

TEACHING METHODOLOGIES FOR TYPING
PRODUCTION JOBS IN THE FUTURE

by

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TABLE OF CONTENTS

CHAPTER

I INTRODUCTION

Introduction.....	1
Purpose of the Study.....	1
Concentrated (Grouped) Method.....	2
The Cycled Plan Method.....	2
Changing Technology.....	3
The Business World.....	4
Reasons for the Study.....	5
Questions to be Answered.....	6
Limitations of the Study.....	6
Key Terms.....	7
Summary.....	7

II REVIEW OF LITERATURE

Techniques in Teaching.....	10
Cycled Plan.....	11
Concentrated (Grouped) Method.....	11
Use in Business World Today.....	12
Letters.....	13
Manuscripts.....	16
Tables.....	16
Review of Textbooks.....	17
How Automation Affects Typing Production.....	18

III METHODS AND PROCEDURES

Administration of Study.....	22
Population.....	23
Instrument Construction.....	23
Administration of the Instrument.....	24
Analysis of Data.....	25

IV ANALYSIS OF DATA

Table 1	Cycled Plan test scores over letters...	27
Table 2	Concentrated (grouped) method scores over letters.....	29
Table 3	Cycled Plan test scores over tables....	31
Table 4	Concentrated (grouped) method scores for tables.....	33
Table 5	Cycled Plan test scores over reports...	35
Table 6	Concentrated (grouped) method scores over reports.....	37
Table 7	Comparison of ranges of both teaching methods.....	39

Summary.....	40
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V CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings.....	41
Questions to be Answered.....	42
Question 1.....	42
Question 2.....	42
Question 3.....	43
Question 4.....	43
Question 5.....	44
Recommendations.....	44

REFERENCES

References.....	46
-----------------	----

APPENDICES

Appendix A - Instrument of letter.....	49
Appendix B - Instrument of table.....	52
Appendix C - Instrument of report.....	55

ABSTRACT

The major purpose of this study was to determine which plan; the cycled plan or the concentrated (grouped) method of teaching typing was better for student retention over a period of time. It was tested in three areas: letters, tables, and reports.

Two tests were given during the course of the year in each of the three areas. These test were given to a randomly selected group of 30 students in each population.

The results of the study indicated that the cycled plan had a slight advantage over the concentrated (grouped) method. This was especially true of the area of reports. The other two areas indicated very little difference.

Based on the data from the test scores the cycled plan had slightly better results. Both methods had positive results for the overall group. The improvements shown were far greater than the decreases. Whichever method the teacher prefers to use would probably be the best method for the students to learn and retain the typing skills for letters, tables, and reports.

Major recommendations include the following: 1) Teachers should research or do a study to determine what teaching style he/she feels best for the students. 2) Book companies use the educational field for populations and teachers to administer instruments of a study. 3) A continuous study similar to this be conducted for added research knowledge.

CHAPTER I

INTRODUCTION

In trying to figure out what teaching styles teachers should be using for typing students, teachers must consider which is best for the students long term retention. In teaching classes a consideration must be given for what students really learn and retain. Textbook companies rely on different opinions, theory, and research to formulate the ways in which they put together their own specific textbooks for teaching typing.

Purpose of the Study

The purpose of this research project was to determine if one method of teaching is better than another. The two methods studied were the concentrated (grouped) method and the cycled job task method. Both methods were used in teaching students and comparative test results were used to determine if there were any differences in the outcome. Part of the testing procedure dealt with the ability of the students to retain the information over a period of time. It is noted that the production area of typing must push students to build speed skills as well. (Johnson, 1986, 7) This should help retention of formatting skills as well.

The ultimate objective of typewriting is the development of production competency. Especially in the useful areas of letter, tables, and reports. (Shell, 1982, 51)

Concentrated (Grouped) Method

In the concentrated (grouped) method the idea behind the teaching method is to teach one portion of a certain area (such as letters) then move on to another area (tables) and teach a segment of that area and then move into another area (reports) and do parts in that particular area. When a segment is completed in each area the teacher would come back to the first area and extend the knowledge into a different or more advanced portion of that particular area. After this is done a rotation is done again through all of the other areas. The idea behind this method is to create an environment that doesn't lend itself toward boredom by doing the same thing for an extended period of time.

The Cycled Plan Method

In the cycled plan method one area is taken such as letters. Every type of letter style, different letter parts, and any types of variations that may arise in the typing of letters are learned. Everything you want to learn about letters is therefore put into one unit and taught continuously until all details of letters have been properly covered. After this is done a continuation to the next unit of tables, reports, or whatever is being taught, is covered. The major reason for doing this particular method is so the

student can learn all about one area and have comparisons within a close period of time. This tends to make it easier to differentiate the variations used in one area. Much back to back repetition of the same type of material also tends to implant the ideas better into the memory system.

Changing Technology

The computer must also be considered in how teaching the various production skills necessary to compete in a new world of electronic generated machines should be done. It would seem at a glance that the machines can do it all. But, is that a correct thought? Taking a little closer look might indicate that it is all the more important for the student to understand how to format production problems. New technologies were applied so that letters, tables, and reports could be prepared faster and better. Thus new format rules were developed to match the machines. (Clippinger, 1986,9-11) The machine in essence is used merely to speed up some of the older techniques. A great example of this is the ability to center a title or line of type. With the machine it has now become a push of a button instead of having to figure it out manually and then doing the manual procedure on the machine. In order for most machines to do certain functions the operator must tell the machine what to do by a combination of button pushes or instructions. In order for the operator to do this involves

understanding of how a particular job is to be set up. Formats for various jobs are changing to match the abilities of the computers. Spacing between items is the major change to save time by not switching the linespacing defaults constantly. (Clippinger, 1990, 19-22) This means that the operator must also be able to know how the machine function keys work to get the job done.

The Business World

From the business side of the world two main thoughts are considered. The first thought being that the person who is making the decisions of how a particular production job will be set up is the person in charge. This could be a company executive or it may be a secretary in charge of other staff people. If this is the case the decisions of what type of format will be used will be made by the person in charge. A survey to determine the nature of keyboarding skills needed by management as well as non-management indicated keyboarding to be a necessary skill for managers. (Sox, 1988, 31-33) As a typist, learning the companies policies on how to format and type jobs is expected. Most companies who use a system like this train each of the people they hire when they enter into the company. In this case it may not be a problem for the company or the student that the student isn't knowledgeable in the area of formatting. However, it would be much easier if that newly hired student would have the knowledge and merely be able to

adapt to company policy. A survey conducted indicated that keyboarding skills were essential for entry-level office skills. (Dickmann, 1989, 33-35)

The other scenario that would arise is that a company hires a person to do typing and expects that person to be able to set up and format different jobs on his/her own. After all, isn't that why the typist was hired? The typist has the expertise and the executives do not have time to bother with those types of tasks. At the same time an expectation of a nice looking final product to mail out will be expected of the new employee.

Reasons for the Study

The different book companies have made a decision on how that particular company feels students learn best. With this in mind each company sets up a particular book style. So, educators must try to make the same decisions. Educators tend to be free to decide which textbooks appear the best. The textbook companies have made essentially one of three choices. First the company can go strictly with the concentrated method. Secondly, the company can go with the cycled plan. The third choice is to make a combination package of both types of methods. It would seem that the middle of the road is where most of the text book companies somehow try to fall. It would seem that most companies are not really convinced that either method is purely the correct answer. With this in mind, educators must try to

make a decision of which texts to use. Hopefully this will come through some type of experience or researched studies, hence the valued reason for this study.

Questions to be Answered

1. Which method of teaching gives students the best ability to retain what they have learned over a period of time.
2. Does the method of teaching affect different students in different ways? Consequently is one method better for one student and not as good for another?
3. Is there a substantial difference in the outcome of the two different methods as far as what the students retain over a period of time.
4. Does either method have any strong advantage over the other method in a particular area being studied. In this case the areas being studied are letters, reports, and tables.
5. Can a determination be made from this research as to which method of teaching should be used in the future?

Limitations of the Study

This study was limited to the students of Broadwater County High School in Townsend, Montana. Also, it was limited to students of one teacher, the researcher, who used both methods of teaching to gather the results of the study. The students used in the study were randomly selected from regular classes. Special education students who had been mainstreamed into the class were dropped out of the study before the random selection. The number of students used was 30 for each method being taught so the two groups would be equal in number.

Key Terms

CYCLED PLAN - A method of teaching typing that concentrates on covering all segments in one particular area before continuing to another area of study. One area of study would be letters, another tables, and another reports.

CONCENTRATED (GROUPED) METHOD - A method of teaching typing that teaches a small segment in one area of study, then moves to another area. This is repeated until all material in all areas of study are completed.

MANUSCRIPT - In this paper used interchangeably with REPORT. A typewritten composition or document.

LETTER - A direct or personal printed message addressed to a person or organization.

TABLE - A systematic arrangement of data in rows or columns for ready reference. A numbered list for ready reference.

Summary

The teaching methods used by teachers should have some rationale basis. The textbooks that are being used are a major part of our teaching methods in areas such as typing. For that reason educators must have some type of information to base decisions on as to what books and methods will be used to teach the students. A review of this study should be of some assistance in looking at the responsibilities that educators have for making a more informed decision on the texts and methods used. Also, teachers must consider the future with the added technology and the affect it will

have on teaching. Hopefully this will assist educators in creating better curriculums for the future.

CHAPTER II

REVIEW OF LITERATURE

The literature in this chapter pertains to the methods that have been used to teach typing production of letters, tables, and manuscripts. It reviews the changes that have occurred throughout the history of typing and the findings that have been made by the leaders in this field. It also includes literature that is available that has to do with the future of the business world and uses of letters, tables, and manuscripts in business today and the future as perceived by the people who are in the actual business world and educators of today.

In the literature review, four basic areas were considered that may have an effect on what direction educators should be turning to to keep up with the business world. These four areas considered were as follows:

1. Techniques used in teaching letters, tables, and manuscripts.
2. What is being used in the business world in these areas.
3. A general review of typing textbooks in these areas.
4. How automation is affecting the use of these typing areas.

This project looks at what might be a better technique for teaching the areas of letters, tables, and manuscripts

as they pertain to the vastly changing world of business today.

Techniques in Teaching

The two basic techniques that have been reviewed are those of the concentrated (grouped) method versus the cycled job task.

In the cycled job task method the concentration of doing everything on one area is the main focus. (Mitchell, Mach, LeBarre, 1978) In this case educators would teach all there is to know about one area such as letters. Areas covered would include style, punctuation, sizes, envelopes, folding, special features, and all other information important in typing letters. Then time would be spent on working on the different types of letters with all the variations. After all teaching of letters was completed the lessons would then move on to the next area such as tables and repeat the same process.

In the concentrated (grouped) method educators would teach a small portion about letters, then go on and do the same with tables, and then on to manuscripts, and so on. After completing one cycle the text repeats another cycle by coming back to letters and teaching more about letters, goes on to tables and adds more information onto previous learning, and then on to manuscripts and does the same. This process is continued until all materials have eventually been covered. (Crawford, Erickson, Beaumont,

Robinson, Ownby, 1982)

The following information, as was noted, (Typewriting: Learning and Instruction, 1979, 104-105) indicates the advantages of the cycled plan of instruction when compared with the grouped or concentrated plan. These advantages are:

Cycled Plan

1. emphasizes concepts, principles and procedures (process) as well as completed work (product)
2. makes a direct attack on the subroutine components of applied typing, subskills that must be developed before they can be employed efficiently in a total task
3. places frequent emphasis on the review/reinforcement conditions of long-range retention
4. makes frequent use of crucial strategies of guiding, pacing, timing, and confirming or correcting (immediate feedback)
5. provides for periodic integrative experiences in which all previous major learning are "tied together"
6. assist the teacher with course and lesson planning

Concentrated (Grouped) Plan

1. emphasizes completed work (product) with little attention to process skills
2. suggest that the learning and refinement of subskills and sub-routines should occur in the constant "scrimmage" of total task typing
3. seems content with short-term memory or recall (far short of post-graduate application)
4. encourages unguided and untimed practice with delayed

total responsibility for course/lesson planning

The "whole" or potpourri approach, in contrast to the cycled plan, moves so quickly from one type of job task to another that the acquisition of procedural skill is accidental, or piecemeal at best. The other factors to look at are those of learning, retention, and transfer of learning that occur between the two methods.

Many of the textbooks found now have tried to make a combination of the two methods in an attempt to find the best of both methods and put it together to form material that keeps the learning processes, as well as the students, motivated through varying the jobs.

Use in Business World Today

In reviewing surveys (Business Office Practices involving the typewriter with Implications for Business Education Curricula, 1981, 25) of the business world that have been done, it appears that the breakdowns usually come in some type of percentage form of the various uses of different styles of letters, tables, and manuscripts. The basic needs of different types of businesses may vary but in general many of the statistics indicate that a majority of businesses use similar techniques for these three areas. It is interesting to find that the uses are developed in different ways in different companies depending on the knowledge available by the people in charge of decisions. If the executive people have a good background in areas of

typing, they may decide what styles will be used by the company. If executives have little knowledge, the decisions are left up to the discretion of the people who will type the work. In either case, the educational system is supplying the basis for which things are done in the office. If this is true, the educational system should be trying to make available and teach the most productive methods of typing with the most efficient methods for time and money.

In looking at each of the three areas to see what businesses are saying they use the most, following are some of the findings in the related literature. This information comes from a survey done in 1981. (Business Office Practices Involving the typewriter with Implications for Business Education Curricula, 1981, 25-38)

Letters

Letter Stationery. Surveys showed that 99% of company stationery is typed on a letterhead with the letterhead being from less than 1" to over 2" and most of the company letterheads being between 1"-1 3/4". Also shown was that 93% used No. 10 large envelopes and 99% reported the company name was printed on the envelopes as a return address.

Letter Style. The block style where everything appears on the left hand margin was used in 43% of letters. This statistic has been increasing in percent with every new survey. Modified block, where the dateline and closing lines are started at the center and everything else is

blocked to the left edge was used 28% of the time. Modified block with paragraph indentions, where the dateline and closing lines are started at the center and everything else is blocked to the left margin, with the exception that paragraphs are indented, was also used 28% of the time. Other forms were used 1% of the time.

Letter Dateline. The letter dateline uses two methods. The first is the floating dateline where the dateline is raised or lowered by the length of the letter. This was used 52% of the time. The second method is to put the dateline on the same line for all letters and vary your spacing between the date and inside address. This was used 48% of the time.

Letter Margins. Most offices preferred the variable margin setting, that is the adjusting of margins according to letter length, however the use of fixed margins for all letters regardless of length is apparently increasing. In this survey variable was used 68% while fixed was used 32%. Of the fixed margin settings for letters 1" was used 20%, 1 1/4" used 45%, 1 1/2 used 25%, and other settings were used 10%.

Letter Punctuation Style. The use of mixed punctuation, with a colon after the salutation and a comma after the complimentary close, was overwhelmingly preferred by the clerical workers as 95% used this method. The use of open punctuation, advocated by authorities as the proper

punctuation style to be used with the block letter style, has not yet found its way into the business world. The change is slowly coming, however the change to use the AMS simplified letter style seems to be meeting much resistance; probably due to tradition-oriented business people who are now in the work force.

Opening Lines. The use of the attention and subject lines are found not to be used at all by many of the businesses. The attention line is used by 11% and the subject line is used by 28%.

Closing Lines of Letters. This survey indicates that 97% of businesses use a standard closing. Other percents included company name 21%, signer's typewritten name 93%, signer's title 80%, reference initials by signer and typist 72%, typists initials only 19%, neither 9%, and copy notation 24%.

Miscellaneous Letter Variables. The length of letter used had these percents: 125 words or less was 57%, 126-225 words was 26%, 226-325 words was 9%, and two or more pages was 8%. The line length used 54% of the time was a standard 6 inch line. Other line lengths were used 46% of the time.

The implications for business education curricula taken from this survey indicated that teaching of block and modified block styles should be continued, both punctuation styles taught, both variable and fixed datelines should be exposed, subject and attention lines should be given some

attention, and the closing should be demonstrated in the various fashions used.

Manuscripts

The typing of manuscripts (reports) indicated that most reports (51%) ranged from 1-5 pages in length. Manuscripts of less than a page were done 28% of the time, while manuscripts of 6 or more pages were done 23% of the time.

In placement of headings 92% indicated that they used centered headings, 77% used side headings, and 85% used paragraph headings. Columnar materials were used in almost all reports as indicated by 86% of those surveyed. The spacings used in manuscripts had little relation to the length. For reports of less than a page 48% used single spacing while 56% used single spacing in reports of more than a page.

Manuscript implications for business education curricula that should be followed are given below. Students should be taught to type reports with centered, side, and paragraph headings along with columnar materials. They also should learn to use footnotes at the bottom of the page or end of the report.

Tables

In the typing of tables the following were used: main headings 92%, secondary headings 50%, columnar headings 78%, 2 columns 25%, 3 columns 26%, 4 or more columns 49%,

horizontal rulings 31%, and vertical rulings 29%, of the time.

The methods used for setting up tables were eye judgment 34%, backspace from center method 31%, mathematical calculation method 28%, and other methods 7% of the time. The eye judgement method was probably used by most after learning the other methods and having much experience.

The following are implications for business education curricula. Tables should be taught with main, secondary, and columnar headings. Learning of the vertical and horizontal rulings and the mathematical and backspace from center methods should be learned.

Review of Textbooks

In review of the different textbooks being used, the findings conclude that there is a constant changing process going on depending on what the latest surveys produce, what other companies that are publishing are doing, and what research shows that can change the methods used. (Lloyd, Winger, Johnson, Hall, Morrison, Rowe, 1982) Also a very big influence seems to be that of the vast changes in typewriters as well as the changing to automated systems. The texts seem to make small changes in their structure but there haven't been any real major changes in the three areas that are being studied (letters, tables, manuscripts). It seems that the old traditional features are hard to let go. The business world needs to make changes to become more cost

efficient. Most of the publishers have the same basic ideas with the variables coming in differing opinions on formatting or spacings being used. In these cases, the variables are usually not of any great significance. The major difference in the texts, however, does come in the methods used to teach as indicated earlier in this chapter. The setting up of the text in either concentrated (grouped) method, the cycled method, or a combination of the two methods. Another observation is the differences between secondary and post-secondary books. The material being learned should be the same if a student is just beginning or has typed through certain cycles, so why teach differently or have different texts for the same material? The solution to the question being students may learn faster when more mature. Consequently the difference in books to meet standard time periods used for class time at the different levels. (Duncan, 1986)

How Automation Affects Typing Production

Computers of all types have made a major influence on the looks of offices of today. Many different computer brands have flooded the market and the software available has become astronomical. In light of this, it seems that most offices are turning out far more production in areas where there is repetitive work, such as standard form letters. Automation has made it possible for businesses to write personalized form styled letters with little effort.

Also, automation has made possible the typing of envelopes without having to redo the whole typing procedure. The merge print function has virtually made the processing of form letters and envelopes as fast or faster than typing a standard form letter, running photocopies, and typing envelopes. Besides, it adds the personal touch which is desired by many business firms. Automation has a set standard (or default) by which letters are automatically set up when the system is booted up. Unless the user wishes to change these standards, typing may begin as soon as the system is ready. Changing the defaults is usually a simple procedure.

Add the difference between a regular typewriter and a word processor findings indicate that the ability to type out the original letter will probably be faster and more accurate on the word processor. Adjustments can be made before a person actually prints out a final product. Add to that the abilities to combine jobs together, or portions of jobs together, by simple copying from one job to another omitting the need to re-type all of the information. This adds built in speed and accuracy (material has been typed and proofread) to the letter being typed. Spelling checkers used by word processing systems automatically file through a built in dictionary, saving time, instead of having to do it manually while proofreading.

All of these factors, added together, emphasize the

improvements being made in offices through automation. These factors also show the increased efficiency that has been achieved through automation which has increased speed, accuracy, and reduced the cost of total production.

The setting up of tables can be done by means of a data base system where the typing is done without all of the tab work. When finished, the data base system automatically puts the work into table form. Formats for data bases have defaults which can be changed easily, order may be changed, information may be inserted or deleted anywhere in the job, and materials may be arranged in any fashion desired by simple commands.

In manuscripts the basic format is set up through defaults but may be changed easily. The benefits of automation once again come in the same form as for letters and tables. All corrections and changes can be made before a final copy is produced. The ability to combine jobs is available to place tables or whatever in the report. The typist can single or double space and change from one to the other fairly easy. All of the page beginnings and endings are decided by the machine and page numbers and headings or footings can be added automatically.

The following are implications for the business education curricula. Many business firms are becoming automated. Students must be exposed to the applications of word processing, data base, and general computer

applications so the students have the basic fundamental skills for the upcoming office positions that will be available when they reach the job market. (Business Office Practices, 1981)

CHAPTER III

METHODS AND PROCEDURES

This chapter describes the methods and procedures used to obtain and interpret the data used in this study of the two different teaching methods used. The study was set up to determine if one method was superior to the other.

Administration of Study

This was done by the use of repeated testing of the students. First, the instruction was given by whichever method was being used. Then, shortly after the instruction was given a test was administered. The results of the tests were put into a percentage grade based on 100%. This was done in each of the three areas of the study; letters, reports, and tables. Then the same test was applied at the end of the term to determine what the retention rate was for that student after a time period had passed. This test was also put into a percentage grade based on 100%.

The test scores were compared to see what retention rate had occurred with the passage of time. The individual test scores were compared as were the overall results of the two groups. Hypothetically one of three things would happen to the student between the first and second testing. If

there was an increase in the percentage correct on the second test the student would have appeared to have gained understanding of the materials between the times of the tests. If there was a decrease in the percentage correct on the second test the students retention of the material over a period of time had decreased probably meaning the student really hadn't learned the material well enough in the first place. The third possibility is that the student would come up with the same score on both tests. This would probably indicate that the student was retaining the material that they had learned, however didn't increase any of their knowledge between testing periods.

Population

The population for this study consisted of a randomly chosen group of 30 students in each of the two method areas taught. The students were from all grade levels of Freshman, Sophomores, Juniors, or Seniors at Broadwater County High School, in Townsend, Montana. The only students that were purposely dropped from the survey were those students that had been mainstreamed from a special education room.

Instrument Construction

The construction of the instrument (see appendix) used for the study was done by creating a test in each of the three areas (letters, tables, and reports). The test would sufficiently cover the material that was taught in each

area.

The tests were constructed in a fashion to make the students generate the answers by having to fill in blanks. This was done purposely to see what retention the students had rather than their ability to guess if given multiple choice or matching options.

The tests were deemed valid by the researcher due to the process in which they were constructed. Several years of testing and revising of the test to work out the bugs, eventually created the test used for the study. This was an objective test to measure the retention of material by students.

Administration of the Instrument

For the purpose of consistency the students were given the same tests in both groups and were given the same test the second time as they were given the first. All of the tests were announced ahead of time so students had time to study for the tests. The students, however, were never aware that they were part of a research project. The students were on their own for motivation to do well on the tests and the classes being researched are a required class for graduation in our school system. The students were given as much time to finish the tests as they needed.

The instrument for letters is in Appendix A, for tables in Appendix B, and for reports in Appendix C.

The instrument was administered in year-long typing I

classes so the time between tests ranged from 8-16 weeks.

Analysis of Data

The method of analyzing the data was a non-statistical, descriptive method. The data was compared individually and by group using percentages of increase or decrease in the students retention levels. From the data available an analysis of the two methods were conducted. These data and analysis are reported in chapter IV of this document.

CHAPTER IV

ANALYSIS OF DATA

The data reported in this chapter were taken from the results of the testing done in the two populations.

Listings in table form to show comparisons between first and second tests for each area of letters, tables, and reports are shown.

Statements of what the comparisons indicate are included with the tables. These are to assist in interpretation and analysis of the different information that was obtained.

Included in appendix A is the instrument used for testing on letters. In appendix B is the instrument used for testing on tables. In appendix C is the instrument used for testing on reports.

Listed below in table form are the results of the tests over letters for the cycled plan method of teaching.

Table 1. Cycled Plan test scores over Letters.

Student Number	First Test	Second Test	Difference
1	81	85	4
2	60	82	22
3	90	95	5
4	71	84	13
5	59	78	19
6	95	90	-5
7	30	88	58
8	20	81	61
9	90	96	6
10	93	97	4
11	85	89	4
12	90	84	-6
13	70	85	15
14	50	71	21
15	100	96	-4
16	66	84	18
17	60	78	18
18	73	80	7
19	75	85	10
20	65	80	15
21	60	78	18
22	60	74	14
23	75	90	15
24	100	93	-7
25	80	90	10
26	88	93	5
27	10	78	68
28	68	79	11
29	38	75	37
30	60	83	23
Group Average	68.7	84.7	16.0

The second column above was the first test and what each student scored. The third column being the second test and score. The fourth column is the difference between the two test scores. The group average on the first test was

68.7 and the group average on the second test was 84.7, which was a positive increase of 16 percent. The overall average indicates that the population as a whole improved their scores. At closer analysis it is noted that 4 out of 30 students, 13.3% of the population, decreased their scores. It is interesting to note that the biggest decrease was 7%, while the largest increase in score was 68%.

Data gathered shows that the group average improved by 16 percent. This indicates that most of the students gained more knowledge or understanding throughout the time period of the course. If a closer look is taken the negative differences occurred with those students who scored 90 or above on the first test. The higher the score the less apt a student is to increase. A student who scored 100 on the first test had only to stay the same or decrease.

Listed below, in table form, are the results from the test over letters for the concentrated (grouped) method of teaching.

Table 2. Concentrated (grouped) method scores over letters.

Student Number	First Test	Second Test	Difference
1	75	86	11
2	70	89	19
3	75	95	20
4	90	82	-8
5	80	87	7
6	80	90	10
7	80	95	15
8	60	87	27
9	95	96	1
10	73	77	4
11	85	87	2
12	73	94	21
13	78	80	2
14	95	94	-1
15	43	71	28
16	78	87	9
17	40	94	54
18	93	94	1
19	40	60	20
20	83	79	-4
21	70	93	23
22	75	96	21
23	65	79	14
24	63	79	16
25	98	94	-4
26	55	67	12
27	78	86	8
28	88	93	5
29	53	87	34
30	83	70	-13
Group Average	73.8	85.6	11.8

The second column above is the first test score, the third column the second test score, and the fourth column is the difference between the two test scores. These scores

were for the concentrated (grouped) method. The group average on the first test was 73.8 and on the second test the group average was 85.6, which was a positive increase of 11.8 percent. The overall average indicates the population as a whole improved their scores. Negative relations were shown by 5 of the 30 students. This means that 16.7% of the population decreased their scores. A note to be made is that the biggest decrease was 13%, while the largest increase was 54%.

Data gathered for the concentrated (grouped) method also indicates that the average of the population as a whole increased by 11.8 percent. This indicates students gained by using this method too. In this group the students who decreased were as low as 83% on the first test. This may indicate that the students didn't retain as well as in the cycled plan.

Listed below in table form are the results of the tests over tables for the cycled plan method of teaching.

Table 3. Cycled Plan test scores over tables.

Student Number	First Test	Second Test	Difference
1	80	85	5
2	81	82	1
3	84	95	11
4	70	84	14
5	56	78	22
6	93	90	-3
7	74	88	14
8	50	81	31
9	96	96	0
10	94	97	3
11	72	89	17
12	87	84	-3
13	88	85	-3
14	50	71	21
15	96	96	0
16	74	84	10
17	70	78	8
18	60	80	20
19	70	85	15
20	84	80	-4
21	50	78	28
22	54	74	20
23	72	90	18
24	86	93	7
25	78	90	12
26	72	93	21
27	54	78	24
28	68	79	11
29	48	75	27
30	74	83	9
Group Average	72.8	84.7	11.9

The second column above is the first test score, the third column is the second test score, and the fourth column is the difference in scores. The group average on the first column was 72.8 and the group average on the second was

84.7, for an increase of 11.9 percent. The overall population improved, however 4 of the 30 decreased. This would be 13.3% of the population decreasing in performance. The biggest decrease being 4%, while the largest increase was 31%.

Data indicates that students gained 11.9 percent as a population. The students having decreasing scores had scores of 83 or above on the first test. The largest decrease was only 4% which is good when compared to the concentrated (grouped) method which had a decrease of 12%. The students in the cycled plan showed much improvement in scores which indicates they had a better understanding when the second test was taken.

Listed below in table form are the results of the tests over tables for the concentrated (grouped) method of teaching.

Table 4. Concentrated (grouped) method scores for tables.

Student Number	First Test	Second Test	Difference
1	45	86	41
2	85	89	4
3	80	95	15
4	60	82	22
5	35	87	52
6	95	90	-5
7	90	95	5
8	70	87	17
9	80	96	16
10	75	77	2
11	82	87	5
12	74	94	20
13	72	80	8
14	96	94	-2
15	77	71	-6
16	77	87	10
17	74	94	20
18	93	94	1
19	51	60	9
20	53	79	26
21	61	93	32
22	80	96	16
23	77	79	2
24	91	79	-12
25	95	94	-1
26	48	67	19
27	66	86	20
28	83	93	10
29	75	87	12
30	20	70	50
Group Average	72.0	85.6	13.6

The second column above is the first table test and the third column is the second table test. The fourth column is the difference in scores of the two tests. The group

average for the first test was 72.0 and the population average on the second test was 85.6, which resulted in a positive 13.6 percent result. The overall population showed an increase, yet 5 of 30 decreased, which is 16.7% of the population. The largest increase in scores was 52%, while the largest decrease was 12%.

The data gathered indicates a positive response of 13.6% as a population. When looking closer the decreased range was greater at 12%, much above the cycled plan. Some of the students had poor scores on the first test, but increased much which kept the difference of the population balanced.

Listed below in table form are the results of the tests over reports for the cycled plan method of teaching.

Table 5. Cycled Plan test scores over reports.

Student Number	First Test	Second Test	Difference
1	70	85	15
2	71	82	11
3	84	95	11
4	70	84	14
5	61	78	17
6	93	90	-3
7	74	88	14
8	50	81	31
9	91	96	5
10	84	97	13
11	92	89	-3
12	87	84	-3
13	88	85	-3
14	50	71	21
15	91	96	5
16	49	84	35
17	70	78	8
18	60	80	20
19	70	85	15
20	84	80	-4
21	50	78	28
22	54	74	20
23	72	90	18
24	86	93	7
25	78	90	12
26	72	93	21
27	54	78	24
28	68	79	11
29	48	75	27
30	74	83	9
Group Average	71.5	84.7	13.2

The second column above was the first test and what each student scored. The third column being the second test scores. The fourth column is the difference between the test scores. The group average for the first test was 71.5,

while the group average for the second test was 84.7, an increase of 13.2%. The overall average indicates the population as a whole increased their scores. Five of the 30 students decreased their scores. Of these the largest decrease was 4%, while the largest increase was 35%.

The data gathered shows that the population was consistent with the other areas. Once again the largest decrease was 4%, and the largest increase was 35%. The cycled plan seems to keep a consistency in all areas. This may be a consideration for choosing what method to use as a teacher. The time span was greater between the testing periods with the cycled plan. With a greater time span the cycled plan would indicate the retention is stronger.

Listed below in table form are the results of the tests over reports for the concentrated (grouped) method of teaching reports.

Table 6. Concentrated (grouped) method scores over reports.

Student Number	First Test	Second Test	Difference
1	87	86	-1
2	77	89	12
3	85	95	10
4	84	82	-2
5	73	87	14
6	87	90	3
7	87	95	8
8	63	87	24
9	87	96	9
10	78	77	-1
11	89	87	-2
12	76	94	18
13	69	80	11
14	96	94	-2
15	58	71	13
16	76	87	11
17	78	94	16
18	96	94	-2
19	62	60	-2
20	71	79	8
21	80	93	13
22	85	96	11
23	78	79	1
24	82	79	-3
25	92	94	2
26	62	67	5
27	90	86	-4
28	100	93	-7
29	82	87	5
30	62	70	8
Group Average	79.7	85.6	5.9

The second column above was the first test and what each student scored. The third column was the second test score. The fourth column is the difference between the two

test scores. The group average on the first test was 79.7, while the group average for the second test was 85.6. This was an increase of 5.9 percent. The overall average indicates the population as a whole improved their scores, however 10 of the 30 students actually decreased. This means that 33.3% of the students decreased their scores. The largest decrease was 7%, while the largest increase was 24%.

The data shown in this table was the most drastic difference between the two methods. It had twice as many students with decreased scores as the cycled method. These decreases were minimal with the largest being 7%. The increases were less too, with 24% being the greatest gain. The cycled plan is superior when comparing the results of the report test scores.

The table below lists a range of scores between which student's scores occurred. The table shows a comparison of the two teaching methods for each area being analyzed. The increment levels are set at 15% for each step, with the exception of the decrease scores, which were all bunched into one category. This was done as all of the decreased scores were within the 0 to -15 range.

Table 7. Comparison of ranges of both teaching methods.

Score Ranges	C.P. Letter	C(g)M Letter	C.P. Table	C(g)M Table	C.P. Report	C(g)M Report
Decreased	4	5	4	5	5	10
0-15%	15	14	15	12	14	17
16-30%	7	9	10	9	9	3
31-45%	1	1	1	2	2	0
46-60%	1	1	0	2	0	0
60-More	2	0	0	0	0	0

* C.P. is Cycled Plan

* C(g)M is Concentrated (group) Method

The comparison table above would appear to show that the two methods of teaching give approximately the same results. It is worth noting that the cycled plan had less students who had decreased scores in all three areas. Especially true in the report area where half as many decreased with the cycled method of teaching as with the concentrated (grouped) method. The areas of increasing ranges seem to be somewhat balanced by the two methods. Possibly a slight advantage may be seen by the students who gained the most increases on their scores in the cycled

method. In the report area the concentrated (group) method shows far more students who increased a small amount or decreased. One point of interest in both methods is a far greater percentage of the students increased their score rather than decreasing.

The scores in all sections tend to show a bell type curve with most of the population increasing between 0-30 percent.

Summary

The data shows that the better method to use was the cycled plan method. This was the original thought of the researcher, but it was found that the degree of difference was not as major as originally believed. The decreased scores occurred to those students who had higher grades on the first test, in most cases. The results of both methods indicated overall positive results. The teachers preference to style should indicate the method used by that particular teacher.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study was conducted for the purpose of comparing the cycled plan and concentrate (grouped) method of teaching typing. This was done by a testing series in the three production areas--letter, tables, and reports. To draw the conclusions, comparisons and analysis of the test results were used.

Summary of Findings

In comparing the two different methods of teaching it would appear that the difference in scores in both methods is relatively close. The cycled plan was better by a little margin in all areas of study as far as number of students that decreased in score from the first test to the second test. In all three areas, 14.4% decreased in score in the cycled plan as compared to 22.2% who decreased in the concentrated (grouped) method. The major difference coming in the area of reports where twice as many decreased in the concentrated (grouped) method.

The cycled plan had a group average increase of 16.0% in the letter area as compared to 11.8% for the concentrated (grouped) method. In the table area the concentrated (grouped) method had a group average increase of 13.6%,

which was higher than the cycled plan with a 11.9% increase. In the report area the cycled plan had a group average increase of 13.2%, substantially better than the concentrated (grouped) method at 5.9%.

The average increase in all three areas combined for the cycled plan was 13.7%. The average increase in all three areas combined for the concentrated (grouped) method was 10.4%.

These percentages imply that the cycled plan was more advantageous for students to increase scores or not decrease scores as much. The data indicates that the cycled plan had a slight edge to benefit students.

Questions to be Answered

In the following paragraphs the questions asked in the reasons for the study will be answered. The answers will come from analysis of the data gathered in the study.

Question 1

Which method of teaching gives students the best ability to retain what they have learned over a period of time?

The information from the data found that the cycled plan gave a slightly better retention level to the students.

Question 2

Does the method of teaching affect different students in different ways? Consequently is one method better for one student and not as good for another?

Two students in the cycled plan decreased in all three areas and one student in the concentrated (grouped) method decreased in all three areas. This may indicate that a different method may have helped these students. Many students in both populations decreased in only one area and increased in two. Other students in both areas decreased in two areas and increased in one. This indicates that it is not the method that is the problem. It may indicate that other variables entered during the periods when tests were taken. Such variables would include things such as sleep, attitude, worries outside the test, testing ability, etc. Without putting students through both methods it would be impossible to compare the two methods on the same student.

Question 3

Is there a substantial difference in the outcome of the two different methods as far as what the students retain over a period of time.

The data indicates that there wasn't a substantial difference between the two methods. It did indicate a slight difference in favor of the cycled plan.

Question 4

Does either method have any strong advantage over the other method in a particular area being studied. In this case the areas being studied were letters, reports, and

tables.

The areas over letters and tables were very close in the two methods in this study. The area over reports indicated quite a difference in favor of the cycled plan method.

Question 5

Can a determination be made from this research as to which method of teaching should be used in the future?

This study did indicate that both methods did indeed work successfully with most students. There was not a substantial enough difference to make a choice of the two methods based on this study alone. Teachers would probably find that the method that suits each teacher's own style of teaching would be best. If the teacher feels comfortable with a particular teaching style a better teaching job is apt to be done. This can only be answered by the individual teacher using the trial and error method or by doing research.

Recommendations

1) It is the researchers recommendation to teachers to do research or a similar study to see what teaching style he/she feels is best for the students.

2) The researcher recommends to book companies that more research be done using the educational field as the population. The use of teachers to administer the instrument and help with the research would aide both the

teacher and the book companies.

3) The researcher would suggest that further research similar to this study be done to assist in creating a larger and continuous study. The time frame of the study was limited and it would be interesting to see results with a follow up test a year later. This would give better results as to the retention of the student after leaving the typing class.

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APPENDICES

APPENDIX A
LETTER TEST

TYPING TEST OVER LETTERS

Place the correct answer in the blank at the left of each question.

1. _____ Name two punctuation styles that are used in the
2. _____ salutation and closing of a letter. (1-2)
3. _____ The difference between a personal business letter and a business letter is that a business letter has a letterhead and a personal business letter has a _____.
4. _____ After the dateline you hit your return key _____ times.
5. _____ After the inside address you _____ space down to the salutation.
6. _____ After the salutation you _____ space down to the body of the letter.
7. _____ What spacing is used in the body of a letter?
8. _____ What spacing is used between paragraphs in the body?
9. _____ What spacing is used between the body and the complimentary closing?
10. _____ How many times do you hit your return between the complimentary closing and the writers identification?
11. _____ What spacing do you use between the writers identification and the writers title if you use two lines?
12. _____ What spacing do you use between the writers title and the reference initials?
13. _____ What spacing do you use between the reference initials and the enclosure notation?
14. _____ What spacing is used between the enclosure notation and the copy notation?
15. _____ What spacing is used between the copy notation and the postscript?
16. _____ What spacing is used from the date down to a mailing notation?
17. _____ What spacing is used between the subject line and the body?
18. _____ Name three different letter styles. (18-19-20)
19. _____
20. _____

Fill in the chart below:

	Number words in body	Margins in inches	Date Line
Short Letter			
Average Letter			
Long Letter			
2 Page Letter			

Directions: In the blanks at the left place the correct name for each letter part that correspond to the numbers listed in the letter.

1 _____	(1) ACE PRINTING
2 _____	(2) Jan 1, 1987
3 _____	(3) Joe Brown
4 _____	Box 111
	Hampton, NJ
5 _____	(4) Dear Mr. Jones
6 _____	(5) We would like to inform you...-----
7 _____	-----
8 _____	-----.
9 _____	Thanks for your cooperation...-----
10 _____	-----.
11 _____	(6) Cordially yours
	(7)
	(8) I.M. Goodengrade
	(9) Chairperson
	(10)ref
	(11)Enclosure

APPENDIX B
TABLE TEST

TYPING TEST OVER TABLES

Place the correct answer in the space provided at the left edge of the paper.

1. _____ The title of a table should be (1) and typed in (2).
2. _____
3. _____ The sub-title is centered with all important words being capitalized. (True or False)
4. _____ What do we call the longest line in each column plus the spaces between columns?
5. _____ What spacing do we use between the title and the sub-title?
6. _____ What spacing do we use between the sub-title and the columns?
7. _____ What spacing do we use between the title and the columns if there is no sub-title?
8. _____ What spacing do we use between the sub-title and column heads?
9. _____ Column heads are always underlined. (True or False)
10. _____ What spacing do we use between column heads and columns?
11. _____ What is the standard number of spaces between columns?
12. _____ How many returns do you hit before typing a ruled line at the bottom of a table?
13. _____ How many returns do you hit after typing the ruled line to type your sources?
14. _____ Name four types of tables. (14-15-16-17)
15. _____
16. _____
17. _____
18. _____ Words align at the (right or left).
19. _____ Numbers align at the (right or left).
20. _____ Name one method of making a vertical line.
21. _____ In the table below what would be the starting line if the table were typed on a full sheet?
22. _____ In the table below what would be the starting line if the table were typed on a half sheet?
23. _____ What would be the margins for the table below if we put 6 spaces between columns?
24. _____ What are the tabs for the table below?
25. _____ How many spaces do we extend the horizontal lines beyond the edge of a table when we use rulings?

SAMPLE TABLE

Test Grades

<u>Student Name</u>	<u>Percent</u>	<u>Grade</u>
George	100	A
Martha	90	B
Henry	80	C
Sheila	70	D
Mary Anne	60	F

Briefly explain the difference between blocking and centering. (5 pts)

Briefly explain how to center a column under a column heading. (5 pts)

Briefly explain how to vertically and horizontally center a table. (5 pts)

APPENDIX C
REPORT TEST

TYPING TEST OVER REPORTS

Place the correct answer in the blank on the left hand side of the paper.

1. _____ What is the top margin, in inches, for the first page of a report?
2. _____ What is the top margin, in inches, for the second page of a report?
3. _____ What are the side margins, in inches, for an unbound report?
4. _____ What is the bottom margin, in inches, for an unbound report?
5. _____ On what line do we put the page number of the second page in an unbound report?
6. _____ Where is the page number placed on page one?
7. _____ Do we always have a page number on the first page?
8. _____ What spacing do we use in the body of a report?
9. _____ On what line would we put the title of a top bound report?
10. _____ On what line would we put the page number 2 for a top bound report?
11. _____ On what line would we begin typing our second page in a top bound report?
12. _____ On what line would we put our title for a side bound report?
13. _____ What spacing do we use before a sideheading?
14. _____ What spacing do we use after a sideheading?
15. _____ What spacing do we use before a paragraph heading?
16. _____ List three parts of a report that are single spaced.
17. _____ (16-17-18)
18. _____
19. _____ What spacing do we use after the title of a report?
20. _____ When we do a special display we indent _____ spaces from both margins.
21. _____ How long is a division line, in inches?
22. _____ What spacing do we use between footnotes?
23. _____ Footnotes should be placed on the same page as they are cited. (True or False)
24. _____ What spacing do we use between paragraphs of a report?
25. _____ How many spaces do we indent paragraphs in a report?
26. _____ Name two types of secondary headings. (26-27)
27. _____
28. _____ End notes are like footnotes, except they are placed at the end of the report. (True or False)
29. _____ Internal citations are noted in parenthesis in the report and a reference page is used. (True or False)
30. _____ How much space do we allow for a binding? In inches.