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The Frequency of Principles and Abbreviating Devices in *Gregg Transcription Simplified*

Alma Ruth Cline
University of Tennessee - Knoxville

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To the Graduate Council:

I am submitting herewith a thesis written by Alma Ruth Cline entitled "The Frequency of Principles and Abbreviating Devices in *Gregg Transcription Simplified*." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Education.

George A. Wagoner, Major Professor

We have read this thesis and recommend its acceptance:

Elise Davis, Elsa B. Acuff

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

c1
August 25, 1952

To the Graduate Council:

I am submitting herewith a thesis written by Alma Ruth Cline Montgomery entitled "The Frequency of Principles and Abbreviating Devices in Gregg Transcription Simplified." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Business Education.

George A. Wagner
Major Professor

We have read this thesis
and recommend its acceptance:

Elsie Davis

Elmer B. Acuff

Accepted for the Council:

E. H. Waters
Dean of the Graduate School

THE FREQUENCY OF
PRINCIPLES AND ABBREVIATING DEVICES IN
GREGG TRANSCRIPTION SIMPLIFIED

33

A THESIS

Submitted to
The Graduate Council
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science

by

Alma Ruth Cline Montgomery

December 1952

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CHAPTER I

THE PROBLEM

Although systems of shorthand are known to have been in existence as early as the era of the ancient Greeks and Romans, the use of stenography did not become widely popular until the perfection of the typewriter in 1867. Since that time the use and study of shorthand grew rapidly.

A number of shorthand systems have been introduced in the past century; however, the most popular of these many systems has proved to be the Gregg system, which was developed by John Robert Gregg and introduced by him in England in 1888. In 1894 Gregg brought his system to the United States. A recent survey in the United States showed that the Gregg system now is being taught in 99.25 per cent of the schools offering shorthand instruction.¹

The first five revisions in the Gregg system resulted in minor changes in the system. The Functional Method, which was developed by Louis A. Leslie, was introduced in 1936; but this method was primarily concerned with teaching procedures rather than with any revision of the shorthand system itself.

It had long been felt that the system as presented in the Anniversary Edition was cumbersome and difficult for the student to

¹Herbert A. Tonne, Principles of Business Education (New York: The Gregg Publishing Company, 1947), p. 9.

learn in a short time. As a result of studies made by John Robert Gregg, Louis A. Leslie, and Charles R. Zoubek, a number of word beginnings and word endings, brief forms and contractions, abbreviating principles and devices, and theory rules were omitted. These changes were published in 1949, and the new, revised system was given the name Gregg Shorthand Simplified.

Since these changes affected all teaching materials available in the entire Gregg system, new textbooks were necessary for the teaching of the Simplified system. In the short time that has passed since the introduction of the Simplified system, eight textbooks for use in the teaching of the revised system have been published by the Gregg Publishing Company. As few analyses have been made of the word content of these new books, this study, one of a series of such studies, was made to analyze the word content in Gregg Transcription Simplified, which is an advanced textbook used in teaching transcription and speed building to second-year shorthand students.

Statement of the Problem

The purpose of the study was to determine the frequency of application of principles and abbreviating devices in the word lists and contextual material of Gregg Transcription Simplified.²

² Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified (New York: The Gregg Publishing Company, 1950).

Importance of the Study

According to the authors, the Simplified shorthand has reduced the learning and teaching load 50 per cent.³ Since it is the ultimate goal of the teacher to develop in students a high degree of skill performance in as short a time as possible, it is desirable that those texts be used which provide the maximum aid for such instruction. In view of this fact, a study of the textbooks is particularly important.

It has been accepted generally that theories on which Simplified shorthand are based are sound, but it also seems to be of importance to determine whether these principles are applied to the best advantage in textbooks now available. Shorthand is a mental skill, and one of the aims of the Simplified shorthand is to reduce the memory load so that the learner will not hesitate in an effort to remember half-forgotten words and phrases and will thus write more fluently.⁴ A study by Klein⁵ which was completed after the introduction of Simplified shorthand seems to support this theory. Klein discovered that more time was spent between the outlines than in the actual writing of the outlines themselves.

³ Louis A. Leslie and Charles E. Zoubek, A List of Changes in the New Gregg Shorthand Manual (New York: The Gregg Publishing Company, 1949).

⁴ Ibid., p. 1.

⁵ A. E. Klein, "Variations in the Speed of Writing of Symbol Combinations in Gregg Shorthand," The National Business Education Quarterly, 18:41, Fall 1949.

Some decision is needed as to relative merits of textbooks now available insofar as frequency of principles and abbreviating devices is concerned. Since learning of shorthand resolves itself primarily into repetition until learning takes place,⁶ the assumption can be made that the frequency of occurrence of words is directly related to the effectiveness of the teaching of shorthand, all other things being equal.

An adequate number of applications of principles and abbreviating devices seems necessary for automatization by the student.

. . . provide the learner with an adequate number of good shorthand plates to be read and copied. Give him ample dictation on material that has been practiced from shorthand plates or for which the teacher provides a blackboard review. Ignore the errors he makes; those errors will disappear with the right kind of practice unless the teacher emphasizes the errors.⁷

The importance of repetition has been further emphasized by the authors in a statement concerning the composition of the content of Gregg Transcription Simplified. "Thus, each chapter automatically reviews every feature of the system as part of the normal reading and copying that would be done in any case."⁸ This indicates that frequency of occurrence is important.

Frequency of application of principles and abbreviating devices in contextual material has been stressed in relation to the content of Simplified textbooks.

⁶ Louis A. Leslie and Charles E. Zoubek, Gregg Shorthand Manual Simplified, Functional Method, Teacher's Handbook (New York: The Gregg Publishing Company, 1949), p. 25.

⁷ Louis A. Leslie and Charles E. Zoubek, "Importance of Shorthand Theory Errors," The Business Education World, 30:22, January 1950.

⁸ Leslie and Zoubek, op. cit., p. v.

In the Simplified series . . . very little growth takes place as a result of practice on word lists. . . . After the student has been introduced to a principle through the medium of a word list, he then "learns" that principle best through his practice of examples in connected matter.⁹

The handbook for Gregg Transcription Simplified places additional emphasis on this point. "It is known that the study or practice of isolated words yields less benefit, for the time and effort invested, than does the study or practice of words in context or of words that have some obvious connection."¹⁰ Further emphasis is placed in the handbook on the importance of practice in contextual material as follows:

Each chapter (five assignments) in Gregg Transcription Simplified provides a complete recall of the theory of Gregg Shorthand Simplified . . . thus the learner who completes Gregg Transcription Simplified is assured of at least 16 complete recalls of the theory of Gregg Shorthand Simplified.¹¹

Since frequency is important, the exact number of frequencies of occurrence of each principle and abbreviating device is important in order to determine whether emphasis has been placed on particular principles and their distribution throughout the book and in order to determine which assignments contain applications of the most principles.

It is likely that changes will be made in the Simplified system as improvements are found desirable. Information such as this study

⁹ Charles E. Zoubek, "The Gregg News Letter to Teachers of Shorthand," Business Teacher, 28:171, March 1951.

¹⁰ Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified, Teacher's Handbook (New York: The Gregg Publishing Company, 1950), p. 7.

¹¹ Ibid., p. 6.

provides will be of value in making these changes. This study will also be of assistance in the revision of present textbooks by pointing out infrequencies in the occurrence of principles and abbreviating devices. Shorthand teachers will find the study, together with parallel studies now in progress, of value in selecting the best sequence of advanced texts to be used and in supplementing material found in Gregg Transcription Simplified with additional dictation material.

Analysis of the Problem

The analysis of the abbreviating devices and principles of Gregg Transcription Simplified presents the following problems:

1. What is the relative frequency of the total number of different words with applications of principles and abbreviating devices in the assignments in which they occur in the contextual material?
2. What is the relative frequency of the total number of times each principle and abbreviating device occurs in each assignment in the contextual material?
3. What is the relative frequency of the total number of root words in each assignment in the contextual material?
4. What is the distribution by chapters of the total frequencies of each principle and abbreviating device in contextual material?
5. What is the assignment distribution of the total frequencies of principles and abbreviating devices in contextual material?

6. To what extent are principles and abbreviating devices covered by chapter in the contextual material?

7. What is the relative frequency of total, root, and different words containing principles and abbreviating devices in the contextual material?

8. What is the relative frequency of the total number of different words with applications of principles and abbreviating devices in the assignments in which they occur in word lists?

9. What is the relative frequency of the total number of times each principle and abbreviating device occurs in each assignment in the word lists?

10. What is the relationship between principles and abbreviating devices in word lists and those in the contextual material?

11. What is the distribution by chapters of the total frequencies of principles and abbreviating devices in contextual material and word lists combined?

Sources of Data

The major source of data for this study was Gregg Transcription Simplified, a shorthand textbook. Words containing principles and abbreviating devices were tabulated from the contextual material and word lists of this book.

The list of 117 principles and abbreviating devices developed by Shell¹² was revised, expanded, and subdivided for use in this study in classifying the principles and abbreviating devices. Four principles stated in later books were added. Twelve principles were divided into 2 or more parts, making 134 principles and divisions.

Methods of Procedure

The following procedure was used in the tabulation of the frequency of principles and abbreviating devices in the word lists and contextual material of Gregg Transcription Simplified. The original list of 117 principles and abbreviating devices was prepared by Shell for his study.¹³ The list was revised for use in this study. Four additional principles have been stated during the course of this study and added to the original list, making a total of 121 principles and abbreviating devices. Twelve of these 121 principles and abbreviating devices were subdivided into 2 or more subdivisions for purposes of clarification, but the original numbers used in Shell's study were retained and subdivisions were assigned the letters a, b, and c. If each subdivision were counted as a principle or abbreviating device, the total would be 134. Principles for writing -ing and -ly were not tabulated.

¹²Walter L. Shell, "An Analysis of the Frequency of Brief Forms and Principles and Abbreviating Devices in Gregg Shorthand Manual Simplified, Functional Method" (Unpublished Master's thesis, The University of Tennessee, Knoxville, 1949).

¹³Loc. cit.

First, the book was carefully read by assignments. During this first reading, those words containing principles and abbreviating devices were checked with a red pencil. A second reading of the book was then made in order to eliminate possible errors made in the first reading. Cards were prepared for the words containing principles and abbreviating devices in the context and word lists as follows:

1. In the upper left-hand corner of the card the assignment number was placed, followed by a hyphen and the number indicating the paragraph in which the word appeared. Thus, 1-5 indicates that the word appears in Assignment 1, Paragraph 5.

2. The word in which the abbreviating device or principle occurred was written in longhand in the center of the top line of the card. Each time the word occurred thereafter in that assignment, the assignment and the paragraph numbers were noted on succeeding lines of the card. The shorthand outline for the word to be tabulated was written immediately after the word written in longhand. The derivatives of the word appearing in the same assignment were also tabulated on the same card. For example, department, departments, and departmental appear on the same card should they appear in the same assignment.

3. In the upper right-hand corner of the card was placed the principle which the word illustrated, followed by the number assigned that particular principle. If the word contained more than one principle, such as the word department, a card was made for each of the two principles, de- and -ment. De- was written in the upper right-hand corner of the

Cards for the word department are illustrated as follows:

1-5	department	de-18
1-5	departmenta	
1-7		
1-8	department	
-ment		

1-5	department	-ment-52
1-5	departmenta	
1-7		
1-8	department	
de-		

first card followed by the principle number. In the lower left-hand corner that portion of the word was listed for which the principle in the upper right-hand corner did not apply. In this case, -ment was written in this location. A second card was then made with department written in the center as before and -ment written in the upper right hand corner immediately before the principle number. De- appeared in the lower right-hand corner. If the word contained more than two principles, as many cards as necessary were made to tabulate the word properly.

4. Tables were made showing the number of frequencies in context in each assignment, the number of root words in context in each assignment, and the assignment in which new words first occurred.

5. The cards of contextual material were sorted according to principle and abbreviating device, and lists were made showing the number of frequencies for each principle and the different words and their frequencies which comprise the total number of occurrences for each principle and abbreviating device.

6. From totals obtained from these tables, additional tables were prepared showing the order of frequency in context of each principle and abbreviating device as to root, principle, and different words, and the coverage by chapter of these frequencies.

7. The same procedure was followed in preparing cards and tables for those words in word lists containing principles and abbreviating devices. No tables were made showing root words.

Limitations of the Study

1. Root forms of brief forms which used principles and abbreviating devices were not included in this study. If a principle or abbreviating device was used in forming the derivative of a brief form, the word was tabulated.

2. Words to which abbreviating devices and principles did not apply and which were neither brief forms nor brief form derivatives were not included in this study.

3. Words appearing in phrases were tabulated only if they appeared in the same form in which they would be written alone.

4. The principles for writing -ing and -ly were not tabulated. Both are suffixes which always appear in the form of a dot and small circle, respectively. When added to a word, these suffixes make a new word but do not change the form or meaning of the original word. These two principles were known to appear frequently.

Review of Related Studies

Shell Study¹⁴

The Shell study includes an analysis of the frequency of application of principles and abbreviating devices in Gregg Shorthand Manual Simplified, Functional Method.

¹⁴Loc. cit.

Shell developed a list of 117 principles and abbreviating devices. This list was used as the basis for identifying words containing application of principles and abbreviating devices. A preliminary analysis was made of Assignments 55, 60, 65, and 70. Principles and abbreviating devices occurring at least twice in each of the four assignments and reaching twenty frequencies were omitted from the study. On this basis, eight of the 117 principles and abbreviating devices were eliminated from tabulation.

Index cards were then made for each word in context applying principles and abbreviating devices. On each card was written the assignment and paragraph number in which the word appears, the word applying the principle or abbreviating device, its shorthand outline, and the principle or abbreviating device. Tally marks were made each time the word appeared. When one word applied more than one principle or abbreviating device, a card was made for each principle or abbreviating device in the word. Derivatives were listed under the root form of the word, and tally marks were made to indicate occurrences. The cards were then arranged to make tables showing total frequencies, root words, and different words applying principles and abbreviating devices.

The findings of Shell most applicable to the present study are:

1. The median number of total words applying principles and abbreviating devices throughout the graded material is 32. One hundred four principles and abbreviating devices have at least ten words applying them in the entire book. Three have no occurrences.

2. The median number of assignments in which words occur applying principles and abbreviating devices is 26.

3. Half of the principles and abbreviating devices have more than 50 words applying them in the context of the material.

4. The median number of different root words illustrating principles and abbreviating devices is 4 with a range of 0 to 15.

5. The median number of root words applying principles and abbreviating devices throughout the graded material is 24.

6. Half of the principles and abbreviating devices have more than 40 different root words in the content and 30 are applied in at least 100 different root words.

7. Fewer than 10 words in the entire book apply each of 38 principles and abbreviating devices.

Shell recommended that similar analysis be made of the application of theory throughout Gregg Dictation Simplified and that an analysis be made of errors in dictation by learners of Gregg Simplified Shorthand.

McNeil Study¹⁵

The McNeil study analyzes the frequency of 177 brief forms and their derivatives in Gregg Dictation Simplified and compares their

¹⁵ Mildred McNeil, "An Analysis of Brief Forms in Gregg Dictation Simplified" (Unpublished Bachelor's thesis, The University of Tennessee, Knoxville, 1949).

frequency with the frequency in Gregg Shorthand Manual Simplified, Functional Method. Brief forms occurring more than 100 times in Gregg Shorthand Manual Simplified, Functional Method, were not considered.

Brief forms were recorded on 3" by 5" cards bearing assignment and paragraph numbers. Tally marks were made each time a brief form occurred. Derivatives were written below the brief form and a tally made for each occurrence. After the cards were completed, tally sheets were made to show the frequencies of each brief form and brief form derivative.

Some of McNeil's findings are enumerated as follows:

1. One hundred forty-one brief form meanings of the total 227 had combined frequencies of less than 100 in Gregg Shorthand Manual Simplified, Functional Method and Gregg Dictation Simplified.
2. One hundred thirteen brief forms of the 177 had greater frequencies in the Dictation than in the Manual.
3. The combined total frequencies in the Dictation and in the Manual range from 0 to 245.
4. Eighteen brief forms have five or more derivatives.
5. Twenty-one have no derivatives where derivatives are possible.

McNeil recommended that the teacher who uses Gregg Dictation Simplified substitute extra dictation material or change the wording in context material to stress the brief forms and derivatives that occur infrequently. She further recommends that additional studies be made of

textbooks in the Simplified series using the 141 brief forms with combined frequencies of less than 100 in Gregg Shorthand Manual Simplified, Functional Method and Gregg Dictation Simplified.

Maas Study¹⁶

The Maas study analyzes the frequency of brief forms and derivatives in Gregg Transcription Simplified and compares the occurrences in the context with the frequency of the brief forms and derivatives in the context of Gregg Shorthand Manual Simplified, Functional Method, and Gregg Dictation Simplified.

Index cards were made for each brief form. Each card contained the assignment number in which the brief form occurred, the brief form in longhand, and tally marks indicating the number of occurrences. If the brief form occurred in a phrase, the phrase was written on the lower left-hand side and tally marks made to indicate the occurrences. If the brief form was modified in a phrase, the phrase was written on the lower right-hand side and tally marks made to indicate the occurrences. The derivative of a brief form was written below the root form and tally marks placed to mark its occurrences. The cards were then arranged for tabulation of material contained on various charts.

Pertinent findings in Maas' study are:

1. Forty-nine brief forms of the 188 analyzed in context have regular chapter and regular assignment distribution.

¹⁶ Martha A. Maas, "Frequency of Brief Forms and Their Derivatives in Gregg Transcription Simplified" (Unpublished Master's thesis, The University of Tennessee, Knoxville, 1952).

2. More than one-half of the occurrences of five brief forms fall in one-eighth of the possible number of assignments.
3. Nine to 26 brief forms are omitted in each chapter.
4. Thirty of the 188 brief forms have a frequency of 101 or more with 45 having 10 or fewer, and 118 having between 11 and 100.
5. Forty-four brief forms have no derivatives.
6. Twenty-three brief forms have a frequency of 100 or more in the context of two of the three texts.
7. Thirty-three brief forms do not occur more than 10 times in context in any of the three texts.
8. Eighteen of the brief forms occur 10 or fewer times in the context of the three texts combined.

Maas recommends that teachers provide supplementary dictation or change the text material occasionally in order to provide occurrences of low frequency brief forms. She also recommends that an analysis of student's notes be made to determine the relationship between accuracy of outlines to frequency of occurrence of brief forms in the texts studied.

Goans Study¹⁷

The Goans study analyzes the word content of the contextual material of Functional Method, Part II, and Functional Method Dictation on the basis of theory principles in Functional Method, Part II.

¹⁷ Margie Goans, "An Analysis of Functional Method Dictation and Functional Method, Part II, on the Basis of the Theory Principles Introduced in Functional Method, Part II" (Unpublished Master's thesis, The University of Tennessee, Knoxville, 1948).

Theory principles were classified and work sheets were prepared with red pencil dots indicating new principles and different words in Assignments 40 through 83 indicating applications of each new principle and with blue pencil dots showing different words presenting theory principles previously presented. Tables were then made indicating total frequencies and total different words.

The following findings seem most applicable to the present study:

1. The average number of different words illustrating previously presented theory principle is 11.5 in Functional Method, Part II, and 12.9 in Functional Method Dictation.

2. The average number of total words in Functional Method, Part II, applying previously presented principles is 37.3 for each assignment and 36.4 for the first 44 assignments and 38.3 for the 84 assignments in Functional Method Dictation.

3. Fifty-four theory principles in Functional Method, Part II, 57 theory principles in the first 44 assignments and 54 theory principles in the 84 assignments were illustrated with fewer than 10 different words.

On the basis of findings, Goans concluded that the infrequency of the use of some words does not justify the time used in teaching special forms.

Further recommendation was made that research should be continued to determine the importance of principles on the basis of their occurrence

in business dictation and that textbooks should be supplemented with dictation material when the review of principles is not sufficiently applied in both books.

This study by Goans was done with the Anniversary system. A similar study might be desirable by comparing the findings in the present study with those based on another text of the Simplified series.

Organization of the Study

This chapter contains a statement of the problem, the importance of the study, analysis of the problem, sources of data, methods of procedure, limitations of the study, review of related studies, and the organization of the study.

The remainder of the study is organized into four chapters.

Chapter II deals with the list of 121 abbreviating devices and principles used as a basis for the study. Each principle is reviewed, together with exceptions and variations found during the compilation of the present study which apply to each principle. An example is given of each principle and abbreviating device.

Chapter III deals with an analysis of principles and abbreviating devices found in contextual material of the book analyzed during the course of the study. These frequencies and root words are analyzed in relation to the words and principles found in each assignment. An analysis is made of the total different words and of the total words containing the application of each principle.

Chapter IV presents an analysis of principles and abbreviating devices found in word lists of Gregg Transcription Simplified. These frequencies are analyzed in relation to the words and principles found in each assignment. An analysis is made of the total different words and of the total words containing the application of each principle.

The findings which were indicated by the study and the conclusions which were evidenced by the findings are found in Chapter V. Recommendations for further study of textbooks and available material are included in the chapter.

The Bibliography contains a list of materials used in the study.

Appendix A contains a statement of each of the 121 principles and abbreviating devices used in this study and the abbreviations used throughout the study to denote the 121 principles and abbreviating devices.

Appendix B consists of the words tabulated in contextual material and their frequencies, arranged according to number of principle and abbreviating device.

Appendix C consists of those words tabulated in word lists arranged according to number of principle and abbreviating device.

Appendix D contains three-, four-, and five-principle words tabulated in contextual material arranged according to number of principle and abbreviating device.

CHAPTER II

PRINCIPLES AND ABBREVIATING DEVICES IN GREGG SIMPLIFIED SHORTHAND

All vocabulary tabulated in this study was classified according to the principles and abbreviating devices identified as such in the Gregg Simplified shorthand textbooks. A list of 117 principles was compiled by Shell for tabulation of the vocabulary of the Gregg Shorthand Manual Simplified, Functional Method.¹ The principles are presented in this study in the order in which they are introduced in the Manual. At the time Shell compiled the list of principles, the shorthand dictionary was not yet published, and no other supplementary material was available to clarify the interpretation of principles.

When Most-Used Shorthand Words and Phrases² was published, it was discovered that four principles not stated in the Manual had been omitted from the list of 117 principles and abbreviating devices prepared for use in Shell's study. These were added to the list of principles and abbreviating devices, making a total of 121. Twelve of these 121 principles and abbreviating devices were separated into two or more subdivisions;

¹Walter L. Shell, "An Analysis of the Frequency of Brief Forms and Principles and Abbreviating Devices in Gregg Shorthand Manual Simplified, Functional Method" (Unpublished Master's thesis, The University of Tennessee, Knoxville, 1949).


²John Robert Gregg, Louis A. Leslie, and Charles E. Zoubek, Most-Used Shorthand Words and Phrases (New York: The Gregg Publishing Company, 1949).

however, the subdivisions were given alphabetical letterings in order to preserve the numbers used by Shell for use in comparison. If each subdivision were given an individual number, there would be 134 principles and abbreviating devices. Two of these principles, -ing and -ly, were not considered in this study. Therefore, 132 principles and abbreviating devices were tabulated.

Explanation of Principles


In order that each principle and abbreviating device could be clearly interpreted, the following statement, example, explanation, and special considerations for each principle and abbreviating device were prepared. No distinction is made in this study between a principle and an abbreviating device. For the sake of brevity, the word principle is usually used through the remainder of this study when referring to a principle or abbreviating device.

1. The word ending -ing is represented by a dot.

Example: writing .

This principle was not tabulated in the study by Shell because it was one of the principles which occurred too often for investigation of occurrences to be useful.


2. The sound of ses is represented by joining the two forms of s.

Example: dresses .

This principle was tabulated when the ses blend occurred in those words containing xes, as in the word taxes, and sis, as in the word insist.

It was believed that, since the blend was written similarly in both instances, it should be included under this principle when the spelling was xes or sis.

3. The word beginning ex- is expressed by es.

Example: example 

4. The word ending -tion is represented by sh.

Example: attention 

This principle was not tabulated in the study by Shell since it occurred so frequently that its tabulation was considered unnecessary and of little value. The principle was tabulated in the present study in order that complete vocabulary lists might be obtained for the use of the -tion principle. This principle may be used in words containing -shion, -cian, -sion, and -tion. It was felt that the exact usage of the -tion principle should be analyzed.

Word endings -ition and -ation which have vowels preceding the -tion ending were considered as principle No. 108, omission of circle after t, d, n, and m.

It was noted that the words venetian and patience do not follow the -tion principle and their endings are not pronounced as most endings written with the -tion principle. Both words are written with sh and n.

A number of words could not be classified under any principle; and, although a vowel sound is omitted before -tion, these words were tabulated under the -tion principle. These words are as follows:

execution, revolution, resolution, illusion, elocution, solution, allusion,
delusion, disillusion, disillusioned, dissolution, seclusion, exclusion.

5. The word endings -tial and -cial are represented by sh.

Examples: financial

confidential

Words such as specially and confidentially were not considered to contain application of this principle because the ally absorbs part of the cial sound leaving only sh.

6. The word ending -cient is represented by sht.

Example: efficient

This principle could be considered a use of the -tion principle with a t added. The principle is considered separately in this study since it is presented as a separate principle in the Manual.

7. The word ending -ciency is represented by shse.

Example: efficiency

As in principle No. 6, -cient represented by sht, this principle could also be included as a use of the -tion principle with se added. It was considered a separate principle since it is recognized as such in the text.



8. Disjoined t expresses past tense when the final sound of the root word is omitted.

Examples: mentioned


experienced

Although words appearing in phrases and not retaining the same forms in which they would appear if written alone were not included in this study, one exception was made under this principle. The phrase you ordered occurred four times and was tabulated each time since the disjoined t remained intact in the phrase.

9. Derivatives ending in er and or are written with a disjoined r after abbreviated words.

Examples: worker 
investors 


10. A small circle represents the word ending -ly.

Example: helpfully 

This principle was not tabulated in the study by Shell. The suffix always appears as a small circle and occurs so frequently that tabulation was believed unnecessary. The principle was not considered in the present study.


In some words the addition of -ly makes the use of another principle unnecessary. For example, the addition of -ly to sensible makes -ble unnecessary. If -ble is considered the principle used in sensibly, then only y is added instead of -ly. In this study, the -ly principle is considered used in all cases and the other principle which might be involved is omitted.

11. A loop represents the word ending -ily.


Example: family 

The words necessarily and ordinarily were considered to be an application of principle No. 10, small circle for word ending -ly, because the words are written with an -ly ending and not with -ily.

12. A loop represents the word ending -ally.


Example: finally 

13. The diphthong oi is expressed by joining o and e.

Example: oil 

14. Word endings -ure and -ture are expressed by r and tr.

Examples: secure 

nature 

15. Word endings -ual and -tual are expressed by l and tl.


Examples: annual 

mutual 

When -ual follows a downstroke as in visual, ool is written. Although the pronunciation of ual is the same, according to principle the preceding downstroke requires a change in the method of writing.

16. The vowel is omitted in re- before downstrokes or vowels.

Examples: receive

reorganize 

This principle was not tabulated in the study by Shell. The principle occurs so frequently that its tabulation was believed unnecessary.

Words containing this principle were tabulated in the present study in order to obtain a complete vocabulary of the book being analyzed. Re- appears as a prefix in such a variety of words that the addition of these words is of real value in the study of the vocabulary used in the book.

17. The vowel is omitted in be-.

Example: become

The word before is considered a brief form derivative of be and is tabulated only under principle No. 93, fore- expressed by f.

18. The vowel is omitted in de- except before k or g.

Example: delay

Webster's Collegiate Dictionary was used to determine the words beginning with des which should be considered as following this principle. If the syllable division were given between the e and the s, the word was considered a de- principle.

19. The vowel is omitted in dis-.

Example: discuss

All words beginning with des- could be considered as either de- or dis- principles. No difference would be made in the writing according to either principle. However, for this study, the syllable division in Webster's Collegiate Dictionary was used as a basis of classification.

20. The vowel is omitted in mis-.

Example: mistake

21. Any vowel following a long i is represented by a small circle within the large circle.

Examples: via 

supplier 

The word inquiry was not tabulated under this principle. Although y, which has the sound of short i in inquiry, is written as a small circle within the large circle, this was considered to be a joining rule rather than a principle.

22. The sound of ia (short i) is represented by a large circle with a dot within it.

Example: appreciate 

23. The sound of ea is represented by a large circle with a dot within it.

Example: create 

Although the word reaction contains the combination tabulated in this principle, it is written without the dot because it follows the prefix rule No. 16 which states that the vowel is omitted in re- when it is a prefix.

24. The word ending -ther is expressed by th.


Example: other 

25. The sound of w in the body of a word is expressed by a dash under the following vowel.

Example: quick 

The w as expressed by the oo hook in those words beginning with sw as in sweet was not considered under this principle.

26. In the word beginning ah-, the a is expressed by a dot.

Example: ahead 

27. In the word beginning aw-, the a is expressed by a dot.

Example: away 

28. Y before a hook vowel is expressed by a small circle.

Example: youth 

29. Ye at the beginning of a word is expressed by a small loop.

Example: yellow 

30. Ya at the beginning of a word is expressed by a large loop.

Example: Yale 

31a. The short sound of u is omitted before n.

Example: sun 

Webster's Collegiate Dictionary was used as the authority in determining whether the sound of short u is present in a word. Even though the short u is pronounced in son, it is not pronounced in reasonable, reasons, persons, Wilson, reason, person, Hudson, seasons, reasonably, Wilson's, season, lessons, Mason, and Mason's. Therefore, these words were not tabulated under this principle.

This principle is not followed when short u occurs between straight strokes in the same direction, as in none.

31b. The short sound of u is omitted before m.

Example: sum 

Webster's Collegiate Dictionary was used to determine when the short u sound was pronounced in a word. In a few one-syllable words, such as numb, this principle is not followed because the short u sound occurs between straight strokes in the same direction.

32. The short sound of u is omitted before a straight downstroke.

Example: much 

Webster's Collegiate Dictionary was used to determine the presence of short u. The words abrupt, corrupt, disrupt, erupt, rupture, syrup, and gallop contain the sound of short u; but in each instance the short u is omitted in the shorthand outline. These words were not considered applications of this principle because short u is followed by a curved downstroke instead of a straight stroke.

33. The sound of ng is expressed by a downward slanting n.

Example: ring 

Those words in which the ing ending is expressed by a dot were classified as Principle No. 1. Principle No. 1 was omitted from the present study.

34. The sound ngk is expressed by a downward slanting lengthened n.

Example: rank 

35. The word beginning under is expressed by oo above the line.

Example: undertake 

When under was used as a separate word, it was not tabulated.

36. The word beginning over is expressed by o above the line.

Example: overcoat



When over was used as a separate word, it was not tabulated.

37. The combination rd is represented by raising the end of the r.

Example: card



38. The combination ld is represented by raising the end of the l.

Example: child



39. The diphthong u is expressed by joining e and oo.

Example: few



40. The diphthong ow is expressed by joining a and oo.

Example: now

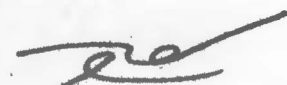


41. The combinations ted, ded, det are expressed by blending t and d.

Examples: noted



graded



detail



42. The combinations m-n and m-m are expressed by blending m and n.

Examples: mention



memory



In a sample taken by Shell of the words in the Manual, the m-n blend occurred so frequently that it was felt unnecessary to tabulate the words in which the principle occurred. Tabulations of this

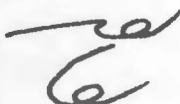
principle were made in this study in order to obtain a complete vocabulary list.

The word minimum contains this principle twice. Although the word occurred six times in the book, making a total of twelve uses of the m-n principle, the word was tabulated only six times to obtain the exact number of occurrences of the word.

43a. The shorthand characters for n-t and n-d are joined without an angle to represent -nt and -nd.

Examples: grant

brand



This principle occurred so frequently in the Manual that it was not tabulated by Shell. It was tabulated in the present study in order to obtain a complete vocabulary list.

Won't was the only contraction tabulated. Won't was not considered to be a phonetic contraction of will and not.

The word accountant contains this principle twice. Although the word occurred once, making a total of two uses of the -nt principle, the word was tabulated only once.

43b. The initial vowel is omitted before nt and nd.

Example: entire



Hand was not tabulated as 43b because it was considered to be a spurious derivative of the brief form and.

Principle No. 43 was not divided by Shell, but a division is made here because an additional element of the principle is necessary for

omission of the initial vowel even though it is not sounded. Words in this section could be tabulated under principle No. 87, en- and in- represented by n before a consonant, but it was felt the distinction should be indicated under principle No. 43.

44a. The shorthand characters for m-t and m-d are joined without an angle to represent mt and md.

Examples: prompt
 seemed



44b. The initial vowel is omitted before mt and md.

Example: empty



The words for principle No. 44 were tabulated by Shell under one principle. They were divided into two parts, represented by Nos. 44a and 44b, for purposes of this study because of the additional element of omission of the initial vowel. Words in this division could have been tabulated under principle No. 91, em- and im- represented by m before a consonant. In this study principle No. 44 is used when em- or im- is followed by t or d forming a blend. When a blend is not formed, principle No. 91 is applicable.

45a. The oo hook is often used to represent the diphthong u.

Example: manufacture



Webster's Collegiate Dictionary was used to determine the pronunciation of long u in words written in shorthand with only the oo. A distinction is made in Most-Used Shorthand Words and Phrases in this


principle between the words that omit the circle in the long u and words that omit some other vowel sound.

45b. The minor vowel may often be omitted when two vowels occur together.

Example: theory 


Webster's Collegiate Dictionary was used to determine the pronunciation of two vowels in a word. Principle No. 45 was considered as only one principle and not divided in the tabulation of words in Shell's study.

46. The days of the week are expressed by abbreviations.

Example: Friday 


Although there is no definite principle stated for expressing days of the week, each day with the exception of Wednesday is written according to the longhand abbreviation.

47. The months of the year may be expressed by abbreviations.

Example: December 

No definite principle has been stated in expressing months; however, eight of the months are written according to longhand abbreviations. Of the remainder, two are spelled in full, March and May, and two, June and July, are abbreviated.

48a. The names of large cities may be abbreviated.

Example: New York 

Those cities which were spelled out completely were not tabulated unless they contained the application of some other principle. Only

those cities which appeared in abbreviated or special forms were tabulated in this study.

48b. The names of states may be abbreviated.

Example: Illinois 


In those instances in which cities have names which are also names of states, such as New York, the context of the material was used to determine whether the name was intended for a city or for a state. Short-hand abbreviations for states seem to follow the longhand abbreviations closely.

48c. The names of countries may be abbreviated.

Example: United States 


Those names which were written in full were not counted unless they contained some one of the other principles. Only those countries which appeared in abbreviated or special forms were tabulated. The majority of countries seemed to follow the abbreviations used in longhand.

49. The diphthong ow is omitted before n; when this omission occurs between n and n, a jog is used to indicate the diphthong.


Examples: down 


announce 

50. The syllable moun is represented by the men blend.

Example: amount 


51a. The word beginnings per- and pur- are expressed by pr.

Examples: permit 

pursue 

This principle seems to be applied within words as well as with word beginnings. Words, such as corporation, in which a sound other than per is written pr were not included in this study under principle No. 51a.


51b. Words beginning with pro- are expressed by pr.

Example: proper 


Pro- was considered under this principle in prove and proof.

Rule No. 51 was not divided in the study by Shell. However, per- and pur- do not contain the same sound as that in pro-. It was believed that separate vocabulary lists should be made of these two sounds in order to ascertain the variety and number of words in which each sound was contained.

52. The word ending -ment is expressed by m.


Example: payment 

53. The word ending -ble is expressed by b.



Example: possible 

Because the -ly and -lity endings absorb the l in the -ble ending, the -ble principle was not considered present in words such as responsibility, responsibilities, disability, inability, possibility, profitably, possibilities, reasonably, uncomfortably, comfortably, advisability, conceivably, and remarkably.



54. The word ending -ship is expressed by disjoined sh.

Example: township 

55. The word endings -cle and -cal are expressed by disjoined k.

Examples: artcle 
 medical 



56. The word endings -self and -selves are expressed by s and ses.

Examples: yourself 
 yourselves 

57. The word beginning after- is expressed by af.



Example: afternoon 

58a. The combinations pent-d are expressed by joining j-nd without an angle.

Examples: pent 
depend 

Principle Nos. 58a and 58b were considered as one rule in the study by Shell. Jent-d and pent-d are two distinctly different sounds, and it was felt that knowledge of the number of times each occurred would be valuable in determining the adequacy of principle coverage in the book.

58b. The combinations jent-d are expressed by joining j-nd without an angle.

Examples: intelligent 
gender 

59a. The combinations def-v are expressed by joining d-v without an angle.

Examples: definite

develop

59b. The combinations tiv and tif are expressed by joining d-v without an angle.

Examples: notify

executive

Rule Nos. 59a and 59b were tabulated as one rule in Shell's study.

Because def-v and tiv-f represent two distinctly different sounds, a better understanding could be obtained of the vocabulary and principle coverage in the book by dividing the principle into the two parts indicated.

60. The word beginnings electr- and electric- are expressed by el above the line.

Example: electrical

61. The word beginnings inter-, intro-, entr-, and enter- are expressed by n above the line.

Examples: introduce

interest

entertain

entrance

62. The word beginning short is expressed by sh above the line.

Example: shortly 's

63. The word beginning ship is expressed by sh above the line.

Example: shipshape 'p

64. The word ending -ful is expressed by f.

Example: careful e

65. The word ending -ify is expressed by f.

Example: notify -f

Although specify is the root word of specific, -ify was not tabulated in specific because the word is spelled in full.

66. The word ending -ification is expressed by a disjoined f.

Example: modification -f

67. The word ending -gram is expressed by a disjoined g.

Example: program C-

68. The word ending -rity is expressed by a disjoined r.

Example: majority -r

69. The word endings -lity and -lty are expressed by a disjoined l.

Examples: disability -l

specialty -l

70a. The combinations den and ten are represented by joining d-n or t-n without an angle.

Examples: dinner
continue



70b. Tain is expressed by joining t-n without an angle.

Example: maintain



These words were not differentiated in the study by Shell under Rule No. 70. However, they are presented as different sounds and are presented separately in Most-Used Shorthand Words and Phrases. Although tain in the word certain has a different sound from the tain sound in maintain, the word was tabulated under this principle because it is presented with this principle in Most-Used Shorthand Words and Phrases.

71. The combinations dem and tem are represented by joining d-m and t-m without an angle.

Examples: demand
temper



72. Tern and term are written without the r.

Examples: stern
determine



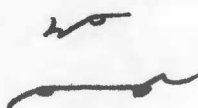
73. Dern and derm are written without the r.

Examples: modern
epidermis



74. Thern and thern are written without the r.

Examples: southern
thermometer



75. The sound of -ort is expressed by o and t.

Example: report 2

76. The t is omitted from words ending in ct (kt).

Example: act 0

Words ending in ct when followed by -tion were not tabulated as the t is not pronounced (Example: selection). However, the addition of -ation, as in expectation, does not eliminate the use of the principle of omission of t. Neither does the addition of ive as in elective eliminate the principle for omission of t.

77. There are seven words of one syllable ending in st in which the final t is omitted.

Example: best 1

78. The final t is omitted in words of more than one syllable ending in st except when the last letter of the root word is missing or if the word ends in a vowel.

Example: invest 2


In the word investigate the t is written because the word is not written as a derivative of invest.

79. If the last letter of the root word is missing or if the word ends in a vowel, a disjoined st is used to represent the endings -ist and -est.

Examples: greatest 2

earliest 0

80. The d is omitted from words which fall naturally into family groups.


Example: demand 

The omitted d in understand was not tabulated under this rule because stand is considered a brief form. Command, attend, and contend are exceptions to this principle.

81. The word beginning incl- is expressed by e above the line.


Example: include 

82. The word beginning post- is expressed by disjoined p on the line.

Example: postman 

83. The word beginnings super- and supr- are expressed by right s above the line.


Examples: supreme 

superhuman 

84. The word beginning trans- is expressed by t above the line.

Example: transmit 

85a. Con- is represented by k before a consonant other than r or l.

Example: convey 

85b. Com- is represented by k before a consonant other than r or l.

Example: recommend 

Con- and com- occurred so frequently in the Manual that this principle was not tabulated by Shell. It was considered in this study in order to obtain a complete vocabulary of the book being analyzed.

86a. Con- is represented by kn before a vowel or before r or l.

Examples: Conrad

economy

86b. Com- is represented by km before a vowel or before r or l.

Examples: comedy

comrade

Com- and con- were tabulated separately in this study although they were tabulated under one rule in the study by Shell. Com- and con- are two distinctly different sounds even though the same abbreviation is used for each. Separate analysis of frequency of the two different sounds seemed desirable.

87. En- and in- are represented by n before a consonant.

Examples: engage

invest

88. Un- is represented by n before a consonant.

Example: until

89. En- and in- are written in full when a vowel follows.

Examples: enact

inability

The vowel plus the n is written when the prefix en- and the prefix in- are followed by a vowel. This principle merely reminds the writer to write the word in full, so that technically no principle exists.

However, the many common words with en- and in- before a consonant might cause the writer to use principle No. 87 when the n is followed by a vowel. This principle, therefore, is included as a reminder not to use n for en- or in- in words in which a vowel follows.

90. Un- is written in full when a vowel follows.

Example: unusual ~

The vowel plus the n is written when the prefix un- is followed by a vowel. As in rule No. 89, en- and in- written in full when a vowel follows, this might also be considered an unnecessary rule. The writer should write the prefix in full when a vowel follows un- because rule No. 88 refers only to n before a consonant.

91. Em- and im- are represented by m before a consonant.

Examples: impress ~
 employ ~

92. En- and in- are written in full when a vowel follows.

Examples: enate ~
 inagine ~

This principle is not necessary for the construction of outlines. Words are written in full unless otherwise designated. Apparently it is desirable to have this rule as a reminder since many words beginning with em- and in- are followed by a consonant.

93. Fore-, for-, and fur- are represented by f before a consonant.

Examples: foresee

forward

furnace

f

f

f

94. The word beginning al- is expressed by o.

Example: alternate

o

Al- was tabulated in already, also, altogether, and almost.

95. The word beginning sub- is expressed by s.

Example: subscription

s

96. U is represented by the oo hook before forward or upward consonant stroke.

Example: result

oo

97. The word ending -hood is expressed by a disjoined d.

Example: fatherhood

d

98. The word ending -ward is expressed by a disjoined d.

Example: forward

d

99. The word ending -use is expressed by the diphthong u.

Example: excuse


u

100a. The word ending -titude is expressed by tet.

Example: attitude

tet

100b. The word ending -titude is expressed by tet.


Example: institute 

101. The word ending -cate is expressed by k.


Example: indicate 

-Cate must be considered in writing education, advocacy, and intricacy in order to show the omission of the a sound. In application the -cate principle is not used and the a sound is written.

102. The word ending -gate is expressed by g.

Example: investigate 


103. The word ending -quire is expressed by ki.

Example: inquire 

104. The word ending -ntic is expressed by the blended nt.

Example: authentic 

105. The word ending -logy is expressed by l.

Example: apology 

106. The word ending -bute is expressed by b.

Example: distribute 

107. Some words may be written without the ending although they do not belong to groups of similar endings.


Example: convenience 

reluctant 

significant 

Consequently, frequent, frequently, and consequence were tabulated under principle No. 107 by Shell but were considered under principle No. 118, -quent and -quence expressed by k, in the present study. It was found on publication of Most-Used Shorthand Words and Phrases that the -quent ending is recognized as a principle. Variety, tabulated by Shell under rule No. 107, was tabulated under principle No. 120, -iety expressed by long i. Principle No. 120 was added when it was discovered that the -iety principle was introduced in books published after Shell's study was completed.

108. When t, d, n, or m is followed by -ition, -ation, the circle is omitted.

Example: condition 

In the word technician, -ician was tabulated under this principle because, although the spelling is different, the shorthand outline seems to follow this principle.

109. When the word beginning mis- or a short common word comes before understand or understood, the under is omitted and the stand or stood is written under the mis- or under the short word.

Examples: we understand 

misunderstood 

110. The word beginning self- is expressed by a disjoined left s above the line.

Examples: self-interest 

selfish 

111. The word beginning circum- is expressed by a disjoined left s above the line.

Example: circumstances ✓

112. The word endings -pose and -position are expressed by po and posh.

Examples: propose

proposition 3 3

113. The word ending -ings is expressed by a disjoined left s.

Example: evenings 2

Things was not tabulated in this study because the -ings ending is a part of the base word and is not a suffix.

114. The word ending -ingly is expressed by a disjoined e.

Example: willingly —

115. The word endings -sume and -sumption are expressed by sm and smsh.

Example: assume 2

assumption 2

116. The word ending -ulate is expressed by a disjoined oo.

Example: tabulate 7

117. The word ending -less is expressed by l.

Example: needless —

Regardless was not tabulated under this rule. This was the only word noted in which -less was disjoined from the root word and written in full.

118. The word endings -quent and -quence are expressed by k.

Examples: consequent 2
 consequence 3

The words consequently, frequently, frequent, and consequence were tabulated by Shell under principle No. 107, words written without the ending although they do not belong to groups of similar endings.

119. The word ending -itis is expressed by long i.

Example: neuritis 20

120. The word ending -iety is expressed by long i.

Example: variety 20

121. The word ending -cide is expressed by si.

Example: decide 6

Only those words containing -cide were tabulated under this rule. Those spelled -side were considered to be derivatives of the brief form side.

Summary

A list of 117 principles was developed by Shell for tabulation of words in Gregg Shorthand Manual Simplified, Functional Method. Material published after the completion of Shell's study revealed the following additional principles:

118. The word endings -quent and -quence are expressed by k.
119. The word ending -itis is expressed by long i.
120. The word ending -iety is expressed by long i.
121. The word ending -cide is expressed by si.

Each of twelve principles was separated into two or more subdivisions in this study in order to obtain an accurate tabulation of the words containing principles with more than one pronunciation or spelling. This made 134 principles and divisions. Of the 134 principles and divisions, applications of 85 were easily classified by sight or by sound and no exceptions were found in the present study.

Principle Nos. 1 and 10, -ing and -ly, were not considered in this study. Both principles always appear in the same form, never change the meaning of the root word, and are always suffixes. Each principle was considered as appearing a sufficient number of times for ease of learning.

Some words contain overlapping principles. For example, the word specially contains principle -cial or -ally but not both. In such cases, the suffix was tabulated as a principle, and the other principle involved was not tabulated but was simply considered as part of the regular spelling of the word. Principles in which overlapping occurs are as follows:

4	-tion	53	-ble
5	-tial, -cial	69	-lity, -lty
8	-ly	76	c(t)

Classification of words in which the majority of principles was applied was made easily either by sight or sound. Webster's Collegiate Dictionary was consulted to fix the classification of words in which the following five principles were applied:

de- and dis-
 (short u) (n) and (short u) (m)
 (short u) (downstroke)
 (e) u and (minor vowel)

Words containing -quent, -quence were classified in Shell's study under principle No. 107, abbreviation of words not in family groups, but they were classified under principle No. 118, -quent, -quence, in the present study.

Won't was not considered to be a phonetic contraction of will and not and was the only contraction tabulated under principle No. 43a, -nt, -nd.

Three principles were found to have more than one spelling containing the same sound. Principle No. 2, ses, was tabulated in words in which the spelling appeared as xes, ses, and sis. Principle No. 4, -tion, was tabulated in words with spellings as follows: -shion, -cian, -sion, and -tion. Principle No. 108, -ition, -ation, was spelled -ician in one instance.

The sound pr, as in corporate, is not the same as the pr sound in operate; therefore, those words with the longhand por were not considered as belonging under principle No. 51a, per-, pur-. Words spelled -side were not tabulated under principle No. 121, -cide, since side is considered a brief form.

Five principles act as counterparts to other rules and could be omitted. They are principle Nos. 6, -cient; 7, -ciency; 89, en-, in-; 90, un-; and 92, em-, im-.

Words classified under three principles are written almost entirely according to the longhand abbreviations. There are deviations from the abbreviations for which no definite pattern is established. These are principle Nos. 46, days; 47, months; 48a, cities; 48b, states; 48c, countries.

Special consideration was given classification of brief forms in five instances. Necessarily and ordinarily were not considered as containing the -ily principle because the shorthand outline is written with a small circle. In before, be- was considered to be a brief form, and -fore was tabulated as principle for-, fore-, fur-. The word hand was considered a spurious derivative of the brief form and and was not considered as the -nt, -nd principle. The compound word understand was not considered under principle No. 80, omission of final d, as stand is a brief form.

CHAPTER III

WORD FREQUENCIES IN CONTEXT

The purpose of this chapter is to analyze the frequencies of words containing principles and abbreviating devices in the context of Gregg Transcription Simplified. Each principle is analyzed by assignment and by chapter. The list of principles is given in Appendix A and the explanation of each principle is given in Chapter II.

Appendix B contains a list of those words occurring in context which contain principles. The assignment of first occurrence and the total number of frequencies by principle are given.

Appendix D is composed of a list of those words occurring in context containing three, four, and five principles.

The frequency of words in context is important. The handbook for Gregg Transcription Simplified emphasizes this theory by stating:

It is known that the study or practice of isolated words yields less benefit, for the time and effort invested, than does the study or practice of words in context or of words that have some obvious connection.¹

Emphasis is further placed by the authors in the preface of Gregg Transcription Simplified on the importance of practice in context as follows:

¹ Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified, Teacher's Handbook (New York: Gregg Publishing Company, 1950), p. 7.

In addition to the special shorthand drills at the beginning of each assignment, the connected matter has been carefully controlled to contain in each chapter a complete review of every alphabetic character, every joining, every word beginning or ending, every phrase principle, and every brief form in Gregg Shorthand Simplified.²

The most recent statement that could be found regarding the importance of word frequency in context was made by Julius Eisenberg, president of the New York State Shorthand Reporters Association. This statement was quoted by Zoubek as follows:

In all systems of shorthand, we have short forms or abbreviations. I have often noticed students attempting to learn such abbreviations from alphabetical lists, writing one word right after the other. If ever you have attempted to increase your English vocabulary by reading a dictionary from A to Z, I'm sure you have experienced unhappy results.

.....
To practice such lists per se, is inefficient. The way you hear these short forms is in conjunction with other words. That, then, is the way to practice them. To write: administer, administers, administered, and so forth, has nowhere near the value of writing a paragraph of normal English context that has, woven into it, these words.³

By Principle

Each principle is discussed in this section in relation to the following points and in this order:

1. Number of total frequencies. (Tables I and II)
2. Number of different words. "Different words" refers to the number of different words, omitting the repetitions of the word. A

² Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified (New York: The Gregg Publishing Company, 1950), p. v.

³ Charles E. Zoubek, "Shorthand," Business Teacher, 30:27. September-October 1952.

TABLE I

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
1 -ing																																														
2 ses	5	2	3	7	2	4	4	8	2	8	2		2	2	1	2	3	5	6	2	3	4		5	4	2	4	1	1	10	5	4	5	4	3	8	1	6	6	4		5	5	2	4	
3 ex-	3	6		2	6	1	8	6	1	10	1	3	5	6	2	2	2	2		4	1	4	3	1	2	7	7	5	1	7		2	5	4	6	7	5	3	2	7	7	3	2	3	3	
4 -tion	11	6	18	6	7	12	7	8	11	4	5	7	10	4	4	4	4	8	5	8	10	5	7	8	8	10	5	11	9	9	8	6	5	9	7	7	6	4	11	11	4	7	10	11	3	
5 -tial, -cial	1		3	1		1	1	2		2		2	2		1	2	2	2	3		3		2	1	2	4	2	5	1	1	1			1	1	2	3	1			1		1			
6 -cient	1						1		1							1						1	1			1		1	1	2			2							2		1		1		
7 -ciency																																														
8 past tense	5	11	7	6	7	7	9	1	6	12	6	3	5	5	6	9	5	10	8	5	8	13	1	5	3	4	6	8	5	5	5	10	7	8	6	5	8	8	6	8	9	10	10	14	4	
9 disjoined r	1		2		1	1	2			1		2	1			9	1	1	1	1		1	1	5			5	1	1	3	6		1		1	3	1		1			1				
10 -ly																																														
11 -ily					1		1		1				2				1	2	2	2	1			3		1	1	1	1		2	1		2			1		1	1		2	1			
12 -ally	1		1	1	1	2		1	1	1	1			1	1	1		1	2	2	2		1	1	2	1	1	1		1	1	2	1			2	1	1	1	1		1		1	1	
13 oi	1		1		1	3	5	1		2	3	2	1	4	4		1	2	1	1	1	1	2	2	2	3	2				4	2	3	1	1	3	4	3	2	2			3	1		
14 -ure, -ture	2	1		1	3	2	3	2	4		4		1		2	2	1	3	2	1		1	2	2	1	1	1		3	1	3	1	1	2		2	7	3	3	3		1	2	6	2	
15 -ual, -tial		5	1	1		2	1	1			1							1					1				3							1	1		1			1		1				
16 re-	4	7	12	13	7	4	6	3	7	6	9	10	7	5	5	7	11	6	5	2	8	9	7	2	4	13	6	6	10	7	9	12	7	5	8	7	6	1	2	4	10	12	5	7	4	
17 be-	1		2	2	2	3			2	1	1	4	1	3	2			1	1	3				2	1	2	5	1		1	2		2	1	3		3			1		4	3		2	
18 de-	3	1	2	1	2	1	7	1	4	3		1	1	2	1	3	3	4	4	3	3	1	3	4	3	3		6	5		2	1	2	1		1	1	2	5	5	3		7	1	1	
19 dis-	1	2	2	1		2	2	2		2	3	1		2	2	4	1		1	1	2		1	1			1		1	2	2	2		1	3	3		2	3	2		2	2	5	2	
20 mis-																											1																			
21 i (vowel)	1				1			8			2	2	2				1	3	1	1			1			1				1			1			2	1			1				1		
22 ia		1	1	3			1	1	1					1		1	1			1	1		1	1		1		1	3			1			3	1	1		1	3		3				
23 ea		1				1						1						1										2			1			1	1											
24 -ther	2	6	3	2	3	5	6	1	1	6	3	3	1	2	1	4	1	2	5	1	1	2	5	5	8	1		1	3	1	2	2		3	5	2	4	5	1	3	4	3	2	3	2	
25 w		2	2	1	1	1		1	2		2	1	1	1	2		1	4	2	2			3	2		1		2	3	2			3	1	1	1	2	2	2	1	2	6	4		1	
26 ah-																1		1		1																1										
27 aw-	1				1	1			1		1	1	1		1									1																						
28 y											1							1																									1			
29 ye																																														
30 ya																																														
31a (short u) (n)			4	2		2	2	1	3	1	2	1	3	1		2	1	2		1	2	1	3	2	2	1		2	5	1	3		1	3	2	1	2		3	3		1	1	1	1	
31b (short u) (m)	6	3	1	1	4	4	4	1	3	4	9	3	7	6	3	3	1	2	1	1	1	2	1	6	3	7	3	5	4	6	2	2		2	4	2	2	3	5	3	1	4	7	2	3	8
32 (short u) (downstroke)		2	1			3		1	2	1	2	3				1		1				2	3	1	1	1	1	2	4	2	1			3	2			2	1	3	2	1	3		2	
33 ng		1			1			1			3		1	2	1	1		1	2		2		1	2			1		2		1		1			1	2		2		2		2	2		
34 ngk				2			4	1							1	2	4		2			1	1		7	1	2	1	2	1	5		2	1	1		3	1	2	3		1	10	3	3	
35 under-						1																									1															
36 over-	1				1		2																1										1	1								2	1		1	
37 rd		4	3	2	2	2	6	1	3	3	5	3	1	5	7	4		5	6	3	1	4	2	3	1	1	4	3	1	3	3	5	1	4	5	3	6	2		6	7	3	4	5	4	
38 ld	2	7	6	6	5	4	2	4	1	4	1	2	1	4	4	3	3	2	6	4	3	4	2	2	5	8	11	1	1	7	6	3	3	4	5	2	2	5	5	2	4	3	8	4	3	
39 u	5	2	2	3	3	2	2	2	1	2		3	2		2	1		1	3				1	1	4	1	3	3	2	1	2	1	1	3	1	3	1	5	1	3	2	3	1			

TABLE I (continued)

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters			
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80
1 -ing																																			x	x	x	
2 ses	7	2	11	3	3	2	3	6		1	5	1	1	3	10	6	3		6	4	1	14	1	1	4	1	1	4	9			5	3	4	10	300	73	16
3 ex-	5	3	1	5	4	5	4	2	5	3	2	6	3	1	4	3	6	9	6	2	5	6	3	6	6	4	5	3	5	1	2	5	7	2	4	310	77	16
4 -tion	5	7	12	15	11	5	6	10	10	11	8	15	9	14	5	10	7	7	7	11	13	5	7	8	11	7	12	11	12	9	14	11	15	6	7	673	80	16
5 -tial, -cial	1		1	1	2	2	4	2		1		4	2			3	2		5	1	5	1	1	2	3	1	2				2	3	2	2	112	56	16	
6 -cient	1				1											1	1	1					1			1	1	1			3	1			30	25	13	
7 -ciency																			1															1	3	3	3	
8 past tense	8	7	3	9	8	7	10	9	8	9	9	11	6	4	4	8	12	8	8	10	9	6	10	6	5	11	11	6	8	8	11	7	8	6	10	589	80	16
9 disjoined r			1	2	1		2	1		1	1	1			1	3	1	5			1			1		2		1	1		3		4	3	91	47	16	
10 -ly																																			x	x	x	
11 -ily			1								2			4	2		1		3		1		1		1	1		2			2	1	1	5	59	37	15	
12 -ally	3			1		1	1	2	2		1	2			1		2	1	1	1	2			1		1		2	1		3	1	1	1	71	54	16	
13 oi	3	3	3	3	2	3	1	3	2		1	9	1		3		6	5	3	1	5			3	1		5	1	2	3	6	3	8	3	5	172	64	16
14 -ure, -ture	7	5	1	1	3	1	3	3	1	3	1	4	5	4	2	7	4	10	1	4		2		2	2		7	1	1	1	1	7	2	3	1	182	69	16
15 -ual, -tual		1					1		1	1			2	2	7	1	2	1			1	2	1			4		7			2	1		1	2	62	34	15
16 re-	6	5	7	9	7	9	9	6	8	6	4	11	4	7	2	5	9	8	21	13	5	5	1	6	9	8	9	10	9	8	5	12	5	8	3	566	80	16
17 be-	1		1		1		1		3		4	2	5	1		1	1	1	2		3	2	1	2	1	1	3		4	2		1	3		3	112	55	16
18 de-		2	4	4	2	1	4	1	1	4	2		5	2	4	1	3	6	4	6	2	3	1	8	2	3	5	2	2	2	4	5	4	1	1	208	73	16
19 dis-	7	1	2	3		8	3	1		1	1	2	3	4	1	3	2	5	3	1	3	4	1		2	1	2	1		1	5	2	1	1	3	144	65	16
20 mis-									3																										5	3	3	
21 i (vowel)					1		1					1	1			5		4					1			1	2	2							50	28	15	
22 ia	1	5	1	1			2		2	2	4		1	2	1		1	2	2	1	2	2	2	1	2		4	3	1	3	3	1	2	2	90	52	16	
23 ea		1							1			1		1																					13	12	10	
24 -ther	3	4	1	5	1	3	4	5	2	4	4	6	1	8	5	2	2	5	1	1	1	2	5	5	13	2	2	6	1	5	4	5	3	7	2	256	78	16
25 w	1			2		1	1	3		3		2	1	2		1	3	2	1	1	4	2	5	1	3	1		3	3	3	1	4	2	1	2	124	62	16
26 ah-								2							1						1														8	7	5	
27 aw-						1	1	1				1					1				1			1				1			1				19	19	10	
28 y			1		1			1							1													1							8	8	7	
29 ye																1																			1	1	1	
30 ya													1																						1	1	1	
31a (short u) (n)	1	5	3	2	1		2	5		1	1	2	1	3	4		5	3	2	1	3	1	2	1		3	2	9	1		9	4	2	2	2	152	66	16
31b (short u) (m)	2	5	2	2	6	2	2	3	4	3	3	5	2	2	5	4	7	2	7	5	3	8	6	3	4	5	10	3	8	5	7	3	6	4	4	307	80	16
32 (short u) (downstroke)		1	3		1				2		2		2	1	3	1	3			1	2	2	2	2	1	1	2		2		1	1		3	2	94	51	16
33 ng	1		2		4		3	1	2		2		1	3	2	1	1	1	2		1	1	1	2	4	2	1	1	2	1	5		1	1	1	85	51	16
34 ngk	2	1	1	3	1	1	4		1	1	3	3		1	4	4	1	4	3	2	1					2	3	2	1	1	1				118	52	16	
35 under-			1															2																	5	4	4	
36 over-												1							1		1	1		1				2			2			20	16	10		
37 rd	2	2	5	5	6	4	2	1	3	4	3	8	2		6	5	2	9	6	9	2	8	8	3	1	1	3	4	1	2	6	1	4	3	3	280	76	16
38 ld	10	5	4	6	7	5	4	4	2	3	7	5	3	3		4	9	4	5	2	6	4	3	9	6	1	2	1	3	1	4	5	1	3	12	327	79	16
39 u	4	1	5	8	3	3		3	1		2		2	1	3		3	3	7	2	4	1	1	2	5		1	3	1	2		3	3	1	3	160	66	16

TABLE I (continued)

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters				
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80	
40 ow		1		5	3	1	1	3	1	4	1	5	2	2		3	4	1	3	1	3	2	1	3	2	1		1	1	3	3	2	4	1	3	4	172	68	16
41 ted, ded, det	5	3	6	4	5	3	3	1	3	4	2	5	5	4	4	7	5	9	10	8	8	3	4	9	4	3	8	6		6	2	5	4	4	15	413	79	16	
42 men, mem	7	8	3	4	12	2	9	10	17	5	11	13	12	7	12	9	13	13	5	14	12	8	7	13	9	7	15	7	6	6	9	14	6	6	10	685	80	16	
43a -nt, nd	13	11	8	10	7	9	9	14	7	12	16	16	10	15	20	11	13	13	13	17	16	24	14	12	11	10	22	18	9	16	19	20	10	15	14	1062	80	16	
43b (vowel) nt, nd	3		3	3	1		1	1			1	2	3	1			1			2	2		1	1		3	2	2		1				1	78	48	16		
44a mt, md			1			1			1	1		1	2			4		1	3	1	1	4		1		2					1	1		1	1	49	32	14	
44b (vowel) mt, md																																							
45a (e) u	4	4	7	11	6	2	2	9	11	12	16	8	6	3	3	5	10	7	8	2	6	9	4	11	13	7	5	10	9	8	9	9	14	8	8	547	80	16	
45b (minor vowel)	3	3							4	2	2	2		1	2	2	2	1	5	1		1	1		1	1	1	4	6	4	3	2	1	5	2	110	53	16	
46 Days												1		1						3	1	3	2	1	2				1	1					40	27	12		
47 Months	4	2	6	2	4	6	3	4	5	2	1	6	3	5	3	1	7	3	3	2	3	9	5	3	5	5	7	7	6	5	3	3	7	2	3	297	80	16	
48a Cities			2		1		2	2		7		2			1		1	1			5					3	2	1		1			5		97	38	16		
48b States												4									3						2					2			29	14	10		
48c Countries		2	3							1	1			1		1	1	1							2	1		1			5				36	20	12		
49 (ow) n	2	3	4	5	2	8	2	1	2	1	2	2	2	2	5	3	6	1	1	5	3	10	3	2	4	2	4	2	4	4	6	2	2	5	2	278	75	16	
50 moun	1	1				5	1						3				1		1	1		1			1		5	2	3	2			1		50	30	15		
51a per-, pur-	5	4	4	9	7	2	2	2	2	4	13	5	3	9	2	5	5	6	4	6	4	1	6	11	5	5	6	4	1	6	5	6	2	4	2	321	79	16	
51b pro-	6	5	4	4	5	4	6	2	5	8	7	5	9	4	3	12	2	2	9	8	6	5	2	4	6	7	2	4	2	5	6	7	1	3	4	335	80	16	
52 -ment	6	8	7	10	3	13	5	3	5	1	6	4	4	2	7	6	8	12	7	8	8	8	3	7	6	5	3	3	8	11	5	8	10	1	2	412	78	16	
53 -ble	3	6	7	5	4	1			5	1	6	4	7	2	2	3	5	7	7	2	2	5		12	1	4	1	2	8	5	2	2	5	4	5	267	76	16	
54 -ship			2				1					1		1		1		1	1							5	1								28	19	11		
55 -cle, -cal		1	1	2			1			2	2						2	4	1				2	1	2	1	5	2	2	1	1	2		1		77	43	16	
56 -self, -selves	1		2						1	1	1	1	1		2	1			1		1	1			1				1		1	1	1	1	50	38	16		
57 after-						1																			1										2	2	2		
58a pent, pend					4		1	1	1	1	1			1					1		1			4	2						1	1			53	34	14		
58b jent, jend			1					1															1		1										6	6	5		
59a def, dev	1	1	1		1	1				2	1	1	1	1	1	3	1	2	1	1		1	3	2		1	1	1	1		2	2	2	1	3	76	54	16	
59b tif, tiv								1		1		2			1	1		2			2			3	1	1		2				1		2	50	31	15		
60 electr-														2					1								1					3			12	7	6		
61 inter-, intro-, enter	1	4	3	3	2		4	6		1	6	4		2		6	4			4	5	2	2	1	2	3	1	2	2	6	4	4	2	2	4	177	65	16	
62 short-					1	2			1					1		1							1						1							17	14	11	
63 ship-																																							
64 -ful		2	3	2	1		1	1	1	3	3	5		1		4	3		3	2	2	1			2		1	1	1		3	5			108	56	16		
65 -ify					1							2				1				1	1			1				1		1					23	21	12		
66 -ification								1																				1								7	7	6	
67 -gram		1		3			3				4					1			1		2			3	5	4						1	1		1	45	24	14	
68 -rity							1				1					2	1			2						1	1							1	14	12	10		
69 -lity, -lty	4		2			2	1	2	1	2	1	1		1	1		2	2	2		1	3	2		2		1	2	1		3		1		3	79	49	15	
70a den, ten	3	2	5	5	4	3	4	5	2	2	7	4	3	2	5	6	4	1	7	9	8	8	3	5	5	2	1	4	8	2	2	3	4	8	2	347	80	16	
70b tain	1	1	1	3			1		2	2	1	2			5		1			1	1	1	2	1	1	2	3	2		3	1	1		1	2	85	52	16	

TABLE I (continued)

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters				
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80	
71 dem, tem	1	2	2	5	1	1	6	3	3	1	2	3	2	4	1	3	2	4	6	2	2	3	1		1	4	3	1	4		4	3		3	208	69	16		
72 tern, term	1		3		3	3		1				1	1	1	1			2	1				1		4			1		1	2				56	36	14		
73 dern, derm					1			1	1							1			1									1			1				17	17	10		
74 thern, therm																					1					1									2	2	2		
75 ort			3				1	1									1		2	3	3		2		3			2				1		2	60	31	14		
76 c(t)	2	10	7	1	2	7	9	1	1	5	4	4	7	9	5	5	4	9	3	7	6	9	3	8	3	3	4	2	5	5	8	6	4	4	5	372	79	16	
77 s(t) (one syllable)	5	4	2	2	5	4	4	1	2	4	3		4	2	1	4	8	10	5	5	1	8	3	6	4	1	5	4	7	7	5	5	5	8	9	312	76	16	
78 s(t) (two syllable)	4	11	5	5	7	3	8	7	1	5	7	1	1	2	4	13	6	2	4	7	2	1	4	8	6	4	1	7	5	3	3	13	1	4	9	338	75	16	
79 disjointed st		1	1						1			1				1		2			1	1		1		1			1						29	26	14		
80 (d)		1	4	2			1	1	1	2	2	2	3		1	1	3	1	1	1	1	1	3		1	1	2	1	3	3	1	2		2	1	102	61	16	
81 incl-	1		2		1			1		1			2								1	1		2	2				1			1	1	2		1	35	27	13
82 post-				1													2			2				2				1			2	2	1		1	27	20	13	
83 super-, supr-	1						2												1	1											1	1			17	12	10		
84 trans-			2																															3	2	28	15	10	
85a con-	5	15	8	6	1	4	4	2	3	3	2	7	3	8	9	9	4	5	9	7	3	7	5	4	3	6	6	7	8	7	4	7	2	11	7	393	80	16	
85b com-	1	2		1	1		7	3	3	5	3	2	3	2	3	3	5	9	2	3	4	2	3	8	4	8	2	4	4	5	3	4	4	2	4	229	73	16	
86a kn-				1						2									1							1			1		1				21	18	13		
86b km-			2	1									1													1	1				1				21	14	10		
87 (e)n, (i)n	7	15	14	3	9	5	5	11	3	5	6	7	1	8	8	7	10	7	11	14	11	9	6	7	4	8	8	6	13	8	1	11	10	7	17	578	80	16	
88 (u)n	3		1	1	1	1	1	2		2		1	1		2	1	2	1	2		1			1	1		4	2		3			1	1	1	76	49	16	
89 en, in	2					1	1		1		1								2	1		1				2								1	21	17	13		
90 un-																					1	1		1							2				11	10	6		
91 (e)m, (i)m	1	3	1		1	2	3	2	1			5	1		3				4	2	2			3	1			1		1	2	1		1	2	81	49	16	
92 em-, im-										1																										7	6	5	
93 for-, fore-, fur-	8	7	6	4	9	4	9	1	8	7	4	8	4	10	12	7	7	14	5	11	10	6	7	9	6	7	6	6	5	5	5	9	12	5	9	504	80	16	
94 al-	2	3	1	2	1	3	1			2	3	3		2	1			2	4		2	1	4		2	1	1	2		3		1	2	3	128	64	16		
95 sub-		1					2	2	1	6		3					1			2						2		1		2		1	3	1	4	64	32	15	
96 ul					1		1		1						1			3	1						2				1	1					32	26	14		
97 -hood	1																		1																	7	7	7	
98 -ward	1			1		1	1							2				3			1		1						1			2			32	27	16		
99 -use																					1														1	1	1		
100a -titude																																				1	1	1	
100b -titude								3													1							1				1			10	6	6		
101 -cate	1		1	5	1		1	4	1	1	1	1	2	3			3				3		2		1	3	1	3	1	3	2	2	9	1		103	56	16	
102 -gate					1	1			1		1		2	1		1			2						1	1							1	1	1	27	24	15	
103 -quire	2	3	1	1	2	1	1				3		1	1		3		3		1	3	1	1	1	2		1			1	2		2	2		68	43	15	
104 -ntic																																							
105 -logy													1																							7	2	2	
106 -bute				2			2						1				3	1		1				2							1			2	1	27	20	14	
107 abbreviation	1	2	1	1			1		1	2		1	1	3	1			2	5	2	1	1				2	3		1		3	2		2	1	78	49	16	

TABLE I (continued)

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
108 -ition, -ation	1	2	4	4			5	4	1	2	1	3	5	2	2	5	11	5	8	1	2	3	4	2	3	4	5	2	8		5	2	7	4	4	5	3	5	5	4	4	3	1	2	
109 (under)	1									1									2			1	2		1	1					2			1							1	1			
110 self-				2																					1			1			1				1				1						
111 circum-	1															1													1				1	1											
112 -pose, -position		1	1	1					1	2	1	1	1	1	2	2			1	1			1			2	1		1	1		1			1		2	2			1	1			
113 -ings	1	2			3	2	5	1		2		1		2					1	1	3	4	1		4				2			1	1			1				1			2		
114 -ingly		1			1														1	1														1						1					
115 -sume, -sumption			1							1								1							1																				
116 -ulate						1										1				1				1		1		3												1					
117 -less		1			1	1			1						1	1							1		1						1				1					1					
118 -quent, -quence	1		1	1	1			1	1	1	1			1			1			1			1	1		2	1	1	1		1			2	1		1								
119 -itis																																													
120 -iety							1						1						1											1															
121 -cide																1					1																						1		
Total	167	188	185			219	207				181	176	171			181	217			180	167	181			211	181			199	174	191			217	195			173	265	189					
Words		181	188		205	163	203				179	177				207	203	183			170	191			216	191	187			196	200			205	211	250			243	234					
Total Principles	62	59	58	63	66	67	61	57	64	60	63	64	64	54	62	67	59	68	65	67	64	55	69	67	56	65	68	62	64	68	58	56	58	61	61	63	65	68	66	70	49	68	67	60	71

TABLE I (continued)

TOTAL WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																														Total Words	No. of Assignments	No. of Chapters					
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75				76	77	78	79	80
108 -ition, -ation	5	6	7	5	5	4	8	1	4	3	1	3	2	5	8	4	3	3	1	6	12	1	7	1	1	13	4	4	5	6	3	5	2	3	11	315	76	16
109 (under)	2	1				2				1		1	1		1	1	1						1					1						1	29	24	15	
110 self-																			1					1		1				1					12	11	10	
111 circum-																																	1			5	5	4
112 -pose, -position				2		2	1	1	1		1	1	1		1	1	2				1		5	1		1		3	1	4	3	1	1			65	45	16
113 -ings		1		1			1	1	4				4	1		2	2	1	1	1	1		2	4				1	1	1		2			71	38	16	
114 -ingly																																	1			7	7	5
115 -sume, -sumption												3		1					1	1		1													11	9	7	
116 -ulate			1	1	1	1													1						2			1						1		19	16	11
117 -less	1																1	1	1					1	1		1								17	17	12	
118 -quent, -quence			1	1				1	1	1						1		1	1	1		1			1	1		2	1	1	1	1			43	40	14	
119 -itis																																						
120 -iety														1			1															1		1		8	8	7
121 -cide				1	1													1				1						1			2				10	9	8	
Total	212	239	205			223	186			226	193	202			271	276	270	199	245		259	233		259	239	279												
Words		228	237		180	196	203			267	212	248	287	210		256	265	217	245	231		287	210															
Total Principles	64	59	72	65	63	56	73	65	64	63	63	70	65	67	59	68	72	70	72	70	79	67	64	69	76	68	71	75	65	64	71	75	68	64	74			

TABLE II

NUMBER OF ROOT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45			
1 -ing																																																
2 ses	5	2	3	3	1	3	4	4	2	1	2		2	1	1	2	3	5	3	2	2	4		2	3	2	4	1	1	7	4	2	2	4	3	6	1	3	6	4		5	2	2	1			
3 ex-	3	5		2	5	1	5	3	1	7	1	3	3	5	2	2	2	2		4	1	3	3	1	2	5	5	4	1	6		2	3	2	2	6	5	3	2	2	4	3	1	1	3			
4 -tion	9	6	12	6	4	9	5	6	5	4	5	6	6	3	3	4	4	7	5	7	9	3	4	6	7	10	5	7	8	6	8	6	5	7	6	6	4	4	7	9	3	7	8	6	3			
5 -tial, -cial	1		1	1		1	1	1		1		1	1		1	1	2	2	2		2		2	1	2	2	2	1	1	1	1			1	1	1	1	1				1		1				
6 -cient	1						1		1							1						1	1				1	1	1		2			1							1		1		1			
7 -ciency																																																
8 past tense	5	8	4	4	3	5	6	1	5	8	4	3	5	4	2	4	4	5	3	5	4	7	1	5	2	4	5	6	3	4	2	8	3	6	5	4	4	6	5	5	7	6	8	8	4			
9 disjoined r	1		2		1	1	1			1		2	1			2	1	1	1	1		1	1	2			3	1	1	2	3			1		1	1	1		1			1					
10 -ly																																																
11 -ily					1		1		1				2				1	2	1	1	1			3		1	1	1	1		1	1		2				1		1	1		2	1				
12 -ally	1		1	1	1	2		1	1	1	1			1	1	1		1	2	2	2		1	1	2	1	1	1		1	1	2	1				2	1	1	1	1		1		1	1		
13 oi	1		1		1	3	3	1		2	3	2	1	2	4		1	2	1	1	1	1	2	2	2	2	2	2		3	2	3	1	1	2	2	2	2	2	2		3	1					
14 -ure, -ture	2	1		1	2	1	3	1	3		2		1		2	1	1	3	2	1		1	2	2	1	1	1		2	1	1	1	2		2	4	3	3	3		1	1	4	1				
15 -ual, -tual		2	1	1		2	1	1			1							1						1			3								1	1		1			1		1					
16 re-	3	5	7	10	4	3	4	3	5	5	8	5	7	4	3	3	6	3	3	2	6	6	3	2	4	6	3	3	5	3	8	8	4	3	4	4	5	1	2	3	5	8	4	5	3			
17 be-	1		1	1	2	1			1	1	1	3	1	2	2			1	1	2				2	1	2	3	1		1		1	1	3		2			1		3	2		2				
18 de-	2	1	2	1	2	1	3	1	2	3		1	1	1	1	3	3	2	2	2	3	1	3	2	2	2		5	3	2	1	2	1	2	1		1	1	2	3	5	2		5	1	1		
19 dis-	1	2	2	1		2	2	2		2	3	1		2	2	3	1		1	1	2		1	1			1		1	2	2	1		1	3	3		1	2	2		2		2	1	2		
20 mis-																																																
21 i (vowel)	1				1			2			2	1	2				1	2	1	1			1			1		1		1			1			1	1				1				1			
22 ia		1	1	1			1	1	1					1		1	1			1	1		1			1		1	2			1			1	1		1	2		3			1				
23 ea		1				1						1						1										1				1			1	1												
24 -ther	2	2	1	2	2	3	4	1	1	4	3	2	1	1	1	2	1	2	3	1	1	2	3	4	3	1		1	3	1	2	1		1	3	3	1	2	2	2	2	2	2	2	2			
25 w		1	2	1	1	1		1	2		2	1	1	1	1		1	4	2	1			3	1		1		2	2	2			2	1	1	1	1	2	2	2	2	1	1	4	3		1	
26 ah-																1		1		1																												
27 aw-	1				1	1			1		1	1	1		1									1																								
28 y											1							1																														
29 ye																																																
30 ya																																																
31a (short u) (n)			4	1		2	2	1	3	1	2	1	2	1		1	1	2		1	2	1	2	2	1	1		2	5	1	2		1	3	2	1	1		3	1		1	1	1	1			
31b (short u) (m)	2	1	1	1	4	3	2	1	2	2	2	3	2	3	2	2	1	1	1	1	1	2	2	1	2	2	1	4	2	3	2	1		1	2	2	2	1	3	2	2	2	4					
32 (short u) (downstroke)		1	1			2		1	2	1	2	2				1		1				1	1	1	1	1	1	1	1	1			3	1			1	1	3		1	1	2		2			
33 ng		1			1			1			3		1	1	1	1		1	2		2		1	2			1		2		1				1	1		2		2		1	2					
34 ngk				2			2	1						1		1	3		2			1	1		2	1	2	1	2	1	3		1	1	1		2	1	1	2		1	2	2	2			
35 under-						1																																										
36 over-	1			1			2																1								1			1									1	1		1		
37 rd		1	3	2	2	2	5	1	2	2	2	3	1	3	4	4		5	3	3	1	3	2	3	1	1	3	3	1	3	3	4	1	3	5	3	3	2		4	4	3	4	4	2			
38 ld	2	6	5	5	5	3	2	3	1	3	1	2	1	3	2	3	3	2	6	3	2	4	2	2	5	5	5	1	1	3	4	2	3	3	3	2	2	4	4	2	3	2	7	4	3			
39 u	4	2	1	2	2	2	2	2	1	1		3	2		1	1		1	1			1	1	2	1	3	2	1	1	2	2	1	1	1	1	2	1	2	1	2	1	3	1					

TABLE II

NUMBER OF ROOT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																								Total Words	No. of Assignments	No. of Chapters												
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69				70	71	72	73	74	75	76	77	78	79	80	
1 -ing																																			x	x	x		
2 ses	5	2	6	3	3	2	1	3		1	5	1	1	3	7	3	3		6	2	1	2	1	1	4	1	1	3	5			4	3	4	6	213	73	16	
3 ex-	3	3	1	4	3	4	4	2	5	3	2	6	3	1	4	3	6	6	6	2	4	4	2	4	6	2	4	2	4	1	2	5	7	2	3	249	77	16	
4 -tion	5	4	8	11	11	6	6	5	7	5	7	10	7	12	5	5	7	5	6	9	9	5	5	7	11	6	7	8	9	8	9	11	7	5	7	525	80	16	
5 -tial, -cial	1		1	1	2	1	2	2		1		2	1			2	2		4		1	2	1	1	2	2	1	2			2	2	2	2	80	56	16		
6 -cient	1				1											1	1	1					1				1	1	1			2	1		27	25	13		
7 -ciency																			1															1	3	3	3		
8 past tense	4	4	2	7	6	5	4	4	6	3	5	8	3	4	4	5	7	5	3	5	8	6	8	5	3	8	7	6	5	7	7	5	6	5	8	398	80	16	
9 disjoined r				1	1	1		1	1		1	1			1	3	1	4			1			1		2		1	1		3		3	3	68	47	16		
10 -ly																																			x	x	x		
11 -ily				1								2		1	2		1		3		1		1	1		1			1			2	1	1	2	49	37	15	
12 -ally	2				1		1	1	2	2	1	2			1		2	1	1	1	2			1		1		2	1		3	1		1	1	70	54	16	
13 oi	3	1	2	3	2	1	1	2	2		1	5	1		3		3	5	3	1	3			2	1			3	1	2	2	3	2	4	3	5	135	64	16
14 -ure, -ture	4	3	1	1	1	1	3	3	1	3	1	4	3	2	2	3	3	7	1	3		2		2	2			5	1	1	1	1	5	2	3	1	141	69	16
15 -ual, -tual		1						1		1				2	2	3	1	1	1		1	2	1			3			2			2	1		1	2	48	34	15
16 re-	5	3	5	7	4	4	5	3	4	4	4	6	4	5	2	5	4	2	10	5	5	4	1	5	4	5	7	6	5	2	4	5	4	5	3	357	80	16	
17 be-	1			1		1			2		3	2	3	1		1	1	1	2		2	2	1	2	1	1	3		3	1		1	2		2	88	55	16	
18 de-			2	2	3	2	1	3	1	1	4	2		3	2	3	1	3	4	3	4	1	3	1	3	2	2	3	2	2	2	3	2	1	1	156	73	16	
19 dis-	3	1	1	2		3	2	1		1	1	2	3	4	1	2	2	4	2	1	2	2	1		1	1	2	1		1		4	1	1	1	2	114	65	16
20 mis-									1																										3	3	3		
21 i (vowel)					1		1					1	1			3		3					1			1	1	2							37	28	15		
22 ia	1	2	1	1			2		1	1	2		1	1	1		1	2	1	1	2	1	2	1	1			1	2	1	3	1	1	2	2	69	52	16	
23 ea		1							1			1		1																					12	12	10		
24 -ther	2	3	1	3	1	2	3	4	2	2	3	4	1	5	3	2	2	3	1	1	1	1	2	4	4	2	2	3	1	2	2	3	2	3	1	166	78	16	
25 w	1			2		1	1	3		2		1	1	2		1	2	2	1	1	3	1	4	1	1	1		2	3	3	1	3	1	1	2	103	62	16	
26 ah-								1							1						1														7	7	5		
27 aw-						1	1	1				1					1				1			1					1			1			19	19	10		
28 y			1		1			1							1														1						8	8	7		
29 ye																1																			1	1	1		
30 ya														1																					1	1	1		
31a (short u) (n)	1	3	2	2	1		2	3		1	1	1	1	2	3		3	3	2	1	3	1	2	1		1	2	3	1		7	4	1	2	1	121	66	16	
31b (short u) (m)	1	2	2	2	3	1	2	2	2	1	2	1	2	2	2	2	4	2	2	2	1	2	3	2	2	2	2	2	2	3	2	3	2	2	3	3	156	80	16
32 (short u) (downstroke)		1	2		1				2		2		2	1	3	1	2			1	1	1	2	1	1	1	1		2		1	1		2	2	74	51	16	
33 ng	1		2		4		1	1	2		2		1	2	2	1	1	1	2		1	1	1	2	3	1	1	1	1	1	1		1	1	1	72	51	16	
34 ngk	2	1	1	1	1	1	1		1	1	3	2		1	3	1	1	2	3	1	1					1	3	2	1	1	1				79	52	16		
35 under-			1															2																	5	4	4		
36 over-												1								1	1			1				2				2			19	16	10		
37 rd	1	1	4	2	2	4	2	1	2	1	2	3	2		6	4	2	7	5	5	2	6	3	3	1	1	3	4	1	2	4	1	4	3	2	210	76	16	
38 ld	5	4	2	5	5	5	2	3	2	3	4	3	3	3		2	7	2	4	2	4	4	3	4	5	1	2	1	3	1	3	1	1	5	246	79	16		
39 u	3	1	3	2	1	3		2	1		1		2	1	3		1	3	5	2	3	1	1	1	3		1	3	1	2		2	2	1	3	117	66	16	

TABLE II (continued)

NUMBER OF ROOT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters				
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80	
40 ow		1		2	2	1	1	1	1	1	1	2	1	2		2	2	1	2	1	3	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	105	68	16
41 ted, ded, det	4	3	4	4	5	3	3	1	2	4	2	4	4	4	4	2	5	5	9	6	8	3	4	5	4	2	4	6		6	2	4	3	4	10	320	79	16	
42 men, mem	5	6	2	3	7	2	8	7	9	4	5	10	8	4	4	5	7	9	5	9	7	5	1	8	5	4	9	7	4	5	7	12	5	4	4	447	80	16	
43a -nt, -nd	11	9	6	8	7	5	9	9	4	7	11	11	8	14	11	7	8	13	10	14	13	15	12	10	10	8	15	10	8	12	15	16	8	12	11	781	80	16	
43b (vowel) nt, nd	2		1	2	1		1	1			1	2	2	1		1			2		1		1	1		3	2	1		1				1	66	48	14		
44a mt, md			1			1			1	1		1	1			1		1	2	1	1	1		1		2					1	1		1	1	38	32	14	
44b (vowel) mt, md																																				0	0	0	
45a (e) u	2	2	4	4	2	1	2	5	6	3	7	4	4	2	2	2	6	3	3	2	5	5	3	7	7	5	4	6	7	3	5	6	3	6	4	303	80	16	
45b (minor vowel)	2	2							1	2	2	2		1	2	2	2	1	4	1		1	1		1	1	1	4	5	2	2	1	1	3	2	90	53	16	
46 Days												1		1						3	1	3	2	1	2			1	1		2	1	1	1	37	27	12		
47 Months	4	1	5	2	4	4	2	4	3	2	1	4	3	4	3	1	5	3	2	2	3	4	3	3	3	3	6	4	5	4	2	2	4	2	3	230	80	16	
48a Cities			2		1		1	2		2		2			1		1	1			5			6	1	2	2	1		1		2			76	38	16		
48b States												2									2						2			1		2			24	14	10		
48c Countries		1	3							1	1			1		1	1	1						2		1		1			1				26	20	12		
49 (ow) n	2	3	3	2	2	4	2	1	2	1	2	2	2	2	4	3	5	1	1	3	3	4	3	1	4	2	1	2	3	4	4	2	2	4	2	183	75	16	
50 noun	1	1				1	1					1				1		1	1		1			1		1	1	1	1			1			30	30	15		
51a per-, pur-	4	3	2	6	4	2	2	1	2	4	2	4	3	4	2	3	4	4	3	3	4	1	5	6	4	4	4	1	1	4	4	4	2	2	2	226	79	16	
51b pro-	3	5	4	2	4	4	3	2	4	6	4	4	5	2	3	7	2	2	6	6	6	2	2	2	2	4	2	3	1	5	6	5	1	3	4	254	80	16	
52 -ment	5	6	5	7	2	5	4	2	4	1	5	4	4	2	2	5	7	6	6	5	6	3	2	6	4	5	3	3	7	8	5	5	6	1	2	295	78	16	
53 -ble	2	3	3	3	4	1			4	1	4	4	4	2	2	2	2	5	5	2	2	5		5	1	3	1	2	5	4	2	2	3	4	4	204	76	16	
54 -ship			1			1					1	1	1			1	1	1								2	1								22	19	11		
55 -cle, -cal		1	1	2		1			1	1	1					1	1	4	1			2	1	1	1	1	3	2	2	1	1	2		1	63	43	16		
56 -self, -selves	1		1						1	1	1	1	1		2	1			1		1	1		1					1		1	1	1	1	42	38	16		
57 after-						1																													2	2	2		
58a pent, pend					4		1	1	1	1	1			1					1		1			2	2						1	1			45	34	14		
58b jent, jend			1				1															1		1		1									6	6	5		
59a def, dev	1	1	1		1	1				2	1	1	1	1	1	3	1	1	1	1		1	3	3		1	1	1	1		2	1	2	1	3	72	54	16	
59b tif, tiv							1		1			2			1	1		1			1			1	1	1		2			1		1	2	37	31	15		
60 electr-														1					1								1					3			9	7	6		
61 inter-, intro-, enter	1	2	2	1	2		1	1		1	2	3		2		1	1		2		4	2	2	1	1	1	1	1	2	1	3	2	2	2	2	96	66	16	
62 short-					1	1			1					1		1						1						1							14	14	11		
63 ship-																																				0	0	0	
64 -ful		1	3	2	1		1	1	1	3	2	2		1		2	3		3	2	2	1			2		1	1	1		3	5			97	56	16		
65 -ify					1							2				1				1	1		1	1				1		1		1			22	21	12		
66 -ification							1																1	1				1							7	7	6		
67 -gram		1		1			1				1					1			1		1			1	1	1	1					1	1		25	24	14		
68 -rity							1				1					1	1			1						1	1							1	12	12	10		
69 -lity, -lty	1		1			1	1	1	1	2	1	1		1	1		1	2	2		1	2	2		2		1	2	1		3		1	2	68	49	15		
70a den, ten	3	2	3	4	4	3	3	4	2	2	5	2	3	2	5	4	4	1	7	5	8	8	3	3	3	2	1	4	7	2	2	2	2	6	1	285	80	16	
70b tain	1	1	1	1			1		2	2	1	2			2		1		1		1	1	2	1	1	1	2	1		1	1	1	1	2	70	52	16		

TABLE II (continued)

NUMBER OF ROOT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters			
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80
71 dem, tem	1	1	1	4	1	1	4	3	2	1	2	2	1	3	1	2	2	4	3	2	2	2	1		1	2	3	1	4		2	2		2	1	154	70	16
72 tern, term	1		2		2	3		1				1	1	1	1			2	1				1		1			1		2					47	36	14	
73 dern, derm					1			1	1							1			1									1		1					17	17	10	
74 thern, therm																					1					1									2	2	2	
75 ort			2				1	1									1		2	1	1	1		1			1				1				35	31	14	
76 c(t)	2	7	7	1	2	4	7	1	1	3	4	3	6	7	4	5	4	5	3	6	6	7	3	7	3	3	3	2	4	5	4	5	3	3	5	297	79	16
77 s(t) (one syllable)	4	2	1	2	4	2	3	1	1	2	3		3	2	1	4	4	5	4	3	1	5	3	2	4	1	5	3	3	3	4	3	5	6	3	209	76	16
78 s(t) (two syllable)	2	3	4	3	5	3	4	2	1	5	4	1	1	2	3	7	2	2	4	4	1	1	3	7	5	2	1	5	4	2	1	7	1	4	5	218	75	16
79 disjoined st		1	1						1			1				1		2			1	1		1		1			1						28	26	14	
80 (d)		1	2	1			1	1	1	2	1	2	2		1	1	2	1	1	1	1	1	2		1	1	2	1	3	2	1	2		2	1	82	61	16
81 incl-	1		1		1			1		1			1								1	1		1	1				1		1	1	1	1	27	27	13	
82 post-				1													1			2				1				1		1	1	1	1	22	20	13		
83 super-, supr-	1						1												1	1				1							1	1			13	12	10	
84 trans-			1																				2		2								1	1	17	15	10	
85a con-	4	6	6	4	1	4	3	2	3	2	2	6	3	6	7	7	3	5	7	5	3	7	5	4	2	4	3	5	8	6	4	5	2	8	6	317	80	16
85b com-	1	2		1	1		4	2	2	3	3	2	2	2	2	1	4	5	2	3	4	2	2	4	3	6	2	3	4	3	3	3	2	2	2	172	73	16
86a km-				1						1									1							1			1		1				19	18	13	
86b km-			1	1									1													1	1			1					14	14	10	
87 (e)n, (i)n	5	6	9	2	7	3	2	8	2	4	6	5	1	5	5	6	6	5	8	7	7	7	4	6	2	4	6	5	7	6	1	7	5	6	8	378	80	16
88 (u)n	3		1	1	1	1	1	1		2		1	1		2	1	2	1	2		1			1	1		2	2		2			1	1	1	69	49	16
89 en, in	1					1	1		1		1								1	1		1				1								1	17	17	13	
90 un-																					1	1		1							2				11	10	6	
91 (e)m, (i)m	1	1	1		1	2	2	1	1			2	1		3				3	2	1			2	1			1		1	1		1	2	67	49	16	
92 em-, im-										1																										6	6	5
93 for-, fore-, fur-	6	5	4	4	7	4	5	1	6	5	4	6	4	6	9	3	7	7	5	5	7	6	6	5	5	4	4	4	4	4	2	7	6	5	4	354	80	16
94 al-	2	2	1	1	1	2	1			1	2	2		1	1			1	1		1	1	2		2	1	1	1		2		1	1	2	85	64	16	
95 sub-		1					1	1	1	1		1					1			2					1		1		1		1	1	1	1	35	32	15	
96 ul					1		1		1						1	1		2	1					1				1	1						27	26	14	
97 -hood	1																		1																7	7	7	
98 -ward	1			1		1	1						2					1					1		1			1				1			29	27	16	
99 -use																					1														1	1	1	
100a -titude																																			1	1	1	
100b -titute								1													1						1					1			6	6	6	
101 -cate	1		1	1	1		1	1	1	1	1	1	1	2			3				2		1		1	3	1	2	1	2	2	2	2	1	72	55	16	
102 -gate					1	1			1		1		1	1		1			1					1	1	1	1					1	1	1	25	24	15	
103 -quire	1	2	1	1	1	1	1				2		1	1		2		1		1	2	1	1	1	1		1			1	1	2	1		49	43	15	
104 -ntic																																			0	0	0	
105 -logy																																			2	2	2	
106 -bute				1			1						1				2	1		1				1							1		1	1	21	20	14	
107 abbreviation	1	1	1	1			1		1	1		1	1	1	1			2	3	1	1	1				1	1		1		2	1	1	1	59	49	16	

TABLE II (continued)

NUMBER OF ROOT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments	No. of Chapters			
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77				78	79	80
108 -ition, -ation	3	3	4	4	4	4	5	1	3	3	1	3	2	2	4	2	3	2	1	2	7	1	5	1	1	9	2	2	4	3	3	5	1	2	5	216	76	16
109 (under)	1	1				1				1		1	1		1	1	1						1					1					1	24	24	15		
110 self-																				1				1		1				1				11	11	10		
111 circum-																																1			5	5	4	
112 -pose, -position				2		1	1	1	1			1	1		1	1		1			1		1	1	1	1		1	1	1	1	3	1	1	50	45	16	
113 -ings		1		1			1	1	1				3	1		1	1	1	1	1	1		2	2				1	1		1		2		55	38	16	
114 -ingly																																	1		7	7	5	
115 -sume, -sumption												2		1					1	1		1												10	9	7		
116 -ulate			1	1	1	1													1						2			1						1	18	16	11	
117 -less	1																1	1	1					1	1		1							17	17	12		
118 -quent			1	1				1	1	1						1		1	1	1		1			1	1	1	1	1	1	1			40	40	14		
119 -itis																																			0	0	0	
120 -iety													1				1														1		1		8	8	7	
121 -cide				1	1													1				1					1				1			9	9	8		
Total	155	168	161			158	135			158	149	163			197	211	214	151	174		179	180		184	156	192												
Words	144	163				127	132	135		192	164			162	203	185		176	184		155	181	164		217	168												
Total Principles	64	59	72	65	63	56	73	65	64	63	63	70	65	67	59	68	72	70	72	70	79	67	64	69	76	68	71	75	65	64	71	75	68	64	74			

word is considered a "different word" only in the assignment of its first occurrence. Plurals and past tense are considered as different from the root word. (Table III)

3. Highest word frequency by assignment. "Highest word frequency" is used to denote the highest number of frequencies occurring in any one of the 80 assignments.

4. Assignment distribution. "Assignment distribution" refers to the occurrence of the principle in at least one-half of the 80 assignments with no more than 10 consecutive assignments intervening before the next occurrence of the principle or abbreviating device. This is called "regular assignment distribution." The term was developed by Maas⁴ in her study of brief form distribution. If fewer than one-half of the 80 assignments contain occurrences of the principle, the number of assignments is given.

5. Chapter distribution. "Chapter distribution" refers to the occurrence of the principle in at least one assignment in each of the 16 chapters (5 assignments per chapter). A principle occurring at least once in each chapter is said to have a "regular chapter distribution." This principle was developed by Maas.⁵ If any chapter does not have an occurrence of the principle, the number of the chapters in which the principles do occur is given.

⁴Maas, op. cit.

⁵Ibid.

TABLE III

NUMBER OF DIFFERENT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																														Total Words	No. of Assignments					
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75			76	77	78	79	80
1 -ing																																			x	x	
2 ses	1		4	1	1			1			2				3				2			1		1				1			1	1	1	74	43		
3 ex-				3	2		1		1			1				3	2	1				3						1						78	42		
4 -tion	4	1	1	4	1	2	1	1		1	3	1		2	1			3		1	1	1	2	5	3			1	1	2	2		1	2	1	158	68
5 -tial, -cial																1			1													1			15	14	
6 -cient					1														1																8	8	
7 -ciency																			1																2	2	
8 past tense		1			2	3	1	1		1		2			1			1		1	1	1	2			1	2			1			1		77	46	
9 disjoined r								1		1		1				1		1									1				2		1		29	25	
10 -ly																																			x	x	
11 -ily																			1										1						12	11	
12 -ally	1						1																												15	14	
13 oi			1	1	1							2						1	2	1							3			1	2	1	2	2	1	53	38
14 -ure, -ture			1									2			1			2							1		2								34	25	
15 -ual, -tual			1							1				1	1						1		1				2						1		16	14	
16 re-	2				2	1		1				1					1	1	3		1	1		1	1		3				1				95	46	
17 be-						1																					1								13	11	
18 de-			1		1												1										3			1		1			42	33	
19 dis-	2			1			2	1				1	1	1	1	1		2					1		1					1				53	39		
20 mis-										1																									3	3	
21 i (vowel)												1				1		2					1				1								18	13	
22 ia	1	1									2										1		1	1					2			1			19	17	
23 ea																																			5	5	
24 -ther	1									1														1	2										19	15	
25 w								1		1		1	1	1							1		1							1		1			31	27	
26 ah-																																			1	1	
27 aw-							1															1													5	5	
28 y																																			1	1	
29 ye																1																			1	1	
30 ya													1																						1	1	
31a (short u) (n)		1						2				1		2	2			2				1									2				30	21	
31b (short u) (m)					1							2															1					1	1	1		27	19
32 (short u) (downstroke)				1																															9	9	
33 ng					2				1					3			1	1						2											28	21	
34 ngk	1		1				2				1	1			2			1																	29	21	
35 under-																		2																	4	3	
36 over-												1							1				1								2				13	10	
37 rd					2	1					2		2		2			1		1	2		1						1	1					61	41	
38 ld	2	2					2				1					1		1	1					5	2		1			1			1		68	39	
39 u	1						1		1	1					2			2	1		1		1		1				2						38	29	

TABLE III (continued)

NUMBER OF DIFFERENT WORDS IN CONTEXT BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																Total Words	No. of Assignments			
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77			78	79	80
108 -ition, -ation					2		1		1				1		1		1					1		1			2								40	28	
109 (under)												1			1																				13	12	
110 self-																										1									3	3	
111 circum-																																			1	1	
112 -pose, -position							1																				1								12	10	
113 -ings		1						1		1				2							1			1	1							1			25	18	
114 -ingly																																1			5	5	
115 -sume, -sumption													1		1						1														7	7	
116 -ulate					1		1																			1									11	10	
117 -less																		1																	4	4	
118 -quent, -quence																									1						1				5	5	
119 -itis																																			0	0	
120 -iety														1																					2	2	
121 -cide					1																														2	2	
Total	37		25		24		28		15		31		15		27		17		29		48		27		33		37		20		22		24		14		
Words		38		40		25		21		15		45		31		15		48		26		19		41		19		21		33		22		19			
Total Principles	26	27	20	23	18	19	23	16	14	15	19	33	13	20	19	14	15	33	23	24	30	16	24	22	25	16	22	17	17	25	16	19	20	15	14		

6. "Majority of frequencies." The number of different words required to compose the majority of total frequencies is given.

7. Root words and derivatives. The principles are indicated in which one root word and its derivatives compose the majority of occurrences, two root words and their derivatives compose the majority of occurrences, one root word and its derivatives compose three-fourths of the occurrences, and two root words and their derivatives compose three-fourths of the occurrences.

8. Words of highest frequency. The three words having the highest number of frequencies in each principle are listed. If more than three words contain one of the three highest frequencies, each word is listed.

1 -ing. The -ing principle was not counted.

2 ses. The ses principle is applied 300 times in 74 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 14, in Assignment 67. Nine different words make up the majority of frequencies. The words of highest frequencies are prices with 72 occurrences, services with 16, and assistance with 13.

In 51 of the 74 different words are instances in which the ses principle has been used to form plurals.

3 ex-. The ex- principle is applied 310 times in 77 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 10, in Assignment 10.

Thirteen different words make up the majority of frequencies. The words of highest frequencies are example with 24 occurrences, examination with 16, and examine with 15.

Seven of the words contain prefixes preceding the ex- principle as in unexplainable.

4 -tion. The -tion principle is applied 673 times in 158 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 18, in Assignment 3. Twenty-five words make up the majority of frequencies. The words of highest frequencies are organization with 51 occurrences, attention with 31, and subscription with 29.

Different spellings of the -tion principle occur as follows:

-tion as in action, -shions as in cushions, -sion as in confusion, and -cian as in musician.

5 -tial, -cial. The -tial, -cial principle is applied 112 times in 15 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignments 28, 65, and 67. Two words make up the majority of frequencies. The root word special and three derivatives compose the majority of the total frequencies. The words of highest frequency are special with 54 occurrences, financial with 15, and substantial with 7.

Eighty-five of the frequencies contain the -cial spelling as in special and 27 the -tial spelling as in initial.

6 -cient. The -cient principle is applied 30 times in 8 different words. The application of the principle occurs in 25 assignments and 12 chapters. The highest word frequency by assignment is 3, in Assignment 77. Two words make up the majority of frequencies. The root word efficient and its derivative efficiently compose the majority of frequencies. The root words efficient and sufficient and their derivatives make up three-fourths of the frequencies. The words of highest frequency are efficient with 12 occurrences, efficiently with 6, and sufficient with 5.

7 -ciency. The -ciency principle is applied 3 times in 2 different words. The application of the principle occurs in 3 assignments and 3 chapters. The highest word frequency by assignment is 1, in Assignments 30, 64, and 80. One word, efficiency, makes up the majority of frequencies. Derivatives of the root words deficient and efficient make up the total frequencies. The words of highest frequency are efficiency with 2 occurrences and deficiencies with 1.

8 past tense. The past tense principle is applied 589 times in 77 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 14, in Assignment 44. Three words make up the majority of frequencies. The words of highest frequency are enclosed with 179 occurrences, interested with 79, and used with 53.

9 disjoined r. The disjoined r principle is applied 91 times in 29 different words. The principle has regular assignment and regular

chapter distribution. The highest word frequency by assignment is 9, in Assignment 16. Eight words make up the majority of frequencies. The words of highest frequency are greater with 10 occurrences, tractor with 7, and advertisers with 7.

10 -ly. The -ly principle was not counted.

11 -ily. The -ily principle is applied 59 times in 12 different words. The application of the principle occurs in 37 assignments and 15 chapters. The highest word frequency by assignment is 5 in Assignment 80. Three words make up the majority of frequencies. The root word family and three derivatives compose the majority of frequencies. The root words easily and family with its derivatives make up three-fourths of the frequencies. The words of highest frequency are family with 19 occurrences, easily with 15, and families with 11.

12 -ally. The -ally principle is applied 71 times in 15 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 3, in Assignments 46 and 76. Three words make up the majority of frequencies. The words of highest frequency are especially with 16 occurrences, naturally with 9, and finally with 8.

13 oi. The oi principle is applied 172 times in 53 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 9, in Assignment 57. Seven words make up the majority of frequencies. The words of highest frequency are employees with 18 occurrences, enjoy with 15, and point with 14.

14 -ure, -ture. The -ure, -ture principle is applied 182 times in 34 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 7, in each of 5 assignments. Seven words make up the majority of frequencies. The words of highest frequency are manufacture with 18 occurrences, manufacturers with 16, and manufacturer with 10.

15 -ual, -tual. The -ual, -tual principle is applied 62 times in 16 different words. The application of the principle occurs in 34 assignments and 15 chapters. The highest word frequency by assignment is 7, in Assignments 60 and 73. Three words make up the majority of frequencies. The root words manual and schedule with its derivatives compose the majority of frequencies. The words of highest frequency are schedule with 17 occurrences, manual with 12, and annual with 9.

16 re-. The re- principle is applied 566 times in 95 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 21, in Assignment 64. Eight words make up the majority of frequencies. The words of highest frequency are receive with 83 occurrences, received with 62, and representative with 45.

17 be-. The be- principle is applied 112 times in 13 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignments 27 and 58. Two words make up the majority of frequencies. The root

because and begin with its derivatives compose the majority of frequencies. The words of highest frequency are because with 58 occurrences, become with 16, and beginning with 8.

18 de-. The de- principle is applied 208 times in 42 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 8, in Assignment 69. Six words make up the majority of frequencies. The words of highest frequency are department with 42 occurrences, delay with 21, and designed with 20.

19 dis-. The dis- principle is applied 144 times in 53 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 8, in Assignment 51. Nine words make up the majority of frequencies. The words of highest frequency are discuss with 23 occurrences, discount with 15, and display with 10.

20 mis-. The mis- principle is applied 5 times in 3 different words. The application of the principle occurs in 3 assignments and 3 chapters. The highest word frequency by assignment is 3, in Assignment 54. Two words make up the majority of frequencies. The root word mistake and its derivative mistakes compose three-fourths of the frequencies. The words of highest frequency are mistakes with 2 occurrences, mistake with 2, and misplaced with 1.

21 i (vowel). The i (vowel) principle is applied 50 times in 18 different words. The application of the principle occurs in 28 assignments and 15 chapters. The highest word frequency by assignment is 8,

in Assignment 8. Three words make up the majority of frequencies. The root word appliance, its derivative appliances, and the word trial compose the majority of frequencies. The words of highest frequency are trial with 13 occurrences, appliances with 9, and appliance with 4.

22 ia. The ia principle is applied 90 times in 19 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 47. One word appreciate makes up the majority of frequencies. The root words appreciate and associate with their derivatives make up three-fourths of the frequencies. The words of highest frequency are appreciate with 46 occurrences, association with 9, and appreciated with 6.

23 ea. The ea principle is applied 13 times in 5 different words. The application of the principle occurs in 12 assignments and 10 chapters. The highest word frequency by assignment is 2, in Assignment 28. Two words make up the majority of frequencies. The root word area and its derivative, areas, compose the majority of frequencies. The root words area and create and their derivatives make up all of the frequencies. The three words of highest frequency are area with 5 occurrences, created with 3, and areas and create with 2 each.

24 -ther. The -ther principle is applied 256 times in 19 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 13, in Assignment 70. Two words make up the majority of frequencies. The root words whether with other and its derivatives compose the majority of frequencies. The

words of highest frequency are other with 94 occurrences, whether with 50, and further with 24.

25 w. The w principle is applied 124 times in 31 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 6, in Assignment 42. Three words make up the majority of frequencies. The root word quick with derivatives of the root word equip compose the majority of frequencies. The words of highest frequency are equipment with 31 occurrences, quickly with 24, and acquainted with 8.

26 ah- The ah- principle is applied 8 times in the word ahead. The application of the principle occurs in 7 assignments and 5 chapters. The highest word frequency by assignment is 2 in Assignment 53.

27 aw- The aw- principle is applied 19 times in 5 different words. The application of the principle occurs in 19 assignments and 10 chapters. The highest word frequency by assignment is 1, in each of 19 assignments. The word away makes up the majority of frequencies. The root word aware with await and its derivatives make up three-fourths of the frequencies. The words of highest frequency are away with 11 occurrences, aware with 4, and await with 2.

28 y. The y principle is applied 8 times, in the word young. The application of the principle occurs in 8 assignments in 7 chapters. The highest word frequency by assignment is 1, in each of 8 assignments.

29 ye. The ye principle is applied 1 time. The word yields occurs in Assignment 61.

30 ya. The ya principle is applied 1 time. The word yarn occurs in Assignment 58.

31a (short u) (n). The (short u) (n) principle is applied 152 times in 30 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 9, in Assignments 73 and 76. Four words make up the majority of frequencies. The words of highest frequency are country with 28 occurrences, done with 26, and personal with 19.

31b (short u) (m). The (short u) (m) principle is applied 307 times in 27 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 10, in Assignment 72. Two words make up the majority of frequencies. The root words come and some and their derivatives make up three-fourths of the frequencies. The words of highest frequency are some with 110 occurrences, come with 49, and coming with 21.

32 (short u)(downstroke). The (short u)(downstroke) principle is applied 94 times in 9 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 4, in Assignment 28. The word much makes up the majority of frequencies. Much and touch with its derivatives make up three-fourths of the frequencies. The words of highest frequency are much with 57 occurrences, touch with 18, and budget with 7.

33 ng. The ng principle is applied 85 times in 28 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 76.

Five words make up the majority of frequencies. The words of highest frequency are bring with 19 occurrences, spring with 8, and young with 8.

34 ngk. The ngk principle is applied 118 times in 29 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 10, in Assignment 43. Four words compose the majority of frequencies. The root words bank and blank and their derivatives compose the majority of frequencies. The words of highest frequency are bank with 22 occurrences, blank with 21, and anxious with 12.

35 under-. The under- principle is applied 5 times in 4 different words. The application of the principle occurs in 4 assignments and 4 chapters. The highest word frequency by assignment is 2, in Assignment 63. Two words make up the majority of frequencies. Three derivatives of undertake compose three-fourths of the frequencies. The words of highest frequency are undertaking with 2 occurrences, and undertaken, understood, and undertakes with 1 each.

36 over-. The over- principle is applied 20 times in 13 different words. The application of the principle occurs in 16 assignments and 10 chapters. The highest word frequency is 2, in Assignments 7, 42, 73, and 77. Four words make up the majority of frequencies. The words of highest frequency are oversight with 4 occurrences, overdue with 3, and overlooked with 3.

37 rd. The rd principle is applied 280 times in 61 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency is 9, in Assignments 63 and 65.

Five words make up the majority of frequencies. The words of highest frequency are card with 80 occurrences, records with 25, and prepared with 17.

38 ld. The ld principle is applied 327 times in 68 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 12, in Assignment 80. Ten words make up the majority of frequencies. The words of highest frequency are building with 27 occurrences, field with 21, and old with 21.

39 u. The u principle is applied 160 times in 38 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 8, in Assignment 49. Four words make up the majority of frequencies. The root words few and unit with its derivatives compose the majority of frequencies. The words of highest frequency are few with 54 occurrences, unit with 16, and executives with 10.

40 ow. The ow principle is applied 172 times in 17 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 8, in Assignment 20. The word now makes up the majority of frequencies. The root words now and doubt with two of its derivatives compose three-fourths of the frequencies. The words of highest frequency are now with 117 occurrences, thousands with 14, and doubt with 12.

41 ted, ded, det. The ted, ded, det principle is applied 413 times in 102 different words. The principle has regular assignment and

regular chapter distribution. The highest word frequency by assignment is 16, in Assignment 10. Seven words make up the majority of frequencies. The words of highest frequency are today with 77 occurrences, credit with 59, and listed with 20.

42 men, mem. The men, mem principle is applied 685 times in 98 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 19, in Assignment 9. Five words make up the majority of frequencies. The words of highest frequency are many with 119 occurrences, months with 44, and men with 43.

43a -nt, -nd. The -nt, -nd principle is applied 1,062 times in 198 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 24, in Assignments 44 and 67. Seventeen words make up the majority of frequencies. The words of highest frequency are find with 97 occurrences, account with 79, and friend with 55.

43b (vowel) nt, nd. The (vowel) nt, nd principle is applied 78 times in 24 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency is 3, in each of 7 assignments. Four words make up the majority of frequencies. The root words indicate and entire with their derivatives compose a majority of frequencies. The words of highest frequency are entire with 14 occurrences, indicate with 13, and entitled with 9.

44a mt, md. The mt, md principle is applied 49 times in 10 different words. The application of the principle occurs in 32 different

assignments and 14 chapters. The highest word frequency is 4, in Assignments 26, 61, and 67. Two words make up the majority of frequencies. The root word prompt and two derivatives compose three-fourths of the frequencies. The words of highest frequency are promptly with 21 occurrences, prompt with 15, and informed with 6.

44b (vowel) mt, md. The (vowel) mt, md principle does not occur.

45a (e) u. The (e) u principle is applied 547 times in 80 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 16, in Assignment 56. Six words make up the majority of frequencies. The words of highest frequency are new with 157 occurrences, due with 30, and news with 29.

45b (minor vowel). The (minor vowel) principle is applied 110 times in 25 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 6, in Assignment 74. Four words make up the majority of frequencies. The root words various and real with its derivatives compose the majority of frequencies. The words of highest frequency are realize with 20 occurrences, various with 15, and period with 13.

46 Days. The days principle is applied 40 times in 7 different words. The application of the principle occurs in 27 assignments and 12 chapters. The highest word frequency by assignment is 4, in Assignment 76. Two words make up the majority of frequencies. The words

Friday and Wednesday compose the majority of frequencies. The words of highest frequency are Friday with 16 occurrences, Wednesday with 8, and Monday with 7.

47 Months. The months principle is applied 297 times in 12 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 9, in Assignment 67. Three words make up the majority of frequencies. The words of highest frequency are April with 72 occurrences, June with 50, and May with 29.

48a Cities. The cities principle is applied 97 times in 35 different words. The application of the principle occurs in 38 assignments and has regular chapter distribution. The highest word frequency by assignment is 7, in Assignments 55 and 69. Four words make up the majority of frequencies. The words of highest frequency are Chicago with 22 occurrences, New York with 15, and Washington with 7.

48b States. The states principle is applied 29 times in 15 words. The application of the principle occurs in 14 assignments and 10 chapters. The highest word frequency by assignment is 4, in Assignments 31 and 58. Four words make up the majority of frequencies. The words of highest frequency are Illinois with 5 occurrences, New York with 4, and New Jersey and Pennsylvania with 3 each.

48c Countries. The countries principle is applied 36 times in 12 words. The application of the principle occurs in 20 assignments and 12 chapters. The highest word frequency by assignment is 5, in Assignments 40 and 76. Three words make up the majority of frequencies. The

root words United States and America and its derivatives compose the majority of frequencies. The words of highest frequency are American with 9 occurrences, United States with 8, and New England with 5.

49 (ow) n. The (ow) n principle is applied 278 times in 38 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 10, in Assignment 67. Four words make up the majority of frequencies. The root words count and Brown with their derivatives compose the majority of frequencies. The words of highest frequency are account with 79 occurrences, Brown with 28, and found with 22.

50 noun. The noun principle is applied 50 times in 5 different words. The application of the principle occurs in 30 assignments and 15 chapters. The highest word frequency by assignment is 5, in Assignments 51 and 72. One word makes up the majority of frequencies. The root word amount and three derivatives compose three-fourths of the frequencies. The words of highest frequency are amount with 38 occurrences, amounts with 4, and mountain and amounting with 3 each.

51a per-, pur-. The per-, pur- principle is applied 321 times in 55 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 13, in Assignments 11 and 56. Nine words make up the majority of frequencies. The words of highest frequency are paper with 26 occurrences, perhaps with 20, and person with 20.

51b pro-. The pro- principle is applied 335 times in 65 different words. The principle has regular assignment and regular chapter

distribution. The highest word frequency by assignment is 12, in Assignment 61. Nine words make up the majority of frequencies. The words of highest frequency are program with 35 occurrences, promptly with 21, and problem with 19.

52 -ment. The -ment principle is applied 412 times in 82 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 13, in Assignments 33 and 51. Nine words make up the majority of frequencies. The words of highest frequency are department with 42 occurrences, payment with 39, and equipment with 31.

53 -ble. The -ble principle is applied 267 times in 45 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 12, in Assignment 69. Four words make up the majority of frequencies. The words of highest frequency are possible with 66 occurrences, available with 44, and profitable with 15.

54 -ship. The -ship principle is applied 28 times in 11 different words. The application of the principle occurs in 19 assignments and 11 chapters. The highest word frequency by assignment is 5, in Assignment 72. Four words make up the majority of frequencies. The words of highest frequency are membership with 6 occurrences, dealership with 4, and relationship with 4.

55 -cle, -cal. The -cle, -cal principle is applied 77 times in 27 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5,

in Assignments 36, 40, and 72. Five words make up the majority of frequencies. The words of highest frequency are economical with 15 occurrences, practical with 9, and chemical with 4.

56 -self, -selves. The -self, -selves principle is applied 50 times in 7 different words. The application of the principle occurs in 38 assignments and has regular chapter distribution. The highest word frequency by assignment is 4, in Assignment 10. One word, yourself, makes up the majority of frequencies. Derivatives of the root words your and them make up three-fourths of the frequencies. The words of highest frequency are yourself with 34 occurrences, themselves with 6, and ourselves and himself with 3 each.

57 after-. The after- principle is applied 2 times in the word afternoon. The application of the principle occurs in 2 assignments and 2 chapters. The highest word frequency is 1, in Assignments 51 and 70.

58a pent, pend. The pent, pend principle is applied 53 times in 15 different words. The application of the principle occurs in 34 assignments and 14 chapters. The highest word frequency by assignment is 4, in Assignments 50 and 69. Four words make up the majority of frequencies. The root words depend and spend and their derivatives compose the majority of frequencies. The words of highest frequency are depend with 11 occurrences, opened with 8, and spend with 7.

58b jent, jend. The jent, jend principle is applied 6 times in 4 different words. The application of the principle occurs in 6 assignments and 5 chapters. The highest word frequency by assignment is 1, in each of 6 assignments. Two words make up the majority of frequencies. The

root word intelligent and its derivative intelligently compose the majority of frequencies. The words with highest frequency are intelligent with 3 occurrences and intelligently, gentleman, and urgently with 1 occurrence each.

59a def, dev. The def, dev principle is applied 76 times in 25 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 3, in each of 6 assignments. Four words make up the majority of frequencies. Derivatives of the root word define and different with its derivatives compose the majority of frequencies. The words of highest frequency are different with 17 occurrences, definite with 14, and definitely with 7.

59b tif, tiv. The tif, tiv principle is applied 50 times in 19 different words. The application of the principle occurs in 31 assignments and 15 chapters. The highest word frequency by assignment is 5, in Assignment 40. Four words make up the majority of frequencies. The words of highest frequency are executives with 10 occurrences, certificate with 7, and executive and informative with 4 each.

60 electr-. The electr- principle is applied 12 times in 3 different words. The application of the principle occurs in 7 assignments and 6 chapters. The highest word frequency by assignment is 3, in Assignments 24 and 27. One word, electric, makes up the majority of frequencies. The root word electric and two derivatives compose all of the frequencies. The words of highest frequency are electric with 9 occurrences, electrical with 2, and electrically with 1 occurrence.

61 inter-, intro-, enter. The inter-, intro-, enter principle is applied 177 times in 24 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 6, in each of 5 assignments. Two words make up the majority of frequencies. The root word interest and four derivatives compose three-fourths of the frequencies. The words of highest frequency are interested with 79 occurrences, interest with 40, and interesting with 15.

62 short-. The short- principle is applied 17 times in 6 different words. The application of the principle occurs in 14 assignments and 11 chapters. The highest word frequency by assignment is 2, in Assignments 21, 32, and 51. One word, shortly, makes up the majority of frequencies. The root word short and two derivatives compose three-fourths of the frequencies. The words of highest frequency are shortly with 9 occurrences, short with 4, and shorthanded, shortage, shortcuts, and shorthand with 1 occurrence each.

63 ship-. The ship- principle does not occur.

64 -ful. The -ful principle is applied 108 times in 19 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignments 57 and 77. Three words make up the majority of frequencies. The root words careful and useful with their derivatives compose the majority of frequencies. The words of highest frequency are carefully with 29 occurrences, careful with 16, and useful with 12.

65 -ify. The -ify principle is applied 23 times in 12 different words. The application of the principle occurs in 21 assignments and 12 chapters. The highest word frequency by assignment is 2, in Assignments 12 and 57. Four words make up the majority of frequencies. The words of highest frequency are simplify with 5 occurrences, notified with 3, and qualified with 3.

66 -ification. The -ification principle is applied 7 times in 3 different words. The application of the principle occurs in 7 assignments and 6 chapters. The highest word frequency by assignment is 1, in each of 7 assignments. Two words make up the majority of frequencies. Derivatives of the root words qualify and specify compose three-fourths of the frequencies. The words of highest frequency are qualifications with 3 occurrences, specifications with 3, and identification with 1 occurrence.

67 -gram. The -gram principle is applied 45 times in 3 different words. The application of the principle occurs in 24 assignments and 14 chapters. The highest word frequency by assignment is 5, in Assignment 70. One word, program, makes up the majority of frequencies. The root word program and its derivative programs compose three-fourths of the frequencies. The words of highest frequency are program with 35 occurrences, programs with 7, and telegram with 3.

68 -rity. The -rity principle is applied 14 times in 6 different words. The application of the principle occurs in 12 assignments and 10 chapters. The highest word frequency by assignment is 2, in Assignments 61 and 65. Two words make up the majority of frequencies. The root

words authority and security with its derivatives compose three-fourths of the frequencies. The words of highest frequency are authority with 6 occurrences, security with 2, and securities with 2.

69 -lity, -lty. The -lity, -lty principle is applied 79 times in 24 different words. The principle has regular assignment distribution and occurs in 15 chapters. The highest word frequency by assignment is 4, in Assignment 46. Four words make up the majority of frequencies. The words of highest frequency are quality with 17 occurrences, facilities with 11, and possibility with 9.

70a den, ten. The den, ten principle is applied 347 times in 106 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 14, in Assignment 3. Sixteen words make up the majority of frequencies. The words of highest frequency are attention with 31 occurrences, continue with 19, and constantly with 18.

70b tain. The tain principle is applied 85 times in 19 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 60. Four words make up the majority of frequencies. The root words obtain and contain and their derivatives compose the majority of frequencies. The words of highest frequency are contains with 21 occurrences, obtain with 9, and maintain with 7.

71 dem, tem. The dem, tem principle is applied 208 times in 40 different words. The principle has regular assignment and regular chapter

distribution. The highest word frequency by assignment is 10, in Assignments 38 and 42. Four words make up the majority of frequencies. The root words custom and item and their derivatives compose the majority of frequencies. The words of highest frequency are customers with 42 occurrences, items with 24, and customer with 22.

72 tern, term. The tern, term principle is applied 56 times in 22 different words. The application of the principle occurs in 36 assignments and 14 chapters. The highest word frequency by assignment is 4, in Assignment 70. Three words make up the majority of frequencies. The root words tern and determine and their derivatives compose the majority of frequencies. The words of highest frequency are determine with 11 frequencies, terms with 10, and turn with 8.

73 dern, dern. The dern, dern principle is applied 17 times in 2 different words. The application of the principle occurs in 17 assignments and 10 chapters. The highest word frequency by assignment is 1, in each of 17 assignments. The word modern makes up three-fourths of frequencies. The root word modern and its derivative modernize compose all the frequencies. The words of highest frequency are modern with 16 occurrences and modernize with 1 occurrence.

74 thern, thern. The thern, thern principle is applied 2 times, in the word northern. The application of the principle occurs in 2 assignments and 2 chapters. The highest word frequency by assignment is 1, in Assignments 66 and 72.

75 ert. The ort principle is applied 60 times in 16 different words. The application of the principle occurs in 31 assignments and 14

chapters. The highest word frequency by assignment is 7, in Assignment 26. Three words make up the majority of frequencies. The root word report and three derivatives compose the majority of frequencies. The root words report and transport and their derivatives make up three-fourths of the frequencies. The words of highest frequency are report with 17 occurrences, reports with 12, and transportation with 11.

76 c(t). The c(t) principle is applied 372 times in 86 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency is 10, in Assignments 34 and 47. Eleven words make up the majority of frequencies. The words of highest frequency are products with 50 occurrences, fact with 24, and contract with 17.

77 s(t) (one syllable). The s(t) (one syllable) principle is applied 312 times in 17 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency is 10, in Assignment 63. Three words make up the majority of frequencies. The words of highest frequency are past with 55 occurrences, cost with 52, and first and best with 47 each.

78 s(t) (two syllable). The s(t) (two syllable) principle is applied 338 times in 55 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency is 13, in Assignments 31, 61, and 77. Six words make up the majority of frequencies. The words of highest frequency are interested with 79 occurrences, interest with 40, and latest with 21.

79 disjoined st. The disjoined st principle is applied 29 times in 6 different words. The application of the principle occurs in 26 assignments and 14 chapters. The highest word frequency by assignment is 2, in Assignments 22, 23, and 63. Two words make up the majority of frequencies. Derivatives of the root words great and early compose the majority of frequencies. The words of greatest frequency are greatest with 11 occurrences, earliest with 7, and lowest with 5.

80 (d). The (d) principle is applied 102 times in 27 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 4, in Assignment 48. Four words make up the majority of frequencies. The root words mind and demand and their derivatives compose the majority of frequencies. The words of highest frequencies are mind with 20 occurrences, demand with 18, and recommend with 9.

81 incl-. The incl- principle is applied 35 times in 5 different words. The application of the principle occurs in 27 assignments and 13 chapters. The highest word frequency by assignment is 2, in each of 8 assignments. Two words make up the majority of frequencies. The root word include and three derivatives compose three-fourths of the frequencies. The words of highest frequency are includes with 13 occurrences, include with 8, and included with 7.

82 post-. The post- principle is applied 27 times in 4 different words. The application of the principle occurs in 20 assignments and 13 chapters. The highest word frequency by assignment is 2, in each of 7

assignments. One word, postage, makes up the majority of frequencies. The root words postage and postscript make up three-fourths of the frequencies. The words of highest frequency are postage with 15 occurrences, postscript with 8, and postcard and post offices with 2 each.

83 super-, supr-. The super-, supr- principle is applied 17 times in 6 different words. The application of the principle occurs in 12 assignments and in 10 chapters. The highest word frequency by assignment is 3, in Assignments 12 and 40. One word, support, makes up the majority of the frequencies. The root word support and a derivative of superlative make up three-fourths of the frequencies. The words of highest frequency are support with 11 occurrences, superlatives with 2, and superiority, supervision, superior, and supervise with 1 occurrence each.

84 trans-. The trans- principle is applied 28 times in 11 different words. The application of the principle occurs in 15 assignments and 10 chapters. The highest word frequency by assignment is 5, in Assignment 66. Three words make up the majority of frequencies. The root words transport and transfer and their derivatives compose three-fourths of the frequencies. The words of highest frequency are transportation with 11 occurrences, transport with 3, and transfer with 3.

85a con-. The con- principle is applied 393 times in 88 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 15, in Assignment 47.

Ten words make up the majority of frequencies. The words of highest frequency are consequently with 39 occurrences, convenience with 36, and continue with 19.

85b com-. The com- principle is applied 229 times in 57 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 9, in Assignment 63. Five words make up the majority of principles. The root words complete and comfort and their derivatives compose the majority of principles. The words of highest frequency are complete with 56 occurrences, completely with 21, and comfort with 16.

86a kn-. The kn- principle is applied 21 times in 5 different words. The application of the principle occurs in 18 assignments and 13 chapters. The highest word frequency by assignment is 2, in Assignments 5, 9, and 55. One word, economical, makes up the majority of frequencies. The root word economy and its derivatives compose three-fourths of the frequencies. The words of highest frequency are economical with 15 occurrences, economy with 3, and economics, Conrad, and economically with 1 occurrence each.

87 (e)n, (i)n. The (e)n, (i)n principle is applied 578 times in 118 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 17, in Assignment 80. Nine words make up the majority of frequencies. The words of highest frequency are information with 118 occurrences, insurance with 63, and increase with 29.

88 (u)n. The (u)a principle is applied 76 times in 26 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 4, in Assignments 42 and 72. Three words make up the majority of frequencies. The root word until and fortunate with its derivatives compose the majority of frequencies. The words of highest frequency are until with 25 occurrences, unless with 10, and unfortunately with 10.

89 en, in. The en, in principle is applied 21 times in 9 different words. The application of the principle occurs in 17 assignments and 13 chapters. The highest word frequency by assignment is 2, in Assignments 12, 46, 64, and 71. Three words make up the majority of frequencies. The root word initial and its derivative and a derivative of expensive compose the majority of frequencies. The words of highest frequency are initial with 5 occurrences, inexpensive with 4, and initials and energy with 3 each.

90 un-. The un- principle is applied 11 times in 6 different words. The application of the principle occurs in 10 assignments and 6 chapters. The highest word frequency by assignment is 2, in Assignment 78. Two words make up the majority of frequencies. Derivatives of the root words usual and hurry compose the majority of frequencies. The words of highest frequency are unusual with 5 occurrences, unhurried with 2, and unexplainable, unnecessarily, unexpected, and unnoticeable with 1 occurrence each.

91 (e)m, (i)m. The (e)m, (i)m principle is applied 81 times in 25 different words. The principle has regular assignment and regular

chapter distribution. The highest word frequency by assignment is 5, in Assignment 57. Four words make up the majority of frequencies. Derivatives of the root word employ and improve with its derivatives compose the majority of frequencies. The words of highest frequency are employees with 18 occurrences, impossible with 10, and improve with 7.

92 em-, im-. The em-, im- principle is applied 7 times in 3 different words. The application of the principle occurs in 6 assignments and 5 chapters. The highest word frequency by assignment is 2, in Assignment 37. One word, emergency, makes up the majority of frequencies. The words of highest frequency are emergency with 4 occurrences, imagine with 2, and emergencies with 1 occurrence.

93 for-, fore-, fur-. The for-, fore-, fur- principle is applied 504 times in 61 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 14, in Assignment 63. Four words compose the majority of frequencies. The words of highest frequency are information with 118 occurrences, therefore with 61, and before with 53.

94 al-. The al- principle is applied 128 times in 7 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 38. One word makes up the majority of frequencies. The words also and already compose three-fourths of the frequencies. The words of highest frequency are also with 86 occurrences, already with 27, and although with 6.

95 sub-. The sub- principle is applied 64 times in 11 different words. The application of the principle occurs in 32 assignments and 15 chapters. The highest word frequency by assignment is 6, in Assignment 55. Two words make up the majority of frequencies. Derivatives of the root word subscribe compose three-fourths of the frequencies. The words of highest frequency are subscription with 29 occurrences, subscriptions with 9, and subscribers with 7.

96 ul. The ul principle is applied 32 times in 8 different words. The application of the principle occurs in 26 assignments and 14 chapters. The highest word frequency by assignment is 3, in Assignments 27 and 63. Two words make up the majority of the frequencies. The root word result with its derivatives and the root word consult compose three-fourths of the frequencies. The words of highest frequency are result with 15 occurrences, consult with 6, and results with 4.

97 -hood. The -hood principle is applied 7 times in the word neighborhood. The application of the principle occurs in 7 assignments and 7 chapters. The highest word frequency by assignment is 1, in each of 7 assignments.

98 -ward. The -ward principle is applied 32 times in 5 different words. The application of the principle occurs in 27 assignments and has regular chapter distribution. The highest word frequency is 3, in Assignment 63. One word, forward, makes up the majority of frequencies. The root word forward and 2 derivatives compose three-fourths of the

frequencies. The words of highest frequency are forward with 25 occurrences, forwarded with 2, forwarding with 2, and Edward with 2.

99 -use. The -use principle is applied 1 time. The word excuses occurs in Assignment 67.

100a -titude. The -titude principle is applied 1 time. The word attitude occurs in Assignment 33.

100b -titude. The -titude principle is applied 10 times in 4 different words. The application of the principle occurs in 6 assignments and 6 chapters. The highest word frequency is 3, in Assignments 20 and 53. Two words make up the majority of frequencies. The root word institute and three derivatives compose three-fourths of the frequencies. The words of highest frequency are institution with 3 occurrences, institute with 3, and institutions with 3.

101 -cate. The -cate principle is applied 103 times in 24 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 9, in Assignment 78. Five words make up the majority of frequencies. The root words indicate and educate and their derivatives compose the majority of frequencies. The words of highest frequency are indicate with 6 occurrences, locate with 5, and educate with 4.

102 -gate. The -gate principle is applied 27 times in 5 different words. The application of the principle occurs in 24 assignments and 15 chapters. The highest word frequency by assignment is 2, in Assignments 18, 58, and 65. One word, obligation, makes up the majority of frequencies.

Derivatives of the root word obligate compose the majority of the frequencies. Derivatives of obligate and investigate with its derivatives make up three-fourths of the frequencies. The words of highest frequency are obligation with 17 occurrences, investigate with 3, and obligations with 3.

103 -quire. The -quire principle is applied 68 times in 10 different words. The principle has regular assignment distribution and occurs in 15 chapters. The highest word frequency by assignment is 3, in each of 6 assignments. Two words make up the majority of frequencies. The root word require and 4 derivatives compose the majority of frequencies. The root words require and inquire and their derivatives make up three-fourths of the frequencies. The words of highest frequency are requirements with 27 occurrences, inquiry with 11, and require with 10.

104 -ntic. The -ntic principle does not occur.

105 -logy. The -logy principle is applied 2 times in 2 different words. The application of the principle occurs in 2 assignments and 2 chapters. The highest word frequency is 1, in Assignments 17 and 35. Apologize and psychology occur one time each.

106 -bute. The -bute principle is applied 27 times in 12 different words. The application of the principle occurs in 20 assignments and 14 chapters. The highest word frequency by assignment is 3, in Assignment 62. Four words make up the majority of frequencies. The root word distribute and five derivatives compose the majority of frequencies. The root words distribute and contribute and their derivatives

make up three-fourths of the frequencies. The words of highest frequency are distributors with 4 occurrences, contribute with 4, and distributed with 4.

107 abbreviation. The abbreviation principle is applied 78 times in 14 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 4, in Assignment 65. Two words make up the majority of frequencies. The root word convenient and its derivatives compose the majority of the frequencies. The root words convenient and privilege and their derivatives make up three-fourths of the frequencies. The words of highest frequency are convenience with 36 occurrences, convenient with 13, and privilege with 8.

108 -ition, -ation. The -ition, -ation principle is applied 315 times in 40 different words. The principle has regular assignment and chapter distribution. The highest word frequency by assignment is 13, in Assignment 71. Four words make up the majority of frequencies. The words of highest frequency are information with 118 occurrences, addition with 20, and conditions with 17.

109 (under). The (under) principle is applied 29 times in 13 different words. The application of the principle occurs in 24 assignments and 15 chapters. It follows 4 words in the majority of occurrences. The highest word frequency by assignment is 2, in each of 5 assignments. The principle occurs 5 times after we, 5 after with the, and 4 after will.

110 self-. The self- principle is applied 12 times in 3 different words. The application of the principle occurs in 11 assignments and 10 chapters. The highest word frequency by assignment is 2, in Assignment 4. One word makes up the majority of frequencies. The root word self-addressed makes up three-fourths of the frequencies. The words of highest frequency are self-addressed with 9 occurrences, self-service with 2, and unselfish with 1 occurrence.

111 circum-. The circum- principle is applied 5 times, in the word circumstances. The application of the principle occurs in 5 assignments and 4 chapters. The highest word frequency by assignment is 1, in each of 5 assignments.

112 -pose, -position. The -pose, -position principle is applied 65 times in 12 different words. The principle has regular assignment and regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 68. One word, position, makes up the majority of frequencies. The root words position and dispose and their derivatives make up three-fourths of the frequencies. The words of highest frequency are position with 38 occurrences, disposal with 5, and dispose and disposition with 3 each.

113 -ings. The -ings principle is applied 71 times in 25 different words. The application of the principle occurs in 38 assignments and has regular chapter distribution. The highest word frequency by assignment is 5, in Assignment 7. Five words make up the majority of

frequencies. The words of highest frequency are savings with 19 occurrences, furnishings with 6, and stockings and proceedings with 5 each.

114 -ingly. The -ingly principle is applied 7 times in 5 different words. The application of the principle occurs in 7 assignments and 5 chapters. The highest word frequency by assignment is 1, in each of 7 assignments. Two words make up the majority of frequencies. Derivatives of the root words surprise and accord compose the majority of frequencies. The words of highest frequency are surprisingly with 2 occurrences, accordingly with 2, and exceedingly, interestingly, and increasingly with 1 occurrence each.

115 -sume, -sumption. The -sume, -sumption principle is applied 11 times in 7 different words. The application of the principle occurs in 9 assignments and 7 chapters. The highest word frequency by assignment is 3, in Assignment 57. Three words make up the majority of frequencies. The root word resume with its derivatives and the derivatives of consume make up three-fourths of the frequencies. The words of highest frequency are assume with 3 occurrences, resume with 2, and consumer with 2.

116 -ulate. The -ulate principle is applied 19 times in 11 different words. The application of the principle occurs in 16 assignments and 11 chapters. The highest word frequency by assignment is 3, in Assignment 28. Three words make up the majority of frequencies. The root words circulate and congratulate and their derivatives make up the

majority of frequencies. The words of highest frequency are circulation with 4 occurrences, regulations with 3, and congratulations with 3.

117 -less. The -less principle is applied 17 times in 4 different words. The application of the principle occurs in 17 assignments and 12 chapters. The highest word frequency by assignment is 1, in each of 17 assignments. One word, unless, makes up the majority of frequencies. The root word unless and a derivative of need make up three-fourths of the frequencies. The words of highest frequencies are unless with 10 occurrences, needless with 5, and doubtless and noiseless with 1 occurrence each.

118 -quent, -quence. The -quent, -quence principle is applied 43 times in 5 different words. The principle has regular assignment distribution and occurs in 14 chapters. The highest word frequency by assignment is 2, in Assignments 26, 35, and 73. One word, consequently, makes up the majority of frequencies. Two derivatives of consequent make up three-fourths of the frequencies. The words of highest frequency are consequently with 39 occurrences, and consequence, frequently, infrequently and subsequent with 1 occurrence each.

119 -itis. The -itis principle does not occur.

120 -iety. The -iety principle is applied 8 times in 2 different words. The application of the principle occurs in 8 assignments in 7 chapters. The highest word frequency is 1, in each of 8 assignments. One word, variety, makes up the majority of frequencies. The root word variety and its derivative, varieties, compose all frequencies. The

words of highest frequency are variety with 6 occurrences and varieties with 2.

121 -cide. The -cide principle is applied 10 times in 2 different words. The application of the principle occurs in 9 assignments and 8 chapters. The highest word frequency by assignment is 2 in Assignment 76. The root word decide and its derivative, decided, compose all frequencies. The words are decide with 5 occurrences and decided with 5.

Comparison of Total Words, Root Words, and Different Words by Principles

The number of words in context applying each principle ranges from 0 to 1,062, as shown in Table IV. The median number of words according to principle is 59.5. Slightly more than one-third of the principles have 30 or fewer frequencies. The principle -nt, -nd has the highest frequency, occurring 1,062 times. Four principles, (vowel) nt, nd, ship-, -ntic, and -itis, have no frequencies.

<u>Number of Frequencies</u>	<u>Number of Principles</u>
Over 1000	1
501-1000	7
401-500	2
301-400	11
201-300	9
101-200	16
76-100	13
51-75	10
41-50	7
31-40	5
21-30	13
11-20	13
1-10	21
0	4

TABLE IV

COMPARISON OF CUMULATIVE TOTAL WORDS, ROOT WORDS, AND DIFFERENT WORDS IN CONTEXT APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Prin. No.	Cumulative Totals				Different	
		All Words		Root Words		Words	
		No.	Rank	No.	Rank	No.	Rank
-nt, -nd	43a	1062	1	781	1	198	1
men, mem	42	685	2	447	3	98	6
-tion	4	673	3	525	2	158	2
past tense	8	589	4	398	4	77	13
(e)n, (i)n	87	578	5	378	5	118	3
re-	16	566	6	357	6	95	7
(e) u	45a	547	7	303	10	80	11
for-, fore-, fur-	93	504	8	354	7	61	17
-ment	52	417	9	295	12	82	10
ted, ded, det	41	413	10	320	8	102	5
con-	85a	393	11	317	9	88	8
c(t)	76	372	12	297	11	86	9
den, ten	70a	347	13	286	13	106	4
s(t) (two syllable)	78	338	14	218	19	55	20
pro-	51b	335	15	254	14	65	16
ld	38	327	16	246	16	68	15
per-, pur-	51a	321	17	226	18	55	20
-ition, -ation	108	315	18	216	20	40	26
s(t) (one syllable)	77	312	19	209	23	17	56
ex-	3	310	20	249	15	78	12
(short u) (m)	31b	307	21	156	28	27	37
ses	2	300	22	213	21	74	14
Months	47	297	23	230	17	12	68
rd	37	280	24	210	22	61	17
(ow) n	49	278	25	183	26	38	28
-ble	53	267	26	204	24	45	24
-ther	24	256	27	166	27	19	50
com-	85b	229	28	172	26	57	19
dem, tem	71	208	29	153	30	40	26
de-	18	208	29	156	28	42	25
-ure, -ture	14	182	31	141	31	34	31
inter-, intro-, enter	61	177	32	96	39	24	45
oi	13	172	33	135	32	53	22
ow	40	172	34	105	36	17	56
u	39	160	35	117	34	38	28
(short u) (n)	31a	152	36	121	33	30	33
dis-	19	144	37	114	35	53	22
al-	94	128	38	85	42	7	84

TABLE IV (continued)

COMPARISON OF CUMULATIVE TOTAL WORDS, ROOT WORDS, AND DIFFERENT WORDS IN CONTEXT APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Prin. No.	Cumulative Totals				Different Words	
		All Words		Root Words		No.	Rank
		No.	Rank	No.	Rank	No.	Rank
w	25	124	39	103	37	31	32
ngk	34	118	40	79	45	29	34
-tial, -cial	5	112	41	80	44	15	60
be-	17	112	41	88	41	13	65
(vowel) nt, md	45b	110	43	90	40	25	41
-ful	64	108	44	97	38	19	50
-cate	101	103	45	72	48	24	101
(d)	80	102	46	82	43	27	37
Cities	48a	97	47	76	46	35	30
(short u)(downstroke)	32	94	48	74	47	9	80
disjoined r	9	91	49	68	55	29	29
ia	22	90	50	69	53	19	54
ng	33	85	51	72	49	28	36
tain	70b	85	51	70	51	19	50
(e)m, (i)m	91	81	53	67	57	25	41
-lity, -lty	69	79	54	68	55	24	45
(vowel) nt, nd	43b	78	55	66	58	24	45
abbreviation	107	78	55	59	60	14	64
-cle, -cal	55	77	57	63	59	27	37
(u)n	88	76	58	69	53	26	40
def, dev	59a	76	58	72	49	25	41
-ings	113	71	60	55	61	25	41
-ally	12	71	60	70	51	15	60
-quire	103	68	62	49	63	10	78
-pose, -position	112	65	63	50	62	12	68
sub-	95	64	64	35	74	11	74
-ual, -tual	15	62	65	48	65	16	58
ort	75	60	66	35	84	16	58
-ily	11	59	67	49	63	12	68
tern, term	72	56	68	47	66	22	49
pent, pend	58a	53	69	45	67	15	60
tif, tiv	59b	50	70	37	71	19	50
-self, -selves	56	50	70	42	68	7	84
moun	50	50	70	30	76	5	93
i (vowel)	21	50	70	37	37	18	54
mt, md	44a	49	74	38	70	10	78
-gram	67	45	75	25	83	3	107
-quent, -quence	118	43	76	40	69	5	93

TABLE IV (continued)

COMPARISON OF CUMULATIVE TOTAL WORDS, ROOT WORDS, AND DIFFERENT WORDS IN CONTEXT APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Prin. No.	Cumulative Totals				Different Words	
		All Words		Root Words		No.	Rank
		No.	Rank	No.	Rank		
Days	46	40	77	37	71	7	84
Countries	48c	36	78	26	82	12	68
incl-	81	35	79	27	79	5	93
-ward	98	32	80	29	77	5	93
ul	96	32	80	27	79	8	82
-cient	6	30	82	27	79	8	82
States	48b	29	83	24	85	15	60
disjoined st	79	29	83	28	78	7	84
(under)	109	29	83	24	85	13	65
trans-	84	28	86	17	95	11	74
-ship	54	28	86	22	87	11	74
post-	82	27	88	22	87	4	102
-gate	102	27	88	25	83	5	93
-bute	106	27	88	21	90	12	68
-ify	65	23	91	22	87	12	68
kn-	86a	21	92	19	91	5	93
km-	86b	21	92	14	99	3	107
en, in	89	21	92	17	95	9	80
over-	36	20	95	19	91	13	65
aw-	27	19	96	19	91	5	93
-ulate	116	19	96	18	94	11	74
-less	117	17	98	17	95	4	102
dern, dern	73	17	98	17	95	2	114
short-	62	17	98	14	99	6	89
super-, supr-	83	17	98	13	101	6	89
-rity	68	14	102	12	102	6	89
ea	23	13	103	12	102	5	93
electr-	60	12	104	9	107	3	107
self-	110	12	104	11	104	3	107
-sume, -sumption	115	11	106	10	106	7	84
un-	90	11	106	11	104	6	89
-cide	121	10	108	9	107	2	114
-titute	100b	10	108	6	115	4	102
-iety	120	8	110	8	109	2	114
y	28	8	110	8	109	1	119
ah-	26	8	110	7	111	1	119
-ingly	114	7	113	7	111	5	93

TABLE IV (continued)

COMPARISON OF CUMULATIVE TOTAL WORDS, ROOT WORDS, AND DIFFERENT WORDS IN CONTEXT APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Prin. No.	Cumulative Totals				Different	
		All Words		Root Words		Words	
		No.	Rank	No.	Rank	No.	Rank
-hood	97	7	113	7	111	1	119
em-, im-	92	7	113	6	115	3	107
-ification	66	7	113	7	111	3	107
jent, jend	58b	6	117	6	115	4	102
circum-	111	5	118	5	118	1	117
mis-	20	5	118	3	120	3	107
under-	35	5	118	5	118	4	106
-ciency	7	3	121	3	120	2	114
-logy	105	2	122	2	122	2	114
thern, therm	74	2	122	2	122	1	119
after-	57	2	122	2	122	1	119
ya	30	1	125	1	125	1	119
ye	29	1	128	1	125	1	119
-use	99	1	125	1	125	1	119
-titude	100a	1	125	1	125	1	119
-ntic	104	0	129	0	129	0	129
(vowel) nt, nd	44b	0	129	0	129	0	129
ship-	63	0	129	0	129	0	129
-itis	119	0	129	0	129	0	129

The root word totals represent the total number of root words in the 80 assignments in each principle. The range is from 0 to 781, as shown in Table IV. The median is 46.

The number of different words in context applying each principle ranges from 0 to 198, as shown in Table IV. The median is 13. Forty of the 132 principles considered in this study are applied in 5 or fewer different words.

The number of different words in each of 20 principles has a rank of 10 or more places below the rank of the same principles by total words. This comparison of rank would seem to indicate the principles that have the fewest words in relation to the total frequencies. The 20 principles are:

<u>Principle Number</u>	<u>Principle Abbreviation</u>	<u>Total Word Rank</u>	<u>Different Word Rank</u>
77	s(t) (one syllable)	19	56
31b	(short u) (æ)	21	37
47	Months	23	68
24	-ther	27	50
61	inter-, intro-, enter	32	45
40	ow	33	56
94	al-	38	84
5	-tial, -cial	41	60
17	be-	41	65
10	-cate	45	101
32	(short u) (downstroke)	48	80
103	-quire	62	78
95	sub-	64	74
56	-self, -selves	70	84
50	moun	70	93
67	-gram	75	107
118	-quent, -quence	76	93
81	incl-	79	93
98	-ward	80	93
82	post-	88	102
86a	km-	92	107
73	derm, derm	98	114

The distribution of frequencies of different words by principle is as follows:

<u>Different Words</u>	<u>Number of Principles</u>
Over 100	5
76-100	8
51-75	10
26-50	17
21-25	9
16-20	10
11-15	18
6-10	15
5	9
4	5
3	7
2	5
1	10
0	4

The principle -nt, -nd occurs in 198 different words. Four principles, (vowel) nt, nd, ship-, -ntic, and -itis, have no frequencies.

Comparison of the total frequencies, root words, and different words in Table IV shows that 6 principles rank in the top ten in each of the three classifications. They are -nt, -nd, men, mem, -tion, (e)n, (i)n, re-, and ted, ded, det.

By Principles and Number of Assignments

The number of assignments in context in which each principle appears ranges from 0 to 80, as shown in Table V. The median is 36.5. One-third of the principles appear in 20 or fewer assignments. Slightly more than one-third appear in 60 or more assignments.

TABLE V

NUMBER OF ASSIGNMENTS AND CHAPTERS CONTAINING WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle ^a	Principle Number	Number of Chapters	Number of Assignments
1	men, mem	42	16	80
1	-nt, -nd	43a	16	80
1	-tion	44	16	80
1	(e)n, (i)n	87	16	80
1	past tense	8	16	80
1	re-	16	16	80
1	(e) u	45a	16	80
1	for-, fore-, fur-	93	16	80
1	con-	85a	16	80
1	den, ten	70a	16	80
1	pro-	51b	16	80
1	(short u) (m)	31b	16	80
1	Months	47	16	80
14	ted, ded, det	41	16	79
14	e(t)	76	16	79
14	per-, pur-	51a	16	79
14	ld	38	16	79
18	-ther	24	16	78
18	-ment	52	16	78
20	ex-	3	16	77
21	-ition, -ation	108	16	76
21	s(t) (one syllable)	77	16	76
21	rd	37	16	76
21	-ble	53	16	76
25	s(t) (two syllable)	78	16	75
25	(ow) n	49	16	75
27	de-	18	16	73
27	con-	85b	16	73
27	ses	2	16	73
30	den, tem	71	16	69
30	-ure, -ture	14	16	69
32	ow	40	16	68
33	(short u) (n)	31a	16	66
34	a	39	16	66
35	the	19	16	65

^aThe key to the abbreviations is given in Appendix A.

TABLE V (continued)

NUMBER OF ASSIGNMENTS AND CHAPTERS CONTAINING WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
35	inter-, intro-, enter	61	16	65
37	oi	13	16	64
37	al-	94	16	64
39	w	25	16	62
40	(d)	80	16	61
41	-tial, -cial	5	16	56
41	-ful	64	16	56
43	be-	17	16	55
43	-cate	101	16	55
45	-ally	12	16	54
45	def, dev	59a	16	54
47	(minor vowel)	45b	16	53
48	ia	22	16	52
48	tain	70b	16	52
48	ngk	34	16	52
51	ng	33	16	51
51	(short u)(downstroke)	32	16	51
53	-pose, -position	112	16	45
54	(u)n	88	16	49
54	(e)m, (i)m	91	16	49
54	abbreviation	107	16	49
54	-lity, -lty	69	15	49
58	(vowel) nt, nd	43b	16	48
59	disjoined r	9	16	47
60	-cle, -cal	55	16	43
60	-quire	103	15	43
62	-quent, -quence	118	14	40
63	-ings	113	16	38
63	-self, -selves	56	16	38
63	Cities	48a	16	38
66	-ily	11	15	37
67	tern, term	72	14	36
68	-ual, -tual	15	15	34
68	pent, pend	58a	14	34
70	sub-	95	15	32
70	mt, md	44a	14	32
72	tif, tiv	59b	15	31
72	ort	75	14	31

TABLE V (continued)

NUMBER OF ASSIGNMENTS AND CHAPTERS CONTAINING WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
74	moun	50	15	30
75	i (vowel)	21	15	28
76	-ward	98	16	27
76	incl-	81	13	27
76	Days	46	12	27
79	disjoined st	79	14	26
79	ul	96	14	26
81	-cient	6	10	25
82	-gate	102	15	24
82	(under)	109	15	24
82	-gram	67	14	24
85	-ify	65	12	21
86	post-	82	13	20
86	-bute	106	14	20
86	Countries	48c	12	20
89	-ship	54	11	19
89	aw-	27	10	19
91	kn-	86a	13	18
92	en, in	89	13	17
92	dern, derm	73	10	17
92	-less	117	12	17
95	-ulate	116	11	16
95	over-	36	10	16
97	trans-	84	10	15
98	short-	62	11	14
98	States	48b	10	14
98	km-	86b	10	14
101	ea	23	10	12
101	-rity	68	10	12
101	super-, supr-	83	10	12
104	self-	110	10	11
105	un-	90	6	10
106	-cide	121	8	9
106	-sume, -sumption	115	7	9
108	-iety	120	7	8
108	y	28	7	8
110	-hood	97	7	7
110	-ification	66	6	7

TABLE V (continued)

NUMBER OF ASSIGNMENTS AND CHAPTERS CONTAINING WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
110	electr-	60	6	7
110	-ingly	114	5	7
110	ah-	26	5	7
115	-titude	100b	6	6
115	jent, jend	58b	5	6
115	em-, in-	92	5	6
118	circum-	111	4	5
119	under-	35	4	4
120	-ciency	7	3	3
120	mis-	20	3	3
122	-logy	105	2	2
122	after-	57	2	2
122	thern, thern	74	2	2
125	ye	29	1	1
125	ya	30	1	1
125	-use	99	1	1
125	-titude	100a	1	1
129	-ntic	104	0	0
129	-itis	119	0	0
129	ship-	63	0	0
129	(vowel) nt, nd	44b	0	0

The distribution of frequencies by assignment is as follows:

<u>Number of Assignments</u>	<u>Number of Principles and Abbreviating Devices</u>
71-80	29
61-70	11
51-60	12
41-50	9
31-40	12
21-30	12
11-20	19
1-10	24
0	4

Thirteen principles appear in all 80 assignments. These principles are:

Months	(e) u
(short u) (n)	re-
pro-	past tense
den, ten	(e)n, (i)n
con-	-tion
-nt, -nd	for-, fore-, fur-
	men, men

Four principles, (vowel) mt, md, ship-, -ntic, and -itis, have no frequencies in any assignment.

The number of assignments in context in which new words are introduced which have not appeared previously applying individual principles ranges from 0 to 68, as shown in Table VI. The median is 11. For example, two principles having different words introduced in the largest number of assignments are -tion with different words in 68 assignments and -nt, -nd with different words occurring in 67 assignments.

The complete distribution of frequencies by assignment is as follows:

TABLE VI

NUMBER OF ASSIGNMENTS CONTAINING DIFFERENT WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle ^a	Principle Number	Number of Chapters	Number of Assignments
1	-tion	4	16	68
2	-nt, -nd	43a	16	67
3	den, ten	70a	16	56
3	(e)n, (i)n	87	16	56
5	c(t)	76	16	52
6	con-	85a	15	51
7	-ment	52	16	47
8	past tense	8	16	46
8	re-	16	16	46
8	ted, ded, det	41	15	46
11	com-	85b	16	44
11	men, mem	42	15	44
13	(e) u	45a	16	43
13	ses	2	16	43
15	ex-	3	14	42
16	rd	37	14	41
17	dis-	19	16	39
17	ld	38	15	39
19	-ble	53	15	38
19	oi	13	13	38
21	pro-	51b	16	37
22	s(t) (two syllable)	78	15	36
23	de-	18	13	33
24	for-, fore-, fur-	93	14	32
25	per-, pur-	51a	12	31
26	u	39	14	29
27	(ow) n	49	15	28
27	-ition, -ation	108	14	28
27	den, ten	71	13	28
30	w	25	13	27
31	(d)	80	15	25
31	-ure, -ture	14	13	25
31	disjoined r	9	13	25
34	def, dev	59a	13	24

^aThe key to the abbreviations is given in Appendix A.

TABLE VI (continued)

NUMBER OF ASSIGNMENTS CONTAINING DIFFERENT WORDS IN CONTEXT
 APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
35	-cle, -cal	55	14	22
35	(u)n	88	12	22
37	ng	33	15	21
37	(short u) (n)	31a	14	21
37	ngk	34	13	21
37	-lity, -lty	69	12	21
37	(e)m, (i)m	91	12	21
43	inter-, intro-, enter	61	11	20
44	(vowel) nt, nd	43b	16	19
44	(minor vowel)	45b	14	19
44	(short u) (m)	31b	10	19
47	-ings	113	12	18
47	Cities	48a	11	18
47	tain	70b	10	18
50	ia	22	12	17
51	term, term	72	11	16
52	tif, tiv	59b	13	15
52	ort	75	11	15
52	ow	40	10	15
52	-ful	64	9	15
52	-ther	24	7	15
57	-ual, -tual	15	11	14
57	-ally	12	9	14
57	-tial, -cial	5	8	14
57	pent, pend	58a	8	14
61	i (vowel)	21	9	13
61	s(t) (one syllable)	77	9	13
63	(under)	109	8	12
63	abbreviation	107	7	12
65	-bute	106	10	11
65	-ily	11	10	11
65	-ify	65	8	11
65	be-	17	7	11
69	over-	36	9	10
69	States	48b	8	10
69	Countries	48c	8	10
69	sub-	95	8	10
69	trans-	84	7	10

TABLE VI (continued)

NUMBER OF ASSIGNMENTS CONTAINING DIFFERENT WORDS IN CONTEXT
 APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
69	-ulate	116	7	10
69	-pose, -position	112	7	10
76	-ship	54	7	9
76	(short u)(downstroke)	32	7	9
76	-quire	103	6	9
76	en, in	89	6	9
80	-cient	6	7	8
80	ul	96	7	8
80	mt, md	44a	6	8
83	-sume, -sumption	115	6	7
83	disjoined st	79	6	7
83	-self, -selves	56	6	7
86	short-	62	6	6
86	super-, supr-	83	5	6
86	-rity	68	5	6
86	al-	94	5	6
86	un-	90	3	6
86	Days	46	3	6
86	Months	47	3	6
93	ea	23	5	5
93	aw-	27	4	5
93	-gate	102	4	5
93	-ward	98	4	5
93	-quent, -quence	118	4	5
93	-ingly	114	3	5
100	-titute	100b	4	4
100	jent, jend	58b	4	4
100	post-	82	4	4
100	kn-	86a	3	4
100	-less	117	3	4
100	incl-	81	3	4
106	mis-	20	3	3
106	under-	35	3	3
106	-ification	66	3	3
106	em-, im-	92	3	3
106	electr-	60	3	3
106	self-	110	3	3
106	kn-	86b	3	3

TABLE VI (continued)

NUMBER OF ASSIGNMENTS CONTAINING DIFFERENT WORDS IN CONTEXT
APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Rank	Principle	Principle Number	Number of Chapters	Number of Assignments
106	-gram	67	3	3
114	-iety	120	2	2
114	-logy	105	2	2
114	-ciency	7	2	2
114	-cide	121	2	2
114	derm, derm	73	2	2
119	y	28	1	1
119	-titude	100a	1	1
119	circum-	111	1	1
119	-use	99	1	1
119	ya	30	1	1
119	ye	29	1	1
119	-hood	97	1	1
119	ah-	26	1	1
119	thern, therm	74	1	1
119	after-	57	1	1
129	-itis	119	0	0
129	-ntic	104	0	0
129	ship-	63	0	0
129	(vowel) nt, nd	44b	0	0

<u>Number of Assignments</u>	<u>Number of Principles</u>
61-70	2
51-60	4
41-50	10
31-40	9
21-30	18
11-20	25
6-10	24
5	7
4	6
3	8
2	5
1	10
0	4

Four principles, (vowel) mt, md, ship-, -ntic, -itis, have no frequencies.

Multi-Principle Words

Appendix D contains a list of three-, four-, and five-principle words applying principles in the context. The assignment of first occurrence is given.

The only five-principle word is punctuation, appearing in Assignment 60. Fifteen words apply four principles each, and 128 words apply three principles each.

By Assignment Numbers

In the assignments having the largest number of principles and the largest total root frequencies and the largest total word frequencies

by assignments should be noted when preparing lesson plans since a large number of root words would indicate the difficult assignments.

Table VII is a cumulative table combining Tables I, II, and III. Assignments 77, 66, 64, 62, and 80 are listed among the top ten in each of the three sections of the table. Assignment 77 contains 75 different principles in a total of 287 words with 217 root frequencies; Assignment 66 contains 79 different principles in 270 words with 214 root words; Assignment 64 contains 72 different principles in 276 words with 211 root frequencies; Assignment 62 contains 72 different principles in 271 different words in 197 root words; and Assignment 80 contains 74 different principles in 279 words with 192 root words.

Assignments 41, 14, and 8 are listed among the last ten in each of the three divisions. Of the 80 assignments, these 3 might be of the least value to the student of any assignments. Assignment 41 contains 49 principles in 173 total words with 119 root words. Assignment 14 contains 54 principles in 177 words with 127 root words. Assignment 8 contains 57 principles in 163 total words with 127 root words.

Assignments 66, 70, 77, 73, 80, 52, 48, 62, 64, 45, 72, and 76 provide practice material containing 71 or more principles.

A large number of root words in an assignment indicates that the assignment might be more difficult than an assignment containing the same words over and over. Assignments 77, 66, 64, 63, 62, 80, 57, 43, 65, 69, and 76 each contain over 184 root words.

TABLE VII

NUMBER OF TOTAL WORDS AND NUMBER OF ROOT WORDS CONTAINING PRINCIPLES
AND ABBREVIATING DEVICES IN CONTEXT BY ASSIGNMENT

Assignment Number	Different Principles		Words Applying Principles		Root Words	
	Rank	No.	Rank	No.	Rank	No.
66	1	79	6	270	2	214
70	2	76	16	245	17	174
73	3	75	16	245	12	181
77	3	75	1	287	1	217
80	3	74	3	279	6	192
52	6	73	27	223	29	158
48	7	72	19	239	20	168
62	7	72	5	271	5	197
64	7	72	4	276	3	211
45	10	71	57	189	73	131
72	10	71	11	259	14	179
76	10	71	11	259	10	184
40	13	70	14	250	18	173
57	13	70	8	267	7	192
63	13	70	1	287	4	203
65	13	70	6	270	9	185
23	17	69	78	167	65	136
69	17	69	9	265	10	184
18	19	68	43	203	31	157
27	19	68	35	211	19	169
30	19	68	60	187	52	143
38	19	68	35	211	39	153
42	19	68	18	243	14	179
61	19	68	15	248	27	162
71	19	68	29	217	34	155
78	19	68	19	239	32	156
6	27	67	40	205	23	164
16	27	67	38	207	61	139
20	27	67	63	183	55	141
24	27	67	54	191	40	151
43	27	67	9	265	7	192
59	27	67	33	212	23	164
67	27	67	13	256	16	176
5	34	66	62	185	55	141
39	34	66	52	195	36	154
19	36	65	29	217	46	146
26	36	65	32	216	40	151
37	36	65	29	217	44	148
49	36	65	21	237	25	163
53	36	65	50	196	72	132

TABLE VII (continued)

NUMBER OF TOTAL WORDS AND NUMBER OF ROOT WORDS CONTAINING PRINCIPLES
AND ABBREVIATING DEVICES IN CONTEXT BY ASSIGNMENT

Assignment Number	Different Principles		Words Applying Principles		Root Words	
	Rank	No.	Rank	No.	Rank	No.
58	36	65	53	193	43	149
74	36	65	23	233	13	180
9	43	64	38	207	48	144
12	43	64	71	179	66	135
13	43	64	73	176	61	139
21	43	64	69	180	48	144
29	43	64	64	181	71	133
46	43	64	33	212	34	155
54	43	64	61	186	66	135
68	43	64	48	199	40	151
75	43	64	24	231	22	164
79	43	64	37	210	20	168
4	53	63	58	188	66	135
11	53	63	64	181	58	140
36	53	63	40	205	32	156
50	53	63	40	205	28	161
55	53	63	43	203	66	135
56	53	63	26	226	29	158
1	59	62	78	167	64	137
15	59	62	76	171	79	123
28	59	62	54	191	55	141
7	62	61	28	219	36	154
34	62	61	47	200	52	143
35	62	61	54	191	54	142
10	65	60	43	203	45	147
44	65	60	22	234	36	154
2	67	59	64	181	73	131
17	67	59	64	181	75	130
47	67	59	25	228	48	144
60	67	59	46	202	25	163
3	71	58	58	188	58	140
31	71	58	48	199	47	145
33	71	58	74	174	63	138
8	74	57	80	163	76	127
25	75	56	64	181	70	134
32	75	56	50	196	48	144
51	75	56	69	180	76	127
22	78	55	77	170	60	139
14	79	54	72	177	76	127
41	80	49	75	173	80	119

Root frequencies of words in assignments in context applying principles range from 119 to 217 as shown in Table VII. The median is 151. The distribution of root frequencies by assignment is as follows:

<u>Root Frequencies</u>	<u>Number of Assignments</u>
Over 200	4
176-200	12
151-175	26
126-150	36
101-125	2

Four assignments, Assignments 77, 66, 64, and 63, contain more than 200 root frequencies. Assignments 14 and 15 contain fewer than 125 root frequencies.

Total frequencies in assignments in context applying principles and abbreviating devices range from 163 to 287, as shown in Table VII. The median is 205. The distribution of frequencies by assignment is as follows:

<u>Total Frequencies</u>	<u>Number of Assignments</u>
Over 275	4
251-275	9
226-250	13
201-225	20
176-200	27
151-175	7

Each of 4 assignments, Assignments 77, 63, 80, and 64, have more than 275 frequencies. Each of 7 assignments, Assignments 33, 41, 15, 22, 1, 23, and 8, have fewer than 175 frequencies.

The number of different principles in which root words and total words in context occur by assignments ranges from 49 to 79, as shown in

Table VII. The median is 65. Over one-third (35) of the assignments contain one-half (66) or more of the principles and divisions.

The distribution of principles by assignments is as follows:

<u>Number of Principles</u>	<u>Number of Assignments</u>
Over 75	2
71-75	10
66-70	23
61-65	29
56-60	13
51-55	2
45-50	1

The two assignments containing applications of over 75 principles are Assignment 66 with 79 principles and Assignment 70 with 76. Assignment 41 with 49 principles is the only assignment containing fewer than 50 of the principles.

By Chapter

Gregg Transcription Simplified is divided into 80 assignments.

Five assignments compose a chapter, making 16 chapters in the text. Of the 132 principles considered, 63 are present in each of 16 chapters.

Twenty-eight are present in 8 or fewer chapters.

The range of distribution is as follows:

<u>Number of Chapters</u>	<u>Number of Principles</u>
16	63
15	10
14	9
13	5
12	4
11	3
10	10
9	0

<u>Number of Chapters</u>	<u>Number of Principles</u>
8	1
7	4
6	4
5	4
4	2
3	2
2	3
1	4
0	4

Four principles, (vowel) mt, md, ship-, -ntic, and -itis, have no frequencies in context.

CHAPTER IV

FREQUENCIES IN WORD LISTS

The purposes of this chapter are: (1) to analyze the frequency of occurrence in word lists of words in which principles occur (2) to combine frequencies in context and word lists for determination of chapter coverage of principles in Gregg Transcription Simplified. The complete list of different words appearing in word lists is contained in Appendix C of this study. The assignment of first occurrence and the frequency of occurrence in all word lists are given.

Word lists are provided as a supplementary aid to the teacher and student, with the major emphasis placed on the practice of connected matter by the learner. It is generally accepted that word and phrase drills should be read as homework but that only limited value comes from the writing of word and phrase lists at the beginning of each assignment. The first, second, and third assignments of each chapter in Gregg Transcription Simplified contain word-family drills. The fourth assignment includes a review of brief forms and phrases.

. . . in the fifth assignment of each chapter, under the heading "Vocabulary Practice," some words and phrases are given to illustrate the few points of theory that could not be given naturally in the connected matter.¹

¹ Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified, Teacher's Handbook (New York: The Gregg Publishing Company, 1950), p. 6.

In the preface of the textbook it is claimed that each chapter contains a complete review of every feature of the shorthand system.

In addition to the special shorthand drills at the beginning of each assignment, the connected matter has been carefully controlled to contain in each chapter a complete review of every alphabetic character, every joining, every word beginning or ending, every phrase principle, and every brief form in Gregg Shorthand Simplified. Thus, each chapter automatically reviews every feature of the system as part of the normal reading and copying that would be done in any case.²

In the first sentence of this quoted paragraph, it is not clear whether the connected matter alone provides a complete review of every word beginning and ending. The interpretation may be that the special shorthand drills or word lists at the beginning of each assignment combined with the connected matter are supposed to provide the complete review. Furthermore, this first sentence does not seem to include the other principles which do not refer to word beginnings and endings.

In the second sentence of the quoted paragraph, the words "each chapter automatically reviews every feature of the system" surely must refer to every principle which is listed in this study. The data presented in this chapter provide a check of the accuracy of the quoted statements insofar as principles of the system are concerned.

² Louis A. Leslie and Charles E. Zoubek, Gregg Transcription Simplified (New York: The Gregg Publishing Company, 1950), p. v.

By Principle

For purposes of this analysis, each principle is discussed separately. Particular attention is given to total occurrences shown in Table VIII and Appendix C, the number of different words shown in Table IX and Appendix C, and the number of assignments in which each principle is applied shown in Table VIII.

"Highest word frequency" refers to the assignment containing the highest number of words in which the principle is applied in the word list of any one assignment. "High frequency word" refers to a word with 5 or more frequencies in the word lists of the 16 chapters combined. These words, as well as those of fewer than 5 frequencies, are listed in Appendix C.

In Table IX the number of different words are indicated according to the assignment in which they first occur in the application of principles. This table also indicates the number of assignments in which different words occur.

1 -ing. The -ing principle was not counted.

2 ses. The ses principle is applied 25 times in 20 different words. Words applying this principle occur in 14 assignments. The highest word frequency is 9 by assignment, in Assignment 18.

Nine of these words use the ses principle to form the plural of the words. Twelve words contain the ses principle as a form of sis in words such as resist.

TOTAL WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
108 -ition, -ation		5			1							1										4		1			1				1															
109 (under)																																														
110 self-	1									1									1																		1									
111 circum-										1				1									1							1										1					1	
112 -pose, -position																																														
113 -ings												1									1				1															8	1					
114 -ingly	1													2					1					1					1					1					6							
115 -sume, -sumption														1															1						1						1					
116 -ulate					1									1															1						1							1				1
117 -less			2		1																							1		1																
118 -quent, -quence			6																																											
119 -itis																																														
120 -iety		7																																												
121 -cide										1																																				
Total Words	29	26	30	6	39	28	35	30	15	27	17	33	24	12	26	33	22	39	11	23	28	14	32	11	34	16	17	32	12	24	15	15	34	15	57	17	20	29	9	34	13	13	10	8	24	
Total Principles	13	12	13	6	29	12	13	13	12	26	6	10	15	7	22	14	10	12	7	22	15	10	16	5	28	10	7	15	9	22	8	9	12	7	27	7	10	10	3	21	9	10	2	1	16	

TABLE VIII (continued)

TOTAL WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																														Total Words	No. of Assignments	No. of Chapters					
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75				76	77	78	79	80
108 -ition, -ation	1														1		2											1	5			5				29	13	10
109 (under)																																			0	0	0	
110 self-					1										1			1																7	7	7		
111 circum-					1						1				1					1						1								11	11	11		
112 -pose, -position																																		0	0	0		
113 -ings								1				1																		1				14	7	7		
114 -ingly		1			1						1				1					1					1								19	13	12			
115 -sume, -sumption											1								1						1								1	9	9	9		
116 -ulate																																		5	5	5		
117 -less				6							1				1						1			1								1	16	10	7			
118 -quent, -quence												1																						7	2	2		
119 -itis																																		0	0	0		
120 -iety																																		7	1	1		
121 -cide																																		1	1	1		
Total Words	19	21	34	15	23	24	29	13	0	23	12	13	11	7	22	15	31	41	9	17	42	13	4	4	19	30	20	13	4	23	16	13	13	1	30			
Total Principles	13	11	9	5	17	10	10	8	0	20	10	9	8	5	22	7	12	21	4	17	18	8	4	4	19	14	12	6	3	21	10	8	5	1	20			

TABLE IX

NUMBER OF DIFFERENT WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45			
1 -ing																																																
2 ses				1									1					9			1	1											1															
3 ex-	2	1						1			1	1	2							1			1										3			1					1	1						
4 -tion	1		3		1		5	1		1	11		2		1	5	1					5		1	3								5									1	1				3	
5 -tial, -cial						13				1																																						
6 -cient																																																
7 -ciency																																																
8 past tense	1	1		1	2	1		1	2			1	3	4	2	2		2	3		1		1	2	2	1			1	1		5	1	4	1	1	2											
9 disjoined r			1			2		1		1	11					2			1			1					1	2	3	1					1				2	1		3						
10 -ly																																																
11 -ily																																																
12 -ally																																																
13 oi									1											1				1						1																		
14 -ure, -ture																					1						1							1														
15 -ual, -tual																																																
16 re-	3					1	1		1	1	1					1	1	1				2					3		1				2		1							2		6				
17 be-															1																																	
18 de-	1		1							1	1		1			1	1	1				1							1																			
19 dis-	1		2								2		1									3			2				1				3	1	1													
20 mis-					1				1	1		1		1						1	1			1																			1					
21 i (vowel)					1																			1								2			1							1						
22 ia														1	11																																	
23 ea																																																
24 -ther																								1																				1				
25 w																																														1		
26 ah-																																																
27 aw-																																																
28 y																																																
29 ye					1										1					1																												
30 ya										1														1																								
31a (short u) (n)																1			1																													
31b (short u) (m)				1										2																					1													
32 (short u) (downstroke)																																																
33 ng		1																1																										1				
34 ngk			1																																													
35 under-					6				1																																							
36 over-																									1																							
37 rd					1																1				1					1																		
38 ld										1				1																																		
39 u		1			2		11	1								1	1					7									2													1				

TABLE IX

NUMBER OF DIFFERENT WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																			Total Words	No. of Assignments
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
1 -ing																																			x	x	
2 ses					1						2										2	1												20	10		
3 ex-	1						1								1						3						1				2			24	17		
4 -tion		1					1	7						1												7	2			1				74	28		
5 -tial, -cial																																		14	2		
6 -cient																	9																	9	1		
7 -ciency																																			0	0	
8 past tense	1	1			1		1										1	2							1		1							58	35		
9 disjoined r							2										1																	37	18		
10 -ly																																		x	x		
11 -ily															1																				0	0	
12 -ally																																			1	1	
13 oi																																			5	5	
14 -ure, -ture																	2																		5	4	
15 -ual, -tual																																			1	1	
16 re-						1	1									1	2	3			1											1		38	23		
17 be-																		1																	2	2	
18 de-	2																	1			1					1								15	14		
19 dis-	5		1				1											1			1	1									1			28	17		
20 mis-											1			1			3		1		1	1							1				19	17			
21 i (vowel)					1									1													1	1						1	11	10	
22 ia															1				1													6			20	5	
23 ea																																			0	0	
24 -ther														1																					3	3	
25 w																																			1	1	
26 ah-																																			1	1	
27 aw-																			1																2	2	
28 y										1																									2	2	
29 ye														1																					7	7	
30 ya																													1						2	2	
31a (short u) (n)								3																											5	3	
31b (short u) (m)														1	1				1								1							8	7		
32 (short u) (downstroke)					1																														1	1	
33 ng																						5												8	4		
34 ngk																									1									2	2		
35 under-																																			7	2	
36 over-																																			9	2	
37 rd								3		1								1													1			10	8		
38 ld																	1									1								7	6		
39 u							1																										1		30	12	

NUMBER OF DIFFERENT WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

[illegible]

TABLE IX (continued)

NUMBER OF DIFFERENT WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45				
108 -ition, -ation		5			1							1										4	1																										
109 (under)																																																	
110 self-	1									1																																							
111 circum-										1					1																																		
112 -pose, -position										1																																							
113 -ings												1																																					
114 -ingly	1														2									1						1							1			3									
115 -sume, -sumption															1																1																		
116 -ulate					1										1																				1														
117 -less			2		1																																												
118 -quent, -quence			6																																														
119 -itis																																																	
120 -iety							7																																										
121 -cide										1																																							
Total Words	30	18	30	6	40	27	40	30	12	26	17	32	24	11	24	30	21	39	7	15	20	13	30	10	33	14	13	31	12	22	13	10	34	15	36	14	15	23	5	24	8	9	4	6	14				
Total Principles	14	10	13	6	30	11	14	13	10	25	6	10	15	7	21	13	10	12	5	14	13	9	15	5	28	9	3	14	9	20	6	5	12	7	25	7	6	10	3	17	7	8	2	1	10				

TABLE IX (continued)

NUMBER OF DIFFERENT WORDS IN WORD LISTS BY ASSIGNMENTS APPLYING PRINCIPLES AND ABBREVIATING DEVICES

Principle	Assignment Numbers																														Total Words	No. of Assignments					
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75			76	77	78	79	80
108 -ition, -ation	1														1		2										5			5					26	10	
109 (under)																																			0	0	
110 self-															1			1																5	5		
111 circum-					1					1					1										1									9	9		
112 -pose, -position																																			0	0	
113 -ings																												1							9	3	
114 -ingly															1					1					1									12	9		
115 -sume, -sumption											1								1						1									7	7		
116 -ulate																																		5	5		
117 -less				4						1					1										1								1	13	9		
118 -quent, -quence											1																							7	2		
119 -itis																																		0	0		
120 -iety																																		7	1		
121 -cide																																		1	1		
Total Words	17	16	22	8	15	19	15	10	0	15	9	5	10	3	22	11	27	36	6	13	32	10	4	2	12	26	16	12	0	11	13	9	13	1	16		
Total Principles	12	9	7	4	11	8	8	6	0	15	8	4	7	2	22	5	12	20	3	13	14	6	4	2	12	12	11	5	0	11	7	5	5	1	11		

3 ex-. The ex- principle is applied 26 times in 24 different words. Words applying this principle occur in 18 assignments. The highest word frequency by assignment is 3, in Assignments 33 and 66.

The two words inexplicable and inexplicably contain prefixes other than ex-.

4 -tion. The -tion principle is applied 74 times in 101 different words. Words applying this principle occur in 36 assignments. the highest word frequency by assignment is 13, in Assignment 52. The high frequency words applying this principle are prosecution with 5 occurrences, objection with 5, and correction with 5.

All words in the word lists containing this principle are spelled either -sion, as in fusion, or -tion, as in objections.

5 -tial, -cial. The -tial, -cial principle is applied 14 times in 14 different words. Words applying this principle occur in 2 assignments. The highest word frequency by assignment is 13, in Assignment 6.

6 -cient. The -cient principle is applied 9 times in 9 different words. Words applying this principle occur in Assignment 63.

7 -ciency. The -ciency principle does not occur.

8 past tense. The principle for past tense is applied 106 times in 58 different words. Words applying this principle occur in 50 assignments. The highest word frequency by assignment is 8, in Assignments 35 and 38. The high frequency words applying this principle are concluded with 11 occurrences, acknowledged with 5, and progressed with 5.

9 disjoined r. The principle for disjoined r is applied 59 times in 37 different words. Words applying this principle occur in 25 assignments. The highest word frequency by assignment is 12, in Assignment 12.

Forty-six of these words are brief forms containing an er or or ending. All words not containing a brief form base are in Assignment 12. Each base word in this group contains a ct ending, such as elector.

10 -ly. The -ly principle was not counted.

11 -ily. The -ily principle does not occur.

12 -ally. The -ally principle is applied 1 time. The word circumstantially occurs in Assignment 60.

13 oi. The oi principle is applied 6 times in 5 different words. Words applying this principle occur once in each of 6 assignments.

Three words, one-half of the total occurrences, are derivatives of employ.

14 -ure, -ture. The -ure, -ture principle is applied 5 times in 5 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 2, in Assignment 62.

Two of the occurrences are culture and a derivative.

15 -ual, -tual. The -ual, -tual principle is applied 1 time. The word schedule occurs in Assignment 35.

16 re-. The re- principle is applied 43 times in 38 different words. Words applying this principle occur in 25 assignments. The highest word frequency by assignment is 8, in Assignment 44.

Disrespect and misrepresent contain prefixes other than re-.

17 be-. The be- principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 15 and 63.

The two words, belong and belonged, are derivatives of the same root word.

18 de-. The de- principle is applied 16 times in 15 different words. Words applying this principle occur in 15 assignments. The highest word frequency by assignment is 2, in Assignment 46.

19 dis-. The dis- principle is applied 39 times in 28 different words. Words applying this principle occur in 19 assignments. The highest word frequency by assignment is 7, in Assignment 48.

20 mis-. The mis- principle is applied 22 times in 19 different words. Words applying this principle occur in 18 assignments. The highest word frequency by assignment is 5, in Assignment 63.

Unmistakable contains a prefix preceding mis-.

21 i (vowel). The i (vowel) principle is applied 12 times in 11 different words. Words applying this principle occur in 11 assignments. The highest word frequency by assignment is 2, in Assignment 32.

Frequencies occur in which i followed by e, o, i, and a.

22 ia. The ia principle is applied 21 times in 20 different words. Words applying this principle occur in 5 assignments. The highest word frequency by assignment is 12, in Assignment 16.

23 ea. The ea principle does not occur.

24 -ther. The -ther principle is applied 3 times in 3 different words. Words applying this principle occur once in Assignments 24, 40, and 60.

25 w. The w principle is applied 1 time. Acquittal occurs in Assignment 42.

26 ah-. The ah- principle occurs 1 time. Ahead occurs in Assignment 35.

27 aw-. The aw- principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 30 and 65.

28 y. The y principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 30 and 65.

29 ye. The ye principle is applied 10 times in 7 different words. Words applying this principle occur once in each of 10 assignments.

30 ya. The ya principle is applied 4 times in 2 different words. Words applying this principle occur in Assignments 10, 25, 45, and 70.

31a (short u) (n). The (short u) (n) principle is applied 5 times in 5 different words. Words applying this principle occur in 3 assignments. The highest word frequency by assignment is 3, in Assignment 53.

31b (short u) (m). The (short u) (m) principle occurs 11 times in 8 different words. Words applying this principle occur in 10 assignments. The highest word frequency by assignment is 2, in Assignment 14.

Nine of the words are compounds of some.

32 (short u)(downstroke). The (short u)(downstroke) occurs 1 time. The word much occurs in Assignment 49.

33 ng. The ng principle is applied 8 times in 8 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 5, in Assignment 67.

34 ngk. The ngk principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 3 and 70.

35 under-. The under- principle is applied 10 times in 7 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 6, in Assignment 5.

36 over-. The over- principle is applied 10 times in 9 different words. Words applying this principle occur in 3 assignments. The highest word frequency by assignment is 8, in Assignment 35.

37 rd. The rd principle is applied 11 times in 10 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 3, in Assignment 53.

38 ld. The ld principle is applied 9 times in 7 different words. Words applying this principle occur in 7 assignments. The highest word frequency by assignment is 2, in Assignments 38 and 80.

39 u. The u principle is applied 31 times in 30 different words. Words applying this principle occur in 12 assignments. The highest word frequency by assignment is 12, in Assignment 7.

40 ow. The ow principle is applied 1 time. The word impowered occurs in Assignment 5.

41 ted, ded, det. The ted, ded, det principle is applied 14 times in 13 different words. Words applying this principle occur once in each of 14 assignments.

42 men, mem. The men, mem principle is applied 29 times in 27 different words. Words applying this principle occur in 15 assignments. The highest word frequency by assignment is 5, in Assignment 72.

43a -nt, nd. The -nt, -nd principle is applied 39 times in 30 different words. Words applying this principle occur in 24 assignments. The highest word frequency by assignment is 6, in Assignments 66 and 78.

43b (vowel) nt, nd. The (vowel) nt, nd principle is applied 5 times in 5 different words. Words applying this principle occur once in each of 5 assignments.

44a mt, md. The mt, md principle is applied 6 times in 5 different words. Words applying this principle occur once in each of 6 assignments.

44b (vowel) mt, md. The (vowel) mt, md principle does not occur.

45a (e) u. The (e) u principle is applied 20 times in 19 different words. Words applying this principle occur in 8 assignments. The highest word frequency by assignment is 13, in Assignment 51.

45b (minor vowel). The (minor vowel) principle is applied 36 times in 32 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 13, in Assignment 48.

Nine of these words are words and derivatives containing -uate, such as situate. With the exception of realization and patriot, the

remainder are words containing an -eous or an -ious ending; e.g., extraneous, acrimonious.

46 Days. The days of the week do not occur.

47 Months. The months of the year do not occur.

48a Cities. The cities principle is applied 6 times in 6 different words. Words applying this principle occur once in each of 6 assignments.

Three of the cities listed have -port endings. Two of the remaining three cities have -field endings.

48b States. The states principle does not occur.

48c Countries. The countries principle does not occur.

49 (ow) n. The (ow) n principle is applied 10 times in 10 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 7, in Assignment 71.

Seven of the 10 words are compounds or derivatives of noun as in pronounce.

50 moun. The moun principle is applied 1 time. The word unmounted occurs in Assignment 21.

51a per-, pur-. The per-, pur- principle is applied 6 times in 6 different words. Words applying this principle occur in 5 assignments. The highest word frequency by assignment is 2, in Assignment 18.

51b pro-. The pro- principle is applied 22 times in 21 different words. Words applying this principle occur in 12 assignments. The highest word frequency by assignment is 8, in Assignment 61.

52 -ment. The -ment principle is applied 41 times in 29 different words. Words applying this principle occur in 21 assignments. The highest

word frequency by assignment is 6, in each of 2 assignments (Assignments 28 and 48). The high frequency words applying this principle are government with 6 occurrences and acknowledgment with 5.

53 -ble. The -ble principle is applied 54 times in 36 different words. Words applying this principle occur in 27 assignments. The highest word frequency by assignment is 6, in Assignments 33 and 49.

All words except cablegram contain -ble as a final suffix, as in the word invaluable.

54 -ship. The -ship principle is applied 5 times in 4 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 2, in Assignment 29.

55 -cle, -cal. The -cle, -cal principle is applied 11 times in 11 different words. Words applying this principle occur in 3 assignments. The highest word frequency by assignment is 5, in Assignment 32.

56 -self, -selves. The -self, -selves principle is applied 5 times in 3 different words. Words applying this principle occur once in each of 5 assignments.

57 after-. The after- principle is applied 13 times in 7 different words. Words applying this principle occur once in each of 13 assignments.

58a pent, pend. The pent, pend principle is applied 1 time. The word misspent occurs in Assignment 35.

58b jent, jend. The jent, jend principle is applied 7 times in 6 different words. Words applying this principle occur in 2 assignments. The highest word frequency by assignment is 6, in Assignment 28.

59a def, dev. The def, dev principle is applied 9 times in 9 different words. Words applying this principle occur once in each of 9 assignments.

59b tif, tiv. The tif, tiv principle is applied 9 times in 9 different words. Words applying this principle occur in 5 assignments. The highest word frequency by assignment is 4, in Assignment 8.

60 electr-. The electr- principle is applied 9 times in 3 different words. Words applying this principle occur once in each of 9 assignments. The high frequency word applying this principle is electric with 6 occurrences.

61 inter-, intro-, enter. The inter-, intro-, enter principle is applied 6 times in 6 different words. Words applying this principle occur once in each of 6 assignments.

62 short-. The short- principle is applied 6 times in 4 different words. Words applying this principle occur once in each of 6 assignments.

63 ship-. The ship- principle does not occur.

64 -ful. The -ful principle is applied 19 times in 13 different words. Words applying this principle occur in 8 assignments. The highest word frequency by assignment is 9, in Assignment 80.

65 -ify. The -ify principle is applied 15 times in 15 different words. Words applying this principle occur in 4 assignments. The highest word frequency by assignment is 12, in Assignment 8.

66 -ification. The -ification principle is applied 14 times in 12 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 6, in Assignment 31.

67 -gram. The -gram principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 5 and 15.

68 -rity. The -rity principle is applied 19 times in 16 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 11, in Assignment 27.

69 -lity, -lty. The -lity, -lty principle is applied 10 times in 7 different words. Words applying this principle occur in 5 assignments. The highest word frequency by assignment is 6, in Assignment 64.

70a den, ten. The den, ten principle is applied 43 times in 37 different words. Words applying this principle occur in 26 assignments. The highest word frequency by assignment is 8, in Assignment 66.

70b tain. The tain principle does not occur.

71 dem, tem. The dem, tem principle is applied 14 times in 14 different words. Words applying this principle occur in 8 assignments. The highest word frequency by assignment is 6, in Assignment 18.

Six of the 14 words have a dom ending, as in seldom.

72 tern, term. The tern, term principle is applied 3 times in 3 different words. Words applying this principle occur once in Assignments 5, 37, and 76.

73 dern, derm. The dem, derm principle does not occur.

74 thern, therm. The thern, therm principle does not occur.

75 ort. The ort principle is applied 4 times in 4 different words. Words applying this principle occur once in Assignments 27, 31, 35, and 42.

Each occurrence is in a different word; however, 3 words contain ort in the sound mort as in immortal.

76 c(t). The c(t) principle is applied 28 times in 27 different words. Words applying this principle occur in 6 assignments. The highest word frequency by assignment is 14, in Assignment 1.

77 s(t) (one syllable). The s(t) (one syllable) principle does not occur.

78 s(t) (two syllable). The s(t) (two syllable) principle is applied 19 times in 17 different words. Words applying this principle occur in 6 assignments. The highest word frequency by assignment is 9, in Assignment 18.

79 disjoined st. The disjoined st principle is applied 8 times in 6 different words. Words applying this principle occur in 5 assignments. The highest word frequency by assignment is 4, in Assignment 50.

80 (d). The (d) principle is applied 9 times in 9 different words. Words applying this principle occur in 8 assignments. The highest word frequency by assignment is 2, in Assignment 66.

81 incl-. The incl- principle is applied 4 times in 4 different words. Words applying this principle occur in 3 assignments. The highest word frequency by assignment is 2, in Assignment 45.

82 post-. The post- principle is applied 6 times in 6 different words. Words applying this principle occur once in each of 6 assignments.

83 super-, supr-. The super-, supr- principle is applied 9 times in 8 different words. Words applying this principle occur once in each of 9 assignments.

84 trans-. The trans- principle is applied 9 times in 8 different words. Words applying this principle occur once in each of 9 assignments.

85a con-. The con- principle is applied 38 times in 36 different words. Words applying this principle occur in 24 assignments. The highest word frequency by assignment is 3, in Assignments 3, 12, 18, and 47.

85b com-. The com- principle is applied 16 times in 16 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 4, in Assignment 63.

86a kn-. The kn- principle does not occur.

86b km-. The km- principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 63 and 76.

The two words applying this principle are comedy and a derivative.

87 (e)n, (i)n. The (e)n, (i)n principle is applied 41 times in 39 different words. Words applying this principle occur in 29 assignments. The highest word frequency by assignment is 5, in Assignment 47.

Five words in Assignment 47 contain a prefix other than in-, as in reinsure.

88 (u)n. The (u)n principle is applied 51 times in 38 different words. Words applying this principle occur in 23 assignments. The highest word frequency by assignment is 15, in Assignment 35.

89 en, in. The en, in principle is applied 10 times in 8 different words. Words applying this principle occur in 8 assignments. The highest word frequency by assignment is 2, in Assignments 33 and 51.

90 un-. The un- principle is applied 20 times in 13 different words. Words applying this principle occur in 9 assignments. The highest word frequency by assignment is 7, in Assignment 35.

91 (e)m, (i)m. The (e)m, (i)m principle is applied 25 times in 22 different words. Words applying this principle occur in 21 assignments. The highest word frequency by assignment is 2, in each of 4 assignments (Assignments 5, 20, 61, and 77).

92 em-, im-. The em-, im- principle is applied 7 times in 7 different words. Words applying this principle occur in 3 assignments. The highest word frequency by assignment is 5, in Assignment 26.

93 for-, fore-, fur-. The for-, fore-, fur- principle is applied 10 times in 9 different words. Words applying this principle occur in 7 assignments. The highest word frequency by assignment is 3, in Assignment 59.

94 al-. The al- principle is applied 2 times in 2 different words. Words applying this principle occur once in Assignments 25 and 79.

95 sub-. The sub- principle is applied 5 times in 5 different words. Words applying this principle occur once in each of 5 assignments.

96 ul. The ul principle is applied 17 times in 16 different words. Words applying this principle occur in 6 assignments. The highest word frequency by assignment is 12, in Assignment 62.

97 -hood. The -hood principle is applied 12 times in 9 different words. Words applying this principle occur in 11 assignments. The highest word frequency by assignment is 2, in Assignment 80.

98 -ward. The -ward principle is applied 5 times in 2 different words. Words applying this principle occur once in each of 5 assignments.

99 -use. The -use principle is applied 2 times in 2 different words. The two words applying this principle appear in Assignment 7.

100a -titude. The -titude principle does not occur.

100b -titute. The -titute principle is applied 1 time. The word destitute occurs in Assignment 46.

101 -cate. The -cate principle is applied 10 times in 10 different words. Words applying this principle appear in 3 assignments. The highest word frequency by assignment is 7, in Assignment 17.

102 -gate. The -gate principle is applied 6 times in 6 different words. Words applying this principle appear in 2 assignments. The highest word frequency by assignment is 5, in Assignment 17.

103 -quire. The -quire principle does not occur.

104 -ntic. The -ntic principle does not occur.

105 -logy. The -logy principle is applied 14 times in 14 different words. Words applying this principle appear in 2 assignments. The highest word frequency by assignment is 10, in Assignment 37.

106 -bute. The -bute principle is applied 7 times in 7 different words. The 7 words applying this principle occur in Assignment 3.

107 abbreviation. The abbreviation principle does not occur.

108 -ition, -ation. The -ition, -ation principle is applied 29 times in 26 different words. Words applying this principle occur in 13 assignments. The highest word frequency by assignment is 5, in Assignments 2, 73, and 77.

The five words in Assignment 73 are spelled -ician as in technician.

109 (under). The (under) principle does not occur.

110 self-. The self- principle is applied 7 times in 5 different words. Words applying this principle occur once in each of 7 assignments.

111 circum-. The circum- principle is applied 11 times in 9 different words. Words applying this principle occur once in each of 11 assignments.

112 -pose, -position. The -pose, -position principle does not occur.

113 -ings. The -ings principle is applied 14 times in 9 different words. Words applying this principle occur in 7 assignments. The highest word frequency by assignment is 8, in Assignment 40. The high frequency word applying this principle is mornings with 6 occurrences.

Clippings is the only word in this group which is not a brief form derivative.

114 -ingly. The -ingly principle is applied 19 times in 12 different words. Words applying this principle occur in 13 assignments. The highest word frequency by assignment is 6, in Assignment 39.

115 -sume, -sumption. The -sume, -sumption principle is applied 9 times in 7 different words. Words applying this principle occur once in each of 9 assignments.

116 -ulate. The -ulate principle is applied 5 times in 5 different words. Words applying this principle occur once in each of 5 assignments.

117 -less. The -less principle is applied 16 times in 13 different words. Words applying this principle occur in 10 assignments. The highest word frequency by assignment is 6, in Assignment 49.

118 -quent, -quence. The -quent, -quence principle is applied 7 times in 7 different words. Words applying this principle occur in 2 assignments. The highest word frequency by assignment is 6, in Assignment 3.

Delinquent is placed under this principle because the k is understood to be expressed in the ngk blend.

119 -itis. The -itis principle does not occur.

120 -iety. The -iety principle is applied 7 times in 7 different words. The seven words applying this principle occur in Assignment 2.

121 -cide. The -cide principle is applied 1 time. The word coincide occurs in Assignment 10.

Summary of Word Lists

Of the 132 principles considered in this study, 111 appear in the word lists of Gregg Transcription Simplified. They each appear in from 1

to 50 assignments. Eighty-four of the principles occur in 10 or fewer assignments as follows:

<u>Number of Assignments</u>	<u>Number of Principles</u>
10	3
9	11
8	5
7	4
6	9
5	10
4	8
3	8
2	12
1	14

Twenty-seven principles are applied in at least 11 but in fewer than 50 assignments. The principle with the highest word frequency is the principle for past tense, with 106 occurrences in the word lists of 50 assignments.

The fifth assignment in 7 chapters (Chapters 1, 5, 7, 8, 9, 12, and 16) contains more frequencies than any other assignment in the chapter.

The number of principles in each assignment ranges from 0 to 28. The median is 10. The distribution of assignments by number of principles is shown in the following tabulation:

<u>Number of Principles</u>	<u>Number of Assignments</u>
0	1
1-5	12
6-10	29
11-15	19
16-20	8
21-25	7
26-30	4

The assignments with the highest number of principles are Assignments 5 and 25 with 28 applications each, Assignment 35 with 27 each, and Assignment 10 with 26. Assignment 54 contains no applications.

Fifty-one assignments contain 5 or more applications each of 1 or more principles. Twenty-nine assignments contain fewer than 5 applications of any one principle.

Combination of Context and Word Lists

by Chapter

In order to determine the coverage of principles within context and word lists combined, Tables I and VIII must be considered together.

There are 45 principles applied in the word lists of chapters in which there are no occurrences of the principles in context. There are 169 instances in which a principle is applied in the word list of a chapter in which there is no occurrence of the principle in the context of the chapter. The principles which occur in 8 or more chapters in word lists and not in context of the chapters are: after- in 13, mis- in 12, circum- in 11, ye in 10, -ingly in 10, -ification in 9, -hood in 9, -sume, -sumption in 9, and electr- in 8.

Of the 169 instances of occurrence in the word lists when not occurring in the context, 152 represent applications of principle in the word list of the fifth assignment of the chapter. Seventeen instances of occurrence represent applications in the word list of one of the first 4 assignments but not in the fifth assignment.

In addition to the 63, or 47.58 per cent, of the 132 principles which are contained in the context of all 16 chapters, 11, or 8.33 per cent, are included in the word lists of these chapters. These 11 principles which are included in the word lists of chapters, but are not included in the context of the same chapters, are:

-ual, -tual	-lity, -lty
i (vowel)	disjoined st
mt, md	trans-
tif, tiv	ul
-gram	-hood
	-less

The remaining 58, or 43.95 per cent, of the 132 principles do not occur in every chapter. Of these 58 principles, 17 occur in fewer than one-half of the chapters in the textbook. The number of principles which occur in fewer than one-half of the chapters are summarized as follows:

<u>Number of Chapters</u>	<u>Number of Principles</u>
7	6
6	1
5	1
4	0
3	2
2	2
1	1
0	4

The principles occurring in 7 chapters are: y, under-, jent, jend, em-, in-, -titude, and -lity. The ah- principle occurs in 6 chapters, and the ya principle occurs in 5 chapters. The -ciency principle and the -logy principle occur in 3 chapters each. The thern, thern principle and the -use principle occur in 2 chapters each. The -titude principle occurs in 1 chapter.

Principles having no applications in either the word lists or context of the book are: (vowel) mt, md, ship-, -ntic, and -itis.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

The following summary and recommendations are made from the major findings in the analysis of applications of 132 principles in context and word lists of Gregg Transcription Simplified. The frequencies of the suffixes -ing and -ly were not included in the study.

Summary

Context

1. The number of applications by principle in the context ranges from 0 to 1,062. The median is 59.5. Slightly more than one-third of the principles have 30 or fewer applications. Four principles, (vowel) mt, md, ship-, -ntic, and -itis have no frequencies.

2. The number of root words ranges from 0 to 781 by principle. The median is 46.

3. The number of different words by principle ranges from 0 to 198. The median is 13. Forty of the 132 principles are applied in 5 or fewer different words.

4. For each of 20 principles, the number of different words has a lower frequency rank than the number of total words by at least 10 places.

5. Six principles, -nt, -nd, men, mem, -tion, (e)n, (i)n, re-, and ted, ded, det, rank among the top 10 in number of total, root, and different words.

6. In the context there is 1 word in which 5 principles are applied. There are 15 words in which 4 principles are applied, and 128 words in which 3 principles are applied.

7. The number of different assignments in context in which each principle occurs ranges from 0 to 80. The median is 36.5. One-third of the principles appear in 20 or fewer assignments. Slightly more than one-half appear in 60 or more assignments. Thirteen principles are in all 80 assignments. Four principles have no frequencies.

8. The number of assignments in context in which principles are applied in new words are not previously introduced ranges from 0 to 68. The median is 11.

Word Lists

1. One hundred eleven of 132 principles appear in word lists of from 1 to 50 assignments. Eighty-four appear in 10 or fewer assignments.

2. The principle for disjoining t for past tense has the highest number of applications in word lists with 106 frequencies in 50 assignments.

3. The number of principles in each assignment ranges from 0 to 28. Fifty-one assignments contain 5 or more applications each of one or more principles.

4. Twenty-nine assignments contain fewer than 5 applications of any principle.

Combined Word Lists and Context

1. Sixty-three, or 47.58 per cent, of the 132 principles are contained in context of all 16 chapters. Eleven, or 8.33 per cent are included in word lists of chapters which do not contain applications of the principle in the context, making a total of 74 principles which appear in all 16 chapters when context and word lists are combined. Fifty-eight, or 43.95 per cent, do not occur in every chapter.

2. Of the 58 principles which do not occur in every chapter, 17 occur in fewer than one-half of the chapters of the textbook.

3. There are 169 instances in which a principle is applied in the word list of a chapter and not in the context. Of these, 152 are applied in the fifth assignment of each chapter. The remaining 17 occur in one of the first four assignments in each chapter.

Recommendations from Study

The following recommendations are made from the study:

1. Supplementary dictation should be provided either by the teacher or by supplementary handbooks so that every principle is presented at least once in every chapter.

2. When the textbook is revised, an effort should be made either to introduce all principles in each chapter or to revise statements in the handbook and the preface of the textbook regarding the presence of principles in context. Those principles having fewer than 30 applications may not be of sufficient importance to warrant the principles. The words

now following these principles could be spelled in full, thus relieving the student of additional memory burdens.

3. The principle in which the rank in different words is 10 places below the rank of the same principles for total words indicates that a few words appear a relatively large number of times. Emphasis might effectively be placed on applications of principles in as many different words as possible rather than in a number of repetitions of a few words for these principles.

4. Additional four- and five-principle words might be inserted in context to provide higher frequencies of application of principles.

Recommendations for Further Study

Recommendations for further study are made as follows:

1. An error analysis should be made of the notes of students to determine the relationship of accuracy of outlines to the frequency of applications of principles in the texts up to the date of the students' writing.

2. An error analysis should be made of the transcripts of students to determine the relationship of accuracy of transcripts to the frequency of applications of principles in the texts up to the date of the students' writing.

3. An analysis should be made of the relationship between the vocabulary of Gregg Transcription Simplified and the vocabulary of letters taken directly from business offices.

4. A comparative study should be made of root words, total words, and different words of the textbooks in the entire Simplified series to determine the variety and frequency of words according to principle.

BIBLIOGRAPHY

Books and Periodicals

Gregg, John Robert, Leslie, Louis A., and Zoubek, Charles E. Most-Used Shorthand Words and Phrases. New York: The Gregg Publishing Company, 1949.

Klein, A. E. "Variations in the Speed of Writing of Symbol Combinations in Gregg Shorthand," The National Business Education Quarterly, 18:41, Fall 1949.

Leslie, Louis A., and Zoubek, Charles E. Gregg Shorthand Manual Simplified, Functional Method, Teacher's Handbook. New York: The Gregg Publishing Company, 1949.

_____. Gregg Transcription Simplified. New York: The Gregg Publishing Company, 1950.

_____. Gregg Transcription Simplified, Teacher's Handbook, New York: The Gregg Publishing Company, 1950.

_____. "Importance of Shorthand Theory Errors," The Business Education World, 30:22, January 1950.

_____. A List of Changes in the New Gregg Shorthand Manual. New York: The Gregg Publishing Company, 1949.

Tonne, Herbert A. Principles of Business Education. New York: The Gregg Publishing Company, 1947.

Zoubek, Charles E. "The Gregg News Letter to Teachers of Shorthand," Business Teacher, 28:171, March 1951.

_____. "Shorthand," Business Teacher, 30:27, September-October 1952.

Unpublished Theses

Goans, Margie. "An Analysis of Functional Method Dictation and Functional Method, Part II, on the Basis of the Theory Principles Introduced in Functional Method, Part II." Unpublished Master's thesis, The University of Tennessee, Knoxville, 1948.

Maas, Martha A. "Frequency of Brief Forms and Their Derivatives in Gregg Transcription Simplified." Unpublished Master's thesis, The University of Tennessee, Knoxville, 1952.

McNeil, Mildred. "An Analysis of Brief Forms in Gregg Dictation Simplified." Unpublished Bachelor's thesis, The University of Tennessee, Knoxville, 1949.

Shell, Walter L. "An Analysis of the Frequency of Brief Forms and Principles and Abbreviating Devices in Gregg Shorthand Manual Simplified, Functional Method." Unpublished Master's thesis, The University of Tennessee, Knoxville, 1949.

APPENDIX A

PRINCIPLES AND ABBREVIATING DEVICES IN

GREGG SIMPLIFIED SHORTHAND

Statement of Principle

Abbreviation

1. The word ending -ing is represented by a dot. -ing
2. The sound of ses is represented by joining the two forms of s. ses
3. The word beginning ex- is expressed by es. ex-
4. The word ending -tion is represented by sh. -tion
5. The word endings -tial and -cial are represented by sh. -tial, -cial
6. The word ending -cient is represented by sht. -cient
7. The word ending -ciency is represented by shse. -ciency
8. Disjoined t expresses past tense when the final sound of the root word is omitted. past tense
9. Derivatives ending in er and or are written with a disjoined r after abbreviated words. disjoined r
10. A small circle represents the word ending -ly. -ly
11. A loop represents the word ending -ily. -ily
12. A loop represents the word ending -ally. -ally
13. The diphthong oi is expressed by joining o and e. oi
14. Word endings -ure and -ture are expressed by r and tr. -ure, -ture
15. Word endings -ual and -tual are expressed by l and tl. -ual, -tual
16. The vowel is omitted in re- before downstrokes or vowels. re-
17. The vowel is omitted in be-. be-
18. The vowel is omitted in de- except before k or g. de-
19. The vowel is omitted in dis-. dis-
20. The vowel is omitted in mis-. mis-
21. Any vowel following a long i is represented by a small circle within the large circle. i (vowel)
22. The sound of ia (short i) is represented by a large circle with a dot within it. ia
23. The sound of ea is represented by a large circle with a dot within it. ea
24. The word ending -ther is expressed by th. -ther
25. The sound of w in the body of a word is expressed by a dash under the following vowel. w
26. In the word beginning ah-, the a is expressed by a dot. ah-
27. In the word beginning aw-, the a is expressed by a dot. aw-
28. Y before a hook vowel is expressed by a small circle. y
29. Ye at the beginning of a word is expressed by a small loop. ye
30. Ya at the beginning of a word is expressed by a large loop. ya
- 31a. The short sound of u is omitted before n. (short u) (n)

Abbreviation

- 31b. The short sound of u is omitted before m. (short u) (m)
32. The short sound u is omitted before a straight downstroke. (short u) (downstroke)
33. The sound of ng is expressed by a downward slanting n. ng
34. The sound of ngk is expressed by a downward slanting lengthened n. ngk
35. The word beginning under- is expressed by oo above the line. under-
36. The word beginning over- is expressed by o above the line. over-
37. The combination rd is represented by raising the end of the r. rd
38. The combination ld is represented by raising the end of the l. ld
39. The diphthong u is expressed by joining e and oo. u
40. The diphthong ow is expressed by joining a and oo. ow
41. The combinations ted, ded, det are expressed by blending t and d. ted, ded, det
42. The combinations m-n and m-m are expressed by blending m and n. men, mem
- 43a. The shorthand characters for n-t and n-d are joined without an angle to represent -nt and -nd. -nt, -nd
- 43b. The initial vowel is omitted before nt and nd. (vowel) nt, nd
- 44a. The shorthand characters for m-t and m-d are joined without an angle to represent mt and md. mt, md
- 44b. The initial vowel is omitted before mt and md. (vowel) mt, md
- 45a. The oo hook is often used to represent the diphthong u. (e) u
46. The days of the week are expressed by abbreviations. Days
47. The months of the year may be expressed by abbreviations. Months
- 48a. The names of large cities may be abbreviated. Cities
- 48b. The names of states are abbreviated. States
- 48c. The names of countries may be abbreviated. Countries
49. The diphthong ow is omitted before n; when this omission occurs between n and n, a jog is used to indicate the diphthong. (ow) n
50. The syllable moun is represented by the men blend. moun
- 51a. The word beginnings per- and pur- are expressed by pr. per-, pur-
- 51b. Words beginning with pro- are expressed by pr. pro-
52. The word ending -ment is expressed by m. -ment
53. The word ending -ble is expressed by b. -ble
54. The word ending -ship is expressed by disjoined sh. -ship
55. The word endings -cle and -cal are expressed by disjoined k. -cle, -cal

Abbreviation

56. The word endings -self and -selves are expressed by s and ses. -self, -selves
57. The word beginning after- is expressed by af. after-
- 58a. The combinations pent-d are expressed by joining p-nd without an angle. pent, pend
- 58b. The combinations jent-d are expressed by joining j-nd without an angle. jent, jend
- 59a. The combinations def-v are expressed by joining d-v without an angle. def, dev
- 59b. The combinations tiv and tif are expressed by joining d-v without an angle. tif, tiv
60. The word beginnings electr- and electric- are expressed by el above the line. electr-
61. The word beginnings inter-, intro-, entr-, and enter are expressed by n above the line. inter-, intro-, enter
62. The word beginning short- is expressed by sh above the line. short-
63. The word beginning ship- is expressed by sh above the line. ship-
64. The word ending -ful is expressed by f. -ful
65. The word ending -ify is expressed by f. -ify
66. The word ending -ification is expressed by a disjoined f. -ification
67. The word ending -gram is expressed by a disjoined g. -gram
68. The word ending -rity is expressed by a disjoined r. -rity
69. The word endings -lity and -lty are expressed by a disjoined l. -lity, -lty
- 70a. The combinations den and ten are represented by joining d-n or t-n without an angle. den, ten
- 70b. Tain is expressed by joining t-n without an angle. tain
71. The combinations dem and tem are represented by joining d-m and t-m without an angle. dem, tem
72. Tern and term are written without the r. tern, term
73. Dern and derm are written without the r. dern, derm
74. Thern and therm are written without the r. thern, therm
75. The sound of ort is expressed by o and t. ort
76. The t is omitted from words ending in ct (kt). e(t)
77. There are seven words of one syllable ending in st in which the final t is omitted. s(t) (one syllable)
78. The final t is omitted in words of more than one syllable ending in st except when the last letter of the root word is missing or if the word ends in a vowel. s(t) (two syllable)
79. If the last letter of the root word is missing or if the word ends in a vowel, a disjoined st is used to represent the endings -ist and -est. disjoined st

Abbreviation

80. The final d is omitted from words which fall naturally into family groups. (d)
81. The word beginning incl- is expressed by e above the line. incl-
82. The word beginning post- is expressed by disjoined p on the line. post-
83. The word beginnings super- and supr- are expressed by right s above the line. super-, supr-
84. The word beginning trans- is expressed by t above the line. trans-
- 85a. Con- is represented by kn before a vowel or before r or l. con-
- 85b. Com- is represented by km before a vowel or before r or l. com-
- 86a. Con- is represented by kn before a vowel or before r or l. kn-
- 86b. Com- is represented by km before a vowel or before r or l. km-
87. En- and in- are represented by n before a consonant. (e)n, (i)n
88. Un- is represented by n before a consonant. (u)n
89. En- and in- are written in full when a vowel follows. en, in
90. Un- is written in full when a vowel follows. un-
91. Em- and im- are represented by m before a consonant. (e)m, (i)m
92. Em- and im- are written in full when a vowel follows. em-, im-
93. Fore-, for-, fur- are represented by f before a consonant. for-, fore-, fur-
94. The word beginning al- is expressed by o. al-
95. The word beginning sub- is expressed by s. sub-
96. Ul is represented by the oo hook before a forward or upward consonant stroke. ul
97. The word ending -hood is expressed by a disjoined d. -hood
98. The word ending -ward is expressed by a disjoined d. -ward
99. The word ending -use is expressed by the diphthong u. -use
- 100a. The word ending -titude is expressed by tet. -titude
- 100b. The word ending -titude is expressed by tet. -titude
101. The word ending -cate is expressed by k. -cate
102. The word ending -gate is expressed by g. -gate
103. The word ending -quire is expressed by ki. -quire
104. The word ending -ntic is expressed by the blended nt. -ntic
105. The word ending -logy is expressed by l. -logy
106. The word endings -bute is expressed by b. -bute
107. Some words may be written without the ending although they do not belong to groups of similar endings. abbreviation
108. When t, d, n, or m is followed by -ition, -ation, the circle is omitted. -ition, -ation

Abbreviation

109. When the word beginning mis- or a short common word comes before understand or understood, the under is omitted and the stand or stood is written under the short word. (under)
110. The word beginning self- is expressed by a disjoined left s above the line. self-
111. The word beginning circum- is expressed by a disjoined left s above the line. circum-
112. The word endings -pose, -position are expressed by po and posh. -pose, -position
113. The word ending -ings is expressed by a disjoined left s. -ings
114. The word ending -ingly is expressed by a disjoined e. -ingly
115. The word endings -sume and -sumption are expressed by sm and smsh. -sume, -sumption
116. The word ending -ulate is expressed by a disjoined oo. -ulate
117. The word ending -less is expressed by l. -less
118. The word endings -quent and -quence are expressed by k. -quent, -quence
119. The word ending -itis is expressed by long i. -itis
120. The word ending -iety is expressed by long i. -iety
121. The word ending -cide is expressed by si. -cide

APPENDIX B

WORD FREQUENCIES IN CONTEXT

The following is a list of the different words appearing in context in Gregg Transcription Simplified which illustrate one or more of the 121 principles or abbreviating devices considered in this study.

The first number in each group indicates the principle number. Immediately following the principle number is the abbreviation used to identify the principle or abbreviating device. The first number in parentheses on the second line of each group is the number of different words appearing in context in the book. The number following the hyphen indicates the total number of words illustrating the principle or abbreviating device. The words are arranged alphabetically after number of the assignment in which they first occur. If the word appears more than once in the context of the book, the frequency of occurrence is listed following the word.

The principle ses is used to show the method of reading the list. The principle occurs in 74 different words in the context but the total occurrence is 300. The word assistance first occurs in Assignment 1, and its total occurrence in the context of the book is 13.

1 <u>-ing</u> Not counted	2 <u>ses</u> (contd.) 13 weaknesses 15 chances 3 17 devices 3 sources 3 18 taxes 2 19 lenses prizes 6 20 courses 5 21 analysis 5 services 16 22 losses 8 24 assistants 25 criticisms 3 26 process 3 27 consists 6 processes 30 nurses sizes 2 31 consistently 2 consist insist 2 resources 34 licenses 38 system 11 39 announces pieces 3	2 <u>ses</u> (contd.) 39 specializes 3 40 addresses 5 insisting 42 passes 43 assist 5 46 clauses 48 faces fences 4 invoices roses 49 arises 50 assisted 2 53 systematic 56 classes 3 enterprises 60 boxes 2 practices 2 preferences 64 advances perplexes 67 residences 69 assisting 73 possess 77 furnaces 78 accessories 80 causes
2 <u>ses</u> (74-300) 1 assistance 13 basis 10 circumstances 5 insists prices 72 2 necessity 2 3 busses Fox's increases 8 4 glasses 6 6 access places 5 promises 4 7 ounces recognizes says 2 8 appliances 9 assistant 5 9 dresses 2 11 expenses 6 presses 13 cases 8		

3 ex- (78-310)

- 1 expect 14
- express 14
- extra 9
- 2 examine 15
- exceedingly
- expense 13
- explaining 5
- extended 5
- 4 exactly 11
- 5 examined 7
- executives 10
- executive 4
- extend 8
- extremely 3
- 6 expired
- 7 examination 16
- examinations
- example 24
- expensive 2
- extent 5
- unexplainable
- 8 excessive 2
- excited 4
- extensive 3
- 10 expedite 3
- inexpensive 4
- 11 expenses 6
- 12 except 3
- expand 3
- 13 executed
- 14 explains 9
- expressed
- 15 expose
- 16 explanation 7
- export
- 17 exacting
- 18 exact 5
- excitement
- 20 excellent 6
- 22 exhausted 2
- 23 examining 2
- explain 9
- 25 expects
- 26 reexamined
- 27 exceeded 2
- expectations 2
- expenditure 2
- 28 extensively

3 ex- (contd.)

- 29 expire 5
- 30 exciting
- 33 exceeds
- 34 expiration 4
- 36 exists
- expanding 2
- 37 exclusive 2
- extra-long
- 30 experts 5
- 40 examiner
- 41 expires 7
- 45 explained
- extending
- 49 experimented
- experiments
- expert 2
- 50 explanations
- excess
- 52 existing
- 54 exchanged
- 57 experiment 2
- 62 exchange 2
- exclusively 3
- extra-strong
- 63 exercise
- life-expectancy 4
- 64 executor
- 67 exception
- excuses
- unexpected

4 -tion (158-673)

- 1 action 14
- attention 31
- collection 6
- collections 5
- indication 3
- intention 2
- obligations 3
- occasionally 3
- organization 51
- selection 7
- 2 construction 4
- institution 3
- location 8
- national 17
- 3 cushions 3
- education 18

4 -tion (contd.)

- 3 impression 2
- installation 10
- objection
- occasion 5
- operation 15
- publication 10
- reservation 3
- 4 cooperation 19
- directions 2
- production 27
- relationship 4
- 5 old-fashioned 3
- operations 4
- subscription 29
- 6 observation
- protection 9
- publications 2
- reservations 8
- vacation 14
- 7 discretion
- instructions 13
- 8 corporation 9
- promotion 5
- reception
- relations 7
- selections 3
- 9 mentioned 4
- organizations 8
- subscriptions 9
- 10 promotions
- 11 impressions
- interruption 3
- obligation 17
- reaction
- 12 confusion
- conversations
- proportion
- solution 4
- 13 section 8
- 14 deductions 4
- provisions
- 15 satisfaction 12
- 16 regulations 3
- 18 application 18
- investigation 2
- 19 participation
- 20 association 9
- connection 6
- precaution

4 -tion (contd.)

- 21 decisions 2
 - demonstration 3
 - negotiations
- 22 communications 4
- 23 deduction 2
- 24 decision 6
 - insulation
 - motion 2
- 26 applications 2
 - instruction
 - mention 4
 - prescription
 - revision 2
 - transaction 2
 - vacations 2
- 27 profession 2
- 28 circulation 4
 - description 4
- 29 functioning
 - reception
- 30 nutrition 2
- 31 reorganization 2
 - sensational
- 32 international
 - recollection
- 33 occasions
- 34 expiration 4
 - functions
 - illustrations 2
- 35 distribution 2
 - requisition
- 36 compensation 2
 - indications 3
- 37 contribution 3
 - reactions 2
- 38 nationally 2
- 39 convention 6
 - insertion
 - possession 2
- 40 dictionary 3
 - legislation
- 43 discussion 2
- 44 collision
- 45 descriptions 2
- 46 inspection 2
 - preparation 2
 - provision
 - supervision
- 47 associations 4

4 -tion (contd.)

- 48 attractions 2
- 49 educational 6
 - fashions
 - sections
 - visual-education
- 50 congratulations 3
- 51 accumulation
 - decorations
- 52 adoption
- 53 institutions 3
- 55 possessions 3
- 56 appreciation 4
 - distinction
 - musician
- 57 completion
- 59 confectionery
 - division
- 60 reductions 3
- 63 discussions
 - professional 2
 - reflection
- 65 relation
- 66 flight-instruction
- 67 exception
- 68 aviation
 - illustration
- 69 cushion
 - fraction 2
 - nationwide 2
 - registration
 - variation
- 70 corporations 2
 - nation
 - recollection
- 73 cancellation
- 74 reduction 2
- 75 depreciation
 - installations
- 76 function
 - jurisdiction
- 78 charter-subscription
- 79 appropriation
 - contributions 2
- 80 aspirations

5 -tial, -cial
(15-112)

- 1 financial 15

5 -tial, -cial (contd.)

- 3 special 54
- 4 substantial 7
- 6 initial 5
- 7 confidential 5
- 8 especial 2
- 12 initials 3
- 23 essential 5
- 24 potential
- 26 commercial 5
 - specializing
- 39 specializes 3
- 62 official 2
- 65 social 3
- 77 influential

6 -cient
(8-30)

- 1 patiently
- 7 efficient 12
- 16 sufficiently
- 27 sufficient 5
- 29 efficiently 6
- 35 patients 2
- 43 insufficient
- 50 patient 2

7 -ciency
(2-3)

- 30 deficiencies
- 64 efficiency 2

8 past tense
(77-589)

- 1 interested 79
 - instructed 2
 - purchased 17
 - referred 18
 - satisfied 9
- 2 advertised 10
 - delivered 14
 - enclosed 179
 - extended 5
 - pleased 16
 - stated 5
 - used 53
- 3 ordered 10
- 4 returned 10
- 5 old-fashioned 3
- 6 circulated

8 past tense (contd.)

- 6 connected 3
- 7 discovered 4
- protected 4
- requested 11
- 9 mentioned 4
- selected 6
- 10 air-conditioned
- deducted
- investigated 2
- organized 10
- 12 objected
- represented 2
- 13 shipped 7
- 14 allowed 5
- 15 disposed
- 18 considered 5
- 19 contracted
- experienced 5
- 21 entered 2
- 22 exhausted 2
- righted 2
- 24 intended 3
- published 3
- 26 located 8
- 28 doubled 2
- neglected
- 32 enabled 2
- notified 3
- 34 disabled 3
- 36 covered 4
- 37 suggested
- 38 required 2
- 40 imposed
- invested
- recommended 2
- 41 indicated 3
- 43 distributed 4
- 45 clarified
- 47 conducted 4
- 49 decided 5
- experimented
- 50 accompanied
- assisted 2
- valued
- 51 presented
- 52 enacted
- 54 directed
- 57 reminded
- wondered
- 60 recovered

8 past tense (contd.)

- 63 assembled 2
- 65 verified
- 66 qualified 3
- 67 unexpected
- 68 demanded
- desired
- 71 composed
- 72 tested 2
- well-advertised
- 75 acquired
- 80 collected

9 disjoined r
(29-91)

- 1 workers 5
- 3 governor 2
- tractor 7
- 5 publishers 5
- 6 advertisers 7
- 7 bookkeeper 2
- 10 greater 10
- 12 contributors
- users 3
- 16 directory 5
- 17 contractors 3
- 19 writer 5
- 20 instructors 2
- 23 bookkeepers
- 24 publisher 2
- 27 distributors 4
- writers
- 29 worker 2
- 31 director 4
- 37 directors 4
- 52 distributor 2
- 55 typewriter 3
- 57 collector
- 61 investors
- 63 typewriters 3
- 71 speakers 2
- 76 reminder
- user
- 79 introductory 2

10 -ly

Not counted

11 -ily
(12-59)

- 5 steadily 2

11 -ily (contd.)

- 7 primarily 2
- 9 family 19
- 13 easily 15
- families 11
- 18 heavily 2
- 26 satisfactorily
- 32 temporarily
- 42 readily 2
- 64 family's
- 74 one-family 2
- 77 heartily

12 -ally
(15-71)

- 1 occasionally 3
- 3 finally 8
- 6 especially 16
- naturally 9
- 10 personally 11
- 16 accidentally
- 19 cordially 6
- 20 incidentally
- 25 specially 5
- 28 normally 2
- 33 substantially 3
- 38 nationally 2
- 39 centrally
- 46 totally 2
- 51 originally

13 oi
(53-172)

- 1 oil 12
- 3 join 11
- 5 enjoy 15
- 6 employment 4
- invoice 8
- joining
- 7 annoying
- avoid 7
- 8 enjoyed 5
- 10 point 14
- 11 disappointed 2
- Lloyd
- 12 boys 10
- 14 employees 18
- 15 disappointment
- standpoint 2
- 18 voyages

13 oi (contd.)

- 21 joy 2
- 23 appoint
- 24 Detroit 2
- 25 boiled
- 26 appointment 3
- appointed 4
- 27 joins
- 31 disappoint 2
- 32 employed 3
- 33 pointed
- 36 joined 2
- 37 boiler
- boilers
- enjoyable
- 40 Foy
- 47 employee 4
- 48 invoices
- 49 soil
- 57 boy 3
- choice 5
- 62 destroy
- 63 loyal 2
- noiseless
- 64 annoyance
- 72 destroying
- destroyed
- jointly
- 75 enjoyment
- 76 toy 2
- toys
- 77 coin
- 78 boil
- points 2
- 79 annoy
- enjoying
- 80 loyalty

14 -ure, -ture
(34-182)

- 1 feature 4
- manufacturing 6
- 2 manufacture 18
- 5 figure 4
- manufacturer 10
- 6 natural 2
- naturally 9
- 7 manufactured 3
- procedure 3
- secure 13

14 -ure, -ture (contd.)

- 8 manufacturers 16
- 9 picture 7
- 11 figures 7
- 15 features 12
- signature 7
- 17 pictures 11
- 20 furniture 10
- 22 structure
- 23 literature 12
- 27 expenditure 2
- 29 featured 2
- 30 nature 4
- 33 century 3
- 34 temperature 3
- 44 signatures
- 47 procedures 2
- 57 featuring
- venturing
- 60 securing 2
- 63 figuring
- pasture 2
- 70 lectures
- 72 legislature
- pastures

15 -ual, -tual
(16-62)

- 2 manual 12
- schedule 17
- 3 annual 9
- 7 scheduled 4
- 24 actual
- 27 actually 7
- 43 mutually
- 47 annually 3
- 54 equally
- 59 continually
- 60 eventually
- 66 schedules
- 68 gradual
- 71 mutual
- scheduling
- 80 factual

16 re-

- (95-566)
- 1 reasonable 11
- reasons 8
- replacing

16 re- (contd.)

- 1 representatives 8
- 2 receipt 9
- receive 83
- recently 39
- recent 14
- reciprocate
- revising
- 3 reason 17
- received 62
- refund 6
- replacement 7
- representative 45
- reserve 5
- reservation 3
- resume 2
- 4 refreshed
- replies
- response 3
- report 17
- result 15
- revise 3
- 5 replace 7
- responsibility 4
- 6 receiving 11
- reservations 8
- 7 repayment
- 8 reception
- respect 3
- 9 represents 9
- responsible 7
- 10 resumption
- 11 reaction
- refrigerator 4
- reprinted
- revised 9
- 12 receiver
- reply 8
- represented 2
- 13 reasonably 2
- reflect
- repair 7
- 14 rebuilt
- repaired 5
- replaced 2
- 16 repairing
- 17 replied
- 19 results 4
- 21 reports 12
- reserved

16 re- (contd.)

- 22 repairs 18
- revealed
- 23 receives
- 25 reject
- repeated
- resuming
- 26 revision 2
- 28 resorts
- summer-resort
- 29 reception
- 30 rescue
- 31 reorganization 2
- research 9
- reserves
- resources
- resulted 3
- 33 repay 3
- 36 represent 4
- 37 reactions 2
- 39 reputation 4
- 42 restore
- resulting
- 45 representing
- 46 replying
- reserved
- 49 restrict 3
- reveals
- 51 replied
- 53 receipts
- 57 resumed
- 62 respects
- 63 reflection
- 64 rechecked
- repayment
- residents
- 66 revealing
- 67 residences
- 69 registration
- 70 reporting 2
- 72 reopening
- reported
- reverse 2
- 77 recipes 4

17 be-

(13-112)

- 1 begin 7
- 3 because 58
- 5 behalf

17 be- (contd.)

- 12 beyond 6
 - 14 become 16
 - beginning 8
 - 25 behind 3
 - 26 beginners 3
 - 27 beginner 2
 - beginner's
 - 42 becoming 4
 - 50 became 2
 - 72 belongs
- 18 de-
(42-208)
- 1 delay 21
 - department 42
 - 2 describing 7
 - 3 delighted 9
 - 4 designed 20
 - 5 depend 11
 - depositors
 - 7 deposit 8
 - deposits 2
 - 9 design 2
 - 14 departments 3
 - 16 decide 5
 - descriptive 5
 - 18 designing 5
 - 19 described 5
 - 20 dependent 2
 - 21 decisions 2
 - 23 depleted
 - 24 decision 6
 - 26 deposited
 - 28 depreciate
 - derive 4
 - description 4
 - 29 dependability 2
 - 31 describes 7
 - 32 despite
 - 33 deserve
 - 38 dependable 3
 - 39 depart
 - 40 delightful
 - depends 3
 - 41 designers 3
 - 43 depended
 - 45 descriptions 2
 - 47 describe 5
 - 49 decided 5

18 de- (contd.)

- 62 destroy
- 72 delayed
- destroying
- destroyed
- 75 depreciation
- 77 deluxe

19 dis-

(53-114)

- 1 discontinued 2
- 2 discussed 2
- displays 2
- 3 discontinue 2
- dislike
- 4 discuss 23
- 6 district 3
- 7 discovered 4
- discretion
- 8 display 10
- 10 discussing 2
- 11 disagreeable
- disappointed 2
- disposal 5
- 12 dispose 3
- 14 destination 4
- 15 disappointment
- disposed
- 16 discount 15
- disposition 3
- 17 disregard
- 21 distance 2
- 27 distributors 4
- 30 distressed 2
- 31 disappoint 2
- designated
- 34 disabled 3
- 35 distinctly
- distribution 2
- 36 dishonesty
- distributing
- 38 discounts 2
- 39 long-distance
- 40 discovery
- 43 discussion 2
- distributed 4
- 46 disability 5
- distinctive
- 48 discover 2
- 51 displayed

19 dis- (contd.)

- 51 disposing 2
- 52 distributor 2
- 56 distinction
- 57 discontinuing
- 58 discharged
- 59 distract
- 60 disturbing 2
- 63 discussions
- distinct 2
- 68 discreet
- 70 distribute 2
- 75 disconnect
- 80 disadvantages

20 mis-
(3-5)

- 27 mistakes 2
- 45 misplaced
- 54 mistake 2

21 i (vowel)
(18-50)

- 1 client 2
- 8 appliances 9
- appliance 4
- prior 2
- 11 clients 2
- trial 13
- 13 quiet 2
- supplier 2
- 18 Diamond
- 19 lion's
- 26 suppliers 2
- 30 diet
- 57 Ryan
- 61 unbiased
- 63 scientifically
- scientific 2
- 68 pioneering
- 72 Miami 3

22 ia
(19-90)

- 2 appreciate 46
- 7 appreciated 6
- 8 enthusiasm
- 20 association 9
- 21 negotiations

22 ia (contd.)

- 28 depreciate
- 29 enthusiastic 4
- 36 brilliant 2
- 42 appropriate 4
- 46 associates 2
- 47 associations 4
- 56 appreciation 4
- pianist
- 66 associate
- 68 aviation
- 69 variation
- 75 depreciation
- negotiate
- 79 appropriation

23 ea
(5-13)

- 2 area 5
- 12 created 3
- 18 creates
- 28 areas 2
- 31 create 2

24 -ther
(19-256)

- 1 either 7
- together 6
- 2 other 94
- whether 50
- 3 another 20
- 4 further 24
- rather 11
- 5 furthermore 9
- 6 others 9
- 10 weather 12
- 16 leather 4
- 19 leather-bound
- 26 neither 2
- 30 mothers
- 46 father 2
- 55 bother
- 69 mothers
- 70 farther
- gather

25 w
(31-124)

- 2 quickly 24

25 w (contd.)

- 3 equipment 31
- quota 3
- 6 qualification 3
- 8 quotations
- 9 quotation 2
- 11 persuade
- 13 quiet 2
- 14 equipped 6
- 15 square 4
- 18 get-acquainted
- quite 7
- quote
- 19 qualify 2
- 23 acquainted 8
- 24 quarter 4
- 29 twin 2
- 34 Broadway
- 35 requisition
- 42 squares
- twisted
- 43 hardware 4
- 53 acquaintance
- 55 liquid 2
- 57 banquet 2
- 58 quick 2
- 59 acquaint
- 66 qualified 3
- 75 quarters
- 77 twice 2

26 ah-
(1-8)

- 16 ahead 8

27 aw-
(5-19)

- 1 awhile
- 5 away 11
- 25 await 2
- 52 aware 4
- 66 long-awaited

28 y
(1-8)

- 11 young 8

- 29 ye
(1-1)
61 yields
- 30 ya
(1-1)
58 yarn
- 31a (short u) (n)
(30-152)
3 country 28
done 26
front 3
refund 6
6 personal 19
7 funds 13
10 personally 11
11 fun 4
sun
13 personality 3
16 countries 6
18 tons
22 punishment
24 confronted
29 functioning
34 functions
39 run 4
47 millions 2
53 fund 2
sons
57 son 5
59 bungalow 2
bungalows
60 punctuation
trunk 2
63 country's 2
personalities
66 son's 2
76 function
sons'
- 31b (short u) (m)
(27-307)
1 come 49
coming 21
some 110
5 jump
sum 7
6 comes 17
- 31b (short u) (m) (contd.)
6 Cummings 3
something 12
7 income 10
10 someone 5
11 sometime 9
welcome 12
12 become 16
sums
13 incomes
14 summary 3
23 summer 15
28 summer-resort
42 becoming 4
45 lumber 2
50 plumbing
57 income-tax
overcome
71 somewhat
78 welcoming
79 drum 2
80 handsomely
- 32 (short u) (downstroke)
(9-94)
2 touch 18
4 much 57
6 budget 7
9 judge 3
11 rush 3
35 toothbrushes
39 judgment 2
41 touched
48 much-prized
- 33 ng
(28-85)
2 bring 19
5 single-copy 2
8 brings 6
11 King
spring 8
young 8
13 single 4
15 strong 6
19 English
21 strength
24 Springfield
strongly 4
- 33 ng (contd.)
27 bringing 3
30 length
31 England
40 strings
45 lang
50 bang
shingle
54 wrong 2
59 bungalow 2
bungalows
lengthy
62 extra-strong
63 stronger
69 ring
springs
76 New England 5
- 34 ngk
(29-118)
5 bank 22
Frank 8
7 banking 5
tank 7
tanks
17 Lincoln
19 blank 21
frankly 5
22 ink
23 anxious 12
25 blankets 4
blanket 2
29 functioning
34 functions
35 distinctly
37 drinks 2
38 blanks 5
43 bankers 3
banks
46 distinctive
48 Frank's
52 sprinkler 3
sprinkles
56 distinction
57 banquet 2
60 punctuation
trunk 2
63 distinct 2
76 function

35 under-
(4-5)

- 6 undertaking 2
- 31 undertaken
- 63 understood
- undertakes

36 over-
(13-20)

- 1 overdue 3
- 4 overhead
- 7 overpaid
- oversight 4
- 23 overpayment
- 33 overlooked 3
- 42 overloaded
- overloading
- 57 overcome
- 65 moreover
- 69 overtime
- 77 overhauling
- overwhelming

37 rd
(61-280)

- 2 card 80
- cards 6
- 3 record 8
- word 4
- 4 hard 6
- 5 standards 8
- 6 expired
- 7 manufactured 3
- occurred 9
- prepared 17
- records 25
- 8 offered 5
- 9 standard 6
- 11 stored
- 12 suffered
- 13 third 2
- 14 repaired 5
- 15 hard-earned 2
- transferred
- words 10
- 16 according 7
- assured 4
- 18 heard 7
- 19 accordingly 2
- 20 conquered

37 rd (contd.)

- 20 guard
- insured 4
- 21 postcard 2
- 24 wired 3
- 27 compared
- toward 2
- 28 gardening 2
- measured 2
- preferred 2
- 29 featured 2
- 30 incurred
- 31 filtered
- 32 board 6
- 36 hired
- 38 answered 2
- 40 accordance 2
- scattered
- 43 hardware 4
- uninsured
- 44 deferred-payment
- 49 garden 3
- gardens
- 50 harder
- 56 Leonard
- worded
- 58 boards
- blackboards
- 60 hazards
- lowered
- 63 Packard
- 65 rendered
- 66 boarding
- Steward
- 68 verdict
- 74 honored
- 75 hardly

38 ld
(68-327)

- 1 building 27
- children's 5
- 2 compelled 2
- field 21
- filed
- folders 10
- handled 6
- 3 builders
- called 14
- held 9

38 ld (contd.)

- 3 installed 11
- sold 19
- 4 build 8
- entitled 9
- filled 12
- 5 old-fashioned 3
- told 10
- 6 detailed 8
- folder 20
- 7 scheduled 4
- 10 fields 4
- holding 4
- 11 cold 4
- 12 children 12
- 14 stockholder 2
- 15 old 21
- 16 Arnold
- 17 compiled 4
- oldest 2
- 18 hold 5
- 19 hold
- withhold
- 20 sealed
- 22 holds 2
- revealed
- 23 settled 4
- skilled
- 25 boiled
- enrolled 3
- 26 canceled
- 27 old-timers
- 30 child 5
- 34 controlled
- 35 failed 4
- mailed 9
- sealed
- 37 household 4
- 38 holders 2
- 46 older
- unsettled
- 47 billed
- buildings
- 51 building-supply
- canceled
- 56 child's
- 61 yields
- 63 builds 2
- 64 traveled
- 69 folding 4

38 ld (contd.)

- 69 fold
folded
Harold
Mild
70 killed
totaled
72 fulfilled 2
74 skilled
78 policyholders

39 ū

(38-160)

- 1 beautiful 7
few 54
fuel 3
units 9
2 view 8
3 unit 16
4 beauty 3
5 executives 10
executive 4
6 University
7 documents 3
12 confusion
13 executed
unique
25 views
27 consecutive
30 rescue
31 huge
36 Fairview 3
United
38 humor 4
39 reputation 4
40 Europe 3
46 graduate 2
51 accumulation
53 Union 2
54 human 3
60 punctuation
uniformity
63 computing
Hughes
64 executor
66 interview
68 graduated
70 bureau
73 interviews

39 ū (contd.)

- 73 purely
78 uniforms 2

40 ow

(17-172)

- 1 now 117
thousands 14
3 flour
4 doubt 12
powder 2
7 ounces
12 crowded 2
14 power 3
20 proud 7
28 Flower 2
31 doubtless
35 toothpowder
36 powerful
39 flowers
51 undoubtedly 2
62 South 2
69 ounce 3

41 ted, ded, det
(102-413)

- 1 today 77
2 credit 59
posted 2
transmitted
study 16
3 delighted 9
home-study
limited 7
listed 20
5 entrusted
steadily 2
6 detailed 8
included 7
7 appreciated 6
determine 11
steady 2
8 estimated
excited 4
visited 2
9 seated
10 amounted 2
deducted
started 7

41 ted, ded, det (contd.)

- 10 studying 3
11 detail 8
details 13
editor 3
invited 7
12 created 3
crowded 2
studied
13 dead 2
executed
indeed 2
14 credited 3
deductions 4
15 deduct 6
16 demonstrated
farsightedness
forwarded 2
terminated
18 completed 11
19 accepted 2
22 loaded 2
operated 2
23 deduction 2
depleted
fitted 2
24 Detroit 2
needed 6
25 attended 3
repeated
26 admitted
deposited
27 allotted
attempted
determination
exceeded 2
fascinated
suited 4
31 designated
resulted 3
33 adapted
auditors
profited
36 provided
United
37 committed
38 edited
40 converted
editors

41 ted, ded, det (contd.) 42 men, mem (contd.)

40 incorporated
succeeded 2
42 farsighted 2
overloaded
studies 3
tw sted
unprecedented
44 added 2
instead 5
uninterrupted
46 determined
waited
47 above-listed
submitted
51 illustrated 3
undoubtedly 2
54 inaugurated 2
62 devoted
65 omitted
66 long-awaited
treated
trusted
68 graduated
71 crated
72 illuminated
reported
73 related
75 interrupted
77 illustrated
79 adjusted
80 divided

42 men, mem
(98-685)

1 manager 13
manufacturing 6
many 119
minutes 8
money 36
months 44
monthly 18
2 eliminate 7
examine 15
management 7
manual 12
manufacture 18
Memphis 2
men's 7

2 remained 3
salesmen 14
4 maximum 6
month 35
recommending 2
5 recommend 9
examined 7
manufacturer 10
men 43
6 comments 5
minute 19
members 10
Simon
7 administer 3
determine 11
examination 16
examinations
manufactured 3
8 maintain 7
manufacturers 16
9 mentioned 4
minimum 6
permanently 4
prominent 5
remains
10 businessmen 7
memorandum 3
11 member 7
membership 6
money's
performance 3
13 manner 9
month's 2
women 16
16 termination
terminated
18 Diamond
maintaining 2
Simons 3
19 memo 2
20 meant
21 aluminum 5
23 examining 2
24 manuscript 2
Minneapolis
25 memberships
26 eliminating
mention 4

42 men, mem (contd.)

26 re-examined
27 commonly
determination
29 comment 2
30 common
vitamin
36 tremendous 4
40 examiner
monotonous
recommended 2
42 permanent 2
43 bond-a-month
Minnesota
44 terminal
46 determined
managed
47 maintained
remaining
52 recommendations
53 women's
54 human 3
money-making
55 menace 2
57 prominently
58 Hoffman 3
61 craftsmen
65 managing 2
woman 3
66 manage
recommendation 2
69 maintains
72 illuminated
manages
woman's
75 terminate
76 memories

43a -nt, -nd
(198-1062)

1 account 79
client 2
friend 55
prevent
render 13
thousands 14
2 accounts 14
events 2
find 97

43a -nt, -nd (contd.)

- 2 found 22
recently 39
recent 14
well-planned 4
window 5
3 brand 2
country 28
different 17
front 3
refund 6
windows 9
4 around 6
designed 20
friends 25
laundry 3
laundries
pleasant 10
printed 11
sent 36
5 current 12
friendship 3
6 centers
printing 12
7 defined
funds 13
signed 7
turned
unpleasant
won't 28
8 assistant 5
event 5
Kent 3
fender
friendly 4
9 land
permanently 4
prints
prominent 5
guarantee 10
10 accounting 5
point 14
trained 7
well-trained 5
11 bail-bond
binding
clients 2
disappointed 2
plant 17
print 3

43a -nt, -nd (contd.)

- 11 printers 2
reprinted
winter 7
12 beyond 6
charge-account 3
complaints
expand 3
13 assigned 2
granted
grant 2
kinds 4
14 planned 10
15 disappointment
hard-earned 2
sound 5
standpoint 2
16 countries 6
discount 15
eventuality
17 ground 2
18 get-acquainted
printer 2
19 learned 5
20 dependant 2
excellent 6
foundation 2
haunt
outlined 5
21 count 9
kind 20
plenty 3
22 bonds 9
central 4
paint 4
percentage 2
23 acquainted 8
appoint
24 assistants
confronted
Grand Rapids
25 behind 3
26 accountant
accountancy 6
appointment 3
appointed 4
Hunt 2
27 candy 6
hundreds 3
28 Bond 10

43a -nt, -nd (contd.)

- 28 brand-new
30 guarantees 2
parents 6
ventilating
31 Atlanta 5
consistently 2
disappoint 2
guaranteed
plants 2
32 background 4
bindery
33 apparently 5
century 3
pointed
34 Hunter 2
36 bonded
brilliant 2
expanding 2
joined 2
preventing
rendering 2
38 center
discounts 2
39 centrally
gained 2
wind
40 continent
friendships 2
42 permanent 2
unturned
43 bond-a-month
44 kindly 2
45 explained
47 grounds 3
50 surrender
51 counted
52 inventory 2
servant 2
53 acquaintance
fund 2
inclined
56 lends
57 prominently
rounds
venture
59 acquaint
blinds
Prentice
rented

43a -nt, -nd (contd.)

- 60 eventually
finds
rent 2
63 country's 2
65 imprinted
rendered
66 applicant
applicants
concerned 2
Flint 2
plants 3
rental
67 landscaping 2
68 defendant
69 complained
correspondents
Huntington 2
splinter
70 renders
warrant
71 round-trip
72 husband's 2
husband
jointly
land
owned 2
73 hints
painting 3
painter's
painted
74 second 2
75 servants
surrounding
76 calendar
Santa 2
77 currently
kindness
78 points 2
round
79 cleaned 2
window-cleaning
80 well-printed

43b (vowel) nt, nd
(24-78)

- 1 entire 14
indication 3
3 entirely 2
4 entitled 9

43b (owel) nt, nd (contd.) 45a (e) ū (contd.)

- 5 entrusted
7 entrust 2
8 industry 8
12 indicates 3
15 entitles 2
indicate 13
19 entry 2
24 Indianapolis
26 indispensable
30 anticipate
36 endorse
indications 3
intelligently
41 indicated 3
45 indicating
53 intelli ent 3
56 independence
65 endorsement
66 industrial
industries

44a mt, md
(10-49)

- 1 informed 6
promptly 21
13 crammed
29 prompt 15
36 performed
transformed
57 resumed
58 promptness
63 acclaimed
71 formed

44b (v 1) mt, md
None occurring45a (e) ū
(80-547)

- 1 avenue 5
discontinued 2
due 30
manufacturing 6
new 157
overdue 3
suit 5
2 issued 12
manufacture 18
3 continue 19

- 3 discontinue 2
education 18
news 29
producing 3
4 issue, 28
5 manufacturer 10
reduced 6
6 community 13
continued 5
knew 4
7 manufactured 3
8 enthusiasm
manufacturers 16
9 renewal 17
10 issuing 2
11 students 11
15 newsstand
16 newly 3
18 issues 9
19 communicate 2
genuine 3
21 aluminum 5
22 communications 4
reduces
23 suits 2
24 manuscript 2
suitable 2
25 absolutely 2
dues
renew 7
27 genuinely
produce 4
suited 4
28 brand-new
produces
29 enthusiastic 4
30 continuous 3
nutrition 2
produced
reduce 5
reducing 2
32 sewer
33 undue
34 absolute
renewing
37 continuing 3
tissue
43 mutually
49 educational 6

45a (e) u (contd.)

- 49 student
visual-education
53 duty 2
56 instrument 3
music 4
musical 3
musician
Newton
57 discontinuing
tissues
65 duties 2
66 Steward
70 educating
71 mutual
72 illuminated
73 Susan
74 tuning
76 introducing
New England 5
77 nutritious 2
78 introduced

45b (minor vowel)
(25-110)

- 1 period 13
3 serious 9
5 real 12
really 8
9 realize 20
13 seriously 3
various 15
19 realized
24 linoleum 2
26 periodical
28 previous 4
45 periodicals
46 graduate 2
premiums 2
47 millions 2
55 ruin
60 punctuation
64 courteous 3
lawyer
65 union
68 graduated
74 periodically
premium
79 fluid 3
ideally

46 Days

- (7-40)
1 Wednesday 8
2 Friday 16
7 Thursday
Saturday
10 Monday 7
67 Tuesday 4
68 Sunday

47 Months

- (12-297)
1 April 72
November 18
3 May 29
October 23
4 June 50
6 August 13
December 10
March 28
8 July 14
September 25
20 February 6
January 9

48a Cities
(35-97)

- 1 New York 15
3 Denver 4
Washington 7
8 Oklahoma City 4
Providence
San Francisco 2
10 Long Beach
Los Angeles 2
Mexico City
Seattle
13 Newark
15 Chicago 22
18 Albany
Cleveland 2
21 Boston 2
New Haven
24 Detroit 2
Indianapolis
Minneapolis
Springfield
31 Atlanta 5
Philadelphia 2
39 Kansas City 4

48a Cities (contd.)

- 39 Milwaukee 2
43 Baltimore
Plainfield
St. Louis
48 St. Paul
66 Flint
Harrisburg
Pittsburgh
69 Huntington 2
71 Westfield
73 Jacksonville
75 Richfield

48b States

- (15-29)
3 New Jersey 3
New York 4
Pennsylvania 3
11 Florida
13 California
15 Illinois 5
23 Idaho
31 Georgia
Maine 2
New Hampshire
39 Michigan 2
43 Maryland
Minnesota
58 West Virginia 2
72 Alabama

48c Countries
(12-36)

- 10 Mexico
19 English
27 United States 8
31 Canada 2
England
37 Peru 2
39 American 9
40 America 2
Europe 3
48 France
70 America's
76 New England 5

49 (ow) n

- (38-278)
1 account 79

49 (ow) n (contd.)

- 1 Brown 28
- 2 accounts 14
- found 22
- 4 around 6
- 5 announced 2
- 6 county
- down 20
- towns 2
- 8 announcement 8
- 10 accounting 5
- 12 charge-account 3
- town 13
- 15 announce 5
- sound 5
- 16 discount 15
- 17 ground 2
- 19 bound 3
- leather-bound
- 20 foundation 2
- 21 count 9
- 24 council 3
- 26 accountancy 6
- accountant
- 32 background 4
- 38 Brown's 4
- discounts 2
- 39 announces
- 42 Browns
- 47 announcements
- grounds 3
- 51 counted
- 57 rounds
- 70 down-to-earth
- 71 round-trip
- 75 surrounding
- 76 council's
- 78 round

59 noun
(5-50)

- 1 amount 38
- 4 mountain 3
- 10 amounted 2
- 12 amounting 3
- 15 amounts 4

51a per-, pur-
(55-321)

- 1 operating 8

51a per-, pur- (contd.)

- 1 permit 11
- personnel 3
- properly 12
- 2 cooperate 11
- persons 12
- separate 12
- 3 operation 15
- perhaps 20
- 4 cooperation 19
- operate 12
- operators 3
- person 20
- 5 operations 4
- papers 15
- 6 personal 19
- 8 proper 16
- 9 copper 4
- permanently 4
- 10 personally 11
- purse
- 11 paper 26
- performance 3
- persuade
- wrappers 6
- 13 perfect
- personality 3
- 22 operated 2
- percentage
- 23 Harper
- operates 2
- 24 cheaper
- 26 separates
- 27 permits
- 32 Cooper 3
- permission 3
- 34 expiration 4
- operator's
- temperature 3
- 36 performed
- 37 prosperous
- 38 cooperating 2
- 39 experts 5
- 42 permanent 2
- 44 perfectly 3
- 45 upper
- 49 experimented
- experiments
- expert 2
- shopper

51a per-, pur- (contd.)

- 57 experiment 2
- 59 per
- 63 personalities
- 64 perplexes
- 70 performing

51b pro-
(65-335)

- 1 problems 19
- promptly 21
- properly 12
- 2 prospect 2
- 3 improve 7
- promised 3
- 4 profitable 15
- proving
- 5 approval 5
- proceedings 5
- profits 10
- 6 approached
- proceed 4
- project 5
- promises 4
- providing 7
- 7 procedure 3
- 8 program 35
- promoting 3
- promotion 5
- proper 16
- Providence
- 9 improving 5
- proposition 2
- prospects 5
- 10 promotions
- 12 approximate
- problem 10
- proportion
- provide 15
- 13 approaching 3
- promise 5
- 14 improvements 8
- provisions
- 18 provides 5
- 19 profit 20
- 21 improvement 2
- 26 process 3
- 27 processes
- profession 2
- 28 proves

51b pro- (contd.)

- 29 approximately 3
- prompt 15
- 31 proved 2
- 32 improved 3
- 33 profited
- 36 provided
- 37 proofreading
- projects 3
- prosperous
- 42 appropriate 4
- unprofitable
- 46 provision
- 47 procedures 2
- promote 3
- prove 3
- 49 programs 7
- 54 approve
- 55 mothproofing
- 58 promptness
- 63 professional 2
- 64 home-improvement
- 66 government-approved
- 75 professor
- 79 appropriation

52 -ment
(82-412)

- 1 agreements
- department 42
- installments 3
- payments 17
- payment 39
- 2 arrangements 10
- management 7
- 3 equipment 31
- replacement 7
- 4 adjustment 4
- advertisement 4
- advertisements
- 6 employment 4
- establishment 4
- government 12
- investment 17
- 7 documents 3
- requirements 27
- repayments
- shipments 5
- 8 announcement 8

52 -ment (contd.)

- 8 garments 2
- settlement 3
- 9 commitment 2
- shipment 29
- 10 advancement 2
- 12 assortment 3
- moments 3
- 13 arrangement 6
- 14 departments 3
- improvements 8
- installment 3
- statement 14
- reinstatement
- 15 disappointment
- moment 7
- 16 agreement 6
- 18 excitement
- 19 statements 2
- 20 establishment
- 21 investments 7
- improvement 2
- 22 punishment
- 23 garment
- overpayment
- 26 appointment 3
- 27 elementary
- 28 developments 3
- 30 elements 2
- supplementary
- 35 complimentary 3
- 39 judgment 2
- 41 adjustments 3
- 44 deferred-payment
- 46 compartment
- 20-payment
- 47 announcements
- 48 measurement
- 49 experimented
- experiments
- placement
- 51 consignment
- 56 instrument 3
- compliments 2
- 57 development
- encouragement
- experiment 2
- 58 time-payment
- 62 allotment

52 -ment (contd.)

- 63 requirement
- 64 home-improvement
- repayment
- 65 endorsement
- 66 government-approved
- 72 accomplishment
- 73 apartment 3
- 74 commitments
- engagements
- 75 enjoyment
- entertainment 4
- 76 accomplishments
- 77 basement

53 -ble
(45-267)

- 1 reasonable 11
- trouble 4
- 2 favorable
- possible 66
- 3 desirable 12
- 4 impossible 10
- profitable 15
- 5 valuable 14
- 7 unexplainable
- 9 responsible 7
- 10 comfortable 9
- 11 available 44
- disagreeable
- 13 unbeatable
- 14 payable 3
- eligible 2
- 18 reliable 4
- 20 remarkable 2
- 21 infallible
- 23 obtainable
- 24 suitable 2
- 26 indispensable
- 27 doubling
- 28 doubled 2
- table 11
- 33 troubles
- 34 disabled 3
- 37 durable 3
- enjoyable
- 38 dependable 3
- usable
- 39 cables

53 -ble (contd.)

- 42 unprofitable
- 44 considerable 3
- 46 vegetables 3
- 50 double
- 56 noticeable
- 57 tables 9
- 60 flexible
- 61 advisable
- 63 assembled 2
- 64 salable
- 69 unnoticeable
- 72 undesirable 3
- 80 readable

54 -ship
(11-28)

- 4 dealership 4
- relationship 4
- 5 friendship 3
- 11 membership 6
- 25 leadership
- memberships
- 40 friendships 2
- 48 steamship 2
- 52 ownership 2
- 61 workmanship 2
- 63 craftsmanship

55 -cle, -cal
(27-77)

- 1 articles 2
- 3 technical 7
- 9 economical 15
- 11 specifically 3
- 13 article 3
- bicycle 2
- 16 mechanical 3
- 22 automatically 3
- 26 periodical
- 27 practical 9
- 29 chemical 4
- 30 medical 7
- 34 optical
- 36 surgical
- 38 identical
- 40 logical 2
- 45 periodicals
- 49 economically

55 -cle, -cal (contd.)

- 56 musical 3
- 63 Biblical
- biographical
- physically
- scientifically
- 68 obstacle
- 72 chemicals
- electrically
- 74 periodically

56 -self, -selves
(7-50)

- 2 ourselves 3
- 5 yourself 34
- 10 themselves 6
- 27 himself 3
- 37 itself 2
- 54 himself
- 67 myself

57 after-
(1-2)

- 51 afternoon 2

58a pent, pend
(15-53)

- 2 opened 8
- 5 depend 11
- spend 7
- 20 dependent 2
- 23 happened 4
- 24 spent
- 27 expenditure 2
- 29 dependability 2
- 30 Carpenter 5
- 34 spending 2
- 35 turpentine
- 38 dependable 3
- 40 depends 3
- 43 depended
- 56 independence

58b jent, jend
(4-6)

- 36 intelligently
- 48 gentleman
- 53 intelligent 3
- 70 urgently

59a def, dev
(25-76)

- 3 different 17
- 4 develop 4
- 5 definitely 7
- 7 defined
- 9 definite 14
- 13 devote 2
- 17 devices 3
- 27 developing 2
- devoting
- 28 developments 3
- 30 deficiencies
- 41 defective 3
- 42 defects
- 44 deferred-payment
- 47 dividend 3
- 55 dividends 2
- 57 development
- 59 division
- 60 devise 2
- 62 devoted
- 63 developed 2
- 68 defendant
- 73 endeavor
- 78 divert
- 80 divided

59b tif, tiv
(19-50)

- 5 executives 10
- executive 4
- informative 4
- 6 alternative
- 9 gratifying 2
- 11 certificate 7
- 15 sensitive
- 16 descriptive 5
- 20 notify 2
- 27 consecutive
- 32 notified 3
- 40 certificates
- superlatives 2
- 43 rectify 2
- 55 relatives
- 61 notifying
- 63 scientifically
- scientific 2
- 71 tentative

- 60 electr-
(3-12)
20 electrical 2
21 electric 9
72 electrically
- 61 inter-, intro-, enter
(24-177)
1 interested 79
2 interest 40
4 interesting 15
11 entertaining 2
interruption 3
12 interrupt
14 enter 7
18 interestingly
19 interests 4
21 entered 2
26 entrance 3
re-enter
27 entering 3
32 international
48 enterprise 2
56 enterprises
66 enterprising
interview
73 interviews
75 entertainment 4
interrupted
76 introducing
78 introduced
79 introductory 2
- 62 short-
(6-17)
4 shortly 9
21 short 4
50 shorthanded
51 shortage
68 shorthand
73 shortcuts
- 63 ship-
None occurring
- 64 -ful
(19-108)
1 beautiful 7
- 64 -ful (contd.)
1 carefully 29
2 careful 16
grateful 4
helpful 8
11 useful 12
12 rightfully
13 wonderful 6
15 successful 8
16 thoughtfulness 5
21 successfully 4
25 forceful
36 powerful
40 delightful
48 colorful
unmindful
57 usefulness
64 skillful
77 healthful
- 65 -ify
(12-23)
7 simplify 5
9 gratifying 2
19 qualify 2
20 notify 2
32 notified 3
31 specify
38 classify
43 rectify
45 clarified
61 notifying
65 verified
66 qualified 3
- 66 -ification
(3-7)
6 qualifications 3
11 identification
33 specifications 3
- 67 -gram
(3-45)
8 program 35
23 telegram 3
49 programs 7
- 68 -rity
(6-14)
5 majority
23 superiority
36 authority 6
42 priority
61 securities 2
65 security 3
- 69 -lity, -lty
(24-79)
3 possibilities 3
quality 17
4 possibility 9
5 responsibility 4
13 individuality
personality 3
14 facilities 11
15 high-quality 4
16 eventuality
22 ability 6
durability
25 stability
27 specialty
29 dependability 2
30 locality 2
43 reliability
44 liability
46 disability 5
52 desirability
63 personalities
67 inability
74 qualities
76 reality
80 loyalty
- 70a den, ten
(106-347)
1 attention 31
circumstances 5
discontinued 2
intention 2
2 extended 5
3 attend 4
continue 19
discontinue 2
Denver 4
dinner 4
incident

70a den, ten (contd.)

3 president 11
 unfortunate 4
 Washington 7
 4 substantial 7
 5 contents 3
 extend 8
 standards 8
 written 8
 6 continued 5
 Martin 4
 stencil 3
 7 confidential 5
 extent 5
 fortunate 4
 ten 7
 8 accident 9
 extensive 3
 Providence
 9 constantly 18
 standard 6
 10 gotten
 guidance 3
 11 identification
 students 11
 tennis
 unfortunately 10
 12 residence
 14 destination 4
 15 fortunately
 16 accidentally
 17 Austin
 constant 5
 rewritten
 18 forgotten 3
 20 incidentally
 21 distance 2
 24 intended 3
 potential
 25 attended 2
 bulletin 3
 27 cartons
 intensive
 Pennington
 28 extensively
 29 brighten
 30 accidents 8
 continuous 3
 straighten

70a den, ten (contd.)

32 batons 2
 33 intend 3
 substantially 3
 34 accidental
 35 attending
 suddenly
 36 scrutinize
 37 continuing 3
 stencils 6
 38 identical
 39 Clayton 2
 long-distance
 40 continent
 danger 2
 monotonous
 42 unprecedented
 43 prudent
 45 extending
 46 fortune
 47 Clinton
 dividend 3
 49 opportune
 student
 51 acceptance
 evidently
 52 wooden
 55 dividends 2
 56 audience 3
 Newton
 suddenly
 57 discontinuing
 hidden 2
 59 continually
 64 residents
 66 identity
 nonresident
 67 residences
 68 Scranton
 69 attended
 competent
 Huntington 2
 70 dangers
 71 tentative
 74 presidents
 tightening
 75 well-written
 77 condensed 2

70b tain

(19-85)

1 obtain 9
 2 attained 2
 4 containing 6
 mountain 3
 6 certainly 3
 8 maintain 7
 9 certain 9
 11 entertaining 2
 15 contain 6
 17 contains 21
 18 maintaining 2
 22 obtained 2
 23 obtainable
 24 obtaining 4
 35 containers
 47 maintained
 60 contained
 69 maintains
 75 entertainment 4

71 dem, tem

(40-208)

1 temporary 2
 2 customers 42
 customer 22
 3 Adams 3
 items 24
 item 12
 tomorrow 6
 5 damages 2
 8 damage 11
 demand 18
 estimated
 10 customary
 rock-bottom
 16 damaged
 demonstrated
 17 demonstrate 6
 18 costume
 20 automatic
 stimulating
 21 demands 5
 demonstration 3
 22 automatically 3
 stimulate
 23 optimistic 2
 27 attempted

- 71 dem, tem (contd.)
 31 domestic
 32 temporarily
 34 temperature 3
 35 accustomed 2
 36 medium 3
 38 freedom 2
 system 11
 42 estimate 4
 49 tomatoes
 52 custom
 53 systematic
 59 attempt
 64 contemplate
 65 bottom 2
 68 demanded
- 72 tern, term
 (22-56)
 6 alternative
 turn 8
 7 determine 11
 turned
 11 turning 2
 16 terminated
 termination
 19 Stern
 20 term 3
 23 patterns 6
 27 determination
 terms 10
 39 pattern
 42 unturned
 44 terminal
 western
 46 determined
 50 attorney
 attorneys
 53 eastern
 68 turns
 75 terminate
- 73 dern, derm
 (2-17)
 11 modern 16
 28 modernize
- 74 thern, therm
 (1-2)
 65 northern 2
- 75 ort
 (16-60)
 4 report 17
 5 transport 3
 6 airport
 12 assortment 3
 15 Porter
 16 export
 17 transportation 11
 21 reports 12
 23 sporting 3
 28 resorts
 summer-resort
 40 courts
 48 sport
 64 court
 70 reporting 2
 72 reported
- 76 c(t)
 (86-372)
 1 expect 14
 facts 15
 instructed 2
 strictly 4
 2 prospect 2
 3 tractor
 4 contract 17
 exactly 11
 5 act 15
 protect 8
 6 connected 3
 district 3
 products 50
 project 5
 select 11
 7 collect 7
 protected 4
 8 contact 5
 impact
 respect 3
 9 product 11
 prospects 5
 selected 5
- 76 c(t) (contd.)
 10 deducted
 11 attractive 15
 instruct
 13 perfect
 reflect
 15 deduct 6
 fact 24
 16 effective 12
 17 contractors 3
 exacting
 18 effect 8
 exact 5
 19 active 5
 contracted
 contracts 2
 inspect 3
 20 instructors 2
 21 affect 5
 22 strict 4
 24 affects 2
 25 activities 6
 expects
 predict
 reject
 27 conducting 2
 expectations 2
 28 compact
 neglected
 34 protects
 35 distinctly
 37 projects 3
 38 instructive
 40 collecting
 41 defective 3
 42 defects
 neglect
 44 perfectly 3
 46 distinctive
 47 conduct
 conducted 4
 selecting
 48 effectively
 49 restrict 3
 50 erect 2
 52 enacted
 57 collector
 59 distract

76 c(t) (contd.)

- 59 subtract
- 61 activity 2
- 62 respects
- 63 distinct 2
- 63 life-expectancy 4
- 66 contacts
- strictest
- 67 unexpected
- 68 attractiveness
- verdict
- 69 constructive
- 70 acts
- 74 prospective
- 75 disconnect
- 79 introductory 2
- 80 collected

77 s(t)

(one syllable)

(17-312)

- 1 first 47
- rest 9
- 2 past 55
- 3 best 47
- last 51
- 4 cost 52
- costs 28
- 7 lasts 3
- 12 first-class 9
- rests
- 21 testing
- 27 low-cost
- 28 lasting 2
- 35 tests 2
- 36 costly
- 41 best-known
- 72 tested 2

78 s(t)

(two syllable)

(55-338)

- 1 assistance 13
- interested 79
- insists
- 2 interest 40
- latest 21
- 4 interesting 15
- 5 against 20
- 6 investment 17

78 s(t) (contd.)

(two syllable)

- 8 assistant 5
- 12 largest 10
- typist
- 16 nearest 14
- 17 oldest 2
- 18 interestingly
- 19 contest 11
- interests 4
- 20 honesty
- 21 finest 15
- investments 7
- 22 exhausted 2
- 23 simplest 2
- 24 assistants
- 27 consists 6
- 28 tourists
- 29 artists
- 31 biggest
- consistently 2
- consist
- forests
- insist 2
- 34 modest
- 36 dishonesty
- exists
- 38 motorist's
- 40 insisting
- invested
- motorist
- 43 assist 5
- invest 2
- 44 Digest 2
- 47 contests 4
- 48 tourist 4
- 50 assisted 2
- 52 existing
- motorist 2
- motorists
- 56 pianist
- 61 investors
- modesty
- 63 earnest
- 64 safest 2
- 69 assisting
- fastest
- typists 3
- 73 chemistry

79 disjoined st

(6-29)

- 7 lowest 5
- 8 greatest 11
- 13 highest 4
- 18 earliest 7
- 21 easiest
- 65 strictest

80 (d)

(27-102)

- 2 extended 5
- 4 recommending 2
- 5 extend 8
- recommend 9
- 6 mind 20
- 8 demand 18
- 14 reminds
- 17 remind 5
- 18 Diamond
- 19 bound 3
- leather-bound
- 21 demands 5
- 24 intended 3
- 33 intend 3
- 40 recommended 2
- 45 extending
- 47 dividend 3
- 48 unmindful
- 52 recommendations
- 55 dividends 2
- 57 reminded
- 62 minds
- 66 recommendation 2
- 67 demanded
- 73 reminding
- 75 command
- 76 reminder

81 incl-

(5-35)

- 6 include 8
- included 7
- 7 including 6
- 17 includes 13
- 53 inclined

82 post-

(4-27)

- 4 postage 15

82 post- (contd.)

- 15 postscript 8
- 21 post card 2
- 62 post offices 2

83 super-, supr-
(6-17)

- 12 support 11
- 23 superiority
- 40 superlatives 2
- 46 supervision
- 64 superior
- 65 supervise

84 trans-
(11-28)

- 2 transmitted
- 5 transport 3
- 14 transit
- 15 transferred
- 17 transportation 11
- 25 transmit
- 26 transaction 2
- 36 transformed
- 66 transferring 2
- transfer 3
- 68 transcribe 2

85a con-
(88-393)

- 1 condition 16
- consequently 39
- convenient 13
- discontinued 2
- 2 construction 4
- conveniently 2
- 3 conditions 17
- continue 19
- discontinue 2
- 4 consequence
- containing 6
- contract 17
- 5 contents 3
- 6 connected 3
- continued 5
- 7 conditional
- 8 contact 5
- 9 concerning 13
- constantly 18

85a con- (contd.)

- 10 air-conditioned
- 11 convenience 36
- 12 confusion
- contributors
- control 6
- conversations
- 13 inconvenience 5
- 14 consult 6
- 15 contain 6
- 17 constant 5
- contains 21
- contractors 3
- 18 concerns 3
- 19 contest 11
- contracted
- contracts 2
- 20 connection 6
- conquered
- 24 confronted
- 25 concern 2
- 26 congratulate 2
- 27 conducting 2
- consecutive
- consists 6
- 30 continuous 3
- 31 consistently 2
- consist
- 32 confer
- 33 convinced 2
- 34 conditioner 2
- conditioning
- controlled
- 35 containers
- 36 controlling
- convey 2
- 37 continuing 3
- contribute 4
- contribution 3
- 39 convention 6
- 40 continent
- converted
- 47 conduct
- conducted 4
- contests 4
- 49 conveniences
- 50 congratulations 3
- 51 consignment
- convincing

85a con- (contd.)

- 52 convince 3
- 57 discontinuing
- 59 confectionery
- consumer 2
- continually
- inconvenient
- 60 contained
- 64 contemplate
- 66 concerned 2
- contacts
- 68 conscientious
- 69 concise
- constructive
- contrary
- 70 congress 2
- 74 consulting
- 75 concerts
- disconnect
- 77 condensed 2
- 78 confirm
- 79 contributions 2

85b com-
(57-229)

- 1 completely 21
- 2 compelled 2
- complete 56
- 3 commission 7
- competitors 3
- 4 combination 4
- comfort 16
- recommending 2
- 5 recommend 9
- 6 comments 5
- community 13
- 9 accomplish 2
- commitment 2
- comfortably
- 10 comfortable 9
- 12 complaints
- 17 compiled 4
- 18 completed 11
- 19 communicate 2
- 22 communications 4
- 25 completing
- 26 commercial 5
- 27 commonly
- compared

85b com- (contd.)

28 compact
 29 comment 2
 30 common
 32 committee 6
 comply
 34 combine
 35 complimentary 3
 36 compensation 2
 comprehensive
 37 committed
 40 recommended 2
 44 commit
 46 compartment
 47 compulsory
 52 compiling
 recommendations
 54 competition 2
 55 combat 2
 56 compliments 2
 57 completion
 58 commerce
 63 computing
 66 recommendation 2
 69 competent
 complained
 71 completeness
 composed
 72 accomplishment
 73 combines
 74 commitments
 75 command
 76 accomplishments
 78 complex

86a kn-
(5-21)

3 economics
 5 Conrad
 economy 3
 9 economical 15
 49 economically

86b kn-
(3-21)

2 accommodate 4
 11 accommodations 15
 29 accommodating 2

87 (e)n, (i)n
(118-578)

1 informed 6
 insists
 installing 7
 installments 3
 instructed 2
 intention 2
 2 increase 29
 information 118
 institution 3
 3 incident
 installed 11
 installation 10
 increases 8
 increased 12
 4 increasing 12
 5 engineers 4
 enjoy 15
 informative 4
 inform 8
 install 7
 inquire 4
 insurance 63
 investment 17
 invite 10
 invoice 8
 involved 9
 7 income 10
 instructions 13
 insure 5
 investigate 3
 8 enjoyed 5
 enthusiasm
 inviting
 9 inquiry 11
 inquiries 2
 10 invariably
 investigated 2
 invites
 11 instruct
 invited 7
 13 incomes
 inconvenience 5
 indeed 2
 14 injury 4
 installment 3
 reinstatement

87 (e)n, (i)n (contd.)

16 inquiring 3
 18 investigation 2
 19 enlist
 inspect 3
 20 enroll 3
 incidentally
 institute 3
 instructors 2
 insured 4
 21 infallible
 investments 7
 24 insulation
 intended 3
 invitation 8
 25 enrolled 3
 26 enrolling
 instruction
 27 intensive
 28 insulate
 29 engineer
 enthusiastic 4
 30 incurred
 31 engaged
 insist 2
 33 intend 3
 37 enjoyable
 38 instructive
 39 insertion
 40 enforced
 incorporated
 insisting
 invested
 42 encouraging 2
 encourage
 43 insufficient
 invest 2
 uninsured
 44 instead 5
 uninterrupted
 46 injuries 2
 inspection 2
 48 engineering 2
 invoices
 52 inventory 2
 53 engage
 enlarged 2
 institutions 3

87 (e)n, (i)n (contd.)

- 55 engine
- 56 instrument 3
- 57 encouragement
- income-tax
- 59 inconvenient
- 61 investors
- 62 enlarged 2
- 66 flight-instruction
- instituting
- 67 inferior 2
- reinsure
- 69 incorporate
- 70 infrequently
- 72 influence
- 73 endeavor
- 74 engagements
- 75 enjoyment
- insert
- installations
- 77 engines
- influential
- 78 increasingly
- 79 enjoying
- 80 involves

88 (u)n
(26-76)

- 1 until 25
- unpaid 3
- 3 unfortunate 4
- unsatisfactory
- 5 unless 10
- 7 unpleasant
- 9 unquestionably
- 11 unfortunately 10
- 13 unbeatable
- 20 unimpressive
- 33 undue
- 34 untimely
- 42 unprecedented
- unprofitable
- unturned
- 43 uninsured
- 44 uninterrupted
- 46 unsettled
- 48 unmindful
- 51 undoubtedly 2
- 55 untried

88 (u)n (contd.)

- 61 unbiased
- 65 unprejudiced
- 70 unselfish
- 72 undesirable 3
- 78 unforeseen

89 en, in
(9-21)

- 6 initial 5
- 10 inexpensive 4
- 12 initials 3
- 43 energy 3
- 52 enacted
- 54 inaugurated 2
- 64 inaugurate
- 65 inherits
- 67 inability

90 un-

- (6-11)
- 7 unexplainable
- 11 unnecessarily
- 13 unusual 5
- 66 unhurried 2
- 67 unexpected
- 69 unnoticeable

91 (e)m, (i)m
(25-81)

- 3 impression 2
- improve 7
- 4 impossible 10
- 6 employment 4
- 7 impress 2
- 8 impact
- 9 improving 5
- 11 impressions
- 14 employees 18
- improvements 8
- 16 embody
- 19 embossed
- 20 unimpressive
- 21 improvement 2
- 30 reimburse
- 32 employed 3
- improved 3
- 40 imposed
- 46 emphasize

91 (e)m, (i)m (contd.)

- 47 employee 4
- 64 impressive
- home-improvement
- 65 imprinted
- 70 emphasizing
- 73 impair

92 em-, in-
(3-7)

- 10 imagine 2
- 12 emergency 4
- 39 emergencies

93 for-, fore-, fur-
(61-504)

- 1 forward 25
- informed 6
- 2 formerly 2
- information 118
- therefore 61
- 3 effort 12
- unfortunate 4
- 4 comfort 16
- form 27
- further 24
- 5 before 53
- informative 4
- inform 8
- furnace 7
- furthermore 9
- 7 fortunate 4
- 8 Ford 3
- 9 comfortably
- formula 2
- 10 affords 2
- comfortable 9
- foresight
- 11 performance 3
- unfortunately 10
- furnished 2
- 14 afford 5
- 15 form-fitting
- fortunately
- 16 forms 10
- forth 4
- forwarded 2
- 18 forgotten 3
- forwarding 2

- 93 for-, fore-, fur- (contd.)
- 19 former 4
 - 20 forging
 - furnishings 5
 - furnishing 2
 - furniture 10
 - 22 fourth 2
 - 23 foreman 2
 - platforms
 - 24 foresee
 - 25 forceful
 - 32 efforts 3
 - 34 force 4
 - 36 performed
 - transformed
 - 40 enforced
 - forced 2
 - forget 2
 - 43 furnish 6
 - 46 fortune
 - 60 uniformity
 - 65 formal 2
 - 70 forecast 2
 - foremost 2
 - performing
 - 71 formed
 - 77 furnaces
 - 78 unforeseen
 - uniforms 2
- 94 al-
(7-128)
- 1 although 6
 - 2 already 27
 - also 86
 - 6 alternative
 - 18 Albany 2
 - 24 almost 5
 - 44 alter
- 95 sub-
(11-64)
- 4 substantial 7
 - 5 subscription 29
 - 9 subscriptions 9
 - 12 submit 2
 - 28 subscribers 7
 - 33 substantially 3
 - 47 submitted
- 95 sub- (contd.)
- 59 subtract
 - 77 subsequent
 - 78 charter-subscription
 - subscriber 3
- 96 ul
(8-32)
- 4 result 15
 - 14 consult 6
 - 19 results 4
 - 31 resulted 3
 - 35 multiplied
 - 42 resulting
 - 59 multiply
 - 74 consulting
- 97 -hood
(1-7)
- 13 neighborhood 7
- 98 -ward
(5-32)
- 1 forward 25
 - 16 forwarded 2
 - 18 forwarding 2
 - 21 Edward 2
 - 59 Edwards
- 99 -use
(1-1)
- 67 excuses
- 100a -titude
(1-1)
- 33 attitude
- 100b -titute
(4-10)
- 2 institution 3
 - 20 institute 3
 - 53 institutions 3
 - 66 instituting
- 101 -cate
(24-103)
- 1 indication 3
 - 2 locate 6
 - location 8
- 101 -cate (contd.)
- 2 reciprocate
 - 3 education 18
 - 11 certificate 7
 - 12 indicates 3
 - 15 indicate 13
 - 17 adequate 3
 - 19 communicate 2
 - 22 communications 4
 - 23 duplicate 4
 - 26 located 8
 - 28 duplicates
 - 36 indications 3
 - 39 locating 2
 - 40 certificates
 - 41 indicated 3
 - 45 indicating
 - 49 educational 6
 - visual-education
 - 55 duplicating 3
 - 70 educating
 - 79 allocate
- 102 -gate
(5-27)
- 1 obligations 3
 - 7 investigate 3
 - 10 investigated 2
 - 11 obligation 17
 - 18 investigation 2
- 103 -quire
(10-68)
- 6 inquire 4
 - 7 requirements 27
 - 9 inquiries 2
 - inquiry 11
 - 10 requires 7
 - 15 require 10
 - 16 inquiring 3
 - 38 required 2
 - 63 requirement
 - 75 acquired
- 104 -ntic
- None occurring

- 105 -logy
(2-2)
17 psychology
35 apologize
- 106 -bute
(12-27)
5 attribute
12 contributors
22 tribute
27 distributors 4
35 distribution 2
36 distributing
37 contribution 3
contribute 4
43 distributed 4
52 distributor 2
70 distribute 2
79 contributions 2
- 107 abbreviation
(14-78)
1 convenient 13
2 conveniently 2
4 privilege 8
10 memorandum 5
11 convenience 36
13 atmosphere
inconvenience 5
privileges
32 preliminary 2
33 arithmetic
49 conveniences
59 inconvenient
63 significance
64 significant
- 108 -ition, -ation
(40-315)
1 condition 16
2 information 118
3 addition 20
commission 7
conditions 17
4 combination 4
7 conditional
examination 16
examinations
8 quotations
traditional
- 108 -ition, -ation (contd.)
8 tradition
9 quotation 2
10 air-conditioned
11 accommodations 15
14 destination 4
16 explanation 7
termination
17 edition 8
transportation 11
19 additional 19
20 foundation 2
24 invitation 8
25 admission 5
27 determination
expectations 2
34 conditioner
conditioning
39 reputation 4
50 explanations
hesitation 3
52 recommendations
54 competition 2
58 rotation
60 punctuation
62 recognition
66 recommendation 2
68 dictation
71 permission 3
station 4
- 109 (under)
(13-29)
1 (we) understand 5
10 (you must) understand
19 (will) understand 4
(to) understand 3
22 (our) understanding 2
23 (with the) understanding 5
25 (I) understand 2
26 (fully) understand 2
33 (your) understanding
36 (an) understanding
44 (the) understanding
57 (easily) understand
60 (sympathetic) understanding
- 110 self-
(3-12)
4 self-service 2
- 110 self- (contd.)
25 self-addressed 9
70 unselfish
- 111 circum-
(1-5)
1 circumstances 5
- 112 -pose, -position
(12-65)
2 position 38
9 proposition 2
11 disposal 5
12 dispose 3
13 positions 7
15 disposed
expose
16 disposition 3
40 opposition
imposed
51 disposing 2
71 composed
- 113 -ings
(25-71)
1 savings 19
2 listings
mailings 2
5 greetings 3
proceedings 5
6 Cummings 3
openings
10 Billings 3
earnings
12 offerings 2
20 furnishings 5
21 rulings
24 ceilings 3
coverings 2
meetings 2
30 drawings
47 buildings
52 feelings
54 stockings 5
58 bookings 2
showings
65 evenings 2
68 morning's
69 bearings 3
78 happenings

114 -ingly
(5-7)

2 exceedingly
5 surprisingly 2
18 interestingly
19 accordingly 2
78 increasingly

119 -itis
None occurring

120 -iety
(2-8)

8 variety 6
59 varieties 2

115 -sume, -sumption
(7-11)

3 resume 2
10 resumption
17 assume 3
25 resuming
57 resumed
59 consumer 2
65 assumes

121 -cide
(2-10)

16 decide 5
49 decided 5

116 -ulate
(11-19)

6 circulated
16 regulations 3
20 stimulating
22 stimulate
24 insulation
26 congratulate 2
28 circulation 4
insulate
50 congratulations 3
51 accumulation
70 circulate

117 -less
(4-17)

2 needless 5
5 unless 10
31 doubtless
63 noiseless

118 -quent, -quence
(5-13)

1 consequently 39
4 consequence
22 frequently
70 infrequently
77 subsequent

APPENDIX C

WORD FREQUENCIES IN WORD LISTS

The following is a list of the different words appearing in word lists in Gregg Transcription Simplified which illustrate one or more of the 121 principles or abbreviating devices considered in this study.

The first number in each group indicates the principle number. Immediately following the principle number is the abbreviation used to identify the principle or abbreviating device. The first number in parentheses on the second line of each group is the number of different words appearing in word lists in the book. The number following the hyphen indicates the total number of words illustrating the principle or abbreviating device. The words are arranged alphabetically after number of the assignment in which they first occur. If the word appears more than once in the book, the frequency of occurrence is listed following the word.

The principle ses is used to show the method of reading the list. The principle occurs in 20 different words in the word lists but the total occurrence is 25. The word weaknesses first occurs in Assignment 4, and its total occurrence in the word lists of the book is 2.

1 <u>-ing</u> Not counted	3 <u>ex-</u> (24-26)	4 <u>-tion</u> (74-101)
2 <u>ses</u> (20-25)	1 extract	2 prosecution 5
4 weaknesses 2	expect	3 attribution
13 suspicious	2 experimentation	contribution
18 consist	7 extenuate	distribution
consistent 2	11 exclusion 2	5 evaluation
consistent	12 extractor	7 diffusion
desist	13 extemporaneous	fusion
insist	extraneous 2	infusion
insistent	20 exempt	profusion
persist	23 exercise	transfusion
persisted	33 explicable	8 succession 3
resist	inexplicable	10 supervision 2
21 recognizes 2	inexplicably	11 allusion 2
22 allowances 3	36 expeditious	collusion
35 sisterhood	41 excursion	delusion 2
50 circumstances	46 exonerated	disillusion 2
57 necessitate	52 execution	dissolution
necessity	55 expression	evolution
66 assistant	66 existent	exclusion 2
resistant	exorbitant	illusion 2
67 courses	expectant	pollution
	72 extraordinary	resolution
	76 external	solution 2
	extraordinarily	13 objection 5

4 -tion (contd.)

- 13 objectionable 2
- 15 circumvention
- 16 appreciation
 - correction 5
 - pronunciation
 - reconciliation
 - repudiation
- 17 objections
- 22 authorization
 - centralization
 - civilization
 - nationalization
 - realization
- 24 mentioned
- 25 alteration
 - direction 2
 - directional
- 33 avocation
 - organization 3
 - provocation
 - reorganization
 - revocation
- 40 congratulations
- 41 excursion
- 42 corrections 2
- 45 publication
 - transaction
 - valuation 2
- 47 reconstruction
- 51 enumeration
- 52 disillusioned
 - dissolution
 - elocution
 - execution
 - resolution
 - revolution
 - seclusion
- 55 expression
- 60 violation
- 71 conscription
 - description
 - inscription
 - prescription
 - subscription
 - superscription
 - transcription
- 72 auctioneer
 - electioneer

4 -tion (contd.)

- 75 satisfaction
- 80 misapprehension

5 -tial, -cial
(114-114)

- 6 artificial
 - commercial
 - credential
 - crucial
 - differential
 - impartial
 - influential
 - judicial
 - preferential
 - prudential
 - presidential
 - residential
 - superficial
- 10 circumstantial

6 -cient
(9-9)

- 63 ancient
 - deficient
 - impatient
 - inefficient
 - patient
 - proficient
 - self-sufficient
 - sufficient

7 -ciency
None occurring8 past tense
(58-106)

- 1 acknowledged
- 2 regarded
- 4 wondered
- 5 valued 2
 - simplified
- 6 satisfied
- 8 suggested 2
- 9 restated
 - subjected
- 12 progressed 5
- 13 dissatisfied 2
 - objected 3

8 past tense (contd.)

- 13 unsatisfied 2
- 14 believed 4
 - numbered
 - unnumbered 3
 - renumbered
- 15 formulated
 - marketed
- 16 concluded 11
 - corresponded 2
- 18 lettered
 - persisted
- 19 desired
 - enclosed 2
 - governed 2
- 21 remembered 4
- 23 unacknowledged 2
- 24 corrected 3
 - mentioned
- 25 directed
 - desired
- 26 embodied
- 29 unaccompanied
- 30 electrified
- 33 displeased 2
 - disorganized 3
 - experienced 2
 - inexperienced
 - unorganized 2
- 34 uncovered 2
- 35 unpublished
 - undelivered
 - uncorrected
 - unadvertised
- 36 remitted 2
- 37 published
- 38 sided 2
 - purchased
- 46 allowed 2
- 47 requested
- 50 mystified
- 52 disillusioned
- 62 prosecuted 2
- 63 disregarded
 - reordered
- 70 interested
- 72 stated

9 disjoined r
(37-59)

- 3 writer 2
- 6 prosecutor 4
- speaker 3
- 8 thinker 2
- 10 sender 2
- 12 collector
- conductor
- constructor
- contractor
- director 2
- detector
- elector
- extractor
- inspector
- instructor
- retractor
- 16 governor 4
- keepers
- 19 enclosure 2
- 23 believer 2
- 27 speakers 3
- 28 shipper 2
- worker 2
- 29 bookkeeper
- housekeeper
- keeper 2
- 30 timekeeper
- 36 writers 2
- 40 greater
- shorter 2
- 41 publishers
- 43 outer
- purchaser
- publisher 2
- 52 advertisers
- enclosures
- 62 directors

10 -ly
Not counted

11 -ily
None occurring

12 -ally
(1-1)
60 circumstantially

13 oi
(5-6)

- 9 standpoint
- 20 boyhood 2
- 25 employment
- 30 unemployed
- 35 unemployable

14 -ure, -ture
(5-5)

- 21 unnatural
- 26 immature
- 34 overture
- 62 culture
- cultural

15 -ual, -tual
(1-1)

- 35 schedule

16 re-
(38-43)

- 1 disrespect
- respect
- self-respect 2
- 6 residential
- 7 refusal
- 9 restated
- 10 reside 2
- 11 resolution 2
- 16 repudiation
- 17 reciprocate
- 18 resist
- 23 repute
- reputation
- 28 refinement
- represent 2
- representative
- 30 resumption 2
- 33 reorganization
- revocation
- 35 resumed
- 42 rebuttal
- recital
- 44 rebill
- reorder
- reorganize
- republic
- restate

16 re- (contd.)

- 44 reuse
- 51 revenue
- 52 revolution
- 61 reproach
- 62 result
- resultant
- 63 misrepresent
- reordered
- rebilled
- 66 resistant
- 77 resignation

17 be-
(2-2)

- 15 belong
- 63 belonged

18 de-
(15-16)

- 1 detract
- 3 delinquent
- 10 descend
- 11 delusion 2
- 13 delicious
- 16 depreciate
- 17 delegate
- 18 desist
- 23 deputation
- 29 depart
- 46 decimal
- degenerate
- 63 departed
- 66 descendant
- 71 description

19 dis-
(28-39)

- 1 disrespect
- 3 distribute
- distribution
- 11 disillusion 2
- dissolution 2
- 13 dissatisfied 2
- 23 disallow 2
- disbelieve 2
- dispute
- 25 disorder
- disregard 2

- 19 dis- (contd.)
 28 dislike 2
 33 despicable
 disorganized 3
 displeased 2
 34 discover 2
 35 disparity
 46 desolate
 desperate
 dessert
 destination
 destitute
 48 displease
 52 disillusioned
 63 disregarded
 66 distant
 67 discourse
 77 designation
- 20 mis-
 (19-22)
 5 miscalculate
 9 misstate 2
 10 mistaken 2
 13 miscellaneous
 15 misguide
 20 misuse
 21 unmistakable
 25 misplace
 35 misspent
 40 misprint
 56 misstatement 2
 60 mistranscribe
 63 misdirect
 misgovern
 misrepresent
 65 misappropriate
 70 miscarry
 75 mispronounce
 80 misapprehension
- 21 i (vowel)
 (11-12)
 5 diet
 25 violate
 32 diametrically
 scientifically
 35 riot
 40 dialogue 2
 50 dietary
- 21 i (vowel) (contd.)
 60 violation
 72 pioneer
 73 diagnostician
 80 diamond
- 22 ia
 (20-21)
 15 initiate 2
 16 abbreviate
 appreciate
 appreciation
 conciliate
 depreciate
 differentiate
 negotiate
 pronunciation
 reconciliation
 repudiation
 substantiate
 61 appropriate
 65 misappropriate
 76 comedian
 custodian
 guardian
 historian
 librarian
 pedestrian
- 23 ea
 None occurring
- 24 -ther
 (3-3)
 25 furthermore
 40 fatherhood
 60 brotherhood
- 25 w
 (1-1)
 42 acquittal
- 26 ah-
 (1-1)
 35 ahead
- 27 aw-
 (2-2)
 30 await
 65 awake
- 28 y
 (2-2)
 30 yacht
 55 yawn
- 29 ye
 (7-10)
 5 yellowest
 15 yes 2
 20 yelling
 25 yearn
 35 yeast 2
 60 yellow
 75 yield 2
- 30 ya
 (2-4)
 10 Yale 2
 25 yard 2
- 31a (short u) (n)
 (5-5)
 16 pronunciation
 19 done
 53 comparison
 garrison
 unison
- 31b (short u) (m)
 (8-11)
 4 somewhere 2
 14 somebody 2
 something
 34 overcome
 59 somewhat
 60 somehow
 64 some 2
 72 summon
- 32 short u-downstroke
 (1-1)
 49 much
- 33 ng
 (8-8)
 2 anxiety
 18 kingdom
 40 Springfield
 67 entangle
 intermingle

33 ng (contd.)

67 shingle
single
tangle

34 ngk

(2-2)

3 delinquent
70 bankers

35 under-

(7-10)

5 underestimate
underground
underlying
underneath 2
understandable 3
undertake
9 understatement

36 over-

(9-10)

25 moreover 2
34 overcoat
overcome
overdose
overdue
overflow
overstay
overtime
overture

37 rd

(10-11)

5 empowered
21 uninsured
25 yard 2
30 hardship
53 byword
foreward
password
55 transpired
65 accordingly
76 guardian

38 ld

(7-9)

10 childhood 2
14 officeholder
38 circled

38 ld (contd.)

38 willed
63 rebilled
71 encircled
75 yield

39 n

(30-31)

2 argumentation
5 evaluate 2
evaluation
7 diffusion
effusive
extenuate
fluctuate
fusion
insinuate
infusion
perpetuate
profusion
situate
transfusion

8 unify

16 repudiation
17 fumigate
23 amputation
computation
computed
deputation
dispute
reputation
repute

31 purification

unification

42 futile45 valuation53 unison78 documentary40 ow

(1-1)

5 empowered

41 ted, ded, det

(13-14)

10 shortsighted
12 detector
23 computed
25 consulted
29 parted 2

41 ted, ded, det (contd.)

45 included
46 exonerated
48 studious
51 deduce
55 opinionated
62 insulted
63 departed
76 custodian

42 men, mem

(27-29)

15 minority
24 mentioned
29 month
36 acrimonious
ceremonious
harmonious
parsimonious
37 terminology
39 months 3
47 recommend
58 dominance
imminence
permanence
prominence
62 culminate
culmination
63 commemorate
72 summon
salmon
sermon
lemon
common
73 adamant
claimant
dormant
informant
80 diamond

43a -at, -nd

(30-39)

3 righthanded
4 weakened
5 underground
9 standpoint
17 syndicate
vindicate
18 consistent 2
insistent

43a -nt, -nd (contd.)

- 19 correspondent 3
 20 friendship 2
 22 centralization
 30 circumvent 2
 40 misprint
 41 current
 recurrent
 52 correspondents 4
 53 gladdened 2
 55 circumvented
 66 assistant
 commandant
 existent
 expectant
 resistant
 72 volunteer
 78 absent
 adolescent
 innocent
 pleasant
 reticent
 unpleasant

43b (vowel) nt, nd
(5-5)

- 28 indulgent
 48 industrious
 67 entangle
 68 industrial
 77 indignation

44a nt, nd
(5-6)

- 20 exempt
 21 unnamed
 35 resumed
 55 presumed
 65 consumed 2

44b (vowel) nt, nd
None occurring45a (e) u

(19-20)

- 9 newsstand
 26 dutiful

45a (e) u (contd.)

- 34 overdue
 46 enumerate 2
 51 amuse
 avenue
 conductive
 deduce
 enumeration
 introduce
 introduced
 produce
 reduce
 remunerate
 revenue
 subdue
 56 lunacy
 63 communicate
 65 Newport

45b (minor vowel)
(32-36)

- 5 evaluate 2
 evaluation
 7 insinuate
 extenuate
 fluctuate
 perpetuate
 situate
 13 contemporaneous
 extemporaneous
 extraneous 2
 miscellaneous
 simultaneous
 22 realization
 36 acrimonious
 ceremonious
 felonious
 harmonious
 parsimonious
 41 patriot
 45 valuation 2
 48 illustrious
 erroneous
 industrious
 injurious
 instantaneous 2
 laborious

45b (minor vowel) (contd.)

- 48 meritorious
 notorious
 spontaneous
 studious
 tedious
 victorious

46 Days
None occurring47 Months
None occurring48a Cities
(6-6)

- 20 Bridgeport
 35 Westport
 40 Springfield
 50 Pittsburgh
 65 Newport
 80 Greenfield

48b States
None occurring48c Countries
None occurring

- 49 (ow) n
(10-10)
 5 underground
 60 Jamestown
 69 bound
 71 announce
 denounce
 mispronounce
 noun
 pronoun
 pronounce
 renounce

50 noun
(1-1)
21 unmounted

51a per-, pur-
(6-6)

- 2 experimentation
- 7 perpetuate
- 18 persist
- persisted
- 46 desperate
- 58 permanence

51b pro-
(21-22)

- 1 prospect
- 2 propriety
- 7 profusion
- 15 prolong
- 16 pronunciation
- 33 provocation
- provoke
- 38 improvident 2
- 61 appropriate
- approach
- compromise
- improvise
- prove
- proof
- reproach
- 63 proficient
- 65 misappropriate
- 70 prosperity
- 71 mispronounce
- pronoun
- pronounce

52 -ment
(29-41)

- 1 government 6
- 2 argumentation
- experimentation
- fermentation
- instrumentation
- ornamentation
- 7 acknowledgment 5
- 9 statement 2
- understatement
- 25 employment
- 28 atonement

52 -ment (contd.)

- 28 consignment
- environment
- imprisonment
- refinement
- shipment
- 29 accompaniment 2
- 37 acknowledgments
- 42 statements
- 45 inclement
- 48 advertisement
- encirclement
- wonderment
- 55 postponement
- 56 misstatement 2
- 78 documentary
- elementary
- fragmentary
- supplementary

53 -ble

- (36-54)
- 5 understandable 3
- invaluable
- 6 valuable 2
- 8 unthinkable
- 10 returnable
- unreturnable
- 11 marketable 3
- 12 desirable 4
- 13 objectionable 2
- 15 cablegram
- unmarketable 3
- 17 merchantable 2
- 21 unmistakable
- 22 correctible
- 23 allowable 3
- believable 2
- unbelievable 2
- 24 uncorrectible 2
- undeliverable 2
- 25 undesirable
- 28 likable
- presentable
- recognizable
- workable
- 33 amicable
- despicable
- explicable

53 -ble (contd.)

- 33 inexplicable
- questionable
- applicable
- 35 unemployable
- 41 unrecognizable
- 49 deliverable
- unworkable
- 52 considerable
- 66 questionable

54 -ship
(4-5)

- 20 friendship 2
- 29 generalship
- partnership
- 30 hardship

55 -cle, -cal
(11-11)

- 32 diametrically
- emphatically
- radically
- scientifically
- technically
- 38 analogical
- bacteriological
- psychological
- technological
- 45 classical
- medical

56 -self, -selves
(3-5)

- 4 themselves 3
- 60 oneself
- 75 himself

57 after-
(7-13)

- 5 afterward 4
- 10 afternoon 2
- 15 afterthought 2
- 25 aftermath 2
- 60 afterwards
- 65 afterthoughts
- 75 afterdinner

- 58a pent, pend
(1-1)
35 misspent
- 58b jent, jend
(6-7)
28 cogent 2
contingent
divergent
indulgent
negligent
stringent
- 59a def, dev
(9-9)
6 differential
7 diffusion
8 diversify
16 differentiate
28 divergent
38 diffident
57 diversity
58 difference
63 deficient
- 59b tif, tiv
(9-9)
6 artificial
8 fortify
modify
rectify
testify
32 scientifically
50 mystified
quantitative
62 cultivate
- 60 electr-
(3-9)
5 electric 6
30 electrified
55 electricity 2
- 61 inter-, intro-, enter
(6-6)
51 introduce
56 intricacy
58 interference
67 intermingle
70 interested
76 internal
- 62 short-
(4-6)
10 shortsighted
20 shortly 2
40 shorter 2
80 shortest 2
- 63 ship-
None occurring
- 64 -ful
(13-19)
2 useful 2
4 wonderful 4
8 successful 2
unsuccessful 2
21 unmindful
26 dutiful
merciful
80 handful
houseful
rightful
thankful
willful
wishful
- 65 -ify
(15-15)
5 simplified
8 clarify
diversify
indemnify
falsify
fortify
horrify
modify
nullify
rectify
signify
testify
unify
20 gratify
30 electrified
- 66 -ification (contd.)
31 mortification
purification
solidification
unification
40 specifications
45 classification 2
65 modification
80 certification
- 67 -gram
(2-2)
5 telegram
15 cablegram
- 68 -rity
(16-19)
10 majority 4
15 minority
27 alacrity
authority
charity
familiarity
hilarity
priority
similarity
severity
sincerity
solidarity
temerity
30 insincerity
35 disparity
70 prosperity
- 69 -lity, -lty
(7-10)
14 probability 2
35 faculty
57 desirability 2
64 generality
improbability
individuality 2
marketability
- 70a den, ten
(37-43)
6 credential
prudential
presidential
residential
- 66 -ification
(12-14)
5 simplification
25 notification
31 edification 2
glorification

70a den, ten (contd.)

7 extenuate
 10 circumstantial
 13 simultaneous
 16 substantiate
 22 intensity 2
 28 contingent
 31 itinerary
 32 stenography
 37 gotten 4
 38 coincident
 diffident
 improvident 2
 obedient
 president
 self-evident
 42 dental
 46 destination
 48 instantaneous 2
 spontaneous
 50 circumstances
 60 circumstantially
 62 resultant
 66 adjutant
 combatant
 constant
 descendant
 distant
 exorbitant
 hesitant
 inhabitant
 68 centennial
 71 denounce
 75 afterdinner

70b tain
None occurring71 dem, tem
(14-14)

5 underestimate
 8 indemnify
 13 contemporaneous
 extemporaneous
 18 boredom
 freedom
 kingdom
 random
 stardom
 seldom

71 dem, tem (contd.)

27 temerity
 31 contemporary
 56 intimacy
 68 testimonial

72 tern, term
(3-3)

5 eastern
 37 terminology
 76 external

73 dern, dern
None occurring74 thern, therm
None occurring75 ort
(4-4)

26 immortal
 31 mortification
 35 sports
 42 mortal

76 c(t)
(27-28)

1 abstract
 attract
 contract
 detract
 disrespect
 expect
 extract
 inspect
 prospect
 retrospect
 respect
 retract
 self-respect 2
 subtract

12 conductor
 constructor
 contractor
 collector
 detector
 elector
 extractor
 instructor
 inspector

76 c(t) (contd.)

12 retractor
 40 circumspect
 47 reconstruct
 66 expectant

77 s(t)
(one syllable)
None occurring78 s(t)
(two syllable)
(17-19)

18 consist
 consistent 2
 consists
 desist
 insist
 insistent
 persist
 persisted
 resist
 20 biggest 2
 26 immodest
 50 longest
 weakest
 66 assistant
 existent
 resistant
 70 interested

79 disjoined st
(6-8)

5 yellowest
 15 shortest 2
 18 greatest 2
 50 accompanist
 gladdest
 individualist

80 (d)
(9-9)

10 descend
 21 unmindful
 47 recommend
 63 command
 66 commandant
 descendant
 69 bound
 72 commander
 80 diamond

- 81 incl-
(4-4)
5 inclination
10 inclusive
45 inclement
included
- 82 post-
(6-6)
10 postage
15 postscript
30 postmaster
50 post office
55 postponement
75 postal
- 83 super-, supr-
(8-9)
6 superficial
10 supervision 2
20 supervisory
25 superior
35 supersede
36 superstitious
60 superstition
71 superscription
- 84 trans-
(8-9)
7 transfusion
25 transmission
42 transmittal 2
45 transaction
55 transpired
60 mistranscribe
71 transcription
75 transfix
- 85a con-
(36-38)
1 contract
3 consequent
contribute
contribution
12 conductor
constructor
contractor
13 contemporaneous
16 conciliate
reconciliation
- 85a con- (contd.)
17 confiscate
18 consist
consistent 2
consists
23 concise
25 consulted
convincingly
28 consignment
contingent
31 contemporary
contrary
33 convoke
40 congratulations
43 concur
47 reconstruct
reconstruction
reconcile
51 conducive
58 conference
62 consult
consultant
65 consumed 2
66 constant
67 concourse
70 consumption
71 conscription
- 85b com-
(16-16)
6 commercial
22 complexity
23 computation
computed
47 recommit
recommend
53 comparison
61 compromise
63 command
commemorate
communicate
committee
66 combatant
commandant
72 common
commander
- 86a kn-
None occurring
- 86b km-
(2-2)
63 comedy
76 comedian
- 87 (e)n, (i)n
(39-41)
1 inspect
2 instrumentation
3 infrequent
5 invaluable
6 influential
7 insinuate
infusion
8 indemnify
9 reinstate
10 insult 2
12 instructor
inspector
18 insist
insistent
19 inconclusive
21 uninsured
22 intensity 2
28 environment
30 insincerity
33 invoke
inexperienced
38 coincident
46 incinerate
47 re-enlist
re-enforce
reinsure
reinstate
re-engage
48 encirclement
injurious
50 infer
56 intimacy
57 incapacitate
58 inference
62 insulted
71 encircled
inscription
72 engineer
73 informant
- 88 (u)n
(38-51)
3 unworthy

88 (u)n (contd.)

- 8 unsuccessful 2
unthinkable
10 unreturnable
13 unsatisfied 2
14 unprogressive
15 unmarketable 3
21 uninsured
unmarried
unmounted
unmistakable
unmindful
23 unbelievable 2
24 uncorrectible 2
undated 2
undeliverable 2
unending
25 undesirable
28 unlike 2
30 untimely
untimed 2
unemployed
33 unprovoked
unquestionable
34 uncovered 2
unbusinesslike 2
35 uncorrected
unemployable
undelivered
unpublished
unrecognized
unsatisfactory
unwillingly 2
39 unthinkingly
41 unrecognizable
49 unworkable
60 unless
78 unpleasant

89 en, in
(8-10)

- 15 initiate 2
33 inexplicable
inexplicably
46 enumerate 2
51 enumeration
63 inefficient
68 inhabitant
78 innocent

90 un-

- (13-20)
13 unnecessary 4
14 unnumbered 3
17 unusually
21 unnatural
unnamed
unnerved
unnoticed
23 unacknowledged 2
29 unaccompanied
33 unorganized 2
35 unwanted
unusual
unadvertised

91 (e)n, (i)n
(22-25)

- 5 empire
impowered
6 impartial
14 improbable
20 embody 2
embodies 2
23 emphasize
25 employment
26 embodied
28 imprisonment
29 impart
30 unemployed
32 emphatically
35 unemployable
38 improvident 2
47 reimburse
61 improvise
63 impatient
64 improbability
68 imperial
75 emblem
77 impregnation

92 em-, in-
(7-7)

- 26 immaterial
immature
immodest
immoral
immortal
35 emulate
58 imminence

93 for-, fore-, fur-
(9-10)

- 8 therefore 2
fortify
15 formulated
25 furthermore
53 foreward
59 before
beforehand
60 hereinbefore
73 informant

94 al-
(2-2)

- 25 alteration
79 almost

95 sub-
(5-5)

- 1 subtract
3 subsequent
16 substantiate
51 subdue
71 subscription

96 ul
(16-17)

- 10 insult 2
13 simultaneous
22 multiplicity
25 consulted
62 consult
consultation
culminate
culmination
culture
cultural
cultivate
exult
insulted
result
resultant

80 adult

97 -hood
(9-12)

- 5 neighborhood 2
9 statehood
10 childhood 2
20 boyhood 2

- 97 -hood (contd.)
 28 likelihood
 35 sisterhood
 40 fatherhood
 55 girlhood
 60 brotherhood
- 98 -ward
 (2-5)
 5 afterward 4
 60 afterwards
- 99 -use
 (2-2)
 7 abuses
 refusal
- 100a -tude
 None occurring
- 100b -tute
 (1-1)
 46 destitute
- 101 -cate
 (10-10)
 17 allocate
 confiscate
 lubricate
 reciprocate
 syndicate
 vindicate
 triplicate
 56 advocacy
 intricacy
 63 communicate
- 102 -gate
 (6-6)
 17 delegate
 fumigate
 navigate
 relegate
 segregate
 25 circumnavigate
- 103 -quire
 None occurring
- 104 -ntic
 None occurring
- 105 -logy
 (14-14)
 37 anthropology
 analogy
 apology
 astrology
 bacteriology
 pathology
 psychology
 technology
 terminology
 zoology
 38 analogical
 bacteriological
 psychological
 technological
- 106 -bute
 (7-7)
 3 attribute
 attribution
 contribute
 contribution
 distribute
 distribution
 tribute
- 107 abbreviation
 None occurring
- 108 -ition, -ation
 (26-29)
 2 argumentation
 experimentation
 fermentation
 instrumentation
 ornamentation
 5 inclination
 12 recognition 4
 23 amputation
 computation
 deputation
 reputation
 25 transmission
 46 destination
- 108 -ition, -ation (contd.)
 60 superstition
 62 consultation
 culmination
 73 optician
 diagnostician
 politician
 statistician
 technician
 77 designation
 impregnation
 indignation
 resignation
 stagnation
- 109 (under)
 None occurring
- 110 self-
 (5-7)
 1 self-respect 2
 10 selfishly 2
 38 self-evident
 60 self-addressed
 63 self-sufficient
- 111 circum-
 (9-11)
 10 circumstantial
 15 circumvention
 25 circumnavigate
 30 circumvent 3
 40 circumspect
 50 circumstances
 55 circumvented
 60 circumstantially
 70 circumference
- 112 -pose, -position
 None occurring
- 113 -ings
 (9-14)
 12 mornings 6
 40 coverings
 endings
 outings
 sidings

113 -ings (contd.)

40 timings
 writings
 workings
 75 clippings

114 -ingly
(12-19)

1 correspondingly 4
 15 longingly 2
 understandingly
 25 convincingly
 30 knowingly 2
 35 unwillingly 2
 39 pleasingly
 unthinkingly
 willingly 2
 60 smilingly
 65 accordingly
 70 sparingly

115 -sume, -sumption
(7-9)

15 assumption
 30 resumption 2
 35 resumed
 40 presuming
 55 presumed
 65 consumed 2
 70 consumption

116 -ulate
(5-5)

5 miscalculate
 15 formulated
 35 emulate
 40 congratulations
 45 circulate

117 -less
(13-16)

3 worthless 2
 worthlessness 2
 5 valueless
 26 merciless
 30 timeless 2
 49 endless
 numberless
 purposeless
 thankless

117 -less (contd.)

55 heartless
 60 unless
 70 harmless
 80 homeless

118 -quent, -quence
(7-7)

3 consequent
 delinquent
 eloquent
 frequent
 infrequent
 subsequent
 56 delinquency

119 -itis
None occurring120 -iety
(7-7)

2 anxiety
 dubiety
 notoriety
 propriety
 society
 sobriety
 variety

121 -cide
(1-1)

10 coincide

APPENDIX D

THREE-, FOUR-, AND FIVE-PRINCIPLE WORDS IN CONTEXT

OF GREGG TRANSCRIPTION SIMPLIFIED

The following list is composed of words found in the context of Gregg Transcription Simplified which contain three, four, or five principles and abbreviating devices. The principles -ing and -ly were not tabulated in this study; therefore, those words in which -ing or -ly are used are classified with one less principle than they actually include. For example, the word permanently was not listed as a four-principle word since -ly is the fourth principle of the four principles per-, men, -nt, and -ly applied in the word.

The first number in each group is the principle number. Immediately following the principle number is given the abbreviation representing that principle. The number preceding each word is the number of the assignment in which that word first occurs. The number immediately following the word is the number of times the word occurs in the context. If the word occurs only one time in the entire book, this space is left blank. For example, the word consistently first appears in Assignment 31 and occurs two times in the context of the book.

Five-Principle Words

The only five-principle word in context was punctuation, Assignment 60. Principles involved are (short u) (n), ngk, u, (minor vowel), and -tion.

Four-Principle Words

2 ses
31 consistently 2

3 ex-
2 extended 5
49 experimented
67 unexpected

4 -tion
22 communications 4

8 past tense
2 extended 5
24 intended 3

8 past tense (contd.)
40 recommended 2
49 experimented
67 unexpected

13 oi
15 disappointment

14 -ure, -ture
7 manufactured 3

19 dis-
1 discontinued 2
3 discontinue 2

19 dis- (contd.)
15 disappointment
57 discontinuing

37 rd
7 manufactured 3

41 ted, ded, det
27 determination

42 men, mem
7 manufactured 3
27 determination
40 recommended 2

42 <u>men, mem</u> (contd.) 52 <u>recommendations</u> 66 <u>recommendation</u> 2	70a <u>den, ten</u> (contd.) 2 <u>extended</u> 5 3 <u>discontinue</u> 2 24 <u>intended</u> 3 57 <u>discontinuing</u>	85a <u>con-</u> 1 <u>discontinued</u> 2 3 <u>discontinue</u> 2 31 <u>consistently</u> 2 57 <u>discontinuing</u>
43a <u>-nt, -nd</u> 15 <u>disappointment</u> 31 <u>consistently</u> 2	72 <u>tern, term</u> 27 <u>determination</u>	85b <u>com-</u> 22 <u>communications</u> 4 40 <u>recommended</u> 2 52 <u>recommendations</u> 66 <u>recommendation</u> 2
45a (e) <u>u</u> 1 <u>discontinued</u> 2 3 <u>discontinue</u> 2 7 <u>manufactured</u> 3 22 <u>communications</u> 4 57 <u>discontinuing</u>	76 <u>c(t)</u> 67 <u>unexpected</u>	87 (e)n, (i)n 24 <u>intended</u> 3
51a <u>per-, pur-</u> 49 <u>experimented</u>	78 <u>s(t)</u> (two syllable) 31 <u>consistently</u> 2	90 <u>un-</u> 67 <u>unexpected</u>
52 <u>-ment</u> 15 <u>disappointment</u> 49 <u>experimented</u>	80 (d) 2 <u>extended</u> 5 24 <u>intended</u> 3 40 <u>recommended</u> 2 52 <u>recommendations</u> 66 <u>recommendation</u> 2	101 <u>-cate</u> 22 <u>communications</u> 4
70a <u>den, ten</u> 1 <u>discontinued</u>		108 <u>-ition, -ation</u> 27 <u>determination</u> 52 <u>recommendations</u> 66 <u>recommendation</u> 2

Three-Principle Words

2 <u>ses</u> 1 <u>circumstances</u> 5 insists 8 <u>assistant</u> 5 24 <u>assistants</u> 27 <u>consists</u> 6 31 <u>consist</u> insist 2 40 <u>insisting</u> 48 <u>invoices</u> 50 <u>assisted</u> 2 67 <u>residences</u>	3 <u>ex-</u> (contd.) 7 <u>examination</u> 16 examinations 7 <u>unexplainable</u> 13 <u>executed</u> 22 <u>exhausted</u> 2 27 <u>expectations</u> 2 expenditure 2 34 <u>expiration</u> 4 45 <u>extending</u> 49 <u>experiments</u> 57 <u>experiment</u> 2	4 <u>-tion</u> (contd.) 3 <u>education</u> 18 5 <u>old-fashioned</u> 3 9 <u>mentioned</u> 4 12 <u>confusion</u> 18 <u>investigation</u> 2 24 <u>insultation</u> 29 <u>functioning</u> 34 <u>expiration</u> 4 functions 35 <u>distribution</u> 2 36 <u>indications</u> 3 37 <u>contribution</u> 3 49 <u>educational</u> 6 visual-education 50 <u>congratulations</u> 3 51 <u>accumulation</u>
3 <u>ex-</u> 5 <u>executives</u> 10 executive 4 extend 8	4 <u>-tion</u> 1 <u>indication</u> 3 intention 2 2 <u>institution</u> 3	

- 4 -tion (contd.)
 53 institutions 3
 56 distinction
 75 depreciation
 76 function
 79 appropriation
 contributions 2
- 5 -tial, -cial
 4 substantial 7
- 8 past tense
 1 interested 79
 instructed 2
 5 old-fashioned 3
 6 connected 3
 9 mentioned 4
 10 air-conditioned
 deducted
 investigated 2
 15 disposed
 19 contracted
 22 exhausted 2
 32 notified 3
 34 disabled 3
 40 imposed
 invested
 41 indicated 3
 43 distributed 4
 47 conducted 4
 49 decided 5
 50 assisted 2
 52 enacted
 66 qualified 3
 68 demanded
 71 composed
- 9 disjoined r
 12 contributors
 17 contractors 3
 20 instructors 2
 27 distributors 4
 52 distributor 2
 61 investors
 79 introductory 2
- 12 -ally
 10 personally 11
 20 incidentally
 33 substantially 3
- 13 oi
 6 employment 4
 11 disappointed 2
 24 Detroit 2
 26 appointment 3
 31 disappoint 2
 37 enjoyable
 48 invoices
 75 enjoyment
- 14 -ure, -ture
 1 manufacturing 6
 2 manufacture 18
 5 manufacturer 10
 8 manufacturers 16
 27 expenditure 2
 34 temperature 3
- 15 -ual, -tual
 59 continually
- 16 re-
 3 refund 6
 28 summer-resort
 31 resulted 3
 39 reputation 4
 57 resumed
 72 reported
- 18 de-
 20 dependent 2
 29 dependability 2
 38 dependable 3
 49 decided 5
 75 depreciation
- 19 dis-
 11 disappointed 2
 14 destination 4
 15 disposed
 16 discount 15
 27 distributors 4
 31 disappoint 2
 34 disabled 3
 35 distinctly
 distribution 2
 38 discounts 2
 43 distributed 4
 46 distinctive
- 19 dis- (contd.)
 52 distributor 2
 56 distinction
 63 distinct 2
 75 disconnect
- 21 i (vowel)
 18 Diamond
 63 scientifically
- 22 ia
 8 enthusiasm
 29 enthusiastic 4
 75 depreciation
 79 appropriation
- 24 -ther
 19 leather-bound
- 25 w
 66 qualified 3
- 31a (short u) (n)
 3 refund 6
 10 personally 11
 13 personality 3
 24 confronted
 29 functioning
 34 functions
 63 personalities
 76 function
- 31b (short u) (m)
 28 summer-resort
- 33 ng
 76 New England 5
- 34 ngk
 29 functioning
 34 functions
 35 distinctly
 46 distinctive
 56 distinction
 63 distinct 2
 76 function
- 37 rd
 43 uninsured
 44 deferred-payment

38 ld
5 old-fashioned 3

39 u
5 executives 10
executive 4
12 confusion
13 executed
27 consecutive
39 reputation 4
51 accumulation
68 graduated

40 ow
51 undoubtedly 2

41 ted, ded, det
7 determine 11
10 deducted
13 executed
16 forwarded 2
terminated
24 Detroit 2
31 resulted 3
42 unprecedented
44 uninterrupted
46 determined
51 undoubtedly 2
68 graduated
72 reported

42 men, mem
1 manufacturing 6
2 manufacture 18
4 recommending 2
5 manufacturer 10
5 recommend 9
7 determine 11
examination 16
examinations
8 manufacturers 16
9 mentioned 4
permanently 4
11 performance 3
16 termination
terminated
18 Diamond
42 permanent 2
46 determined

43a -nt, -nd
3 refund 6
8 assistant 5
9 permanently 4
11 disappointed 2
16 discount 15
20 dependent 2
20 foundation 2
24 assistants
24 confronted
26 accountant
appointment 3
31 disappoint 2
38 discounts 2
40 continent
42 permanent 2
unturned

43b (vowel) nt, nd
1 indication 3
36 indications 3
41 indicated 3

44a mt, md
1 informed 6
36 performed
36 transformed
57 resumed

45a (e) u
1 manufacturing 6
2 manufacture 18
3 continue 19
education 18
5 manufacturer 10
6 continued 5
8 enthusiasm
8 manufacturers 16
19 communicate 2
29 enthusiastic 4
30 continuous 3
37 continuing 3
49 educational 6
visual-education
56 instrument 3
76 New England 5

45b (minor vowel)
68 graduated

48a Cities
24 Detroit 2

48c Countries
76 New England

49 (ow) n
16 discount 15
19 leather-bound
20 foundation 2
26 accountant
38 discounts 2

51a per-, pur-
9 permanently 4
10 personally 11
11 performance 3
13 personality 3
34 expiration 4
34 temperature 3
36 performed
42 permanent 2
49 experiments
57 experiment 2
63 personalities

51b pro-
14 improvements 8
21 improvement 2
42 unprofitable
64 home-improvement
79 appropriation

52 -ment
6 employment 4
investment 17
14 improvements 8
21 investments 7
improvement 2
26 appointment 3
44 deferred-payment
49 experiments
56 instrument 3
57 experiment 2
64 home-improvement
75 enjoyment
entertainment 4

- 53 -ble
 7 unexplainable
 10 comfortable 9
 34 disabled 3
 37 enjoyable
 38 dependable 3
 42 unprofitable
- 55 -cle, -cal
 63 scientifically
- 58a pent, pend
 20 dependent 2
 27 expenditure 2
 29 dependability 2
 38 dependable 3
- 59a def, dev
 44 deferred-payment
 47 dividend 3
 55 dividends 2
- 59b tif, tiv
 5 executives 10
 executive 4
 informative 4
 6 alternative
 27 consecutive
 32 notified 3
 63 scientifically
- 61 inter-, intro-, enter
 1 interested 79
 18 interestingly
 75 entertainment 4
 79 introductory 2
- 64 -ful
 48 unmindful
- 65 -ify
 32 notified 3
 66 qualified 3
- 69 -lity, -lty
 13 personality 3
 29 dependability 2
 63 personalities
- 70a den, ten
 1 circumstances 5
 intention 2
 3 continue 19
 unfortunate 4
 4 substantial 7
 5 extend 8
 6 continued 5
 11 unfortunately 10
 14 destination 4
 20 incidentally
 30 continuous 3
 33 intend 3
 substantially 3
 37 continuing 3
 40 continent
 42 unprecedented
 45 extending
 47 dividend 3
 55 dividends 2
 59 continually
 67 residences
- 70b tain
 75 entertainment 4
- 71 den, ten
 34 temperature 3
 68 demanded
- 72 tern, term
 6 alternative
 7 determine 11
 16 terminated
 termination
 42 unturned
 46 determined
- 75 ort
 17 transportation 11
 28 summer-resort
 72 reported
- 76 e(t)
 1 instructed 2
 6 connected 3
 10 deducted
 17 contractors
- 76 e(t) (contd.)
 19 contracted
 20 instructors 2
 27 expectations 2
 35 distinctly
 46 distinctive
 47 conducted 4
 52 enacted
 63 distinct 2
 75 disconnect
 79 introductory 2
- 78 s(t)
 (two syllable)
 1 interested 79
 insists
 6 investment 17
 8 assistant 5
 18 interestingly
 21 investments 7
 22 exhausted
 24 assistants
 27 consists 6
 31 consist
 insist 2
 40 insisting
 invested
 50 assisted 2
 61 investors
- 80 (d)
 4 recommending 2
 5 extend 8
 recommend 9
 18 Diamond
 19 leather-bound
 33 intend 3
 45 extending
 47 dividend 3
 48 unmindful
 55 dividends 2
 67 demanded
- 84 trans-
 17 transportation 11
 36 transformed
- 85a con-
 3 continue 19

85a con- (contd.)

- 6 connected 3
- continued 5
- 10 air-conditioned
- 12 confusion
- contributors
- 13 inconvenience 5
- 17 contractors 3
- 19 contracted
- 24 confronted
- 27 consecutive
- consists 6
- 30 continuous 3
- 31 consist
- 37 continuing 3
- contribution 3
- 40 continent
- 47 conducted 4
- 50 congratulations 3
- 59 continually
- inconvenient
- 75 disconnect
- contributions 2

85b com-

- 4 recommending 2
- recommend 9
- 10 comfortable 9
- 19 communicate 2
- 71 composed

87 (e)n, (i)n

- 1 informed 6
- insists
- instructed 2
- intention 2
- 2 information 118
- institution 3
- 5 informative 4
- 6 investment 17
- 8 enthusiasm
- 10 investigated 2
- 13 inconvenience 5
- 18 investigation 2
- 20 incidentally
- instructors 2
- 21 investments 7
- 24 insulation

87 (e)n, (i)n (contd.)

- 29 enthusiastic 4
- 31 insist 2
- 33 intend 3
- 37 enjoyable
- 40 insisting
- invested
- 43 uninsured
- 44 uninterrupted
- 48 invoices
- 53 institutions 3
- 56 instrument 3
- 59 inconvenient
- 61 investors
- 75 enjoyment

88 (u)n

- 3 unfortunate 4
- 11 unfortunately 20
- 42 unprecedented
- 42 unprofitable
- untuned
- 43 uninsured
- 44 uninterrupted
- 48 unmindful
- 51 undoubtedly 2

89 en, in

- 52 enacted

90 un-

- 7 unexplainable

91 em-, im-

- 6 employment 4
- 14 improvements 8
- 21 improvement 2
- 40 imposed
- 64 home-improvement

93 for-, fore-, fur-

- 1 informed 6
- 2 information 118
- 3 unfortunate 4
- 5 informative 4
- 10 comfortable 9
- 11 performance 3
- 11 unfortunately 10

93 for-, fore-, fur- (contd.)

- 16 forwarded 2
- 36 performed
- transformed

94 al-

- 6 alternative

95 sub-

- 4 substantial 7
- 33 substantially 3

96 ul

- 31 resulted 3

98 -ward

- 16 forwarded 2

100b -titute

- 2 institution 3
- 53 institutions 3

101 -cate

- 1 indication 3
- 3 education 18
- 19 communicate 2
- 36 indications 3
- 41 indicated 3
- 49 educational 6
- visual-education

102 -gate

- 10 investigated 2
- 18 investigation 2

106 -bute

- 12 contributors
- 27 distributors 4
- 35 distribution 2
- 37 contribution
- 43 distributed 4
- 52 distributor 2
- 79 contributions 2

107 abbreviation

- 13 inconvenience 5
- 59 inconvenient

108 -ition, -ation
 2 information 118
 7 examination 16
 examinations
 10 air-conditioned
 14 destination 4
 16 termination
 17 transportation 11
 20 foundation 2
 27 expectations 2
 39 reputation 4

111 circum-
 1 circumstances 5

112 -pose, -position
 15 disposed
 40 imposed
 71 composed

114 -ingly
 18 interestingly

115 -sume, -sumption
 57 resumed

116 -ulate
 24 insulation
 50 congratulations 3
 51 accumulation

121 -cide
 49 decided 5