated more simply and more clearly.

3. Now, the principles are presented in twelve chapters, rather than in twenty lessons, as in the 1916 manual.

¹⁴Ibid., p. v.

4. The brief forms are now distributed equally in the first six chapters and they are presented in the order of their frequency.

5. The amount of reading and dictation material has been more than doubled. The presentation of principles and common words early in the course have increased writing power so that business letters can be introduced as early as the second chapter.

6. A larger type and a bolder style of shorthand than was presented in the 1916 edition has increased the value of the manual.

Leslie's Gregg shorthand, functional method.--The functional method of teaching Gregg shorthand was developed by Louis A. Leslie under the direct supervision of John Robert Gregg. It is a culmination of an advance begun by Gregg in 1888 in his first shorthand textbook. Leslie has had about twenty years of teaching experience in which he has had unusual opportunities for observation of many different teachers in many different types of schools, and he has been able to experiment with methods of teaching under conditions which required good results.

The functional method was first introduced in the public schools of Boston, Massachusetts, in December, 1934, and at once two Boston high schools began demonstration classes in the functional method. About the same time, the functional method was introduced into Boston University.

In March, 1935, the method was announced in the Business Education World, which planned to publish the lesson plans at the rate of one chapter a month, but the response was so great that the Gregg Publishing Company issued five hundred copies of the lesson plans in mimeographed form. This supply was soon exhausted and several other editions had to be issued.

In June, 1935, Leslie presented the functional method to the annual conference of the National Gregg Association in Hastings, England.

In the first school year following its introduction, 1935-1936, about seven hundred schools tested the Leslie functional method in their classrooms. In the second school year, 1936-1937, more than four thousand teachers used the functional method. In 1939 Pearson said that approximately six thousand of the eighteen thousand schools teaching Gregg shorthand used the new functional method.

The functional method of teaching Gregg shorthand is based on the concept that a skill is best developed under the most favorable conditions, and that, therefore, the student should not be required to write any shorthand outline until he is thoroughly prepared to write it correctly. It "emphasizes more and wider reading, more fluent reading, much reading before writing, and little or no testing."¹⁵

¹⁵Harms, op. cit., p. 128.

According to Davis, "Principles are presented without the preliminary traditional 'development,' but the given principle is briefly and directly presented, after which the student is introduced immediately into drill work."¹⁶

The functional method, 1936, follows closely with that of the manual method, 1929. Since the functional method is based on the concept that the student should not be required to write any shorthand outline until he is thoroughly prepared to write it correctly, the reading approach is used to develop application of shorthand principles by the use of the sound alphabet.

Leslie states that there are two great advantages derived from the use of the reading approach without any accompanying disadvantage, because: (1) The reading approach correctly handled, greatly simplifies the student's problem at the beginning by enabling him to focus all his attention on reading rather than dividing his attention between reading and writing. This results in faster progress with much less effort on the pupil's part. (2) The reading approach does not give the pupil an opportunity to make errors. He sees only perfect outlines, both in theory and penmanship. He has no opportunity to get mental images of wrong joinings or poorly shaped curves. More important still, all during the reading approach period,

¹⁶
Davis, op. cit., p. 22.

the pupil's mind is being stocked with clear mental images of the alphabetic characters and the joinings, and when you do ask him to write, he has little trouble in reproducing those mental images with surprising fidelity.¹⁷

Leslie uses reading for the first twenty-one periods. Pupils read word-lists as they are written on the blackboard. The teacher spells as he writes and he has the pupils spell in unison. The teacher then pronounces the words with the class as he points to the outlines. More words are added in the same way. The entire group of outlines of each assignment and the brief forms are drilled on by concert and individual reading.

Context material is read from the functional textbooks. Functional reading starts with the teaching of the alphabet, which is in direct contrast with the direct methods.

To facilitate an easy, fluent reading rate, the pupils are instructed to refer to their "transcript" or key at the back of the text rather than waste time in an effort to decipher the outlines. As soon as the students have acquired a background and can pronounce words as wholes, there will be no need for a presentation so detailed as at the beginning of the course.¹⁸

¹⁷ Louis A. Leslie, Gregg Shorthand, Functional Method, Teacher's Handbook, pp. 9-10.

¹⁸ Reiersen, op. cit., pp. 11-13.

Because reading is extensive, no formal penmanship drills are necessary. By delaying writing activities until the completion of the first four chapters in the manual, the pupil will have accumulated a storehouse of images of correct shorthand outlines, and writing will be of good quality. By this time the pupils have had plenty of time to become acquainted with the shorthand alphabet and have overcome the initial strangeness of the new language medium. The pupils are urged to use fountain pens whenever possible, because pen notes are easier to read than pencil notes and hold up longer.

At the beginning of the twenty-second period, reading and writing should be used.

Dictation on practiced matter may be commenced as soon as written homework is assigned, although it is recommended that very little dictation be given for a few days to give the pupils time to orient themselves in the new activity; however, at least a few minutes' dictation should be given each day to encourage the students and let them see that they are accomplishing something worthwhile by their new type of homework assignment.

In Mr. Leslie's Handbook for Teachers, he gives the following instructions for the initial writing activities: "Have the pupils turn back to Assignment 2, paragraph 15, and read aloud the first sentence, 'Ray had a meal late in the day.'" Explain to the pupils that you are going to dictate to yourself at the same speed that you will dictate to them, and that first you will write it on the blackboard. Write several times, saying aloud as you do so, the first part of the sentence, "Ray had a meal." Write the words once very large. Then write them again natural size as you dictate to yourself slowly. Dictate at the same speed to the students, encouraging them to keep their shorthand books open to make sure they write the outlines correctly as you dictate Five to ten minutes a day is enough time for writing for the first week or two after writing has

been introduced. As the pupils write more easily, extend the time of writing It is necessary to have the pupils go back to copy the material which was used for reading practice in the first four chapters. We go back to Assignment 2 on the first day of writing only to make it seem easier to the pupils. After the first day or two they will have no difficulty in copying the exercises in Chapter V.

There are no formal penmanship drills, and at first the writing speeds are between 40 and 60 words a minute in introducing the initial writing procedure. While taking dictation from the first day's assignment, the pupil is permitted to keep his book open for ready reference. Unfamiliar dictation and transcription are not given until after the thirty-second week. For homework the author has the pupils copy the letters or articles in the assignment once.

Leslie does not believe in formal review, nor does he give tests except for administrative purposes, and then upon transcripts only.

Leslie recommends, throughout his Teacher's Handbook, the extensive use of blackboard presentation, concert reading as well as individual reading by members of the class, and emphasizes the use of the printed key to aid the pupils in covering the assigned homework in reading within a reasonable amount of time.¹⁸

The pupils are instructed at the first of the year that this system has been used by millions of people, and therefore, every possible question they might ask has been anticipated and will settle itself if they will keep right on going. This will usually dispose of the questions for the rest of the school year.¹⁹

Sometimes teachers think that because shorthand is taught by the functional method "without rules," without the opportunity to elicit generalizations from the student, and without the opportunity to discuss questions in class, it seems to be

¹⁸Ibid., pp. 11-13.

¹⁹Leslie, op. cit., p. 11.

lacking in mental discipline. Do not let this worry you. The writing of shorthand is, itself, the world's best mental discipline.²⁰

The functional method avoids the old formal testing program with its emphasis on correctness of outline to be attained and tested immediately after the learning of the principle,²¹ because it gives him a chance to make errors and to write outlines incorrectly. It tends to worry the student and to set up associations of dislike of shorthand. Any test given in the functional method is to test the pupil's skill in reading and writing shorthand; for administrative purposes, to establish grades; for discipline; or for an incentive to study.

The following types of tests are suggested for the functional method, that any test be used sparingly:

1. The students transcribe in longhand a list of brief forms written on blackboard by teacher.
2. The students transcribe in class word-lists or phrase lists from previous assignments.
3. The students transcribe any reading or writing exercise from a previous assignment.
4. Once a week without warning, the students will be required to transcribe from three to five minutes from the connected matter which was assigned for homework in the preceding period.
5. To test speed of copying and quality of shorthand penmanship, the pupils are asked to copy in shorthand from the printed shorthand in the text.
6. To test speed of writing from dictation, and their ability to read their own notes, pupils are required to copy in longhand practiced matter which has

²⁰Ibid., pp. 13-15

²¹Ibid., p. 16.

been dictated to them while they had their shorthand books open.

7. When the stage of new-matter dictation is reached, the usual test will consist of new matter dictation to be transcribed in longhand or on the typewriter, the test to be rated on the transcript only.²²

In the functional method the best way to assign grades, in the opinion of the writer, is on the basis of the classroom procedure, until the pupils are able to take dictation and transcribe it. Then the transcript should be the only criterion by which to judge the pupil.²³

This method does not call for word-lists to be written or for homework to be prepared for the teacher. No formal review is necessary, because texts provide self-review.

The two principal forms of activity in the classroom, according to Harms are: (1) presentation of classified word-lists on the blackboard and (2) reading or writing.²⁴ It is essential to keep the technique simple. Learning by the functional method comes gradually. It cannot be determined when the goal is achieved, but it does happen. The focus must be on the positive, as poor results are obtained when the teacher stresses errors too much. Corrections will take care of themselves, as the pupil copies and reads good shorthand. Incorrect writing at first is not serious, unless pointed out as such.

²²Ibid., pp. 18-19.

²³Ibid., p. 23.

²⁴Harms, op. cit., p. 128.

Frick's analytical method.--The analytical method made its first appearance in 1924. The method was worked out in the schools of Oregon by Mimmie Demotte Frick. The presentation of the principles is the same as the manual method with the emphasis on word-building.

Frick, in the Analytical Lessons in Gregg Shorthand, says that the analytical method trains the shorthand writer to see the power of the idea through simultaneous teaching of (1) sound, (2) motor, (3) sight, (4) memory--through knowledge. Her aim is to teach original word writing through the use of transfer elements, called sound patterns.²⁵

Belanger states that in order to emphasize word-building, Frick returns to even a smaller learning unit, sound.²⁶ From a basic sound a long family group of words is built, and she contends this will habituate the pupil to a stimulus-response reaction. This procedure continues into phrases and intensive sentences. Many advocates of this method feel with Frick that her pattern-reaction units are designed to facilitate transfer to new words. Her book is primarily to be used as a teacher's manual and guide.

In Frick's own words we find why she has returned to the smaller learning unit, a sound. She feels that since a single stroke may represent a simple consonant sound, brief forms, prefix, suffix short out, and so forth, that

²⁵ibid., p. 134.

²⁶Belanger, op. cit., p. 35.

. . . when presenting symbols, the teacher should emphasize:

1. That the symbols and sound group patterns are the elements of the word forms, are capable of re-arrangement and adjustments in forming other words, and that because of this, such parts may be referred to as elements of transfer;
2. That these transferable elements act as common servants to be employed in many words--not in a particular word;
3. That the completed word form is transferable only as a whole.

The building of unstudied and unseen forms requires that the writer should have at his command all the materials with which to construct the word. He does not need to see the word form before he writes it, but he must have had previous experience in the use of all the parts necessary for forming the unknown word. In original word construction it is a primary necessity that the teachers install the tools for building before asking the student to use them.

Frick believes in reading, but feels too frequently the contextual material carries more weight than the word forms. Furthermore, she does not believe in memorizing rules, but rather in their "muscularizing."²⁷

The following procedures may take the place of rules:

1. Habituating pattern reaction through repetition.
2. Establishing specific determinants to act as guides to procedure.
3. Grouping material under heads that would designate the correct form, as "words without vowels."

²⁷Harms, op. cit., p. 134.

The analytical method involves analogy, analysis, and synthesis, and advocates use of the shorthand manual with a logical presentation of principles; yet Frick's development can be said to be psychological.

Harms summarizes the techniques used in teaching the analytical method as follows:

1. Dictation and writing from beginning class hour.
2. Teaching lesson before it is studied.
3. Reading accompanied by tracing.
4. Thinking and talking in terms of shorthand.
5. Related sound and pattern drills for transfer elements.
6. Blackboard illustrations of dictated materials--
teaching writing techniques, sound and pattern relation, and reading.
7. Association of like outlines.
8. Sentence dictation, using the pattern reactions intensively.
9. Reading from writer's notes from beginning.
10. During theory development, reading is result of intelligent analysis of form rather than by context or memory.²⁸

Beers and Scott sentence method.--Gertrude Beers of the University of Nebraska and Letha P. Scott of the Lincoln, Nebraska, School of Commerce are the collaborators of Fundamental Drills in Gregg Shorthand, which was published by the Gregg Publishing Company in 1932.

²⁸Ibid.

This method follows the logical presentation of principles laid down in the Gregg Shorthand Manual. The authors state in their preface that "the material that constitutes this book was prepared to supplement the manual and at the same time to furnish adequate drill on each principle in order that the reading and writing of connected shorthand may be automatized in the early stages of learning."²⁹

According to Belanger, the chief value of this method is to give students adequate drill in context and to provide beginning transcription material for typing assignments.³⁰ Their material contains short articles of interest to high-school pupils. Too, the value of high-frequency words is recognized. The first 3,000 highest frequency words from Horn's list and 1,000 words from Ayre's and other composite lists were used.

Emphasis is placed on reading in order to learn the principles. From two to four weeks is spent in reading shorthand before the students begin to write the outlines. The teacher introduces the shorthand by writing on the blackboard and reading simultaneously, two sentences from the text. Pupils try to read it. The next sentence is written on the board and is read by the pupils in concert. The teacher reads

²⁹Gertrude Beers and Letha P. Scott, Fundamental Drills in Gregg Shorthand, p. iii.

³⁰Belanger, op. cit., p. 39.

aloud whenever a new outline is introduced. The remainder of the exercise is read from the text. The teacher instructs the pupils to read each exercise repeatedly with as rapid a rate as they would read longhand or printed material.

The pupils should start writing after they have automatized the reading of shorthand in the two to four weeks.

"Write as rapidly as you can from the beginning, so you will develop with accuracy."³¹

Blackboard practice is advocated for the pupil as it develops great facility. The teacher presents the writing lesson by reading a sentence and having the pupils recall mental pictures of the outlines in the sentence. The teacher then writes it on the blackboard while the pupils observe the formation of the outlines. The sentence is then dictated and pupils write it as rapidly as possible. Home practice material is previewed in class in order for the students to be able to practice it repeatedly until it can be written accurately and rapidly. The writing exercise is several exercises behind the new reading assignment. The authors feel that this makes the pupil write with greater ease and confidence.

Skene, Walsh, and Lomax method.--This method was developed by Etta C. Skene, John V. Walsh, and Paul S. Lomax at New York University in 1932 before presenting their book, Teaching

³¹Beers, op. cit., p. vii.

Principles and Procedures for Gregg Shorthand, which was published by the Gregg Publishing Company.

The authors follow the order and presentation of the principles as given in the Gregg Shorthand Manual. It is a teacher's guide including organization charts. For example, the organization chart in Unit 1 contains all the brief forms and phrases possible to that unit. The brief forms are organized according to right- and left-motion curves, beginning with K; horizontal straight strokes; upward straight strokes; and finally, th. The working material is so presented that it can be seen at a glance. After the letter K, the brief form can is shown; after gay, go and good.³² These charts are beneficial devices for developing facility in writing single strokes or entire words. The chief contribution to variations of teaching is the organization chart.

The new material is presented in terms of a shorthand rule which is to be learned. This is done through instant-recall of isolated words or symbols until the complete thought is secured.

The vocabulary includes all the words found in the Gregg Shorthand Manual and supplements these with words of high frequency which are indicated in italics.

³² Etta C. Skene, John V. Walsh, and Paul Lomax, The Teaching Principles and Procedures for Gregg Shorthand, p. 3.

No special contextual material is included, but a number of paragraphs and letters as well as word lists are given for review.

The reading is done from the Gregg Shorthand Manual since this book is used as a teacher's guide. Reading is done until it can be read as rapidly as from longhand.

The pupil is instructed to practice the outlines so that he can write them just as fluently as he does longhand. This gives considerable recognition to individual differences in the acquisition of skill.

Skene, Walsh, and Lomax suggest that teachers make periodic tests of the new things learned. They recommend a test in Progressive Exercises at the end of each unit.

Zinman, Strelsin, and Weitz method.--Another method of teaching shorthand was developed by Meyer Zinman, Roslyn Strelsin, and Elizabeth Weitz of the Abraham Lincoln High School in New York in 1934. Their material in the form of Daily Lesson Plans for Teaching Gregg Shorthand by the Sentence Method is published by the Gregg Publishing Company.

This method emphasizes the learning through sentences instead of through isolated words, and the principles in this material are closely allied with those in the Gregg Shorthand Manual.

Interesting and useful information is given in the sentences and letters which emphasize the principles in the manual.

The pupils read the sentences over and over again to learn the shorthand principles. A sentence containing a new word is placed on the blackboard by the teacher. Usually the pupils can read all of the words except the new one. The teacher then presents the principle for the new word. Additional sentences are given to illustrate new principles. When these new words have been learned through the reading process, the teacher then dictates each sentence three times as the pupils write. The reading and writing of shorthand are introduced simultaneously. The authors advise that the pupils write each new outline seven times. This number was arrived at by experimentation. The sentences are dictated three times, each time at a higher rate of speed, and the initial dictation should be at sixty words a minute.³³

The authors have observed the principles of comparison and contrast in constructing the sentences, and sufficient review is provided to serve as an apperceptive basis for the new lesson. They suggest that the review sentences can be used for reviewing or summarizing purposes in connection with other methods.

Direct Method

The direct method of teaching shorthand was begun by Florence Sparks Barnhart, and later Ann Brewington of the University of Chicago developed Direct Method Materials for Gregg Shorthand.

³³Meyer E. Zimman, Roslyn E. Strelsin, and Elizabeth F. Weitz, Daily Lesson Plans for Teaching Gregg Shorthand by the Sentence Method, pp. 19-31.

Brewington says,

The direct method of teaching shorthand means the procedure by which the teacher assists the learner in recognizing and recording meaning through the use of shorthand symbols, without going around through the English symbols and then to the meaning. The direct method involves;

1. Ability to express meaning--the writing adaptation.
2. Ability to comprehend meaning--the reading adaptation.
3. Exactness, preciseness, and skill in the use of shorthand symbols--the refinement of the writing and the reading adaptations.³⁴

The authors of the direct method believe that there are three areas of shorthand learning, namely: (1) There are some forms, called brief forms, which the pupils must memorize, (2) some shorthand words have no logical foundation according to rules, and (3) there are too many words to be memorized, so rules must be used for writing the majority of words.

Harms sees some advantages of the direct method. In the first place, pupils have fewer eye fixations than in the manual method. This makes for more rapid reading, a skill needed for easy transcription. Also, better writing habits are developed because the "whole" is emphasized. Since the direct method is an inductive method, it is easier to learn than the manual method, which is deductive. Because of this, it is easy to learn, and no wasted energy is used on rules; pupils and teachers enjoy it more.³⁵

³⁴Ann Brewington, Complete List of Gregg Shorthand Books, pp. 9-10.

³⁵Harms, op. cit., p. 132.

I. Inductive Method with Reading Approach

1. Students read the contextual material in the lesson until they can read it without hesitation and without reference to the transcript.

2. Teacher dictates the first exercise once at approximately 60 words a minute. Students write with books open.

3. Teacher repeats the dictation at the same rate. Students write with books closed.

4. Students open books, check outlines, and isolate for special practice the incorrectly written outlines.

5. After a reasonable time spent in practice, the teacher redictates the material. Students check the outlines and isolate for special home practice the incorrectly written outlines.

6. After each exercise in the lesson has been presented and practiced in this fashion, the teacher makes whatever use of the generalizations he sees fit. He may omit them, make casual reference to them, or stress them according to the needs of the group or of individuals in the group.

II. Inductive Method with Pattern-Outline Approach

1. Students read the pattern outlines, new words, and new phrases until they can read them without hesitation and without reference to the transcript.

2. Teacher dictates what was read. Students check their work and practice the incorrectly written outlines.

3. Procedure from this point is the same as Steps 1, 2, 3, 4, 5, and 6 in Inductive Method with Reading Approach.

III. Deductive Method

1. Teacher introduces new principle first, using the statements and illustrations in the Generalizations.

2. Students read the pattern outlines, new words, and new phrases.

3. Teacher dictates what was read.

4. Procedure from this point is the same as that used in the Inductive Method with Pattern-Outline Approach.³⁶

This method grew out of an attempt to combine the advantages of the manual method with the direct approach. In making clear just what is the essence of the direct method, Davis says, "A method is said to be 'direct' to the extent to which

³⁶Odell and Stuart, Gregg Shorthand, Direct-Approach Method, Teacher's Manual, Experimental Edition, pp. 12-13.

the generalization of principles is pupil initiated rather than teacher imposed."³⁷ The pupil advances from a large unit to a small one--from the paragraph to the sentence, and then to the individual word. If the pupil ever learns the sound alphabet and the rules, it is because he learned them by inductive reasoning.

Besides Barnhart and Brewington, with her associate, Scutter, this comparison will consider the direct methods of Munkhoff and Odell, Rowe, and Stuart.

Barnhart's direct-association method.--The most extreme type of the direct methodologies was originated by the late Florence Sparks Barnhart and Earl W. Barnhart of the University of Iowa at Iowa City. Developed in 1929, it was not published, but was mimeographed and used by a number of teachers. Barnhart also used the material, Some Experiences with the Direct-Association Method of Teaching Shorthand, in her demonstration classes at Columbia University.

Barnhart believed that shorthand was a language-art subject, and she began her instruction with a reading lesson. Each pupil was given an oral reading test during the first class period to determine his normal reading rate. Before class, short paragraphs were placed on the blackboard in shorthand, and the teacher read the first few sentences through, pointing to each outline as she read. The pupils observed

³⁷Davis, op. cit., p. 24.

and the teacher repeated the oral reading, while the pupils read silently with her. Then the class read in concert. The sentences were then read orally, one at a time by pupils who volunteered, and finally, the whole class read the entire exercise.

Mimeographed sheets containing the material studied from the blackboard were given to the pupils in order that they could read silently the first paragraph. Any words that were read incorrectly at first were used in new sentences on the blackboard and re-read until the correct association was automatized. Flash cards of questions and word drills were used to perfect the reading pattern. This type of reading drill was used as the only approach during the first one or two weeks before writing activities were begun.

The approach to writing in Barnhart's method was for the pupil to observe the teacher, as she wrote the exercises on the blackboard several times. Then the pupils made the same movements in the air to get the right "feel." The next step was to trace over the pattern given them in their mimeographed text, and finally, to actually write the exercises from the copy. A writing rate at a minimum of forty words per minute was used.

Barnhart did not consider the style of penmanship at all important. The test of writing ability was to read back the written page. Homework consisted of writing new material using the newly acquired vocabulary.

In her material Barnhart states, "Learning shorthand means acquiring a progressive mastery of outline-idea associations using only ideas and meanings known to the learner; consequently the learner needs only to acquire an association between words he knows and will use and their appropriate shorthand outline."³⁸ She urged automatization of words in accordance with high-frequency word lists.

In analyzing this method, Davis quotes from O'Dell's article, "What Skills Should Be Developed in Stenography and Typewriting," as follows:

Words which are written according to a common shorthand principle are not presented at the same time nor linked together in any way by the teachers. Instead, the student is supposed to learn to connect each outline with the word which it represents, building up a vocabulary word by word in this direct association fashion, from which process the method in part takes its name. Any generalization which is done is in this case pupil initiated. Principles or rules are not mentioned by the teacher.³⁹

Since Florence Sparks Barnhart is deceased, the material was not published, and the method is not used in its entirety.

Brewington-Scutter method.--The material and method for this direct method of teaching shorthand were developed by Ann Brewington and Helen Scutter of the University of Chicago. Their work, Direct-Method Materials for Gregg Shorthand, was published by the Gregg Publishing Company in 1933.

³⁸Florence Sparks Barnhart, "Some Experiments with the Direct-Association Method of Teaching Shorthand," University of Iowa, Monograph in Education, p. 11.

³⁹Davis, op. cit., p. 24.

The Brewington-Scutter method presents theory in the same arrangement as in the Gregg manual, although words are sometimes presented before the principle to place the dictation on a higher level. All material is presented from shorthand plates, but there is no key for the pupils. All principles are taught by the "whole" method and by inductive reasoning. The sound alphabet is not used.

These authors also believe in teaching shorthand as a language art, which requires that the pupils read for thought rather than to learn isolated shorthand symbols. To achieve this goal, the three-fold plan presented by Barnhart is employed; namely, that of the reading adaptation; the writing adaptation; and exactness, preciseness, and skill.

The plan used in selecting a vocabulary was to have at least ten per cent of the running words teach principles in the unit being studied. About seventy-five per cent of the running words were review words, and approximately eight per cent were words written according to principles not yet learned. Horn's and Thorndyke's word lists of the 10,000 most common words were used, and constitute over ninety per cent of the total words.⁴⁰

About forty per cent of the subject matter is made up of letters and articles containing specific suggestions for the

⁴⁰ Ann Brewington and Helen Scutter, Direct-Method Materials for Gregg Shorthand, p. xiv.

acquisition of good secretarial traits and attitudes, while sixty per cent of the material is devoted to general business and economic information that is invaluable to secretaries.

The reading approach is used for the first four units of the text in the following manner: A short article of fifty or more words is written on the blackboard in large shorthand notes by the teacher before the class assembles. Later, the article is read aloud meaningfully by the teacher at approximately 150 words per minute. The teacher then asks for the substance of the material read, then she re-reads the article. The thought is fully comprehended by asking questions, both on the part of the teacher and the pupils. Then the teacher and the pupils read aloud as she points to the thought units. The teacher reads aloud the individual outlines which should be automatized, and pupils recite these outlines as the teacher points to them. The class now reads the same material from their textbooks at 150 words a minute.

Writing is started as soon as the pupils can read the first paragraph presented. The writing procedure is based on the language-art type of teaching. This means that the pupil writes in terms of ideas or thoughts instead of shorthand symbols. The authors describe their writing techniques as follows:

The teacher writes a short paragraph rapidly (approximately 80 words a minute) on the blackboard, reading aloud meaningfully as she writes. This process is repeated and the pupils are told to observe the movements. Then the

pupils trace over the outlines in their texts with a stylus or dry pen as the article is read aloud several times by the teacher. Each sentence in the paragraph is treated in the same manner. The paragraph is then dictated meaningfully three or four times by the teacher at 100 words per minute, while the pupils write it in their notebooks. This material is then read back in unison by the class and by individual pupils, at the rate of 125 or more words per minute. Another sentence is dictated at not less than 150 words per minute, while the pupils write in their notebooks, a symbol, a dot, or a dash for everything written. This is done to stimulate continuous rapid writing activity. The above procedure is used through Unit 4, when the attention is shifted to teaching exactness, preciseness, and skill. Exactness is developed by drills on excellent penmanship. Preciseness is the writing correctly according to theory learned, and skill is the ease of writing fluently. Isolated elements, symbols, words, and phrases are drilled on and practiced until they can be written rapidly and accurately.

Home practice follows class procedure for reading and writing materials in the pupils' notebooks at the rate of 100 words per minute.

An interesting study on eye movement in the learning of shorthand revealed that fewer and shorter movements were made by readers taught by the direct method than by those who were taught by the parts or manual method.⁴¹

The entire text for this method is written in shorthand and all exercises are made up of contextual material. The book is designed to be used along with the Gregg Shorthand Manual. It is divided into twelve chapters according to units in the Anniversary Edition of Gregg Shorthand Manual.

⁴¹ Ann Brewington, A Study of Eye Movements in the Reading of Shorthand, University of Iowa, Monograph No. 12, V, p. 19.

This method is the only one of the direct methodology group that emphasizes the teaching of shorthand principles as such with greater emphasis on the reading of shorthand plate notes and the writing of all shorthand notes at a relatively high rate of speed.⁴²

Munkhoff method.--Katherine Munkhoff of the Wilson Senior High School, Cedar Rapids, Iowa, presented her plan for teaching shorthand by a direct-method approach in her thesis written at the University of Iowa in 1929. This material is called A Comparison of the Direct-Writing Method with the Old Manual Method in the Teaching of Shorthand I, and it is available in mimeographed form.

Munkhoff's method, briefly stated, is that no rules of grammar are taught as such. If a pupil wishes, he may make his own rules.⁴³ After the first twenty-one units, rules are taught inductively. Then the sound alphabet is introduced.

In the beginning Munkhoff advocates a rapid reading rate of between 150 to 200 words per minute. However, writing begins on the first day, too. The procedure is for the teacher to write a sentence on the blackboard several times as the pupils observe. Then the pupils write the sentences in their notebooks while the teacher writes them on the board. Later the teacher reads

⁴²Belanger, op. cit., p. 47.

⁴³Katherine Munkhoff, "Results of Controlled Group Experiment with the Direct-Writing Method in Shorthand I" (Unpublished Master's thesis, University of Iowa, 1929), p. 63.

her notes from the board while tracing and the pupils read from the blackboard, and then from their notes, first as a group, and finally individually.

No particular attention is given to shorthand penmanship. All writing is done rapidly. Munkhoff believes that the necessity for reading their notes would encourage good writing quality.

An entire paragraph is developed by sentences. Then it is dictated at 80 words a minute and read back at a normal reading rate. This material is written from memory as rapidly as possible for one minute. In this manner, 125 words per minute can be achieved the first day.

This author made experiments which showed little differences in results between the direct-reading and the direct-writing approach. She believes, however, that the direct-writing approach is more natural.

Horn's word list of 1,000 commonest words are used as the basis for Munkhoff's material, although she includes other words as well. Pupils used their own notebooks instead of textbooks. She says,

Transcript is a factor from the first day. Pupils hand in a pencil or typewritten transcript of each unit from their notes. Shorthand notes are put to the ultimate use immediately.⁴⁴

Odell, Rowe, and Stuart method.--Collaborators for this method were W. R. Odell, Clyde E. Rowe, and Esta Ross Stuart

⁴⁴Davis, op. cit., pp. 27-28.

of Teachers College, Columbia University. Their materials for the direct-approach method of teaching shorthand were published in text form by the Gregg Publishing Company in 1936. The text is entitled Direct-Practice Units for Beginning Gregg Shorthand.

The principles of this method are: (1) No rules for the construction of outlines are taught, (2) outlines are considered as "wholes," (3) the vocabulary is built up by memorization, (4) the sound alphabet is not introduced, and (5) all generalizations are pupil-initiated.

These principles are based on Odell's three areas of learning shorthand. The first area consists of all those shorthand outlines that do not have a logical foundation upon a shorthand rule. This includes all grammalogs, word signs, or brief forms, and all exceptions to or arbitrary violations of the rules of the system. The second area of learning consists of all those words for which each student must develop the ability to write the shorthand automatically, that is, without conscious thought. The third area consists of all words for which the student will be unable to automatize his writing response.⁴⁵

The direct-approach method incorporates the advantage of traditional methodology to prepare for the writing of unfamiliar shorthand outlines with the advantage of direct methodology to automatize high-frequency words. A basic

⁴⁵William R. Odell, "Some Fundamentals of Shorthand Teaching Methodology," National Business Education Quarterly, IV (December, 1933), 5.

vocabulary of approximately 618 words made up from the Horn, Thorndyke, Ayres, Harvard, and Dewey lists are automatized by the end of the first thirty units, or during the first six to ten weeks. After this, a transition is made from extreme direct methodology to the usual traditional type for the remainder of the course. This transfer is considered necessary because a few rules are needed in order to write unfamiliar words.

Material for the Odell, Rowe, and Stuart method is made up of the basic vocabulary, from which short topics of general interest have been developed, for the first six to ten weeks.

The reading approach using "meaningful reading" and rapid reading from the beginning is taught in this manner: Each pupil is given a Direct Practice Unit Pamphlet. The teacher writes a paragraph from left-hand column of the pamphlet on the board and reads it four or five times. As soon as the pupils can recognize the outlines, they join in reading. Then, the teacher asks individuals to read the paragraph. Tracing is employed for slow pupils. After the blackboard drill, the pupils read at the rate of 80 to 100 words per minute from the right-hand column of the unit, which contains no new words. This technique is used until the end of the first five units, when writing is introduced.

In the Direct Practice Units Pamphlet the first five units contain a vocabulary of about twenty-five words, with the shorthand symbols for these words written opposite them.

There are three short paragraphs in shorthand containing these new words in the left-hand column. The right-hand column consists of three paragraphs of review material, and on the reverse side of the page there is the transcript.

When the pupils reach Unit 6 in the Direct Practice Units, the reading material is found on the first page and the writing material on the second page. The next page is used for the first writing sheet, and the transcript is on the reverse side. Fundamental directions for writing symbols and a penmanship drill are found on the first writing page. Following writing sheets also have shorthand outlines as examples. This initial writing sheet is abandoned after the first ten units, and the reading and writing exercises are on the same page, with the writing-lesson vocabulary at least five lessons behind the reading-lesson vocabularies. The authors say that psychological studies have shown dissimilarity of words facilitates the process of learning to read, and that similarity of words facilitates learning to write.⁴⁶

Writing is introduced by "wholes" on the blackboard. Then, while the teacher dictates at 60 words a minute, the pupils trace the outlines on paper. Lastly, the pupils write the outlines on their initial writing sheet in their pamphlets. Later in the course, words and phrases are written on the

⁴⁶ William R. Odell, Clyde E. Rowe, and Esta Ross Stuart, Direct Practice Units for Beginning Gregg Shorthand, Teacher's Handbook, p. 40.

board instead of entire sentences, and tracing is discontinued.

After the material in the Direct Practice Units has been automatized, the authors make a transition to the Gregg manual or some other text as follows:

The sound alphabet is developed, then the s and ing endings and rules from words that have been previously learned. The rules are pointed out in the Gregg Shorthand Manual and applied in writing words. For the following ten days, a combination schedule of dictation and transcription from the last ten Direct Practice Units, together with manual sounds, rules, and examples, beginning with Chapter I, is followed in order to provide for review and maintenance of speed in this transition period.⁴⁷

Home practice for this method consists of writing material that has been practiced in class. It may be practiced from the transcript on the reverse side of the pamphlet sheet, and the pupil should compare his outlines with the examples for correctness of form and proportion. Repeated practice of the lesson is believed to increase the pupil's speed and accuracy.

The authors believe that their approach develops better basic reading and writing habits because of being presented by the whole method, and that it facilitates learning principles after a basic vocabulary has been automatized.⁴⁸

Summary and Conclusions

Shorthand methods may be divided into two groups as was shown in Chapter III: the manual method and the direct method.

⁴⁷ Ibid., p. 40.

⁴⁸ Ibid., p. 41.

The manual method employs the regular textbooks and presents the principles in a logical order while the direct method does not attempt to teach the principles in any special order. Both methods emphasize reading, writing, types of exercises used, and other phases. Table 4 shows the generalizations of the two methods.⁴⁹ Table 7 shows variations in vocabulary and subject matter used in the different methods.

Many different characteristics may be summarized from the functional method, even though it is classified as a manual method:

1. The functional method leads all other methods in that it uses the first twenty-one lessons for reading. The most extreme stand in the opposite direction is taken by Munkhoff who uses the first twenty-one lessons in the writing approach. Tables 2 and 3 show the variations used by the different methods in both reading and writing.

2. The functional method is a "parts" method while the direct methods present shorthand by the "wholes" method.

3. The functional method contains 761 pages of contextual material. Brewington-Soutter, combined with the manual, contains 558 pages. Table 5 shows the amount of contextual material found in the leading methods.

⁴⁹ See Appendix for Tables 2 to 7.

4. The manual methods with the exception of Beers-Scott emphasize the use of permanship drills. The functional method and direct methods avoid formal permanship drills. Table 6 gives the important techniques employed in regard to permanship drills.

5. The memorizing of rules is no longer a part of any well recognized method of teaching shorthand. Gregg ridiculed the idea of verbatim memorization of rules in the teaching of his manual. The direct methods avoid rules. Beers-Scott, however, refer pupils to the manual for the learning of theory. Table 4 gives this generalization of the methods.

6. All classtime is spent in practicing shorthand in the functional method, and no time is spent in questions from and to the pupils.

7. The functional method is the only one that avoids formal testing program.

8. No papers to grade or homework to check when the functional method is used.

9. The technique of omitting the writing of word-lists is similar with both Leslie's functional method and the direct methods.

10. The writing of outlines or copying connected matter a number of times is no longer used by the leading methods.

11. The functional method plans no formal review of the shorthand principles at the completion of the text, as the

text is arranged to give the necessary review. However, it is common knowledge that manual teachers have considered such a review necessary.

CHAPTER IV

A BRIEF CRITICAL ANALYSIS OF EXPERIMENTS IN TEACHING SHORTHAND

The general purpose of the four studies conducted by Francis F. Dietrich, a Kansas teacher, was to determine classroom results achieved by the functional method and the manual method of teaching Gregg shorthand.

Fort Scott, Kansas Experiment

In his first study in the high school and junior college at Fort Scott, Kansas, in 1937-1938, Dietrich tested on brief forms, frequent phrases, complete theory, short letter at 100 words per minute, and five-minute letter dictation test at 60 standard words per minute, using two classes--twenty-five pupils in the functional-method class, and forty-one pupils in the manual-method class. The classes were taught by Frances E. Reck the first eighteen weeks. The next two weeks they were under the supervision of substitute teachers, and the remaining sixteen weeks they were under Dietrich.

The same types of tests were repeated in May, 1939, to the advanced shorthand group which was composed of 56.0 per cent of the functional method group, and 21.95 per cent of the manual method group of the May, 1938, classes.

The Fort Scott study revealed the following:

1. On the basis of medians and averages the functional method group and the manual method group differed only by fractions of per cent on brief form tests.

2. Grades of 100 per cent were made by twenty-five of the manual method pupils who were tested on brief forms. The functional method pupils had perfect scores on but 8.3 per cent of their brief form test.

3. On May 9, 1938, the functional method class made a slightly better median and average score on a frequent phrase test than did the manual method group. The method group averages were: the manual, 97.2 per cent; the functional, 98.6 per cent.

4. The functional method class excelled on the number of per cent of perfect scores on frequent phrase test.

5. Twenty-five per cent of the functional method pupils had grades of 100 per cent, while 5 per cent of the manual method pupils had this same grade on frequent phrases.

6. On the complete theory test the error average for the functional method class was 11.0, while the manual method class average for errors was 19.5.

7. On the short letter test dictated at 100 words per minute, the manual method class had an error average of 18.3, while the functional method class error average was 14.8.

8. On the five-minute letter dictation test at 60 standard words per minute, the functional method class error average on the transcript was 12.2, compared to an average of 21.8 errors for the manual method pupils.

9. The advanced group in 1938-1939, indicated that the functional method was less difficult and more interesting, because more functional students continued the study of shorthand.

In analyzing this study, certain facts are apparent. There were three teachers in charge during one year while the tests were being made, and substitute teachers were in charge for two weeks.

The classes were made up of both senior high school and junior college pupils. Although the Otis Self-Administering Test of Mental Ability, Higher Examination, Form A was given, no results were set forth.

One of the main criticisms of this study is that Dietrich used tests on brief forms, frequent phrases, and complete theory, which is contrary to functional method procedures, as Leslie does not believe in this type of testing in the functional method.

In the follow-up tests given to the advanced class in May, 1939, no conclusions could be reached because: (1) The functional group was too small for definite conclusions, and

(2) the manual group classes sent a much more highly select representation to the advanced class than did the functional class.

Chanute, Humboldt, and Iola, Kansas Experiment

In 1936-1937 a comparison of the achievements obtained by the manual method at Chanute and Humboldt, Kansas, and the functional method class at Iola, Kansas, were tabulated by Dietrich.

The results of four tests were compared in this study. These were a brief form test and a longhand reading transcription test given in January, 1937, and a complete theory test and speed progression dictation test given in May, 1937, with the following findings:

1. The manual method classes made the better records in perfect scores and in median and in average per cents. The brief form test averages were: the manual method classes, 94.1 per cent; the functional method class, 91.0 per cent.

2. In the longhand transcription test, the functional pupils made much the better records. With one exception, fifteen of the highest scores were made by the functional method pupils. The functional method class, made up of thirty-eight pupils, averaged 96.0 net words transcribed in five minutes, and was excelled by only five out of the seventy-eight manual method pupils.

3. In the complete theory test the Iola functional method class ranked between the two manual classes. Iola functional method class averaged 78.1 per cent, while the Chanute and Humboldt method classes averaged 81.5 per cent.

4. In the speed progression dictation test which was given to the three classes in May, 1937, the functional class made fewer errors in transcription speeds at 40 and 50 words per minute. At 60 words per minute and over, the manual method classes made better averages and medians.

In analyzing the results of this study, certain facts are evident. The three school communities, student bodies, and teacher preparation and personality were different, and these variables could not be overcome by the assisting teachers.

Dietrich, who taught the Iola functional method class, was giving the functional method its first trial in his teaching experience. He was not thoroughly acquainted with it and his use of it was entirely experimental. He attempted to make Volumes One and Two of the Gregg Shorthand Manual, Functional Method suffice for the entire year, omitting entirely the Functional Dictation with new materials for the second semester.

The tests were unfair, as drilling and testing on brief forms and complete theory in this manner are not a part of the Leslie functional method.

The longhand transcription test had been practiced several times in the functional method class, but it was a new type of test for the manual method classes.

While no definite conclusions can be reached because of the variables, it is valuable to know what may be the results when the functional method is not fully understood and its materials not presented as intended.

Also, this type of test is highly valuable to the teacher who has enthusiasm and wishes to keep up pupil interest by varying her techniques under different conditions.

Finally, such experiments bring to light other studies that may be made to help reach the near perfect technique for aiding the pupil to read back his own notes, even if taken at top speed.

The Attitude of the Kansas Teachers Toward the Functional Method

In conducting this study, Dietrich sent questionnaires to Kansas teachers who were using the Gregg functional method, in an effort to learn the reactions of Kansas teachers to the functional method in teaching Gregg shorthand. The Gregg Publishing Company provided a list of thirty-seven teachers who were using the functional method materials in 1937-1938. The list included Kansas colleges, junior colleges, parochial and public high schools, and private business schools. Out of the thirty-seven questionnaires, twenty-four lists were returned.

Analysis and tabulation of replies are as follows:

1. Methods used before 1936: manual, 19; functional, 1; Brewington-Scutter, 1; teacher's own method, 1; not teaching, 2.

2. Methods preferred in 1938: functional, 12; combination of manual and functional methods, 7; manual, 4; undecided, 1.

3. Better results produced: 21 teachers said that the functional method ranked first in reading; 1 opposed this view; 2 did not answer.

4. Slight preference only given to functional method in teaching shorthand penmanship, writing speed, vocabulary, and transcription speed and accuracy.

5. First choice was given to functional method of teaching skill in shorthand reading.

6. Ten teachers adhered closely to the Leslie techniques; 4 usually used Leslie's techniques; 1 used Leslie for Volume One, but used variations in Book Two; 7 did not follow closely; and 2 did not answer.

7. Number of teachers to continue using the functional method: 14 planned to continue; 4 had discontinued using it already; 2 were returning to former methods; 2 expected to use combination of functional and other methods.

8. The teachers who used Leslie's techniques closely planned to continue the functional method with slight alterations to fit their particular needs.

As only twenty-four teachers participated in this study, conclusive results could not be obtained as this number would

not necessarily be a representative group. Experience results were too evenly divided to be worthy of separate comment.

Studies of this type indicate that best results are obtained by adhering closely to the correct techniques of a given method.

Response of Graduate Students Regarding Shorthand Methods

The purpose of this study was to learn something of the shorthand teaching experiences and preferences of twenty-nine graduate students who had taught shorthand and who were in attendance at the 1938 summer quarter of Colorado State College of Education. The study was in the form of a questionnaire presented to and returned by these twenty-nine graduate students. It was explained to them briefly before it was answered. The following statements summarize the results produced.

1. Shorthand teaching experience for the group: 20 non-functional and combination methods, 1 to 11 years; average, 3.9 years; functional method teachers had taught various methods for from 2 to 18 years; average, 10.1 years.

2. Methods formerly used: Gregg manual method had been used by 25 graduate students, giving this method first place by a wide margin. The Leslie functional method was second with 11 teachers. Other methods in order of rank: Beers-Scott (fundamental drills with manual), 4; Brewington-Scutter, 3; teacher's own method, 3; Barnhart, 2; Frick, 2; Zinman-Strelsin-

Weitz, 2; Gregg Manual with Gregg Speed Studies and Gregg Speed Building, 1.

3. Shorthand methods used in 1937-1938: manual, 17; functional, 9; several teachers used a combination of method or changed methods during the school year.

4. Methods which evoked most interest in teachers: 21 teachers desired to know more about the functional method; 1 each about Barnhart, Frick, and Brewington-Scoutter. The other 5 expressed no further interest.

5. Preference of method in teaching shorthand skills: functional method was given wide preference for first year's teaching of shorthand reading, vocabulary, transcription speed and accuracy, and writing speed.

6. The vote was even in teaching of permanship by functional and non-functional methods. The functional method ranked first for second-year teaching of all skills, except the shorthand writing accuracy.

This study was successful since it was designed to find opinions of a limited group. As such a tabulation of opinions may be representative of a general trend, it is valuable to those studying Gregg method preferences.

Experiment in East Boston High School,
East Boston, Massachusetts

As a result of the introduction of the functional method into the Boston public schools in 1935 by its originator,

Louis A. Leslie, the functional method was being used by all classes in Stenography I in 1936. Because some teachers of Stenography I questioned the advisability of teaching first-year classes by this method as they felt second-year classes were not as well prepared for dictation as previously, Lillian Belanger of the East Boston High School performed an experiment with two classes--one functional method and one manual method, to determine to what degree the Stenography II classes retained their skill acquired in Stenography I.

The study was to be made by two teachers and equality in mental ages of the two groups was decided upon since this factor would affect the results obtained. The IQ's were listed and the group divided accordingly. Only those with an IQ of approximately 100, according to the Terman Test, were chosen. Another test, Otis Self-Administering Test of Mental Ability, Higher Examination, Form A, was given the first week of the fall term. The results showed close similarity of the groups. The median for the Terman test for the manual group was an IQ of 100, while the median for the functional group IQ was 99. A serious attempt was made insofar as possible to provide the pupils with teachers of equal rank.

Measurements of results were comprised of test results on uniform examinations and materials based on observations and experiences of the teachers. The statistical data will be used as a basis for objective measurement, and the observations and experiences of the teachers constitute the basis for

objective measurement, and the observations and experiences of the teachers constitute the basis for subjective evaluation. A fundamental principle in experimentation is, "Assuming satisfactory test, the more factors tested the more valuable will be a given experiment of the type given."¹

For this reason the two classes were tested on brief forms, written transcription, complete theory, dictation, and five-minute dictation at various rates. Each teacher gave her own tests to avoid confusion, but the head of the commercial department marked all papers to avoid bias of opinion.

Belanger's experiment shows the following results:

1. Brief form test in median score for nine months indicates that the manual method group was better able to write from dictation the correct shorthand outlines.

2. Written transcription tests show that both groups read new material slowly in the first two tests, but the functional method group was able to transcribe at a more normal rate on the third test--at an average of 13 words per minute more rapidly than the manual method group. Each group progressed at about the same rate.

3. In the final test in May, 1943, the functional method group was still able to transcribe with the greater speed--

¹ Benjamin F. Davis, A Study of Shorthand Teaching, p. 68.

35 words per minute for the functional method group to 28 words per minute for the manual method group.

4. The functional method group ranked one point above the manual method group in median per cent scores in the complete theory test. The manual method group had the widest range of scores in the first two tests. The functional method group scores were grouped closer to the median score in both tests. In the second test the functional method group made the greater improvement for average scores. As may be expected, a marked improvement was shown when the classes became accustomed to taking this type of test.

5. In the letter dictation tests, both groups had a high median at the rate of 80 words per minute; 97 for the manual method group, and 98 for the functional method group. Both groups were able to take dictation satisfactorily at 80 words per minute.

6. In the five-minute dictation tests, the functional method group showed superiority. Error average was 12.43 for the functional method class, while for the manual method class it was 18.9. The two best scores were made by functional method students, and the five lowest scores belonged to manual method students. Seventy-two and four-tenths per cent for the functional method class, and 66.6 per cent of the manual method class passed in this test. The medians were close for the two groups: functional method median was 9, and the manual

method median was 11. The functional method class showed better skill in this respect.

7. As a final test of a pupil's shorthand preparation is his ability to take dictation and to produce a satisfactory transcript, the functional method showed superiority.

In regard to this experiment it was contrary to the functional method principles to give the first type of test, word-lists or brief forms.

No conclusions can be reached because of the limited number of cases studied as to respective merits of the two methods.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study compared ten methods of teaching Gregg shorthand to determine the most effective method of approach, procedures, and techniques used, and to determine what had been accomplished in the way of experiments which had been performed by different writers.

The following conclusions were formulated as a result of the study:

1. The functional method leads in the reading approach.
2. The functional method materials contain more pages of shorthand context than any other method.
3. The functional method is a "parts" method in contrast to the direct methods, which represent shorthand by "wholes."
4. Formal penmanship drills have not proved beneficial.
5. The memorizing of rules is no longer a part of any well recognized method of teaching shorthand.
6. All class time should be used in practicing shorthand rather than for questions to and from the pupils.
7. A formal testing program is not only unnecessary but harmful.

8. Writing word-lists is not helpful.
9. Copying outlines or connected matter numerous times is not a good procedure. *pp 58*
10. No review of shorthand principles is necessary at the end of the year, because review takes place naturally by frequent recurrence of common words. *pp 58*
11. The use of the blackboard is a good technique for the presentation of all shorthand methods.
12. The basic technique for the functional method is the writing of shorthand outlines on the blackboard by the teacher and the proper reading of those same outlines by the pupils.
13. Insufficient research has been done to draw conclusive results.
14. The success of any method depends on the skill and enthusiasm of the teacher.
15. Since the teachers and pupils are variable human beings, the final choice of the best method of teaching shorthand may never be conclusively determined.
16. Research projects in this field are valuable because they keep teacher interest in improvement and growth.

Recommendations

After a review of the methods of teaching Gregg shorthand and the conclusions above, the writer feels certain that should a teacher of shorthand adopt the following recommendations, he will derive much pleasure from using the functional

method, and he will be able to achieve the desired results.

Recommendations are as follows:

1. That the Gregg Shorthand Functional Manual be used as follows:

- a. The Gregg Shorthand Manual Simplified, Functional Method by Leslie and Zoubek, and Gregg Dictation Simplified by Leslie and Zoubek, for first-year shorthand.
- b. That the reading approach by reading the first eighteen lessons be used.
- c. That formal penmanship drills be omitted.
- d. That rules should not be memorized.
- e. That no questions from or to the pupils be allowed during class time, but that all time be used in practicing shorthand.
- f. That formal testing be cut to a minimum, necessary for administrative purposes only.
- g. That writing word-lists and copying outlines be omitted.
- h. That new material be presented from the black-board, outlines written by the teacher and read from same by the students.
- i. That the key be used by the pupils if needed.
- j. That the teacher should "prompt promptly" when necessary for speed building.
- k. That after the introduction of writing, the teacher should spend every available minute on reading and writing.

1. That classroom activities should be alternated to keep up pupil interest.

m. That the teacher encourage pupils by allowing only successful experiences.

2. That more research projects in weighing the results of shorthand teaching methods be done to select the best method or methods of teaching shorthand.

a. That the use of the blackboard and the correct mechanics of blackboard presentation would make a worthy research study.

b. That further research as to the value of slight modification of the functional method in the direction of the manual method be made.

c. That a study of the achievements of the second-year shorthand classes of different methods be made to determine the carry-over value of various methods.

d. That further research be more controlled and more extensive in order to be more valuable.

APPENDIX

TABLE 2

VARIATIONS FOR PRESENTING THE READING APPROACH IN THE
TEN METHODS COMPARED

Method	Time Begun	Rate	Length of Time
Anniversary	First day	Rapidly	Entire course
Skene-Walsh- Lomax	First day	As fast as longhand	Entire course
Frick	First day	Not less than 100 words	Entire course
Beers-Scott	First day	As longhand	Two to four weeks
Zimman-Weitz- Strelsin	First day	Rapidly	Entire course
Leslie	First day	50 to 60 words per minute, at first	Entire course, concentration on first four chapters
Brewington- Soutter	First day, first four units	150 or more	One to four weeks
Barnhart	First week	Rapidly	One to two weeks
Munkhoff	No reading alone, but from writing plates	150 to 200 words per minute	Entire course
Odell-Rowe- Stuart	First day	80 to 100 words per minute	One week

TABLE 3

COMPARISON OF THE WRITING PROCEDURES USED
IN THE METHODS COMPARED

Method	Time Begun	Rate	Length of Time
Anniversary	First day	Easy, continuous motion	Entire course
Skene-Walsh-Lomax	First day	As rapidly as longhand	Entire course
Frick	First day	Rapidly	Entire course
Beers-Scott	After two to four weeks of reading	As rapidly as possible	Remainder of course
Zinman-Weitz-	First day with reading	As rapidly as possible	Entire course
Leslie	After reading the fourth chapter	40 to 60 words per minute, at first	Remainder of course
Brewington-Scutter	After fourth unit	100 to 125 words per minute	Remainder of course
Barnhart	After second week	40 words per minute minimum, at first	Remainder of course
Munkhoff	First day	80 to 125 words per minute, first day	Entire course
Odell-Rowe-Stuart	After five units are read and the vocabulary of 618 words automatized	Rapidly--60 words per minute as minimum	Remainder of course

TABLE 4

VARIATIONS OF PRESENTING THE GENERALIZATIONS OR PRINCIPLES
AND RULES, AND HOW INITIATED

Method	Principles	Rules	Initiated
Anniversary	Deductive reasoning, <u>sound</u> alphabet, <u>parts</u> method	Memorize	Teacher-pupil
Skene-Walsh-Lomax	Same as manual, organization charts	Learn	Teacher-pupil
Frick	<u>Sound</u> groups parallel manual	Muscularize	Teacher-pupil
Beers-Scott	Parallels manual	Memorize	Teacher-pupil
Zirnan-Weitz-Strelsin	Learning through <u>sentences</u> , principle similar to manual	Memorize	Teacher-pupil
Leslie	No rules, same as manual, no review, no testing	No rules	Pupil-teacher
Brewington-Scutter	Follows the manual, inductive (whole) reasoning, no <u>sound</u> alphabet, language-art subject	No rules	Pupil-teacher
Barnhart	Does not parallel with manual	No rules	Pupil-teacher

TABLE 4--Continued

Method	Principles	Rules	Initiated
Munkhoff	No rules learned except after Unit 21 when introduced inductively and the <u>sound alphabet</u> is used	No rules until after Unit 21	Pupil-teacher
Odell-Rowe-Stuart	Not correlated with manual, no <u>sound alphabet</u> , inductive reasoning	No rules	Pupil-teacher

TABLE 5

A COMPARISON OF THE APPROXIMATE NUMBER OF PAGES OF SHORTHAND CONTENT CONTAINED IN LESLIE'S TWO TEXTS AND THE TEXT USED BY THE OTHER METHODS OF TEACHING GREGG SHORTHAND

Method	Approximate Number of Pages of Shorthand Content	Combined with Gregg Manual and Speed Studies
Leslie's two functional method books	761	
Brewington-Soutter direct method material	350	558
Beers and Scott's fundamental drills	194	402
Gregg Manual with Speed Studies and Graded Readings	332	
Odell-Rowe-Stuart direct practice units for beginning shorthand	60	226

TABLE 6

TECHNIQUES EMPLOYED IN THE ASSIGNMENT OF HOMEWORK,
PENMANSHIP AND TESTS BY THE DIFFERENT METHODS

Method	Homework Practice	Penmanship Drills	Testing
Anniversary	Repetitive practice, exactness in execution	Precise drills for proportion of outlines-- <u>not</u> speed	Frequently on words and sentences
Skene-Walsh-Lomax	As fluently as longhand, repetition practice of words	Drills	As in manual
Frick	Not stated	Elaborate drills, air-writing	Frequent
Beers-Scott	Practice on old reading material repetitive practice for accuracy and rapidity	Blackboard practice in early stages	
Zimman-Weitz-Strelsin	Words practiced 7 times and sentences 3 times	None	Frequent
Leslie	Write material <u>once</u> with open book, use key if necessary	None	No tests, except for administrative purposes
Brewington-Soutter	Same style and speed as class-work	Preciseness of notes drilled after writing is introduced	Frequent

TABLE 6--Continued

Method	Homework Practice	Penmanship Drills	Testing
Barnhart	Fluent writing habits, work on original compositions	None	
Munkhoff	No textbook, notebook for practice--reference	None	Few
Odell-Rowe-Stuart	Practice material for homework after Unit 10; reading and writing same	None, except pupils trace and write until transition to manual; penmanship on initial-writing pad	Few

TABLE 7

VARIATIONS OF THE VOCABULARY AND SUBJECT MATTER USED
IN THE DIFFERENT METHODS

Method	Vocabulary	Subject Matter
Anniversary	Gregg text--low and high-frequency word lists	Varied things of interest
Skene-Walsh-Lemax	Supplementary word lists--organization charts	Correlates with Gregg manual
Frick	Low-frequency words, as supplementary	Similar to basic text
Beers-Scott	High-frequency words, composite word lists used	Interesting topics for stimulating reading

TABLE 7--Continued

Method	Vocabulary	Subject Matter
Zinman-Weitz- Strelain	Similar to words in manual, few low- frequency words	Interesting
Leslie	High-frequency words (shorthand plate-- key)	Interesting general informative material
Brewington- Scutter	Composite list (Horn's and Thorndike's) of 10,000 word list (shorthand plate-- no key)	Business and economic information
Barnhart	Horn's list of 1,000 most-used words	Appeals to normal interests of pupil
Munkhoff	Horn's list of 1,000 most-used words	Emphasizes vocabulary
Odell-Howe- Stuart	Composite list of Rowe (618)	Wide variety of general interest

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