Aims and methods in teaching typewriting

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THESIS

"AIMS AND METHODS IN TEACHING TYPEWRITING"

Submitted By

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AIMS AND METHODS IN TEACHING TYPING

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First of all there must be ACCURACY in typewriting. The average business man or professional man would much prefer having an amateur typist who plods along at the rate of ten to fifteen words a minute, and does the work perfectly than to have some so-called speed artist who clatters away on the machine making a gross average of from fifty to sixty words a minute but making from two to three mistakes in every paragraph. A great many positions require that a typist be one hundred per cent perfect. The stenographer in an abstract office, the stenographer in the law office, the typist of statistics must be able to turn out perfect work or it means nothing.

The teacher of typewriting must always consider speed. There is a tendency today to place too much emphasis on speed, or at least, too much emphasis on the wrong kind of speed in typewriting. The usual method is to place before the pupil some straight copy matter, hold a watch on him for ten or fifteen minutes, check up the words, and if he has made something like seventy or eighty words net, he is hailed as a prodigy. This little piece of work he has done has called for no initiative; no particular brain power. It has called forth and used up a tremendous amount of nervous energy. We must have speed. We must have writers who can turn out a vast amount of material in a short time, but it must be accomplished in a different manner. The pupil should be given opportunity to take up some supplementary book in which there are letters, articles, and legal documents written in shorthand which he can transcribe as speed work, or better still take an old notebook and transcribe his notes after they are cold to see how much material he can actually turn out in a given time. The cry that goes forth from employers of the students is that they have too little transcribing speed and do such
poor work in transcribing material from shorthand notes.

An important point to be emphasized is training the student to classify and copy unorganized material so that it gives exact information to the reader. Masses of this material can be obtained from the superintendent's office, principal's office, or from the heads of departments.

How can accuracy be obtained? The typewriting teacher well knows that the critical time is the first three weeks of typewriting. The first two days the teacher should dictate the first simple material direct to the machine. On the third or fourth day the text book is placed before the student and he is taught to rivet his eyes on the copy.

Next, the use of the phonograph from the beginning in teaching typewriting is highly recommended. The music should be slow to develop rhythm emphasizing a light touch and an even stroke.

The selection of the text-book should be well stressed. A text book should selected that has the writing line composed of different combinations of letters or different words. This compels the pupil to follow the copy closely and makes the work more interesting. It is always important to emphasize accuracy rather than speed. The word "speed" should be used very little in the beginning work of typewriting.

Accuracy charts help to keep the work interesting in the beginning then as the class advances speed charts should be used.

An excellent way to obtain artistic results in typewriting is to bring the pupils in touch with the business world. This may be done by selecting a number of business firms, both high class and mediocre, and ask the students to write letters to these firms. The letters received in reply will be good, bad, or indifferent. The excellent points in the good letters can be brought out and emphasized. They can be contrasted with the poor letters and later put in permanent files for future reference.
It is unnecessary to discuss the subject of how to obtain speed. Speed demonstrations on the typewriter are given everywhere. It has grown to be a national and international fact. One thing is certain however, and that is that the fundamental principle of speed is accuracy. Perhaps by far the best way to get the student to do work accurately, and artistically is to keep him interested. If he is interested he will write. If he still continues to be interested he will continue to write. A common error in teaching typewriting is that the teacher does too much talking about how to typewrite and too little typewriting is done, that is the reason the school turns out so many poor typists. Therefore, the most important idea is to keep the pupil ever interested. This may be done in the following ways.

First: Have the pupils write letters to business houses that have a system of follow-up letters.

Second: By knowing what others in the class have accomplished in the same line. Writing at the rate of one hundred words per minute by students who have just passed out of school will create much more interest than a speed artist whom the students do not know and whom they consider out of their class.

Third: By teacher demonstrations. The teacher who is able to sit down before her class and show correct touch, correct rhythm and with speed arouses interest and inspires confidence as does not the teacher who merely talks about these things.

Fourth: Concentration drills are excellent. Warming-up and special finger exercises produce good results in accurate typewriting.

Fifth: Use of accuracy and speed charts and graphs illustrating individual progress. Any record which tells its own story is a great incentive to better work.
Typewriting has won quickly for itself a place of dignity and respect in our schools side by side with the time-honored classics. We must consider the relations of aims, ideals and attitudes in typewriting to the underlying aim in commerce, honest and efficient exchange.

Training in typewriting is both cultural and vocational and has a practical, disciplinary and cultural value to the student. If the laws of habit formation are to be scientifically applied, the efficient teacher needs to be a trained psychologist, possessed of operative ability, practical experience, professional and academic training, and steady nerves to meet the exacting daily grind of this habit-formation subject with its rapidly growing body of contents and technique.

New ideas are arising and new methods are developing. We need better tools and more exact methods of instruction. There are in training a student of typewriting three distinct but overlapping stages of progress:

1. The initial habit-formation period.
2. The habit acceleration period.
3. The period of artistic production and creative typewriting.

It is vitally essential that equipment, methods, and devices vary with these stages of progress.

THE INITIAL HABIT FORMATION PERIOD

Far too much time is wasted during the first period of training by taking up the keyboard in small units. A set of four-reach touch drills that teach the keyboard by large units instead of in the old wasteful way of a few keys at a time, produce better results. These drills are to the typewriter what scales are to the piano. They are designed to develop:

Accuracy—By the formation of correct reach-touch habits to every
letter figure and symbol on the entire keyboard.

Evenness of Touch—By a scientific distribution of practice.

Concentration—By a systematic arrangement of changes covering the keyboard without the distraction of meaningless repetitions.

Speed—By rhythmic grouping and repetition in attention until reach-touch habits are firmly fixed.

While all properly directed practice contributes to speed growth and all practice offers an opportunity for artistic display, accuracy is the one thing to stress during the initial habit formation period. Conditions should be kept uniform and exact. The classroom should be equipped with only one make of typewriter, with carefully adjusted chairs and desks, and with a phonograph, filing cabinet, display charts, and blackboard.

The work begins with the eight-finger reach-touch drill that covers the home row of keys and is followed by word exercises on that row. Next it is a good plan to begin to teach paper control with a system of stamping, budget grading, and filing in class that saves useless waste and leaves time for classroom management, group and individual instruction and conferences over the causes and prevention of error. Next cover the entire keyboard with three more reach-touch drills, using words of high frequency, and specially selected exercises for additional practice. Rhythm records, counting and even the blindfold method if judiciously used, are valuable helps during this stage.

Habit formation requires that pupils memorize by large units, with short and frequent periods of recall at first, and gradually lengthened intervals as progress is made. This is accomplished by daily drill, practice and reviews in content and technique with every tenth budget lesson devoted to a general review.
AIMS OF THE TYPEWRITING COURSE

The general aim in the teaching of typewriting is to prepare the pupil to do intelligently and efficiently the work usually required of a typist. In order that the desired aim may be realized, the demands of the business world must be fully appreciated and understood by the teacher. The specific aim should be to meet the standard of work demanded by the best business houses. In other words, the course should be vocational. Collateral work should be carried on co-incidentally to develop a background.

The teaching of the subject is further guided by the following specific aims:

1. To develop an efficient operating technique. A correct method of operating is the basis of skill. In addition, there should be acquired a degree of proficiency in the practical application of the technique that will enable the pupil to write accurately at a fair rate of speed.

2. To give the pupil knowledge of the principles of form and arrangement as applied to typewritten business papers, and, above all, to develop power to type such papers in attractive form from unarranged copy. This latter aim is of vital importance since that kind of work in connection with transcribing shorthand notes is a basis for typing success.

3. To acquaint the student with the details of business practice related to typing.
Ability to operate a typewriter will increase the value of any office worker, but a high degree of skill should be attempted only for those who expect to become stenographers or typists. Habits of accuracy, neatness, attention to details, rapidity of motion, can be stimulated through typewriting practice. No other commercial subject appeals so strongly to the younger pupils and through the interest thus created the pupil may be held in school longer and thereby secure more thorough preparation for business.

OUTLINE OF COURSE

1. Careful and thorough explanation of the nature of the subject.
2. Discussion of the importance of accuracy at the outset.
3. Presentation of proper technique including
   a. Position of the machine
   b. Position of the arms in their relation to the machine
   c. Position of the wrists and hands
   d. Method of delivering the strokes
   e. Use of finger movement
   f. Use of space lever and proper method of returning the carriage
   g. Inserting and removing paper
   h. Operation of space bar and shift key
4. Teaching the parts of the machine and their uses
5. Development of the keyboard according to any approved method
6. Use of all the labor-saving devices
7. Instruction in letter forms
8. Practice in making commonly formed characters which are not on the keyboard such as plus, equality, and division signs, ditto marks, etc.
9. Instruction and practice in the care of the machine
10. Changing the ribbon
11. Vertical and horizontal rulings
12. Addressing envelopes
13. Centering titles
14. Use of column selector in paragraphing and making lists of one or two columns
15. Using carbon paper
16. Writing on ruled paper
17. Sufficient practice in typewriting to enable the pupil to write at the rate of twenty-five words a minute.

SUGGESTIONS FOR TEACHING TYPWRITING

In the speed test, close supervision is of the greatest importance—standardized matter should be used, the letter or stroke being taken as the unit of measure. For the twenty-five word rate a ten-minute test is recommended.

Acceleration exercises should consist of memorized words, phrases, and short sentences. Concentration exercises, consisting of one repeated word, are also valuable. Correct fingering is all important in the early work. Absolute accuracy should not be insisted upon at first.

Keyboard shields are recommended by some excellent teachers. Others condemn them. If shields make it easier to get the pupils to write by touch they should be used until correct habits are formed.

The importance of rhythm in typewriting can hardly be overstated. Music may help. It has been used successfully by many teachers and is worth a trial in any class of beginners. Appropriate class drill should be given every day. Dependence on "individual instruction" too frequently degenerates into "individual neglect." Another means of keeping the class together and at the same time permitting those who work faster
and more accurately to get additional benefit is to require one perfect copy of each lesson and two copies that may contain a small number of errors, marking all pupils who accomplish this minimum 75 per cent to 80 per cent. Those who turn in two perfect copies and one with errors may be marked 81 per cent to 89 per cent. Those who turn in three perfect copies may be marked 90 per cent to 100 per cent. By this method much of the strain is removed and the pupil will get at least one acceptable paper completed each day and will be encouraged by the thought that he is making progress. By requiring the completion of the three copies he will write the exercise through to the end at least three times, while he might write it through but once if only one perfect copy is required. This insures practice on the latter part of the lesson as well as on the first part.

**TENTH YEAR**

The speed requirement of the tenth year should be forty words a minute. A ten-minute speed test should be given at the end of the year. The lessons covered this year should include the following:

1. Legal forms
   a. Articles of agreement
   b. Power of attorney
   c. Bill of sale
   d. Will
   e. Complaint and answer

2. Schedule

3. Billing

4. Telegrams

5. Tabulation

6. Use of backing sheets

7. Cutting stencils
8. Use of two or three color ribbon
9. Card work
10. Additional practice in writing letters

ELEVENTH YEAR

The only typewriting that will be required this year will be done in connection with office practice course and in the transcription of the shorthand notes written from dictation. Through the office practice an opportunity will be afforded all pupils to apply in the business office their knowledge of and skill in typewriting. Only those who elect to become stenographers or typists should use the machine regularly this year.

TWELFTH YEAR

Those who elect the secretarial course of this year should make use of their typewriting and increase their skill.
RATIONAL METHOD OF TEACHING TYPEWRITING

OUTLINE OF COURSE

The course in typewriting is grouped under the following three heads:

1. The mechanism of the typewriter
2. The operating technique
3. Practical application

MECHANISM OF THE TYPEWRITER

At the very beginning of the work in typewriting the pupil should be familiarized with the names and functions of the various operative parts of the machine. These features should be taken up progressively, as the need arises, on a properly organized plan running through the course, to make certain that all features are introduced at the proper time and skill in their use acquired.

Skill in the use of the operative features of the typewriter naturally is cumulative. At the beginning certain features are necessary to the mere operation of the machine; for example, manipulating the keys, and the space bar, the carriage release, the marginal stops, the shift keys, and inserting and removing the paper, etc. Other features do not come into the field of learning logically until later in the development of typing skill. By learning properly to employ the operating features of the machine early, the natural use of them will rapidly become automatic.

The pupil should be taught to keep his machine in good working order. The pupil should not be encouraged to attempt to make repairs. If he understands the mechanical purpose of the working parts, slight disturbances in their proper functioning may be corrected often times by the pupil himself; but he should be restrained from experimentation.

As a general rule pupils in typewriting have little mechanical knowledge,
therefore, all adjustments, should be made under the direct supervision of the teacher.

The following is the suggested order in which the operative parts of the machine can be best introduced:

1. Insertion and removal of paper; functioning of paper holders; paper release; paper rest.
2. Returning carriage for a new line; line spacing mechanism; bell.
3. Cleaning and oiling the machine.
5. Marginal stops and release.
6. Shift keys and shift lock.
8. Variable line spacer.

Acquaintance with the following features may be deferred until later in the course.

1. Tabular key or column selector, tabulator stops.
2. The ribbon mechanism, and its functions; kinds of ribbons; the ribbon release control; bichrome device; release of ribbon for making mimeograph stencils.
3. Envelope guide

OPERATING TECHNIQUE

The touch system is now universally recognized as the most efficient method of operating the keyboard. Various devices have been utilized, with varying degrees of success, to insure an early mastery of the keyboard by the touch system.

Blank keys and shields are the two most common devices. Blank keys are of little value, and have only a negative influence in compelling the student to learn the order of the keys merely; they do no produce
touch operators. Shields may be employed with some advantage in the early stages of learning the keyboard; but the most successful plan is to motivate the pupils so strongly that they will, of their own volition, adhere to the touch method of operation. When the shields are used, they should be discarded as soon in the practice as practicable. If the pupil can be induced to stick to the touch method until the keyboard has been learned, and the images of the location of each key are fully established, little difficulty will be experienced after that; the pupil will find that it is easier to write by touch than by the sight method.

The following features must be emphasized:

1. The importance of correct beginning.
2. Position at the machine.
3. Machine operation
   a. Inserting and removing paper
   b. Spacing and throwing the carriage for a new line, including instructions concerning single, double and triple spacing, margins and indentations.
   c. Position of the hands and arms and locating the position of the fingers on the keyboard.
   d. Learning the keyboard.
   e. Method of tapping the keys; the rhythmic stroke; operation of space bar.
   f. Individual finger reaches with reference to direction and return to locating position (home position)
   g. Figure keys
   h. Characters and symbols not on the keyboard
4. Use of charts
5. Methods of practice
6. Types of Drill
7. Habits
8. Development of accuracy
9. Development of speed
10. Development of typing power
IMPORTANCE OF CORRECT BEGINNING

In the first few lessons in typewriting the foundations of skill are laid. Therefore, the effort should be centered on correct technique. Very much may be gained by interesting the pupil in this phase of his work and drawing his attention temporarily away from what the average pupil most desires--to write something. Whatever effort is devoted to learning the correct method of operation at the start will yield results in the end that more than compensate for the time expended. The aim from the beginning should be to establish habits that contribute both to accuracy and speed of operation. Time should not be wasted in attempts to secure "perfect" copies of exercises in the beginning stages. "Perfect" copies do not mean anything so far as learning is concerned unless they are produced by methods that have a bearing on the pupil's development of typing skill.

The highest possible ideals, naturally, should be the objective towards which to drive, but accuracy of copy oftentimes may be secured at too heavy an expense. An inflexible demand for correct copy may force the pupil to secure it by any method his ingenuity suggests.

While the emphasis should be placed on the keyboard technique lessons and every possible means utilized to promote correct work, needless times should not be consumed in working out the early lessons. Experience has shown that insistence on the "perfect" copy has more often retarded and discouraged the student than it has been a factor in his progress toward operating skill. When a fair degree of skill is obtained on each exercise, the pupil should proceed with the next. The acquisition of typing skill is progressive. Each lesson necessarily brings into review practices learned in the preceding lessons. The speed of progress should be such as constantly to keep alive the pupil's interest, but not at the expense of
thoroughness. Interest and enthusiasm are powerful factors in the learning stages.

POSTURE AT THE MACHINE

Ease of operation and accuracy are greatly promoted by correct posture. Incorrect posture produces fatigue. It is an almost constant source of mistakes in operation. At the outset the teacher should demonstrate the correct position, explaining every detail of it. Afterwards she should exercise constant supervision of this feature of the pupil's work until correct posture is a matter of habit.

The main features to be observed are: height of chair; and easy, relaxed position in the chair—a position that permits accurate reaches to the keys; feet on the floor; body pivoting from the hips.

LEARNING THE KEYBOARD

Learning the keyboard involves much more than having a mere visual image of the location of the keys; this image must be transferred to the muscle memory sense, through properly constructed exercises. The feature that is to be emphasized is an operating memory and this perhaps can be developed more accurately and with greater success progressively than by attempting too much at the start.

METHOD OF TAPPING THE KEYS

The principal points to be emphasized are: Hitting the keys squarely in the center, with a sharp, resilient, rhythmic stroke; getting the fingers off the keys quickly to allow the type bars to function properly; lifting the finger no higher than is necessary for the proper functioning of the key mechanism.

From the beginning attention must be given to the rhythmic stroke. This may be greatly promoted by the use of the Rational Rhythm Records which give an even marking of the time. Music is stimulating and lends an interest to the work that is productive of excellent results if properly employed.
The space bar is to be struck with the right thumb only. Nothing is to be gained by alternating thumbs in the spacing operation. And it involves a complexity in learning that is undesirable.

**INDIVIDUAL FINGER REACHES**

Independent control of the fingers is necessary. It is developed through properly constructed exercises and drills.

**USE OF CHARTS**

Large wall charts showing the proper division of the keyboard into finger sections may be used with advantage in the beginning work. Their use, however, should be discontinued as quickly as possible. Otherwise pupils will rely upon them rather than learn the location of the keys in writing. The wall charts may be employed for the purpose of explanation; but should not be displayed during the practice periods.

**METHODS OF PRACTICE**

The method of practice should have for its aim the acquisition of typing power, which means the use of skill in working out problems as they arise. Repetition of an exercise is of little value unless conscious attention is given to it. Every effort should, therefore, be made to compel attention. On the other hand repetition is a powerful aid in acquiring skill when combined with interest and attention. Acquiring skill in typing is merely a matter of developing certain habits of operation that become automatic. As long as we must give conscious attention to finding the keys and performing other elementary operations of typing, speed and accuracy in writing are impossible.

Emphasis should be placed upon intensive effort, concentration, a high degree of motivation, and periods of practice long enough to insure a fair consolidation of the objective in view.
TYPES OF DRILL--Elementary Class

During the keyboard learning stage of typewriting greater gains in skill will be made by the selection of practice material that contributes not only to facility in making the reaches, but to fingering skill of permanent value. Types of drill that have for their purpose merely the learning of the reaches are wasteful. A better form of drill is one that brings into use the letter-combination frequencies of the language. Theoretically, the ability to make a reach from any one key to any other key within natural limits is desirable. In practice it is found that there are fundamentally a number of reaches that recur with great frequency. These frequencies may be utilized both as reaching drills and as a means of acquiring a skill that is of permanent utility.

In order to maintain interest the drills should have a meaning to the pupil. He should not be kept working in the dark toward some objective which is not clear to him. Faith in the teacher or in the method initially may be very strong. It may be conserved and strengthened by letting the pupil see what the end of his quest is to be.

Drills should be provided that take into account letter by letter, word, and sentence stages of development in acquiring typing skill. These may be judiciously combined. All drills should keep in view the development of typing power. The principal types of drill are: location, facility, concentration, test. Special drills must be provided for developing facility in the use of the different fingers--especially the third and fourth--to bring them up to the degrees of efficiency that is natural for the first and second fingers. These two fingers are recognized as the weakest fingers and hence require much more practice.
TYPES OF DRILL--ADVANCED

After the keyboard learning stage—that is, after all the letter and figure keys have been learned—the practice material becomes more general in type. In fact, in a properly organized course in typing, the pupil will pass gradually from the letter-by-letter and their frequent-sequence stage, into the word-group or sentence stage.

With the completion of the keyboard drills, which have for their purpose merely the learning of reaches and the rapid and accurate fingering of frequent combinations, it seems desirable to spend considerable time in developing a straight-away copying skill on both sentences and paragraphs. This type of drill should be planned to develop rhythmic, continuous writing and to give an opportunity for the operating technique to become automatic before emphasis is placed on the proper arrangement of matter on the page. If the matter of arrangement is stressed too early in the work the pupil will be torn between two forces—one powerfully influencing him to give conscious attention to the actual operation of the machine; the other to the proper arrangement of the matter. This is not an economical employment of his abilities. After a fair degree of automatism has been secured in straight-away copying the pupil will easily and naturally give his undivided attention to the problem of arrangement. When this stage of development has been reached, greater stress should be placed upon the solution of typing problems. The typist's work is to convert one kind of copy into another. He either transcribes from his shorthand notes or from typewritten matter that has been altered by emendations or additions. Hence, the copying of straight typewritten matter, already in correct form, is of little value in developing power to handle original problems.
Problems should be provided that prepare the pupil for transcription. The work to be interesting must have a practical appeal. The problems must make a demand upon the pupil's initiative, resourcefulness, taste, knowledge—if he is to develop power.

The introduction to transcription should be for the purpose of co-ordinating the two arts—typing and shorthand. The first step in this direction is made in transcribing unarranged and unpunctuated material; the second is in transcribing from carefully prepared shorthand notes—plates—which involves little more than reading the shorthand and typing; and the third step is in transcribing notes written by the pupil.

HABITS

Since skill in typing is merely the acquisition of a series of habits, it will be seen that the greatest care must be given from the beginning to the development of correct habits. The acquisition of incorrect habits must be guarded against. In the learning of typing, lower order habits must give way to higher order habits. Consequently one of the primitive operations—as, for example, feeling the way along the banks of keys to a given letter—should not be carried to a point where they become fixed habits; otherwise they may be so strong as to place an inhibition on acquiring newer and better habits.

DEVELOPMENT OF ACCURACY

Since skill in typing is a cumulative art, accuracy will improve with a mastery of technique and with continued practice—if the practice is of the right kind. Therefore, it is unwise to retard progress by requiring each lesson to be correctly written before advancing to the next. Correct technique is the more important aim, and accuracy will be secured only to the extent to which this aim is realized. Moreover, the number of times an exercise is to be written should not be arbitrarily fixed but must depend
upon how thoroughly the technique involved has been mastered.

Inaccuracy that is the result of carelessness is inexusable.

The pupil should be encouraged at all times to strive for accuracy; that is an ideal to be striven for, but not always to be achieved. The human equation always enters into the question of accuracy, and the procedure to follow with different individuals is a question that the teacher must solve. Accuracy generally is developed through deliberation, through mastering the intricacies of fingering by repetitive exercises, concentration, poise, but above all perhaps through developing the mental phases of typing. It is primarily a matter of mental control. Accuracy is a means to an end—and that end is speed in production.

DEVELOPMENT OF SPEED

Facility in writing depends almost wholly upon automation. Hence all practice that leads to a complete automatization of operation tends to develop speed. Since only a moderate rate of speed is required for commercial work, too great emphasis should not be placed on this phase of typing. If proper attention is given to the drills in the early stages of learning, to acquiring facility of operation along with correct technique, speed will almost take care of itself. Rhythm and accuracy should never be sacrificed for speed. There is a danger, however, that by placing the emphasis too strongly and constantly on accuracy the pupil will fall into a habit of luxurious indifference to the question of speed. It may be an advantage in many instances and on many types of work to push the pupil to his physiological limit. He must be taught the value of sustained operation. Speed as speed should not be considered as a factor, but it must be understood that in commercial life work must be done expeditiously. Pressure should be put upon the pupil to increase his power of production.
If an analysis were to be made of the pupil's activities in typewriting during the day, it would be found that the greatest factor in inadequate production was the result of waste time in unnecessary movements, inability to pass from one phase of the work to another smoothly, lack of concentration, lack of enthusiasm, lack of motivation. These are factors that must be dealt with by the teacher. The pupil must be stirred out of the rut of unproductive work. He must be taught to make his movements count for something constructive.

Speed in typing is not merely a matter of tapping; a great number of keys in a given time; it is more the result of continuous operation and the avoidance of mistakes. It is the result of an even flow of power—of poise, of control, of keeping at it. Facility exercises should be a regular part of the work in typing constantly to urge the pupil out of the rut he will inevitably fall into unless pressure is brought to bear to force him into a higher realm of achievement.

DEVELOPMENT OF TYPING POWER

More operating skill, valuable as it is, is not the final solution of the problem of typing.

"Very little time should be spent in making facsimile copies of business letter, tabulated data, and the like, printed in typewriter type and set up to illustrate good form and arrangement. If the pupil's ability to apply the principles of form and arrangement is to be developed, the major part of the work should consist in typing business papers for which only the unarranged copy is provided. For comparative study the same exercise may be assigned occasionally to different members of the class to be typed in various ways, the merits of the several products to be brought out in class discussion." (New York Syllabus for Secondary Schools 1919 Commercial Subjects)
This cultivation of power should not be deferred necessarily until the advanced stages of learning have been reached. Typing should not be considered as a mechanical art. In all practice, provision must be made for the pupil to use his intelligence and his knowledge. He must be taught to think as well as to execute. There are unlimited opportunities in typing for developing ability of this type, and this in itself is an educational justification for typing in addition to its value as an accomplishment of practical use.
SUGGESTED TYPEWRITING PROGRAM

Senior High School

Two-Year Course in Subject

Tenth Year (5 periods a week)

FIRST SEMESTER:

(a) Operating technique

(b) Facility in straight-away copying to perfect the operating technique

SECOND SEMESTER:

(a) Development of skill in arranging and typing business letter, telegrams, handwritten drafts, "rough" drafts. Arrangement of manuscript forms, and the solution of practical problems on various kinds of business papers. Laboratory work.

(b) Tabulation and billing. Laboratory work.

(c) Law and business papers. Laboratory work.

(d) Introduction to transcribing

Eleventh Year: (5 periods a week)

FIRST SEMESTER:

(a) Advanced typing and business practice

(b) Advanced typing and business practice, combined with dictation and transcription.

SECOND SEMESTER:

(a) Secretarial practice, combined with dictation and transcription. Laboratory problems

(b) Advanced secretarial practice, combined with dictation and transcription. Laboratory problems.

Twelfth Year (5 periods a week)

FIRST SEMESTER:

(a) Secretarial technique combined with dictation and transcription to keep skill already developed alive and active
SECOND SEMESTER: (2 periods a week)

(a) Dictation, transcription, secretarial work

(b) Practical secretarial work furnished by the school or continuation work.
PRACTICAL APPLICATION

The following are fundamental in the training of pupils for efficient work as typists or stenographers. All these features are taken up in a logical order, and sufficient practical application secured thru laboratory problems to develop a definite degree of skill.

THE BUSINESS LETTER:

1. The essential parts of the business letter treated from the viewpoint of arrangement. Considered with this will be all the details necessary to develop artistic taste in placing letters of different lengths on the letter sheet with due regard to margins, etc.; the use of different line spacings—single, double, and triple; the spacing between date line and inside address, between paragraphs, etc.

2. The proper position of:
   (a) The particular address, "Attention of Mr.--"
   (b) Letter subject.
   (c) Heading for second sheet.
   (d) Estimating the proper length of a letter so as to secure an artistic arrangement on the second sheet if one is required.

3. The correct use of:
   (a) Titles of courtesy.
   (b) Different forms of salutation and complimentary closing.

4. Different forms of signature.

5. Different methods of indicating enclosures; file numbers and other identification symbols; initials of dictator and stenographer.

6. Addressing envelopes.

7. Methods of folding and inserting letters for envelopes of various sizes, including "window" envelopes.

8. The typing of postal cards.

9. Carbon copies; this should be introduced early in the business letter instruction.

10. Corrections and erasures. By the time the student reaches the business-letter-writing, forms-and-arrangement stage of learning he should have acquired a very accurate technique in straight-away writing. Errors should be rather infrequent. Nevertheless, provision must be made for making corrections. The student should be taught the proper way
to do it. Included in this should be instructions for making alterations in copy; equalization of spacing in a line where, for example, a four-letter word is inserted in place of a three-letter word, etc.; reinserting paper to make corrections, etc.

11. The forms of letters to be worked out should include:
   (a) Short letter, both single and double space.
   (b) Average length letter.
   (c) Full-page letter.
   (d) Two-page letter.
   (e) Form style with the address at the bottom.
   (f) Letters of different styles of arrangement, as, for example, the "block" style, hanging indentation, inter-office correspondence style, memos, etc.

12. How the finished letter should be returned to the dictator—envelopes slipped over the tops of the letters and the whole pack laid face down.

13. Practice in typing letters from unarranged copy for the purpose of developing artistic taste and skill. Paragraph indentation, paragraph headings, underlining, and other means of emphasis should be discussed and worked out in practical problems.

   The work in copying and rearranging matter from unarranged copy should include type letters in which merely the substance is given with correct punctuation, capitalization, etc.—the only problem involved being that of rearranging the matter correctly and tastefully.

   A second form of exercise should be the substance of letters given without regard to arrangement, capitalization, or punctuation, as a preparation for transcribing from shorthand notes.

   A third form of exercise which is most valuable is rearranging letters and other matter from longhand drafts. The longhand drafts should be in different handwritings and for the most part should contain few alterations or corrections. Alterations and corrections should be covered in the "rough draft" problems. Business experience shows that the average pupil is very weak in this latter form of converting copy, due to two causes:

   (a) Inability to read longhand.
   (b) Lack of judgment in estimating the space required for typing longhand drafts.

   Original letter composition should not be required; that is a function of the English department.

   Proper correlation of the shorthand and English departments, however, is desirable. The typewriter may be used for preparing problems in English composition and business letter writing.

14. Preparation of Telegrams: The fundamental information necessary for a proper understanding of the preparation of telegrams, and a discussion of the practices of telegraph, cable, and radio companies as to words counted, different kinds of service, etc.
15. Rough Drafts: Various types of rough drafts, including both handwritten and typewritten. These should contain problems in punctuation, capitalization, and spelling as well as corrections and alterations in the text.

16. Manuscripts: Instructions and problems in the artistic typing of manuscripts of various kinds, planning the arrangement, centering of titles to articles and documents. The problems should include unarranged material to be worked into proper form. Whatever work of this nature is taken up in the last semester of the first year's work in typewriting should be merely an introduction to the more advanced work, which will be given the next year.

17. Tabulation: The fundamental principles of tabulation as regards disposition of the matter on the page, proper column heads, capitals, economy of the reader's time; ruling on the machine, etc., should be discussed and illustrated, and practical problems arranged clear to bring out the principles. Application of the principles should be secured through simple problems from unarranged copy. This work in the second semester should be merely in the form of an introduction to the subject to be further developed in the next semester—-to hold interest.

18. Billing: An introduction to bill with simple illustrations and problems. Its purpose is the same as in the foregoing activities—to introduce the pupil to the subject and arouse his interest in the more advanced type of work.

19. Law and Business Papers: This also in the second semester of the first year should be merely an introductory course, illustrating the fundamental principles, with simple problems in arrangement; first, from properly set up legal papers; and, second, from unarranged copy of the most common forms. The proper method of preparing manuscript covers with endorsements, folding, and other details that go with the work should be gone into thoroughly.

The ability to make intelligent use of the machine marks the successful typist. For this reason, the practical applications, which require something more than mere operating skill, must receive by far the greater share of the time given to the course. Operating skill is valuable, of course, and its importance is not minimized, but in the absence of ability to make practical use of the machine, speed counts for little in the eyes of the business man.
PREPARATION OF THE COMMERCIAL STUDENT

The aim of the high school commercial course is to bring the school in closer touch with the business community. There are two reasons for this: First, it must make the theoretic work in the school concrete and applicable to real business conditions; secondly, it must make easier for the graduate to adapt himself to his vocational surroundings, with the least possible waste of effort.

During the last two years of the student's course the work is of a specialized nature. The first two years have served as a background for his cultural training and now he is ready to prepare for his special work. The commercial subjects offered during the last two years are shorthand, typewriting, bookkeeping, office practice, English, salesmanship, commercial law, or economics. First of all, we shall consider the shorthand and typewriting work as the most important since the majority of the class expect to enter this field of work. The shorthand teacher generally has the same class in typewriting.

SHORTHAND AND TYPEWRITING

In the course of the conduct of business, correspondence plays an important part. A great deal of its success is dependent upon the efficient, accurate, and neat manner in which the correspondence is conducted. In modern business the stenographer has become indispensable, and in view of the great demand, training for stenography has become perhaps the most important object of the commercial course. The work in shorthand and typewriting offers a valuable training in language, and valuable training in the powers of observation and judgment, in training the ear, and developing the power of concentration. Commercial life is in need of intelligent high-grade stenographers who shall be more than
mere writing machines. The busy man must rely upon his stenographer to
take some of the burden of routine correspondence from his shoulders.
The employee must be competent to compose a letter from the brief direc-
tions given to him by his busy employer. This he can do only if he is
competent to take an intelligent interest in the work of the firm. The
stenographer’s position may be a stepping stone to work of greater re-
sponsibility and opportunity, to which his previous training will be a
decided help.

The educational value of the shorthand and typewriting course
is three-fold.

1. Its utility as a time saver to the executive, who can
use the time thus saved in solving the larger problems that arise in a
business.

2. Its value as an aid to clerical efficiency by increasing
the amount of work turned out.

3. Its value in preserving accurately, certain records.

The disciplinary value of a course in shorthand and typewriting paves
the way for success in the business field.

1. The development of the power of concentration. This is
a very essential requisite for all good work. Attentiveness and alertness
can only be developed by eliminating all distracting elements in the
teaching work.

2. Control of the mind over the muscles and responsiveness
of the hand to the command of the brain. This can be developed only by
repeated practice. Habit formation plays a very important part in the
training of the pupil in shorthand and typewriting.

3. The development of habits of accuracy and neatness,
especially in connection with typewriting. Here the teacher can do a great deal for the future office workers by keeping a strict watch for careless work. If a thorough check-up is made at the beginning of the pupil's training a great deal of time and happiness will be saved.

4. The development of the sense of responsibility. The sense of responsibility cannot be cultivated by mere theorizing or lecturing about it. There is a common complaint in the business world that stenographers are not properly trained, that they lack initiative, that their work is merely mechanical. It is possible to arrange the work in the school in such a way as to give an opportunity for the exercise of initiative. A course which confines itself to mere dictation and mechanical reproduction is not sufficient in itself for the purpose of developing self-reliance. There are opportunities for the teacher to dictate an outline in stenography and then require the student to transcribe the outline in narrative form. Another method for initiative is to allow the students to dictate letters of their own composition to other pupils; and still another method is to ask the students to write letters of their own composition, merely assigning to them the topic with which the letter is to deal. This training, therefore, will be valuable in teaching the pupil how to take care of these routine matters upon his own initiative when he enters business.

Quickness of judgment to a very high degree is required of the stenographer. Outlines and abbreviations have to be taught, that will express a certain idea in the shortest way, and still be legible; and this has to be done instantly. This training is again a matter of habit formation. The more common difficulties are relegated to the automatism of this habit, and the unusual problems which come up on the course of dictation are therefore taken care of by the mind with very little difficulty.
5. Development of imagination and judgment. The stenographer needs this power particularly in the reading of shorthand notes. The context must be reproduced from notes, in which the omission of vowels and the use of contractions leave something to the imagination. Memory cannot always be relied upon to help in this case. If the stenographer has not sufficient culture, his imagination will have no scope for activity and he will be hampered in reproducing the notes which are outside of the regular business routine.

CORRELATION WITH OTHER SUBJECTS:

1. It helps a student in his English, because the transcription must be accurate, both in spelling and grammar. If the teacher finds that her class is having difficulty with spelling, an occasional spelling drill will not take much time and will be very useful. The teacher will, of course, select words which are commonly used in business.

2. Stenography gives the pupil a practical knowledge of business routine and business forms. Since stenography will principally be used in commercial work, it is, of course, very desirable that the bulk of dictation shall be in the form of business letters. On the other hand, there are other forms of stenographic work which the student will have to perform in business, such as the filling out of forms, the writing of legal papers, the making of reports and others. Practice in this form of dictation should therefore be given to the students because this will be an important part of the office. Correlation of the dictation work with business routine will have the incidental advantage that in practising for the sake of technical proficiency the student will at the same time learn a great deal about business procedure.
4. Stenography trains the pupil's ear by emphasizing the correct pronunciation and the correct accent of words. It consequently improves his pronunciation. We are apt to take for granted that the student knows how to pronounce correctly the words he is going to write, and that he has the proper conception of sound values. With this idea in mind, the teacher usually begins the course by plunging right into the intricacies of technical shorthand and typewriting. This is one of the grave mistakes of the commercial course today. One or two introductory lessons should be devoted to ear training, and at the beginning of each lesson, in the early stages of the work, a little time should be given over to a pronunciation drill.
METHODS OF TEACHING TYPEWRITING

Professor Meckler

The habit factor is the greatest factor entering into the teaching of typewriting. Start in the first day by training your class in good habits. First of all, give them a talk about the care of the typewriting room and the care of their own machine.

1. Uncover the machine—placing the cover on the back of the chair. This must be replaced when the period is over. Do this every day and gradually you will not have to call their attention to it.

2. Give them a short talk on the reasons for studying typewriting. Arouse an interest by citing stories of successful people who gained their success by studying typewriting.

MECHANICS OF THE MACHINE

1. Mechanical operation and tapping of keys in simple rhythm.

2. The teacher should have her machine built up on a small movable platform so that she can demonstrate the parts of the machine as they are being taken up before the class.

3. Give just enough of the mechanics of the machine so that the class can get started. Students want action rather than theory.

POSITION AT THE MACHINE

Great need for adjustable chairs and desks. All the class is not the same size. Pupils are easily tired out if they have to bend over the machine or if the machine is too high for their reach. A rack should be built just above the machine, with a place for a book to rest. Every day the teacher should touch on the position at the machine, until they have become used to the machine they are using. Stress must be placed on the need of sitting up straight while writing.
Expectant position.

Arms hanging loosely at the side. Arms parallel with the floor. Wrists a little slanted.

Position of the hands:

Have the hand hanging down--let the thumb be in its natural position--now while the hand is down place the right thumb on the space bar.

Let them go all the way across the writing line touching the space. Emphasize the need of using the right hand to strike the space bar. The thing that spaces makes the carriage move. The carriage is a rectangular affair at the back of the machine. Next comes the thumb knob, just opposite on the other side is the left thumb wheel. Following along around the rectangular field we come to a lever known as the Carriage Space Lever because it spaces up the machine. Use it in a certain way by using the four fingers and hitting it with the first joint of the first finger. Fingers should be parallel to the desk with the hand out straight.

Throw the carriage only from the wrist for a short distance--then let the hand drop down on the home row of keys.

Do not teach the Follow Through Method--some will give the carriage such a throw that they will almost throw it off the machine and others will take the time to drag the carriage all the way across. This will lock the machine and make for uneven spacing.

Don't be afraid of the noise the machines will make. Let the pupils try it several times. Now the machine is at the right hand side we could get it back by spacing with the space bar but this will take too much time and make too much noise. Now we come to the Carriage Release Lever. Press down on it with the first finger and the carriage moves. On the right hand side is another silver pointer sticking up. This is called the Paper Release. Pull it down. Now release it and push it back. Show them how it is released with the palm of the hand.

KEYBOARD

Keyboard is divided up into keys fitting as many fingers as we have. Draw red lines on the chart to show the fingers used.

Home row of keys a s d f g h j k l

DIRECT METHOD

Fingers on the home keys--little finger on the a; first finger on the f; Striking the space bar with the right thumb. The left hand is the more overworked hand of the two. Walk about the room to see the individual student at the machine.
Direct Method--place the hands directly on the keys--remove hand take it up to the line spacer--come back to the place where the hand belongs. Take the right hand and put the paper in place--leaving the left hand on the keyboard--then put the hand back on the home keys by reaching for the g-h.

O'KEEFE METHOD

First place to start off from position--put the thumb out straight--fingers must be in a straight line. Put the fingers out straight then bring them together on the desk--then on the frame of the typewriter--then on the space bar--with all the finger tips in an even line--then on the bottom row of keys and then up to the home row. Spread out the fingers. Try them with one hand off and the other in position.

Strike the center of the key with a light touch. The first lessons in typewriting are very important. Drill thoroughly on the mechanics of the machine. The time spent teaching the correct technique will more than repay in later work.

Fifteen minutes of organized drill is worth an hour or more of practice work. The teacher should carry the class thru the drill making the class reach out for the keys. Then when they are working by themselves they will do better work.

Correct technique is more important than accuracy. Strive to avoid mistakes--get them down to a minimum number. If there are a few students who are making a great many more mistakes than the rest of the class--take the time outside of class to give them some prompting and private instruction.

AUTOMATICS

Use of common words like (of, and, the, for, is) these words comprise a great part of the everyday language. The idea of the
textbooks is to get the pupils used to writing these words so that they will eventually become automatic to them.

USE OF PHONOGRAPIC RECORDS:

This varies the program a bit and helps keep the interest of the class. Helps keep rhythm during the drill work.

CONCENTRATION AND ACCURACY DRILLS

This is a hard thing for a beginning class to do. Each word must be written many times in order to get the correct fingering combinations.

Methods of Covering Up the Keys

Apron Method--Touch typewriting is writing by means of not looking at the keys. Apron tied around the neck and fastened on to the front of the machine. Teacher can walk around the room and see that the class is sitting in the correct position.

Shield Method--Shield to fit over the keys. Many typewriter companies supply these shields that are easily attached to the machine.

Blank Key Method--Special blank keys to fit over the machine.

This is the most natural method.

EASY FINGER vs HARD FINGER

Start teaching with the first finger or easy finger. Give drill on the reaches of this finger. Then take the words of high frequency based on this finger. Next take the second finger and drill in the same manner. Then take the third finger touching out the drills. Review concentration drills each day. Then take the fourth or little finger and go through these touching out drills. This is the natural way of learning the keyboard.

Some textbooks teach all four fingers on one hand then all the fingers on the other hand
This is known as the hard finger method. The old textbooks used to teach by this method. The new method brought in the teaching of all four fingers not in the first day—but the first finger the first day. This is called the easy finger method—it is the most natural because we use the first two fingers more than any of the others. Advantage of the hard finger method is that it develops the weak fingers by starting with these.

Advantage of the easy finger method. Everybody has well developed the first fingers. These first fingers take in about sixteen keys on the keyboard and it is not hard to make the reaches with those fingers. Best teaching is done by starting with the first finger, then the second, then the third and lastly the fourth or little fingers. In doing this it is well to teach the parts of the keyboard that pertain to these certain fingers.

Both methods finally accomplish the same thing. One can be taught just as easy as the other. However, we should use the method that proves the psychology of going from the easy to the difficult.

The keyboard should be taught in about five or six weeks—that is if the typewriting is given five periods a week. Do not use a chart after you have once taught the keyboard. Turn the chart around—don't get the class in the habit of looking at the chart. Spend a few recitations on each finger. Must develop technique and skill during the first year. The first year the typewriting class should cover Part I and Part II of the typewriting book.

ADVANCED CLASS:

Get acquainted the first day—take the roll call. Put the students at machines they have been used to using. Let them review on these machines then after a month or so move them around so that they
will get used to using the different makes of machines. Review the parts of the machine with them. Touch a certain part of the machine and ask one member of the class to name it and give its use. In this way the teacher can find out how much the class has remembered from the previous year.

The class should be taken through the work slowly because they haven't had typewriting during the summer months and so have gotten out of practice.

Drill every day at the beginning of the hour. Typewriting is a motor habit. Give a hand drill with short snappy rhythm drills. A phonograph with rhythm records are excellent for this kind of work.

Teacher should go through this drill with the class.

Second part of the year the work will be on Part III of the textbook on Business Letters. Spend two weeks or more on each kind of set-up. Transcripts should be given every day or at least three times a week. Business men care only for the transcript work. The transcription rate depends on how fast the class can transcribe from their longhand notes.

Give a letter of two hundred words and the class should be able at this time to transcribe at the rate of eight words per minute. This would allow twenty-five minutes for transcription. A few minutes over this time should be allowed for the slower members of the class.

The next fifteen minutes of the period should be given over to the teaching of new material. The typewriting teacher should not sit at the desk but should walk around during the period making note of the errors made by the class and help them to correct them. All budget work should be taught in class.
THE DRILL PAPERS:

Class should correct their drill work. Then have the papers passed in to the teacher to be checked. This drill work should count as one of the class marks.

Transcription work should be started gradually—promote a certain amount of confidence. Have class correct each other’s transcript. This will make the class as a whole try to do better work and they will benefit by the mistakes of the whole class. Correction of the transcripts helps improve the English of the class. The teacher should take up the common errors and talk them over with the class.

Part III deals with the teaching of manuscript work.

Part IV Tabulation and Billing

Part V Law and Business Papers

RHYTHM

Rhythm in typewriting helps stimulate the interest of the class. Constant practice brings about a certain amount of artificial effortless teaching, but by means of music the class will "pop" up and keep to a particular point which will eliminate lost motion and help the teacher pur the lesson across better.

DIFFERENT WAYS OF SECURING RHYTHM

Claquer: Similar to castanets. Makes a loud noise and requires a lot of work on the part of the teacher.

Metronome: Not very successful in typewriting work because the noise of the typewriting drowns out the sound.

Two Rulers: Teacher is free to walk around the room and watch her class. This is a simple method and makes quite a lot of noise.

Ruler on Book: This is a very simple method and makes a loud noise.

Clapping: Becomes very monotonous both to teacher and class.

The typewriting teacher should never count because it is almost impossible for the class to keep with her.