Motivation of shorthand and typewriting

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Thesis

MOTIVATION OF SHORTHAND AND TYPEWRITING

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PREFACE

The aim of this thesis is to give as comprehensive a view as possible of the motivation of shorthand and typewriting. Education for secretarial positions has made startling advances during recent years. The number of students enrolled for this course has increased greatly and the standards of commercial education have been raised materially. There is a growing demand for this type of education and with it a demand for efficient teaching. There has been, as yet, no definite system worked out for teaching methods and motivation of shorthand and typewriting, therefore, the results of my research will be partly flavored by my personal points of view.

Motivation is difficult to define. It is not the situation which presents itself in the homely illustration of the slave driver egging his slaves on with a leash, neither is it the situation in which the driver coaxes along his donkey with a carrot, but somewhere between the two lies motivation. We do not wish to drive our students neither do we want to coax them to work, but what we desire to do is to so motivate our work that the student will see some real personal value in the subject matter which he studies.
"Motivation," says Wilson, "is that attack upon school work which seeks to make its tasks significant and purposeful to each child, by relating them to his childish experiences, questions, problems and desires."¹

The learning of shorthand and typewriting is purely a succession of habits for the pupil. Teaching, to be successful therefore, must be motivated. Professor Bagley says: "The attitude which one takes toward the habit to be formed is a fundamental factor in the efficiency of the habit-forming process."² It is nearly impossible to force a habit on a person. Unless he has a motive for forming the new habit he will scarcely acquire it. The tactful teacher will surely find some motive with which to inspire the student.

Mr. Birch says, "Probably three-fourths of a million people in this country use the typewriter or shorthand in some vocational capacity."³ Any improvement made in the teaching will be therefore immensely valuable. In order to appreciate its value in the field of commerce one might trace the growth of business concerns and note their dependence upon typewriters and stenographers. Even a superficial consideration will bring out the importance of the vocation.
"Originally," says C. T. Jones, "the high schools and academies were wholly institutions of academic learning. Until a few years ago the backbone of education beyond the elementary school consisted of Latin, Greek and Mathematics. With the dawn of the era of large-scale production in industry a change has taken place. Secondary schools have become more vocational in character. Technical and business courses have taken their places in the curricula. In fact, a most conservative estimate places the proportion of Secondary School students who are taking the Secondary School courses fitting them for business careers at no less than 35% of the total enrolment."

Regardless of all the progress that commercial education has made in the last decade there still remains much improvement to be effected in this field. Teachers must realize that students in many cases are not given sufficient impetus to want to learn the subject matter which will form the basis of their life work. Shorthand and typewriting are subjects which if properly motivated so that each lesson will touch some interest in the pupils' lives, will prove most interesting to the learners.

Motivation is not an easy task at best because in motivating the teacher must consider the members of her
class as individuals and not as a whole. She must
give to each student a significant reason why he should
desire to learn shorthand or how to typewrite. She must
make him see beyond the chagrin of receiving poor marks
on a report card or of getting the necessary credit in
order to receive his diploma.

Education for business has never been more en-
couraging than it is today. Even our Universities have
arisen to the occasion and have established colleges of
Business Administration and Practical Arts and are grant-
ing degrees for specialization in these fields. The
movement has swept to our high schools so that a three-
year course in shorthand and typewriting is at present
being contemplated to replace the two-year course.

In every respect the schools are better equipped
for this type of education than ever before. The teachers
are better trained so that we now have the college grad-
uate to replace the graduate of the business or even of
the high school. The accompanying difficulties have in-
creased with these advances, for now the enrolment for
the commercial courses has so increased and the classes
are necessarily so large that a greater problem than ever
is now confronting the teacher and the problem is this:
How can she so organize her material so as to make an
individual appeal to her pupils?
The answer to this question lies in a consideration of a very important factor in the learning process which is what the psychologists term "Habit Formation." Facility in shorthand and typewriting is in reality the result of acquiring certain habits which tend to become automatic. In other words, habit formation is synonymous to learning.

It is a well-known fact that students are just as likely to form bad habits as they are good ones and for this reason the teacher must be constantly alert to detect incorrect methods before they become habits. In the teaching of no other subjects is this so clearly manifest as in the teaching of shorthand and typewriting. The incorrect writing of one stroke in shorthand will make a vast difference in context upon transcription, while one slip in a letter of the typewriter will, of course, make the whole word incorrect. Consequently, the teacher should do all that is humanly possible to guard against any wrong movement on the part of the pupil.

The meaning here can be best explained by illustration: The student learns to make certain shorthand strokes in a given way, for example, the letter "t" is an upward stroke / , while the combination "ch" is a downward stroke / . Both resemble each other very closely when written alone. If the pupil has formed incorrect habits in writing either
stroke, upon hearing the word "tan" he will write the symbol ← which transcribed will read as "chain" or, if the pupil upon hearing the word "chain" writes the symbol ↝, he will undoubtedly transcribe it as "tan."

The same is true of habit formation in typewriting. For example, the student is first taught to use the guide keys in finding letters. In his beginning work he actually feels his way in finding the desired key. This habit gives way later to finding the key directly from the guide key as the student attains confidence. Thus habit becomes an essential step in progress.

There are certain other habits which a student will invariably acquire if the teacher's attention is not constantly turned toward their prevention. In shorthand, according to Professor Mechler, they may be classified as follows:

1. Violating certain fundamental shorthand principles.
2. Writing with too short a pencil or stubby pen.
3. Assuming a slouchy position while writing.

Miss Jane Clem lists the habits to be prevented in typewriting. Some of the most important are:

1. Looking at what has been written.
2. Looking at the keyboard.
3. Faulty returning of the carriage.

There are a number of psychological laws which govern the selection and improvement of habits in learning shorthand and typewriting which may be contemplated advantageously by the teacher. The first of these is the "law of readiness to response." The learner himself is an important element in determining the nature of the response. "The reaction of any learner depends not only upon the stimulus, but upon past experience together with his mental attitude to receive and dispose of stimulus."

The responses made by a student while learning to typewrite or to write shorthand will be varied according to his interest and confidence in his ability to improve in his speed and accuracy. The attitude of the pupil, therefore, determines the character of the response. It is the teacher's problem to influence as much as possible, by means of motivation, the kind of response she desires the pupil to make. Her method of accomplishing this objective will be described in a later chapter.

The second law for the improvement of habits in
learning is the "law of neural and mental economy." "It is a well known psychological fact that frequent responses to a particular situation improve in character as often as repeated." In this way the response is made more direct and perfect as well as fast and sure.

In the learning of shorthand and typewriting the first successful responses made by the pupil are wasteful. For example, in learning to typewrite the pupil makes many more incorrect responses than he does correct ones and even those that are correct are far from being perfectly made. As the skill increases the wasteful movements are eliminated and a more direct response is made. In other words, repetition is the whole thing in habit formation. The more repetition the better the writer.

In practically every case in the learning process one or more substitute responses must be made and linked up to an old or new situation. In the acquiring of skill in phonography and typewriting the learner learns to do something which he could not do before. This new response must be linked up to an old situation or to one which is entirely new. If the former procedure is followed the final response will be made up of a previously learned response.
In learning to typewrite the learner comes into the course with ability to read his copy and to strike unscientifically any key on the keyboard. What he is to learn, therefore, is to strike particular keys with certain fingers as he reads his copy. Here is where the linking of old ideas comes in. To the particular words and letters to be written he has already attached other responses. He pronounces the letters orally, but now instead of writing them with a pen or pencil as has been his custom, the learner must make a new type of response which will enable him to make the movements required to strike the corresponding keys on the machine.

In learning shorthand the learner faces an analogous situation. Instead of writing words he is now going to substitute certain characters for particular sounds. Upon hearing the sound he is going to pronounce the word mentally and visualize a stroke instead of a succession of letters. And as this practice continues it becomes permanently attached to this new substitute response.

Skill in learning the subjects under discussion, or as a matter of fact in learning any subject, results from the fact that new habits are substituted for the
learner's habitual method of reaction. These habits are very important and the teacher must guide them along the right paths to make the learning complete and effective.
III

"A lesson plan," says Colvin, "is the preparation made by a foresighted teacher to be used as a guide in the presentation of her subject." It is as necessary for the teacher to make this plan as it is for the architect to make plans for a building. By means of the plan the teacher's efforts are so directed that the desired results will undoubtedly follow and the possibility of omitting any points of a given subject are thereby practically eliminated.

The commercial teacher's task is a complicated one. In the first place, a prescribed course of study for each grade must be completed within a term and in the second place, the pupils themselves vary so in intellectual capacity that the teacher must see that each one is brought in contact with the course of study so as to master it. There must therefore be a recognition that the subject matter is secondary in importance—the pupil comes first.

The lesson to be taught should be outlined somewhat briefly and should not contain any more material than can be covered in the period. The outline should be so simple that the teacher will be able to keep the points in mind during the teaching process. For this reason a few large
points may be used to better advantage than a number of smaller, less important ones.

The first essential of a good lesson plan is a clear, concise statement of the teacher's aims. By this is meant the specific purposes to be accomplished by the subject matter included in the plan. Thus the aims in teaching a class the method of writing of addresses in shorthand would be stated as follows:

**Teacher's Aims**

1. To get the students familiarized with the writing of names and addresses in shorthand.
2. To develop facility in taking unfamiliar material in shorthand.

**Pupils' Aims**

1. To learn how to write addresses in shorthand so that they will be legible.
2. To be able to take unfamiliar material of this kind and read back from their own notes.

The aims in teaching a typewriting class the stretches from the home row to the figures would be stated as follows:
Teacher's Aims

1. To review by drill exercise all the letters of the keyboard.

2. To enable the student by means of drill to facilitate the stretch from the home row to the figures.

Pupils' Aims

1. To be able by constant drill to locate all the letters on the keyboard.

2. To be able to correctly gauge the distance from the home row to the figures.

It is a common fault especially among young teachers that they fail to determine previous to presentation just what function the subject matter is to serve. They accept a course of study and fail to select what material is of most value. It is perhaps a little difficult to indicate with precision just what constitutes subject matter in a shorthand or typewriting plan. This is especially true of typewriting in which case the machine itself, more particularly the keyboard, is the only source of subject matter for a beginning class. In the shorthand
work, of course, there are numerous texts from which the material may be drawn.

"The fundamental principle regarding subject matter is to select according to the aim." In this matter one must be guided not only by the aim, but also by the needs of the pupils. It is advisable not to employ the same aim for successive lessons as each individual recitation should have its own aims.

When the teacher has finally decided upon her aims and has wisely chosen her subject matter the next important consideration is the pupils' aims. "The pupils' aim is set where the attention centers and is in very close relationship with the subject matter." The teacher may set up an aim for the pupils without having the class conscious of it, while on the other hand she may get the pupils themselves to state their own aims. This is the more advisable method, will be more closely allied with the interests of the class and on the whole more satisfactory to both pupils and teacher.

The motivated lesson plan enables the teacher to set up aims which are easily within the comprehension of her class and based upon the knowledge and needs of her pupils. After having taught the lesson, she should, as soon as possible record the results. In some cases they may be more definitely stated than in others. By means of the statement of results the teacher knows just what
she has accomplished during the class period and can thereby make a valuable contribution to the motivation of the following lessons.
"Those forms of school exercise," says Earhart, "which attempt to communize the pupils' life and efforts, and to attach social meaning and value to the matter presented, will be considered as socializing lessons." This phase of the work in shorthand and typewriting is difficult to develop because the subjects are in themselves so mechanical that they hardly permit of co-operative effort in this sense of the term, on the part of the pupils, yet many of the activities of the students in these classes may be made to assume a social form and an effort may be made to effect social ends.

There is a great deal being said today in the field of education about socializing the curriculum. The pupils are not merely to have their mental processes trained, but are to have their subject-matter socialized. Shorthand and typewriting are, of course, not included among the social sciences, yet there are times when they lend themselves to social influence.

A very interesting experiment was worked out in one high school. When the school planned for a social activity which called for stenographic services of any kind, the commercial teachers united their efforts, dictated the material and had it typewritten by the class. In this in-
stance not only did the activities of the pupils assume a social form, but the subject matter of the lessons were given a social significance and were applied to social ends.

The drill lesson has an important place in the teaching of shorthand and typewriting especially in the field of the latter. Success in typewriting is featured mainly by drill. There are several factors, therefore, which need emphasis for this method of procedure.

Colvin, in his discussion of the methods of the class period states that, "The elements that are emphasized in drill must be associated in their proper order." In shorthand as well as in typewriting habit should be used in as many situations as possible. The important combinations should be drilled on. Drill, in order to achieve best results must be individual in character. When pupils are drilled together they often get more practice than is necessary. This, of course, is wasteful and one of the reasons why it is unsuccessful and frequently without value.

This fact suggests the desirability of having small drill groups and of understanding their difficulties to carry out this plan. It is perhaps a little too idealistic in view of the congested condition of public schools throughout the country today to carry out this individual
method, yet it is feasible to a certain extent.

In a drill lesson and as a matter of fact in any lesson the teacher as a matter of motivation must constantly place before the pupil a standard of achievement and in addition she must place before the pupil the more interesting phases of the subject first. This simply means that the pupil must not begin by laboriously transcribing shorthand, but rather keep his interest by touching on some of the simpler phases first. "In the teaching of shorthand the application of principles to the writing of outlines must be reduced to automatic facility." 16 To think how to write a word destroys fluency. The moment a shorthand principle is mastered all analysis must stop and skill in writing must be cultivated.

In teaching a drill lesson every one should have a definite idea of what is to be done and be provided with an incentive for the performance and in the light of this fact there are seven elements of successful practice which Mr. SoRelle sums up as follows: 17 (1) proper connection should be automatized, (2) correct practice makes perfect, (3) right attitude facilitates progress, (4) concentration of attention with interest facilitates practice, (5) drill should include and emphasize essen-
tials, (6) distributed practice periods are best, (7) periods between repetition should be increased gradually.

The dictation lesson is closely connected with the drill lesson and is organized for the purpose of obtaining endurance and speed in writing shorthand. To secure this aim effort must be directed toward building up words and phrases, enlarging the shorthand vocabulary, writing correct forms for old and new words, obtaining greater skill in reading shorthand notes and acquiring manual skill.

Many teachers believe that the only factor in the teaching of shorthand is the ability to write outlines, but all the above-mentioned points must be considered in the light of producing skilled writers. Practically everything which is written should be read. Many mistakes are made by neglect of this feature. The exchange of notebooks between members of the class not only adds interest through a variation of the program, but increases facility in reading and tends to secure accuracy as the pupils are conscious of criticism from their classmates. This is considered a better method than copying outlines from printed words. The latter method is a waste of time and should not be employed to any great extent.
The review lesson, literally speaking, is that lesson in which the pupil takes stock of what he has learned, organizes it logically and sometimes establishes new relationships. It is possible that in using this knowledge as a basis the student will form some entirely new conception of his present knowledge. The more the pupil is able to apply his knowledge, the fuller his future experiences will become. This is very well illustrated in shorthand writing. When the pupil is asked to write an entirely new word not found in the text he will recall the formation of similar characters and by comparison arrive at the correct outline.

The question of the frequency of reviews is a problem which the teacher has to solve for herself. They should be given when helpful or necessary, that is, when the conceptions which are to serve as a basis for understanding in shorthand and typewriting would not ordinarily occur to the average pupil or it is well to review before presentation of a new lesson. Reviews influence skill greatly and make certain stenographic connections automatic. In addition they reveal to the teacher that certain desired attainments have not been accomplished and as a result effort must be spent in that direction.
Reviews in the subjects under discussion may be given in the form of written or oral examinations. The form which the review is to take depends upon the needs of the class and its personnel. The teacher may choose whichever way she thinks will best appeal to the class.
Colvin tells us that, "No teacher of elementary or secondary subjects can succeed in his instruction who has not a fair mastery of the art of questioning." All good teaching is mainly dependent upon the skill with which the teacher stimulates the class by the questions she asks. There is the type of teacher who makes use of the questioning for the sole purpose of testing the knowledge of her pupils. She asks numerous questions which are valuable as a review, but which do not necessitate any thinking on the part of the class.

The direct question, that is, one which requires simply a "yes" or "no" answer is the poorest sample. The teacher who asks of a typewriting group "Do we use the tabular key in letter writing?" does not stimulate any thought in the class. The answer is obviously either "yes" or "no" and if the first pupil happens to guess incorrectly, of course, the second pupil will answer correctly. Thus, it follows that in order to be stimulating a question must be of sufficient scope to demand the students' experience to be organized with reference to the problem presented.

In order to ask good questions the teacher must
plan them. Much depends upon the novelty of the form. In the shorthand classes, for example, when reviewing material on the blends the teacher might ask, "In the word 'intimate' there is a choice of blends. Which would you use?" The problem to be solved is a striking example of an exception to a general rule and involves thought on the part of the pupil to solve it. The answer cannot be given in one word or even in one sentence.

In addition to a consideration of the form of the question the teacher must take into consideration the technique of questioning. There should be a distribution of questions among the class. It is inadvisable to call upon pupils by rows or even alphabetically because the teacher who does so informs the class that they will not be troubled until their turn comes. The teacher should ask her question and allow enough time for each member of the class to think and then call on some one.

To be successful, questioning by the teacher should lead to questions by the pupils if the problems have actually stimulated thought. As a result of the stimulation the pupils will have difficulties arising in their minds which the teacher in turn will have the class solve for the individual. There is no more searching power in
in teaching technique than the use of well-selected questions which bring out the weaknesses in the points of view of the pupils with regard to the subject matter which is being presented.

"Friendly competitions in classes are very powerful stimuli all through the shorthand and typewriting courses." They help develop a very strong spirit of sportsmanship. This means may be used in securing results in either shorthand or typewriting, more especially in typewriting. Let it be a competition as to quality rather than quantity. It can be employed in shorthand classes in connection with accuracy and also as a factor in the progress of speed.

The best method of bringing about competition is to let the class nominate four captains and those captains will choose their teams or let the captain be selected and draw his teams by lots. If the teacher does not care to employ this method she may do any one of the following things: (1) divide the class alphabetically, (2) divide the class into rows, or (3) divide according to makes of machines in the typewriting classes. As regards awards it is not always best for the teacher to offer one to the winners, because the desire to excel
ought to be sufficient. The teacher should keep out of these competitions as much as possible. If not, she is subjecting herself to criticism.

In many high schools there is a system of vocational guidance for students in the Commercial Department especially those students studying shorthand and typewriting whereby the head of the Commercial Department secures part-time positions for students. The motivation used here is that of granting special privileges to those who do superior work.

There are many people in business who have not enough work or perhaps whose incomes do not permit them to hire a regular full-time secretary. In this case they frequently communicate with the heads of the Commercial Departments of the high schools and make a request for a part-time stenographer. There are many students in Boston who work regularly in the afternoons after school has been dismissed, in the various Grammar Schools throughout the city. They receive a wage of $.30 per hour for their services. This type of employment possesses a two-fold value. The first is remunerative and the second is practical. These students are thereby enabled to get an actual working experience before they leave school and go into business.
The individual vocational interests of students in typewriting and shorthand classes differ greatly therefore, as much consideration as possible of this fact must be given by the teacher. Many students do not intend to go into business but to pass on to college while others intend to take positions as secretaries to doctors, lawyers and in business houses of various types. To these students should be given the type of material which they will use in these various occupations. For example, the teacher may vary the program by dictating legal or law forms in the shorthand classes and having the students fill in the blanks on law forms in the typewriting class. In this way the student will get practice in this type of work and incidentally get some idea of the kind of work he will be expected to be able to accomplish in this field of work.

Direct dictation to the machine is another valuable type of motivation and should be employed from the beginning. It varies the program from the usual "cut and dry" copy work so much employed. The teacher may read the material once slowly and have the pupil write what he has remembered. This helps materially in the matter of concentration. The direct advantages of
this type of dictation are many. It forces the pupil to keep up with the teacher, prevents him from falling into sluggish habits of manipulation, cultivates his hearing, assists him in acquiring rhythm and in addition prevents him from watching his machine.
VI

Interest is the most potent factor in the learning of shorthand and typewriting. In almost every case the pupil is somewhat interested in both when he comes into the course. This fact should be acknowledged on the very first day because this enthusiasm can be easily trended into interest. The problem for the teacher to solve then is how to awaken the interest and how to maintain it when it is awakened.

There are two ways of awakening interest in shorthand and typewriting. The first is to strengthen the student's motive and the second is to give to those who have no motive a motive. The former is perhaps less important than the latter because the teacher seldom finds a pupil of high school age who has any motive for the study of these two subjects. What the student probably has is a diversified interest with no special motive or aim in mind.

On the first day of class the teacher's problem is that of getting acquainted with the pupil or rather of acquainting the pupil for the first time with the new subject which he is about to study. For this reason, it is essential that she devote extra time to giving the pupils an outline or an interesting story
regarding the course. In short, the teacher must accomplish something else besides roll call on the first day.

In the shorthand class she may do one of two things. First she may very advantageously raise an interest in the system. Shorthand is a particularly fertile field for interest especially the history of shorthand. If the teacher does not care to tell the history she may tell the story of some of the shorthand champions who have had startling careers. Charles Swem, for example, who was for eight years secretary to President Wilson and who is at present the world's champion shorthand writer.

The second thing which the teacher may do on the first day is to try to teach the class the simple word-signs of the first lesson. Let the class write a complete sentence the idea being to see how fast one can do it. Launch into the value of shorthand. It is eminently satisfactory to the student to leave his first recitation period in shorthand actually able to write the sentence, Can he go (•→) with a degree of speed.

"The typewriting machine, "says Mr. SoRelle, "possesses an inherent fascination to the average student."
It is at first a mystery and the learner is possessed with a desire to solve its mechanical functions. He wants to write upon it and his curiosity should in a measure be satisfied on the first day. The first lesson should contain some drill which enables the pupil to manipulate the keys even though it may be in a very elementary way. The teacher should acquaint the pupil with just those parts of the machine he is going to use. Thus he will feel that there is still a mystery and at the same time his interest is being held. The great Pestalozzi says, "Never tell a child what he can find out for himself" and Herbert Spencer expresses the same thought, but not so sweepingly when he says, "Students should be taught as little as possible and induced to discover as much as possible."

Interest in the mechanics of the machine can be kept alive by progressive studies in machine mechanics. The teacher should leave something about the mechanism to be told to the student at the fourth semester. The best method of motivation for this elementary work is for the teacher to demonstrate each feature of the machine with which she intends to acquaint her pupils. The ultimate aim in typewriting is the acquirement of
speed and accuracy therefore, the value of each mechanical feature in helping the student to realize this objective should be tied up with instruction on these parts.

In addition to the fascination of the mechanical features the typewriter offers an unusual opportunity to satisfy the student's desire for physical expression. Every normal adolescent boy or girl experiences pleasure in the discharge of surplus physical energy. Give him an opportunity to expend a little of it in the typewriting class.

The student's initial enthusiasm in the study of shorthand and typewriting is produced by the recognized utility of skill in these arts in the business world. The value attached to that skill is perhaps the dominating motive that induces the student to study these subjects. In this fact lies the nucleus of the teacher's motivation. Here she has something tangible upon which to base the encouragement of her students.

The teacher can preserve this initial enthusiasm by supplying several motives for her class. There are other appeals than skill although this is an important one. Skill in the writing of shorthand or operating the typewriter has developed into a very attractive
and remunerative vocation. The teacher can make wise use of this fact by inspiring her class to attempt persistently to achieve the best results possible. The better the results the higher the salary commanded.

The election of these subjects by the student is an indication that he is already partly aware of this feature, hence, he comes to the teacher with a goodly measure of natural enthusiasm. This enthusiasm may be maintained by the teacher's keeping interested herself and emphasizing the vocational value of the subjects and the opportunities for advancement in this field. This vocational side will not make the same appeal to all student and to this group the teacher may appeal on the basis of personal value as a times-saver in doing one's own work, writing one's own letters accurately, legibly and with speed. The teacher's objective along these lines is to strengthen the pupil's motive and to increase his desire for skill.

The interest developed in the shorthand and typing-writing classes may be quickly extended to the acquirement of technique. The average student is anxious to do things in the most correct way; therefore, there must be some appeal to the student for correct writing. The teacher may make an appeal to some line of athletics
and have the students, if boys, tell what is the best form for playing football or, if girls, the best form for playing tennis or basketball. She can then point out to the class the importance of doing things in the correct way and that can be very easily applied to shorthand and typewriting. If it is necessary for the athlete to use every point in the line of athletics, then it is equally necessary for the student to use good form in his work. An efficient way of returning the carriage in typewriting or placing the left hand at the corner of the paper when nearing the end of the page in shorthand, are both good forms.

In the acquirement of technique in the studies of shorthand and typewriting there is a very important educational value involved. In the first place it necessitates that the student devote a great deal of concentrated effort. This effort should be so directed by the teacher that his attention will be given voluntarily. If this can be accomplished the student's thoughts will be weaned away from those which tend to reduce his efficiency. The teacher should be cautioned however, against giving the student tasks that are too difficult or the student will get discouraged. The process must be a gradual one and the student must be given ample time to develop.
The pupil must be given the correct idea of speed in shorthand and typewriting because without question it constitutes the most powerful appeal of any feature of the subjects. It is the identical appeal which makes the young automobile operator drive the machine regardless of limits to its fullest capacity. It is a natural desire and should be made use of in teaching. It should be encouraged, but controlled. The teacher must point out that speed is an accomplishment acquired only by growth. By mastering the foundational steps that goal can be reached quicker than in any other way. This explanation often induces a student to give extra time to the mastering of little technical difficulties when he realizes that this is a means to an end—speed.

"When we come to the technical subjects of shorthand and typewriting," says John R. Gregg, "nothing less than a very high degree of proficiency will meet present-day demands. In shorthand great speed is not needed as much as accuracy. A speed of 100 words a minute on matters of ordinary difficulty is sufficient for the average office position. But the notes taken at this rate should be so legible that the stenographer can utilize his full typewriting speed in transcribing."
He cannot be called an efficient stenographer until he can accomplish this. Great stress should therefore be laid upon reading ability."

As can be seen by the assertion of Mr. Gregg himself, accuracy is the most important thing in shorthand and typewriting. It should be emphasized on the first day and constantly impressed thereafter. In many cases accuracy is almost automatic on the part of the pupil while in others the teacher has to resort to devices for creating an interest in accuracy. Some teachers require first attempts to be accurate. This does not hinder the progress of some students, but for the majority such a requirement is a great detriment to his progress because he concentrates on accuracy and writes under a strain. He will then resort to unauthorized means in obtaining accuracy.

Appeals for accuracy may be made by the teacher in several ways. Perhaps the most constructive means is the appeal to the pupils' moral sense, emphasizing the necessity of doing whatever one does to do it well or showing the futility of inaccurate work. Here again the teacher may stress the vocational value of good work and bring in the fact that speed and accuracy are inseparable.
Inaccurate work is hard to read and lacks a neat appearance. Errors are costly while accuracy increases quantity production.

The artistic features of typewriting may be utilized as an interest-awakening feature. This can be best motivated by allowing those pupils who are advancing rapidly to make typewriter designs and to place them on display in some conspicuous place in the classroom.

The typewriter, while it was never intended to be a medium of artistic expression makes this appeal to many students. It is valuable because it enables the student to become acquainted with the different parts of the machine. However, the teacher must use discretion in the assignment of this work and should see that it be of a practical nature—the designing of covers, indexes, tables of contents and other things included within the realm of typewriting. The artistic features also include placing of material on the page, even and correct margins and correct impression of the type. Illustrations of printed matter pertaining to typewriting can be used to great advantage. By means of these the constructive abilities of the student can be awakened.
There is nothing more encouraging to the student than to do something that wins commendation from his teachers and classmates. Exhibits of correct letter forms showing the shorthand notes and the envelope will interest the class. The teacher can obtain many specimens of typewriting experts' work from the typewriter firms which will serve as a stimulus to the class.

In all typewriting work there should be an appeal for artistic touch. This appeal may be obtained through an emphasis of a correctly written and well-balanced page. Artistic touch may be obtained only through a good sense of judgment and good taste on the part of pupil and teacher.
VII

It is always a source of inspiration to the student to know that the teacher can do what he is trying to do. The teacher who can sit down with the pupil and work with him is utilizing one of the most powerful aids in motivation. This is especially true in the teaching of typewriting.

The teacher can sit down at a typewriter, form the center of a group of students working on a particular exercise and by demonstration she can accomplish results which could not be obtained in any other way. It is only too often the case that teachers of typewriting lose much of the value of this type of instruction by falling behind in their own practice on the machine.

The same thing applies to the teaching of shorthand. The teacher should avoid doing all the talking herself and let the pupils dictate (in advanced classes) frequently while she and the class write. This method is very encouraging to a class and has a twofold value because the class actually feels that the teacher is able to do the thing she is teaching them and because at the same time it enables her to maintain her speed in shorthand writing.

The teacher may enter into speed contests for
awards with her class. Miss--- at Simmons College wrote a hundred words per minute on the typewriter without error and received an Underwood machine as an award. This feat has made a lasting impression on her class. It is said that her pupils were the most enthusiastic at that college. This method appeals to the student in helping him to overcome his difficulties.

There are difficulties in learning shorthand and typewriting and they must be faced squarely. The pupil needs inspiration to tide him over these places, if not, he will get discouraged. This fact offers great possibilities for the teacher, although, it does not imply that difficulties should be sought nor that the problems should not be simplified as much as possible.

The simple fact that the subjects are difficult in themselves and an admission on the part of the teacher that they were difficult for her will make immediate appeals to the class, but she must point out that no one wants to win easily and others have had the same difficulties and have been successful in overcoming them.

The same appeal will not suffice for all therefore, the individual student must be studied and the teacher must be ready with whatever remedy he needs to solve his difficulty. This leads to the importance of classification of students. In the first place an arrangement
of this type stimulates competition and since all students within a classified group are capable of working at about the same speed the competition may become productive of results. In addition, classification affords opportunity for the teacher to concentrate her efforts on a few and leaves a margin of time for intensive drill work.

Classification is a very hard problem to solve in fact there is a concensus of opinion regarding it constantly going on among educators however, it should be carried out as far as possible. This means that the amount of instruction to any one group will be reduced but a few minutes of intensified work is to be preferred to a longer period of scattered instruction.
VIII

"The importance of music in typewriting," says A. B. Crosier in his article on rhythm, "cannot be overemphasized." Rhythm simply means the tapping of keys at regular intervals of time delivering each stroke with the same amount of force. Every human force in the world is rhythmic. We are all rhythmic. The great argument in favor of rhythm is this: If we have rhythm in the rest of our lives why should we not typewrite in rhythm? The older methods of training typists took no account of rhythm but educators have now come to the realization that no typist can reach the highest degree of efficiency unless he can execute an even process of operation.

At the beginning of the typewriting course the teacher should demonstrate to the class the correct method of acquiring rhythm and explain why so much emphasis is placed upon it. As most students have a natural conception of "time," the teacher will experience little difficulty in driving that fact home.

The stimulating effect of music has long been recognized because it possesses the two important elements—melody and rhythm. Rhythm appeals to the nervous system and conserves energy while melody appeals to the ear and
has a cheerful effect upon one's mental attitude.
"Where there is music there is order in proportion."

Music makes an instant appeal to the emotions, releases all restraint and takes away the awkwardness felt in the beginning. In addition it helps the learner to form habits of control and self-mastery and possesses a certain fascination which holds the mind of the typist and spurs him on to his best efforts.

In addition to all its other redeeming features music stimulates the laggers because they know they must keep up with it, it eliminates the tendency to waste time and the tendency of the fast student to outrun himself and finally it takes away from the drudgery of typewriting.

The specific application of rhythm to the teaching of typewriting may be accomplished in several ways. C. E. Birch gives the following analysis:

1. **Dictation.** The teacher spells the words in rhythmic time while the class strike the keys in concert. ex. a-n-d-space.

2. **Counting.** This is similar to the dictation method, but allows for a little variation and relieves
the monotony of continual dictation. Ex. 1-2-3-4- in place of a-n-d-space.

3. Tapping. Striking the desk lightly with a rule or similar instrument at regular intervals.

4. Metronome. The metronome may be successfully employed, the students listening for the sound.

5. Music. The phonograph or other musical instrument may be used.

6. Signals. This is the most uncertain method. The teacher indicates rhythm by motions of the hands. Classes may be started and left to write to the close of the line or paragraph without further direction unless rhythm is lost.

In determining which of these methods to use the teacher must take several factors into consideration. Which is the easiest to control as regards speed and quality? Which can be stopped and started to meet the
needs of the class? Which will best hold the attention of the class? Music, while it does not come as close as dictation to meeting all the requirements, yet is most popular. Dictation with music would almost be an ideal combination.

Much success has been acquired by the use of the Victrola, but the chief difficulty with this method is to secure the proper records. Four-fourth time is considered best but any piece of music that has pronounced time as marches is good.

When writing to music the student should strike the key at every beat. Gradually the machine may be raised to a higher rate of speed. After the individuals of the class have reached the minimum for one stroke they can write two strokes to every beat. In this way it is possible to have students writing at different rates to the same piece.

The principal advantages of rhythm are three: namely, it will enable the typist to finger properly, insuring accuracy, to expend an equal amount of energy on each key stroke, insuring even touch, and lastly to conserve energy insuring less fatigue.

If the rhythmic practice work done by the class carries over into the individual writing, the work will
be successful. The teacher may measure the success of her efforts if the following results have been attained: (1) development of even touch, (2) clear-cut impressions, (3) better finger control, (4) greater speed with accuracy.

In short, the aim of all the instruction on rhythm is to so impress the rhythmic sense upon the class that it naturally becomes a habit in all their writing. The theme should be constantly introduced, therefore, until each member of the group has acquired rhythmic touch.
SUMMARY

This thesis on motivation of shorthand and typewriting has set forth in some detail the methods of teaching these subjects so as to touch on the interests and needs of the students of shorthand and typewriting.

The first section takes into consideration the urgent need of motivation in present-day teaching, a few of the laws and rules of habit formation pertinent to the study of shorthand and typewriting and a brief analysis of the habits to be prevented.

The lesson plan as a factor in motivation is treated somewhat at length taking into consideration the various functions of the lesson plan together with suggestions as to aims and subject matter. Types of lessons, the review lesson, for example, are contained in Section IV and the definite means of obtaining motivation through such methods of competition and questioning are indicated.

A chapter has been devoted to a discussion of interest and motives in teaching and the ways of touching the students' interests through these various appeals.
Music and rhythm in the teaching of typing-writing have been given a prominent place in this research because they play such an important part in this field toward furthering skill and manual dexterity.

The thesis as a whole aims to include as far as possible the most efficient means of motivation which can be employed in the teaching of these two very mechanical subjects.
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