

GREGG SHORTHAND PRACTICE CARDS

by

GRACE KERNS McCOPPIN

B. S., Kansas State Agricultural College, 1926

A THESIS

submitted in partial fulfillment of the

requirements for the degree of

MASTER OF SCIENCE

KANSAS STATE AGRICULTURAL COLLEGE


1930

TABLE OF CONTENTS

Introduction	3
The Problem	4
Construction of the Shorthand Practice Cards	9
Trials and Standardization	15
Summary of Special Features of the Practice Cards	24
Conclusions	25
Recommendations	26
Acknowledgments	26
Appendix	27
Copy of Letter Explaining Use of the Shorthand	
Practice Cards	27
Requisition Form and Agreement	29
Instructions to Teachers Using the Shorthand	
Practice Cards	30
Questionnaire (Sent at End of School Year)	32
Instructions on Cover of Tissue Pads	33
Copy of Information Pasted in the Lid of Each	
Cabinet	34
Bibliography	35


INTRODUCTION

Gregg shorthand is written by sound. Words are made by joining symbols, or characters, according to regular and fixed rules; for example, circles are written on the inside of curves and on the outside of angles.

 = g


o = e

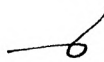
/ = t

 = get (inside of curves)

— = m

O = a

 = d

 = mad (outside of angles)

It is claimed by Mr. Gregg that more than fifty per cent of all ordinary dictated matter is made up of about two hundred relatively simple words; for these he has provided what he calls "wordsigns." A wordsign is one or more characters used to represent a complete word; as,

— (m) = am or more

∫ (bf) = before or behalf

9 (af) = after

THE PROBLEM

¹It is claimed that when the thousand commonest words as given in the Ayres Spelling Scale are arranged in the descending order of their frequency, the first fifty (or the fifty commonest) words constitute nearly fifty per cent of common written discourse; the first three hundred, more than seventy-five per cent; and the entire thousand, more than ninety per cent. These claims, together with Mr. Gregg's claim that two hundred wordsigns constitute more than fifty per cent of all ordinary dictated matter, make it seem logical that a shorthand pupil should have special practice or drill on those particular words and wordsigns, for even though he has learned the principles involved in the writing of those forms, he will not have a maximum skill and facility in writing them until he has practiced making the outlines over and over again.

The Gregg Shorthand Manual was written in 1888, and revised in 1893, 1901 and 1916. No comment is needed on the fact that not only has pedagogy changed radically in

¹Leonard P. Ayres, A Measuring Scale for Ability in Spelling (New York City, Division of Education, Russell Sage Foundation, 1915), p. 11.

the last fourteen years, but that subject matter in text books has changed as radically. A good deal of the drill work in the Manual is on uncommon words, such as antediluvian, interminable, gastritis, perambulate, pneumatic, ornithology, garrulity, analogically, litigation, etc., rather than on the commonest words. This was done, evidently, on the theory that if a student learned to handle hard words he would be able to handle any words.

As a part of this study, the author alphabetized the 2,838 words in the Gregg Shorthand Manual, and checked the thousand commonest words as given in the Ayres Spelling Scale with this list; it was found that 176 (or 17.6%) of the thousand commonest words are not given in the Manual, and, of course, will not receive special practice in the average classroom, as most teachers use the Manual as the one source of drill material.

¹Book says, "The connection between a particular stimulus and a given response is strengthened by the exercise of the particular stimulus-response mechanism practiced. Such exercise normally results in a lowering of the threshold of stimulation, in a decrease in the time required to

¹William Frederick Book, *Learning to Typewrite* (New York, Gregg Publishing Company, 1925), pp. 13-14, 19-20.

make the response, in an increased resistance to distraction, and in an increase in the vigor and ease with which the response is made." Thus the use of shorthand material, arranged in such a way that there could be much meaningful and interesting repetition or drill on the words most commonly used, and on others whose forms must be memorized (as must wordsigns), seems to be justified.

The author has attempted such an arrangement in the construction of Gregg Shorthand Practice Cards, to be used with tissue pads similar to the pads for the Courtis Practice Tests in Arithmetic. Each card is arranged with columns of printed words on one side, so that when a card is placed under a tissue sheet of the pad, the student may write on the tissue sheet the shorthand forms of the words which show through, in the columns and blanks provided for that purpose; afterward, the card is reversed, and the correct key shows through the tissue sheet, each correct form beside the pupil's shorthand form, making correction easy and quick.

These cards will eliminate some of the undesirable features of the ordinary practice pad--each card can be used over and over again (only the tissue pads, which are inexpensive, need to be renewed), thus making for less expense,

and also making the card really a practice card, which it can not be if it can be used only once, as is the case with the ordinary practice pad.

¹The old saying, "Practice makes perfect," is only a half-truth. Only practice with zeal and effort, and when error and success are evident, is likely to bring improvement. The traditional practice method with teachers of shorthand has been--and still is--to have the pupil write five to ten or twenty-five times each word or phrase in a shorthand lesson. What happens? The emphasis is on number, and after the combination has been repeated once or twice the student will be thinking no longer about the form he is writing, but writes automatically until he has reached the required number. Either the idea of getting through, or some other idea which has been hovering on the "fringe" of consciousness usurps the place of the shorthand form. With attention gone, further practice becomes wasteful, and, if persisted in, positively harmful.

However, in the use of the Shorthand Practice Cards, each of which contains exactly one hundred shorthand strokes and must be finished correctly within a constant specified

¹Daniel Starch, Educational Psychology (New York, The Macmillan Company, 1923), pp. 158-9.

time, three desirable things happen. First, the time factor makes it necessary that the student watch the card carefully, so that no time shall be lost in completing the card. Concentration is thus forced--compelled. He will want to advance to the next card as soon as possible, so his practice is attended with zeal and effort. Any forms missed are studied, and the card is tried again. Instead of the emphasis being on number, it is on correct forms made quickly and with a minimum of effort--where it should be. Second, errors are made evident a minute or two after they are made. Immediate comparison of the form missed with the correct form makes a much more vivid and lasting impression than would be if the work were handed in to the teacher for correction and returned the following day, or later. Third, there is a close connection (both in time and relationship) between error and the law of effect. ¹Thorndike says, "When a modifiable connection between a situation and a response is made and is accompanied or followed by a satisfying state of affairs, that connection's strength is increased; when made and accompanied or followed by an annoying state of affairs its strength is decreased." In connection with this

¹E. L. Thorndike, Educational Psychology, Briefer Course, p. 1

law of learning as stated by Thorndike, ¹Book says, "In the acquisition of skill this principle operated chiefly in originating a correct response and in definitely joining it to the appropriate stimulus. One of the most important advances which a learner can make as skill is acquired, is to become more and more dissatisfied with his failures and meager attainments in success. The failure to improve in a given instance of learning is often due to the fact that the learner is not enough interested in his own improvement to do the things which bring success and not violently enough dissatisfied with his failures and the slow progress he is making to eliminate his mistakes." When the Shorthand Practice Cards are used, the fact that a student must repeat a card until he can do it perfectly within a specified time, serves as an annoyer, if he makes errors or is too slow, and makes him dissatisfied enough to really try to advance.

CONSTRUCTION OF THE SHORTHAND PRACTICE CARDS

As a first step in the actual construction of these Shorthand Practice Cards, the author classified each of the

¹William Frederick Book, Learning to Typewrite (New York, Gregg Publishing Company, 1925), p. 49.

thousand commonest words in the Ayres Spelling Scale under one of the twenty lessons given in the Gregg Shorthand Manual, according to the principles involved in the writing of that word. For example, the word "ticket" could be written after learning the rules and studying the principles set forth in the first lesson, so it was classified under lesson one; the word "almost" could not be written without an understanding of the principles involved in the thirteenth lesson, so it was classified under that lesson.

There is a total of about six hundred wordsigns given in the Gregg Shorthand Manual. One hundred sixty-eight of these are not listed in the thousand commonest words, but it seems that the fact that they are wordsigns (and therefore must be memorized before one is able to write them) warrants their inclusion on the Shorthand Practice Cards. In addition, seventy-five type phrases in which the words are modified, and which must be learned just as wordsigns are learned, are included.

It was found expedient, a few years ago, to change the unit of measure of typewriting speed to the stroke instead of the word, every five strokes now being counted as one word, according to International Typewriting Rules. It has been definitely established in typewriting that the speed,

whether over matter containing long or short, hard or easy words will remain practically constant when counted in strokes. It seems logical that the same should hold true in shorthand. This statement is borne out by ¹⁻²a study made in 1926, by Frances Nies Schramper, of the University of Iowa, under the direction of Doctor E. G. Blackstone, in which tests were taken by two hundred seventy pupils from high schools in three cities in Iowa, which brings out the fact that the character or stroke unit is a much better unit of measure of speed in shorthand than the word unit now used. The pupils' speed over different kinds of dictation of average difficulty varied many words per minute, although at the same time the speed, measured by shorthand strokes, remained fairly constant.

Because of the conclusions drawn from Mrs. Schramper's study, the author arranged each of the Shorthand Practice Cards so that it contains exactly one hundred shorthand strokes. This makes the time element remain constant, which is a big advantage, in that individual differences may be

¹Research Studies in Commercial Education (University of Iowa Monographs in Education, First Series, No. 7, July, 1926), pp. 122-9.

²Ibid., (First Series, No. 8, January, 1928), pp. 122-127.

taken into consideration--different students may have reached varying stages of advancement, and be working on different cards at the same time and yet be timed for the same amount of time.

In counting strokes, where there are two strokes of the pen with a pen lift in between, the pen lift is counted the same as one stroke.

The strokes in Gregg shorthand are counted, in this study, as shown in Table I.

Table I. Stroke Count in Gregg Shorthand

One-Stroke Characters			Two-Stroke Characters	Three-Stroke Characters
t /	s ,	dev- O	paragraph mark >	quotation marks "
d /	x ,	-pent O		dash =
p (o v	-ted /		hyphen //
b (oo ~	-ses s		question mark x
f)	e o	-xes s		parentheses ()
v)	a O	-men —		
r ~	i O	th /		
l ~	. \	ent /		
k ~	sh /	ten /		
g ~	ch /	emt ~		
m —	j /	tem /		
n —				

The question may be raised as to how it came about that, of the words and phrases to be used on the Shorthand Practice Cards, those classified under each lesson of the Gregg Shorthand Manual always contained exactly one hundred, or a multiple of one hundred, shorthand strokes. The actual number of strokes in the lists of words under each lesson is given in Table II.

Table II. Stroke Count of Words to be Used in the Shorthand Practice Cards, Classified by Lessons in the Gregg Shorthand Manual

Lesson No.	Strokes	Lesson No.	Strokes
1	182	10	446
2	272	11	200
3	167	12	359
4	140	13	154
5	474	14-15	91
6	164	16	81
7	246	17-18	33
8	188	19	100
9	433		

Note: Read, "The words to be used in the Shorthand Practice Cards which were classified under Lesson 1 in the Gregg Shorthand Manual, contain 182 strokes," etc.

In each case, enough phrases were used to finish out the exact hundred or multiple of one hundred strokes.

(Phrases are combinations of two or more words, usually written without lifting the pen or pencil from the paper.)

These phrases were chosen at random from a long list of possible phrases, all easily written and containing the commonest words used under the particular lesson involved.

The next step was the arrangement, in equal-length columns, of words totaling one hundred shorthand strokes, on the front of each card, with the key, properly spaced, on the back of the card in corresponding columns. Forty-three cards were necessary to make a complete set for one student.

The cards were numbered consecutively, from 1 to 43, to make filing easy. Each card also has the number of the lesson involved in writing the words on that card. This aids the student in determining which lessons in the Manual he needs to study more, and is also useful to the teacher by aiding in the quick selection of cards for review and examination purposes.

To make the recording of scores easy and uniform, each card gives on the back the total number of words or outlines, and has space for the scorer to put the number tried within the time limit, and the number right. Similar information is on the Curtis Practice Cards in Arithmetic, but there it is placed on the front of the card, which makes it necessary for the scorer to turn the card over again after the scoring has been done, in order to put this informa-

tion on the tissue sheet. With the information on the back of the card, instead, the card need not be turned over after scoring. Although this does not take long, the elimination of unnecessary motion thus secured will render the practice testing time a little more productive, and is accordingly worth while.

TRIALS AND STANDARDIZATION

The last week in August, 1928, letters explaining the Shorthand Practice Cards were sent to the superintendents or commercial teachers in the high schools at Norton, Emporia, Lawrence, Marysville and Milford, asking if they would care to participate in the experimental phase of this study. Each school answered favorably. Phillipsburg High also used the sets. An unsolicited request was received from the principal of Solomon Rural High for the Shorthand Practice Cards.

Soon after the beginning of school, durable cabinets were constructed of binder's board, covered with brown gummed cloth. Forty-three guide cards were made for each cabinet. A cabinet, guide cards and enough cards to cover the first few lessons in the Gregg Shorthand Manual were

sent to each of the seven schools mentioned above. The rest of the cards were sent at various intervals during the school year, as soon as they could be made. It proved to be a tremendous task to make the number of cards required--almost 6,000. One side was printed on the multigraph, but the shorthand forms making the key on the other side had to be written by hand, in ink.

The total cost to the author, in labor, (printing and writing the cards), was more than four hundred hours. The actual cost in money, in round figures, was distributed as follows:

6,000 cards (material)	\$12.00
7 cabinets (material)	5.00
450 tissue pads	45.00
express charges	<u>10.00</u>
Total	\$72.00

The materials were bought at wholesale from the Western Newspaper Union, Wichita.

The Shorthand Practice Cards were classified according to the twenty chapters or lessons in the Gregg Shorthand Manual as shown in Table III. The twentieth chapter in the Manual is a review chapter, and all the words had been covered before that lesson was reached, so no cards were nec-

essary for it.

Table III. Classification of Shorthand Practice Cards
According to Chapters in the Gregg Shorthand Manual

Lesson No.	Card No.	Lesson No.	Card No.
1	1-2	10	27-28-29-30-31
2	3-4-5	11	32-33
3	6-7	12	34-35-36-37
4	8-9	13	38-39
5	10-11-12-13-14	14-15	40
6	15-16	16	41
7	17-18-19	17-18	42
8	20-21	19	43
9	22-23-24-25-26		

"Instructions to the Teacher" were printed on cards the same size as the Shorthand Practice Cards, and filed in the cabinets, in front of the first guide card, so they could be referred to easily. A copy of these instructions is given in the Appendix.

On the inside of the cover of each cabinet was pasted a sheet giving the numbers of the cards going with each lesson or chapter in the Manual, and telling how many cards of each number were contained in the cabinet. A sample of this sheet is also given in the Appendix.

The fall enrollments in beginning and advanced shorthand classes of the schools which agreed to try out the Shorthand Practice Cards are shown in Table IV.

Table IV. Enrollments

School	Enrollment Beginning Class	Enrollment Advanced Class
Phillipsburg High	18	4
Norton Community High	25	13
Liberty Memorial High, Lawrence	32	
Emporia Senior High	78	13
Milford Rural High	13	
Solomon Rural High	25	
Marysville High	49	16
	<u>240</u>	<u>46</u>

At the end of the school year, all the schools were requested to return the cards and used pads, so the necessary tabulations could be made. It turned out that Milford and Marysville had made little use of the cards, and Solomon none, so no data could be obtained from those schools.

It was found that the number from whom data could be obtained dwindled still more, because there were a number of drops and failures before the end of the first semester, as shown in Table V. Emporia High offered advanced work for one semester only; it was thought that, even counting Emporia, the total remaining in the advanced classes (26) was not large enough to draw reliable conclusions from, so all data were taken from the 111 beginning students which were left at the end of the second semester.

Table V. Enrollments at End of Second Semester

School	Beginning Class			Advanced Class		
	Enroll- ment	Drops	Remain- ing	Enroll- ment	Drops	Remain- 'ing
Phillipsburg	16	4	14	4	0	4
Norton	25	11	14	13	4	9
Lawrence	32	9	23	0	0	0
Emporia	78	18	60	13	0	13
	<u>153</u>	<u>42</u>	<u>111</u>	<u>30</u>	<u>4</u>	<u>26</u>

Note: Read, "Out of an initial enrollment of 16 in the beginning shorthand class at Phillipsburg, there were 4 students who dropped or failed before the end of the first semester, leaving 14 enrolled at the end of the second semester."

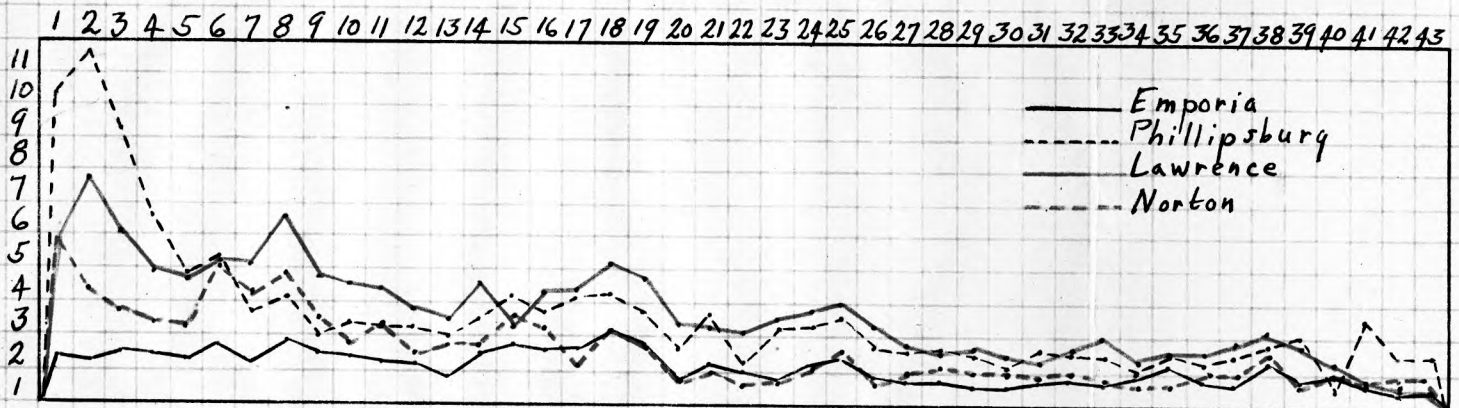


Figure 1. Showing the Average Number of Trials Made on Each Card by the Beginning Class of Each of the Four Schools from Which Data Could be Taken

Note: The horizontal numbers represent card numbers, and the vertical numbers represent average number of trials on a card. Read: "The members of the beginning shorthand class in Phillipsburg High School averaged 10 trials apiece on Card No. 1, before it was done perfectly."

A frequency polygon (Figure 1) showing the average number of trials made on each card by the beginning shorthand classes in each of the four schools from which data could be taken, showed that Cards No. 6, 8, 14, 18, 25 and 38 had decided "peaks," or must have proved harder for students than the other cards, and that Cards No. 5, 7, 9, 13, 20, 22 and 26 were low, and must have been decidedly easier for the students. It was thought that this might have been due to one of two causes: either that the cards in the first group mentioned were actually harder in some phase of their construction, and the second easier, although they each had exactly one hundred strokes, or that the lessons containing the particular points of instruction involved in the writing of the words on those cards had not been as well developed or learned in the first group as in the second.

In order that a tentative conclusion in the matter might be drawn, four stenographers from the Department of Education at K. S. A. C. were asked to take these cards as tests. It was found that there was practically no difference in time or number of trials required by these girls on

the "easy" and on the "hard" cards, so it was decided that probably the difficulty was not one of performance, but of learning. Anyone who has studied shorthand will admit that a great many of the principles involved are not learned with the same degree of ease--some are much harder to learn than others--but the experiment with the stenographers who have passed the learning stage and have reached the place where all shorthand (that which contains hard as well as that which contains easy principles) is automatic, seems to indicate that one hundred strokes are written as quickly and easily from a "hard" as from an "easy" card.

As stated before, the number of Shorthand Practice Cards corresponding to each chapter in the Gregg Shorthand Manual varies from one to five. It is certainly permissible to consider one of the two cards which go with Chapter 1 as Form A and the other as Form B. Five cards (Nos. 10, 11, 12, 13 and 14) go with Chapter 5; of these, cards No. 10 and 12 were considered as Form A and No. 11 and 13 as Form B. After proceeding in this manner all the way through the cards, the reliability coefficient was found, using the average number of trials spent on each card in Form A and Form B by the 111 beginning shorthand students as a basis of comparison. The reliability coefficient turned out to be

.9173 \pm .01083. This is doubtless high enough that one can say the Shorthand Practice Cards are reliable--or that they consistently drill on what they purport to drill on.

Correlations between grades of the members of the beginning classes for the year and the average number of trials required on each card by each of the members of the classes, in the four schools using the cards, ranged from .3082 to .7645. The enrollments of the classes in three of these four schools seemed too small to give reliable correlations, so percentile ranks were found for each pupil in each class; the correlation between the percentile ranks and the grades of the entire 111 students was found to be .37 \pm .055. This low correlation would seem to indicate that there is little or no causal relationship between the grade a student makes and the number of times he must drill on a card to get it perfectly. This does not mean that the validity of the Shorthand Practice Cards is low, as it is not necessarily the quickest student who will get the best grade. The cards are practice cards--not test cards--and grades given at the end of a year, after all the students have had drill enough to get the cards perfectly, can not be used as a criterion. Enough other factors enter in that one can not say that the student who requires least drill is the

best, or vice versa.

It was suggested to each teacher trying the cards that a time limit be made for each card, to range somewhere between a minute and a minute and a half, and that the time, once fixed to suit the ability of the class, should not be changed, but should remain constant for all cards during the whole year. Norton used one minute, and Phillipsburg, Lawrence and Emporia each used one and a half minutes for each card, for beginning classes. Contrary to what one might expect, Norton did not require more practices per card than did the other three schools. This may have been due to differences in ability, or in amount and quality of study preceding the practices.

At the end of the year, the questionnaire found in the Appendix was sent to each teacher using the Shorthand Practice Cards. Each teacher reported that the use of the cards helped (1) to make drill work easier for the teacher, (2) to develop speed on the part of the pupils, (3) to develop a better working vocabulary on the part of the pupils, and (4) in review; they all also reported that the pupils greatly enjoyed their use. The one unfavorable report, received from three of the four teachers, was that the cards did not help the pupils to make better forms, but, if anything,

tended to produce poorer forms, as a sacrifice to speed.

SUMMARY OF SPECIAL FEATURES OF THE PRACTICE CARDS

The Shorthand Practice Cards are made up of the thousand commonest words (taken from Ayres), the one hundred sixty-eight Gregg wordsigns not listed under the thousand commonest words, and seventy-five type phrases containing modified words. The cards are designed to decrease the amount of a teacher's routine drudgery and to improve the efficiency of his teaching; to develop, on the part of the student, ability that will transfer to regular dictation, and to all situations in which the shorthand forms of these words are used.

Each card contains exactly one hundred shorthand strokes; pupils may work individually, each pupil staying on a card until it is done perfectly within the time allowed, and yet all pupils be timed the same.

The scoring and the recording of scores is very easily and quickly done.

The cards are numbered consecutively from 1 to 43, inclusive, and are made in such a way that they correspond with the chapters in the Gregg Shorthand Manual containing

the principles involved, and may be used right along with the Manual.

CONCLUSIONS

The reliability coefficient ($.9173 \pm .01083$) shows that the Shorthand Practice Cards consistently drill on what they purport to drill on.

Emphasis on speed tends to produce poor forms.

The conclusion drawn from Mrs. Schramper's study--that the stroke is a better and fairer unit of measurement in shorthand than the word--is borne out by the fact that the number of words on the Shorthand Practice Cards ranged from 27 to 74, yet each measured exactly one hundred shorthand strokes and the pupils were able to write each card within the time allowed, one as easily as the other.

A short period (probably ten minutes) a day, day after day, spent in intense, purposeful snappy practice should prove adequate to develop proper habits of speed and accuracy. This should carry over into general dictation, as the words and phrases contained on the cards make up more than 90% of all common written discourse.

The use of the cards lessens the drudgery, both for

teacher and pupils, which is necessary in methods of practice now commonly in use.

RECOMMENDATIONS

The teacher should refuse to advance a student to the next card if his work shows poor or sloppy forms, even though the forms have the correct letters in them; this would probably tend to lessen the one objection raised to the use of the Shorthand Practice Cards.

ACKNOWLEDGMENTS

The author wishes to acknowledge her indebtedness to Doctor V. L. Strickland, Department of Education, K. S. A. C., who has supervised this study throughout, and who has given many helpful suggestions and much constructive criticism; to Miss Helen C. Kahn, Emporia Senior High School; Miss Pauline Statton, Norton Community High School; Mr. C. E. Birch, Miss Marie Hay and Mrs. W. L. Stringham, Liberty Memorial High School, Lawrence; and Miss Harriet Scott, Phillipsburg High School, for their cooperation in using the Shorthand Practice Cards and reporting grades and results. Without their assistance the study could not have been made.

APPENDIX

Copy of Letter Explaining Use of the Shorthand Practice Cards

Phillipsburg, Kansas
August 27, 1930

Mr. W. C. Nystrom
Principal, Norton Community High School
Norton, Kansas

Dear Mr. Nystrom:

In Seminar at K. S. A. C. this summer, I started to work out a series of Gregg Shorthand Practice Cards, similar in their physical construction to the Courtis Arithmetic Practice Cards.

These cards are based on the thousand commonest words, all Gregg wordsigns not included in the thousand commonest words, (because since these are wordsigns, they require memorizing, and consequently more drill), and a number of common phrases. Following are the main points of interest about the cards:

1. The cards are classified according to the chapters in the Gregg Shorthand Manual, and may be used along with each chapter as it is finished.
2. The cards are used with tissue pads. Each card has the shorthand key on the back, so that when the card is turned over, after the pupil has written on the tissue sheet the shorthand forms for the words which show through, the pupil's work may be corrected with a minimum of time and effort.
3. It has been proved that a pupil's shorthand speed will remain constant, when measured by shorthand

strokes instead of words. Each of the 43 cards in the set contains exactly 100 shorthand strokes. The fact that there are the same number of strokes on each card makes it possible for pupils to be working on different cards at the same time, and yet be timed the same.

4. The time for each card will be one and a half minutes or less, and the card should be completed correctly within the time specified before a pupil goes on to the next card.
5. We think the teacher may obtain splendid results with as little as five or ten minutes of the class period devoted to the work each day.
6. The work on these cards is drill work that must be done in some way; the use of the cards furnishes an easier, more interesting and more effective way.

I am planning to have the cards go through an experimental stage this year, and am wondering if your school would be interested in using them.

If you care to use them, I shall send you enough cards for all your classes (both first and second year shorthand), with a pad for every pupil, by express prepaid. You understand there is no charge of any kind, of course. I shall ask, however, that the pads be used for nothing but this work, that no sheets be destroyed in them, and that both the cards and the pads be returned to me at the end of the year, at my expense.

Will you please fill out and return the enclosed blank to me, so that I shall know whether or not to reserve cards for your school? If you want the cards, and enrollment is not yet complete, please return the blank as soon as you have the data on enrollment.

Yours very truly,

Requisition Form and Agreement

Miss Grace McCoppin
Phillipsburg High School
Phillipsburg, Kansas

Dear Miss McCoppin:

We (do not care)
(would like) to use your Shorthand Practice Cards
in our school this year. I am listing below the enrollment
in each shorthand class, so you may send me enough material
for all pupils:

We have ____ classes of first year shorthand, the en-
rollment of the classes, each taken separately, be-
ing ____, ____, ____, ____, ____.

We have ____ classes of second year shorthand, the
enrollment of the classes, each taken separately,
being ____, ____, ____, ____, ____.

I understand that we are to be at no expense what-
ever, and that the material will be shipped to us by prepaid
express.

I agree to use the pads for nothing but this work,
to see that no sheets are torn out or destroyed, and to re-
turn all the cards and pads to you at the end of the school
year at your expense.

(Name)

(Position)

(School)

Instructions to Teachers Using the Shorthand Practice Cards

Whenever a chapter or lesson is completed in the Gregg Manual, the cards for that lesson may be given. Most of the lessons have more than one card; for example, there are two cards, No. 1 and No. 2, that go with the first lesson in the Manual. It does not matter which of these cards a pupil finishes first. Part of the class may be working on Card No. 1 while the others are working on Card No. 2, and then they may change around.

You will find one or two pads in the set with the card numbers 1 to 43 on the cover. Each pupil should number the cover of his pad similarly, preferably with ink, then when he has completed a card perfectly within the allotted time, he should put the number of trials he has had to take to complete the card, beside its number on the cover of his pad, so he or the teacher may see at a glance which cards he has finished and how many trials he has had on each.

No marks of any kind go on the card itself; all work is done on the tissue sheet under which the card is placed.

Whenever the teacher times a class on the cards, the pupils should be given instructions to place the card under the first clean tissue sheet, put their names and the date at the top of the sheet, and the Card No., Lesson No., and the number of trials a pupil has had on that particular card. Each time a pupil tries a new card, it will be "Trial No. 1." Then when all are ready, the teacher should give the signal to "Start," and time first year pupils for exactly one minute, or second year pupils for exactly 45 seconds. At the end of the allotted time, pads should be exchanged, cards reversed so the shorthand key shows beside the pupil's work, and the work corrected. Any pupil who gets all the work on a card done correctly within the allotted time should be given the next card. Any who fail to finish, or who have incorrect forms, should work on the same card again.

In case the time mentioned above seems insufficient, it

may be lengthened. Probably $1\frac{1}{4}$ or $1\frac{1}{2}$ minutes will be enough for any first year class, and one minute for second year pupils. Whatever length of time is used, should be used consistently throughout the entire set.

At the end of the timing period, the cards should be collected and properly filed in the cabinet, and the pads collected and left in the care of the teacher.

No sheets in the pad are to be destroyed. If a trial is made and the work is incomplete or incorrect, a large pencil cross should be made on the tissue sheet. This will facilitate the teacher's checking the work the pupil thinks is complete and correct, if she cares to do that.

The timing periods may be arranged to suit the teacher's convenience. She may take a whole class period after the completion of a chapter or lesson in the Manual, or she may give a few trials every day, from the time the first chapter is completed, on.

It will be profitable for the pupils to use the cards for a few minutes outside of class time, occasionally, for study and practice, with no timing. At these times, the pupils will use a second tissue pad, not the one used in class where he is timed.

The tissue pads are to be saved with all the pupils' work in them (no sheets destroyed) and returned to me at the end of the school year, together with the cabinet of cards. If you need more pads during the year, write for them and I shall send them to you.

You will find only the first 14 cards in the cabinet when you receive it; the others will be sent to you soon.

Questionnaire (Sent at End of School Year)

(Date)

Did you find the use of the Gregg Shorthand Practice Cards helped:

1. To make drill work easier for the teacher? _____
2. To develop speed on the part of the pupils? _____
3. To develop better shorthand forms on the part of the pupils? _____
4. To develop a better working vocabulary on the part of the pupils? _____
5. In review? _____

What length of time was used for each card in:

1. First year classes? _____
2. Second year classes? _____

(If the time used at the first of the year was ever changed during the year, please indicate. For example, one school used $1\frac{1}{2}$ minutes for the first year class the first time through the sets of cards, and 1 minute the second time through them.)

Did the pupils enjoy the use of the cards, or find them tedious? _____

Did the pupils find any particular section of the cards harder than any other? If so, which section? _____

Suggestions and criticisms:

(Teacher)

(School)

Instructions on Cover of Tissue Pads

Check (v) the number of the Shorthand Practice Card below, whenever you have completed it without error within the allotted time:

Check- Card ing No. of <u>No. Column Trials</u>			Check- Card ing No. of <u>No. Column Trials</u>		
1----	-----		22----	-----	
2----	-----		23----	-----	
3----	-----		24----	-----	
4----	-----		25----	-----	
5----	-----		26----	-----	
6----	-----		27----	-----	
7----	-----		28----	-----	
8----	-----		29----	-----	
9----	-----		30----	-----	
10----	-----		31----	-----	
11----	-----		32----	-----	
12----	-----		33----	-----	
13----	-----		34----	-----	
14----	-----		35----	-----	
15----	-----		36----	-----	
16----	-----		37----	-----	
17----	-----		38----	-----	
18----	-----		39----	-----	
19----	-----		40----	-----	
20----	-----		41----	-----	
21----	-----		42----	-----	
			43----	-----	

Copy of Information Pasted in the Lid of Each Cabinet

<u>Lesson No.</u>	<u>Card No.</u>	<u>Total Cards</u>	<u>Lesson No.</u>	<u>Card No.</u>	<u>Total Cards</u>
1	1	7		22	3
	2	7		23	3
			9	24	3
2	3	5		25	3
	4	5		26	3
	5	5			
				27	3
3	6	7		28	3
	7	7	10	29	3
				30	3
4	8	7		31	3
	9	7			
			11	32	7
	10	3		33	7
	11	3			
5	12	3		34	4
	13	3	12	35	4
	14	3		36	4
				37	4
6	15	7			
	16	7	13	38	7
				39	7
	17	5			
7	18	5	14-15	40	14
	19	5			
			16	41	14
8	20	7			
	21	7	17-18	42	14
			19	43	14

Note: This sheet was prepared for a class of 14. The numbers in the "Total Cards" column depended in each case on the enrollment of the class using the cards.

BIBLIOGRAPHY

John Robert Gregg, Gregg Shorthand (New York, Gregg Publishing Company, 1916)

Leonard P. Ayres, A Measuring Scale for Ability in Spelling (New York, Division of Education, Russell Sage Foundation, 1915)

William Frederick Book, Learning to Typewrite (New York, Gregg Publishing Company, 1925)

Daniel Starch, Educational Psychology (New York, The Macmillan Company, 1923)

E. L. Thorndike, Educational Psychology, Briefer Course

Research Studies in Commercial Education (University of Iowa Monographs in Education, First Series, No. 7, July, 1926)

Ibid., (First Series, No. 8, January, 1928)