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PROBLEMS OF TEACHERS OF FIRST-YEAR TYPEWRITING  
IN OKLAHOMA

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PROBLEMS OF TEACHERS OF FIRST-YEAR TYPING  
IN OKLAHOMA

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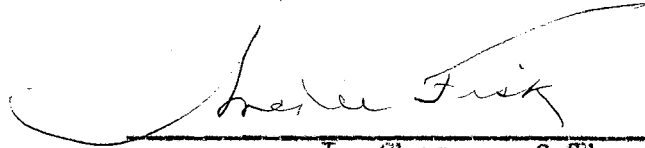
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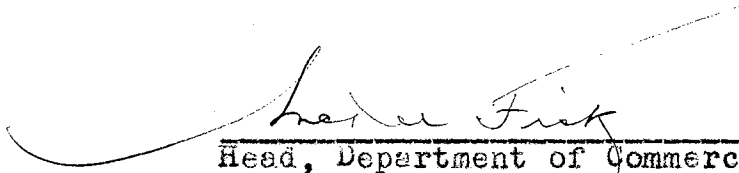
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PARCHMENT

USA



## INTRODUCTION

Typewriting has played an increasingly important role in the commercial curriculum of schools for the past decade or more.

Today its enrollment is greater than that for any other business subject, and the tendency seems to be that it will increase still more . . . . . It is even conceivable that the movement will continue until every secondary school student will be required to take some typewriting, even as today each elementary<sup>1</sup> school pupil is expected to take penmanship.

Although in recent years there has been much advancement in the teaching of typewriting, the need for further improvement is especially realized by those in the teaching field. It is because of this extensive movement, which is bringing the subject to the front in education, that the teachers need to receive assistance in solving their problems. However, before the educators in the field can aid the teachers in the solution of them, they must first know just what problems the teachers are meeting.

. . . . . the qualifications of the teachers necessarily constitute a prime factor in the quality and efficiency of any kind of education. The level of teacher intelligence and training, and the selective factors which determine them, will probably always remain fundamental problems in the improvement in any field. . . . . There is probably no more significant problem in the whole field of commercial education. . . .

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<sup>1</sup>

E. G. Blackstone and S. L. Smith, Improvement of Instruction in Typewriting, p. v

than that of equipping our commercial teachers with a better professional insight into their work, of transmitting to them a greater vision of their opportunities and problems, and of equipping them with more adequate professional skill and more scientific techniques for attacking those problems.<sup>2</sup>

This study is undertaken to determine the problems of the teachers of first year typewriting in the high schools of Oklahoma. It is hoped that it will serve as a basis for further studies that will give helpful solutions to the problems of both the prospective teachers in their teacher-training courses and the teachers who are already active in the field.

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2

Frederick J. Weersing, "The Training of Commercial Teachers in the Public High Schools of Minnesota." Research Studies in Commercial Education III, University of Iowa Monographs in Education, pp. 186-201

CHAPTER I

PURPOSE AND METHOD OF THE STUDY

PURPOSE OF THE STUDY

The purpose of this study is first, to assemble the teaching problems of the high school teachers of first-year typewriting; second, to determine the importance, the degree of difficulty, and the frequency of occurrence of these problems; third, to analyze these problems in the light of the preparation and experience of the teachers, and finally, on the basis of the data gathered, to make recommendations for the training of typewriting teachers.

METHOD AND MATERIALS

The method used in this study is a combination of what has been termed the normative-survey and causal-comparative methods.

The compound adjective normative-survey is applied to this method in order to suggest the two closely related aspects of this kind of study. The word "survey" indicates the gathering of data regarding current conditions. The word "normative" is used because surveys are frequently made for the purpose of ascertaining what is the normal or typical condition or practice.<sup>1</sup>

The causal-comparative method of research seeks to establish causal relationships by comparing the circumstances associated with observed effects and by noting the factors present in those instances in which a given effect occurs or does not occur.<sup>2</sup>

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<sup>1</sup> Carter V. Good, A. S. Barr, Douglas Scates, The Methodology of Educational Research, p. 289

<sup>2</sup> Ibid., p. 533

The data were obtained from questionnaire responses from teachers of first-year typewriting in the state of Oklahoma.

The first step was the formulation of the questionnaire to be used in securing the desired data. Considerable available literature was examined and interviews with teachers in the field were had with the view of determining the factors and problems that should be included in the data blanks. Two forms were devised. Assistance was then obtained from seven typewriting teachers in criticizing the tentative questionnaire with the view of discovering any possible misinterpretations. The questionnaire was then revised for defects, poor phraseology and ambiguous statements. In a revised form, it was submitted to six other teachers with the thought of securing the desired responses in a preliminary way before being put to actual use.

After complete revision the questionnaire and an explanatory letter<sup>3</sup> were mailed to each of 454 Oklahoma commercial teachers in towns and schools of all sizes. Replies were received from 183 teachers, a return of 40.3 per cent. Only 150 of these replies were usable.

The letter, which was sent to each teacher, asked for cooperation and explained the purpose of the study. Very simple explanations were given in it with regard to the information desired on the blanks. The teachers

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<sup>3</sup>  
Copies are included in the Appendix.

were told that their names were not required on the responses and that all returns would be treated confidentially.

No special instructions were given on the personal data blanks as they were deemed to be self-explanatory in nature. The information asked for on these blanks included the following items which were believed to affect the type of problems met by the teachers:

1. Location of school
2. Total enrollment of high school
3. Length of school term
4. Name of schools from which the teacher was graduated
5. Degrees held by the teacher
6. Typewriting studied by the teacher in high school
7. Typewriting studied by the teacher in college
8. Typewriting studied by the teacher in business college
9. Typewriting methods courses studied by the teacher
10. Typewriting teaching experience
11. Number of different schools in which typewriting has been taught
12. Total number of teachers of typewriting employed in the school
13. Number of typewriters in the commercial department

- 14. Number of first-year typewriting classes taught at present
- 15. Enrollment of first-year typewriting classes
- 16. Total enrollment of first-year typewriting classes
- 17. Grade placement of students enrolled in first-year typewriting
- 18. Name of text book used
- 19. Mixed enrollment of first- and second-year typewriting students in the same class period
- 20. Typewriting classes taught by the "glass partition" method
- 21. Length of periods
- 22. Use of single or double periods
- 23. Supervision of typewriting classes
- 24. By whom supervised
- 25. Total months of business experience involving the use of the typewriter
- 26. Average rate of speed at which the teacher himself typewrites

Instructions for checking the problems were explained in detail on the problems blanks. This request was made:

The following list is composed of problems which may confront the high school teacher of first-year typewriting. In the columns provided below, check each problem as to whether it has been of major, minor, or incidental importance to you. Designate whether it has been a problem because it has been difficult to solve or because of the frequency of occurrence, or both. The basis for judging these problems is your own experience. Add any other problems you may have had as a typewriting teacher and check accordingly.

As indicated before, one of the aims of this study is to assemble the problems of the teachers of first-year typewriting in the high schools of the state. These problems should be representative of all they are meeting; therefore, space was provided on the problems blank for the addition of any problem or problems which the teacher may have that was not given in the list. It was hoped that when the problems were collected they would present a composite picture of the typewriting teachers' problems as they exist in the typical high schools of the state.

As the blanks were returned, identical numbers were given to each data blank and problem blank for the purpose of identification in relation to each other. The data on each are treated comparatively and analytically. The problems were tabulated into major, minor, and incidental groups, and then subdivided as to the degree of difficulty and frequency of occurrence.

A treatment of the personal data is made, which includes an analysis of the educational qualification of the teachers with regard to the source of education, the degrees held, the amount of typewriting and typewriting methods courses studied, and the average rate of speed at which the teacher himself typewrites. A further analysis is made of the teaching and business experience of the teachers as indicated by the years of typewriting teaching experience, the number of different schools in

which each has taught, and the months of business experience involving the use of the typewriter on the part of the teacher. Other factors which may affect the teaching problems are then compiled from the returns. These include the size of the school, number of typewriting teachers in the system, number of typewriters in the department, number of first-year classes taught, size of each class, length of periods, text used, mixed enrollment of first-year and second-year students in the same classes, the "glass partition" method of teaching typewriting, use of single or double periods, and the supervision of typewriting classes.

#### DEFINITION OF TERMS

✓ The word "problem" as used in this study is taken to mean any difficulty which the teacher meets that requires solution and which has arisen in connection with or grown out of his work as a typewriting teacher.

The "teachers" referred to in this study are those who teach at least one class in first-year typewriting.

The "high schools of Oklahoma" refer to the white public junior and senior high schools over the entire state with enrollments ranging from 40 to 4996 pupils.



## CHAPTER II

## NATURE OF PERSONAL DATA

This chapter is concerned with the educational qualifications of the typewriting teachers, their teaching and business experience, and other factors which may have an influence on the various problems.

## EDUCATIONAL QUALIFICATIONS

Each of the 150 teachers reporting holds a bachelor's degree. Some received their degrees from schools within the state while others hold degrees from schools in other states.

TABLE I

NUMBER AND PERCENTAGE OF TEACHERS HOLDING BACHELOR DEGREES FROM STATE AND OUT-OF-STATE COLLEGES

Schools from which Degrees were Conferred	Number of Teachers	Per Cent
Oklahoma State Teachers Colleges	99	66.0
Other Oklahoma Colleges and Univ.	41	27.3
Out-of-State Colleges and Univ.	10	6.7
Total	150	100.0

As shown in Table I, 99, or about two-thirds, of the teachers received their degrees from one of the teachers' colleges in Oklahoma. A little more than one-fourth, 41, obtained their degrees from other colleges or universities located within the state. The remaining ten teachers received their bachelor degrees from institutions in other states.

Only 19 teachers, or about one-eighth of the total reporting, have master's degrees. Of these, 13 received them from either Oklahoma Agricultural and Mechanical College or the University of Oklahoma. The remaining six received their higher degrees from colleges in other states.

The questionnaires indicated typewriting training was received in every type of educational institution: high school, college, business college. In some instances training was received in two or all three types of the schools. These data are shown in Table II.

TABLE II

NUMBER AND PERCENTAGE OF TEACHERS WHO RECEIVED TYPEWRITING TRAINING IN THE DIFFERENT TYPES OF SCHOOLS

Types of Schools	No. of Teachers	Per Cent
High School Only	4	2.6
High School and College	49	32.7
High School and Business College	1	.7
High School, College, and Bus. College	12	8.0
College Only	46	30.7
College and Business College	30	20.0
Business College Only	8	5.3
Total	150	100.0

Approximately one-third of the teachers, 49, had typewriting courses both in high school and college. Nearly one-third, 46, secured their training solely in the colleges which they attended. Thirty other teachers, or one-fifth of the total, received instructions in typewriting both in college and in business college.

A total of 137 teachers, or over four-fifths of the total, received some or all of their training in typewriting in college. Of this number, 29 have from one to four hours of college credit; 95, from five to nine hours of college credit; and 13, from ten to fourteen hours of college credit. The median number of college hours of credit of those who had typewriting in college is 6.19.

Of the 51 teachers who had had business college training in typewriting, 18 had had less than three months; 11 from four to six months; 17 from seven to nine months; 3, from ten to twelve months; and 2, more than twelve months. The least amount of training is one month, and the greatest amount, eighteen months; each having been reported by one teacher. The median number of months is 6.2.

All the teachers reported the amount of college credit in a typewriting methods course as shown in Table III.

TABLE III

NUMBER OF TEACHERS WITH COLLEGE HOURS  
OF CREDIT IN METHODS COURSES

College Hours of Credit	No. of Teachers	Per Cent
None	56	37.3
1 to 3	52	34.7
4 to 6	40	26.7
7 to 9	2	1.3
	150	100.0

Over one-third of the teachers, 56, indicated that they have not had any course in typewriting teaching methods. The remaining 94 reported from two to eight hours credit. The median number of hours of those who had had one or more courses is 3.7.

All but nine teachers reported their average rate of typewriting speed as measured in net words a minute. A summary of their replies is given in Table IV.

TABLE IV

NUMBER AND PERCENTAGE OF TEACHERS WITH RELATION  
TO THEIR AVERAGE RATE OF TYPEWRITING SPEED

Rate of Typewriting Speed (Words a Minute)	No. of Teachers	Per Cent
30 to 49	28	18.7
50 to 69	91	60.6
70 to 89	20	13.3
90 to 109	1	.7
110 to 129	1	.7
No report	9	6.0
Total	150	100.0

About three-fifths of the teachers reported that they typewrite at a speed between fifty and sixty-nine words a minute. Rates of writing were reported which ranged from thirty to 114 words a minute. The median rate is 58.9 words a minute. It is assumed that each teacher's rate of typewriting was determined by the International Typewriting Contest Rules. It may be said that the majority of teachers typewrite at a respectable rate; although some

of the teachers may have reported a rough approximation of their typewriting speed.

#### TEACHING AND BUSINESS EXPERIENCE

All teachers reported the amount of teaching experience in typewriting.

TABLE V

#### NUMBER AND PERCENTAGE OF TEACHERS WITH RELATION TO YEARS OF TYPEWRITING TEACHING EXPERIENCE

Years of Typewriting Teaching Experience	Number of Teachers	Per Cent
1 to 4	91	60.7
5 to 9	37	24.7
10 to 14	15	10.0
15 to 19	7	4.6
Total		

As shown in Table V, 91, nearly two-thirds of the total number of teachers, have four years or less of typewriting teaching experience. Of this group, 30, one-third, are obtaining their first year of typewriting experience at the time of reporting. Thus, one-fifth of the total group are receiving their first year of experience in teaching typewriting. The greatest number of years of typewriting teaching experience reported is nineteen years. The median number is 5.4 years.

Table VI shows the number of different schools in which the teachers have taught typewriting.

TABLE VI

NUMBER AND PERCENTAGE OF TEACHERS WITH REFERENCE TO THE DIFFERENT SCHOOLS IN WHICH EACH HAS TAUGHT TYPEWRITING

Number of Different Schools	Number of Teachers	Per Cent
1	73	48.7
2	51	34.0
3	16	10.7
4	7	4.6
5	3	2.0
Total	<u>150</u>	<u>100.0</u>

Nearly one-half of the teachers, 73, have taught typewriting in only one school, the one in which they are employed at the time of this survey. Less the 30 teachers who are teaching their first year, it means that nearly one-third, 43, have taught in one school for a period of two years or more. Approximately one-third, 51, have taught typewriting in two schools. Three teachers reported that they have taught typewriting in five different schools.

Approximately one-third of the total number of teachers reporting, 49, have not had any business experience in which the typewriter was used. The range of this experience is shown in Table VII.

TABLE VII

NUMBER AND PERCENTAGE OF TEACHERS WITH BUSINESS  
EXPERIENCE IN WHICH THE TYPEWRITER WAS USED

Number of Months Business Experience	Number of Teachers	Per Cent
None	49	32.7
1 to 19	60	40.0
20 to 39	25	16.7
40 to 59	9	6.0
60 to 79	3	2.0
Over 80	4	2.6
Total	150	100.0

Of the 101 teachers with business experience, 60 of them, or about three-fifths, reported nineteen months of experience, or less. Thirty-four other teachers, about one-third, reported less than five years experience. The least amount of experience reported is one month and the greatest, 158 months. The median number of months is 23.7. No attempt was made to determine the nature of this experience.

#### OTHER FACTORS

There are several factors, other than the educational qualifications and the teaching and business experience of the teachers, which may have an influence on the problems of the teachers. One of these is the size of the schools in terms of enrollment.

TABLE VIII

NUMBER AND PERCENTAGE OF TEACHERS IN RELATION  
TO SCHOOL ENROLLMENTS

Enrollment of Schools	Number of Teachers Reporting	Per Cent
Less than 100	13	8.7
100 to 299	80	53.3
300 to 499	20	13.3
500 to 999	18	12.0
Over 1000	19	12.7
Total	150	100.0

Table VIII groups the schools, from which teachers reported according to the number of pupils enrolled in 1937-1938 and the number and percentage of teachers reporting from each size school. As indicated, nearly two-thirds of the teachers reporting, 93, are from schools with enrollments of less than 300. Nineteen teachers indicated that they teach in schools with enrollments of over one thousand, five being in schools with enrollments numbering over 2500. The sizes of the schools range in enrollment from 40 to 4996 pupils. The median enrollment is 453.



TABLE IX

NUMBER AND PERCENTAGE OF TEACHERS WITH RELATION  
TO THE NUMBER OF TEACHERS OF FIRST-YEAR  
TYPEWRITING IN THE DEPARTMENT

Number of Teachers of First-Year Typewriting in the Department	No. of Teachers Reporting	Per Cent
1	115	76.7
2	22	14.7
3	5	3.3
4	1	.7
5	0	....
6	2	1.3
7	0	....
8	5	3.3
Total	150	100.0

Over three-fourths of the teachers, 115, reported that they are the only teacher of first-year typewriting in the school in which they teach. About one-seventh, 22, reported two teachers of this subject in their buildings. Thirteen others indicated that there are from three to eight teachers in their departments who teach first-year typewriting. A report of this nature would be expected, since the majority of the schools may be classed as small high schools, according to the enrollment.

The number of typewriters available for use in the typewriting classrooms of the various schools is shown in Table X.

TABLE X

NUMBER OF TYPEWRITERS IN THE TYPEWRITING CLASSROOMS  
AS REPORTED BY 150 TEACHERS

Number of Typewriters in Classroom	Teachers Reporting	Per Cent
1 to 9	4	2.7
10 to 19	66	44.0
20 to 39	51	34.0
40 to 59	16	10.7
60 to 79	5	3.3
Over 80	8	5.3
Total	<u>150</u>	<u>100.0</u>

Nearly one-half of the teachers, 70, reported that they have fewer than twenty typewriters in their respective classrooms. Over one-third, 51, reported that they have between twenty and thirty-nine. About one-fifth, 29, have over forty typewriters in their classrooms, eight of whom have over eighty. The smallest number of typewriters in any one department reported is six, and the greatest number, 176. The median number is 30.

The report of the teachers as to the number of classes taught each day is shown in Table XI.

TABLE XI

NUMBER AND PERCENTAGE OF TEACHERS REPORTING  
THE NUMBER OF CLASSES TAUGHT EACH DAY  
IN FIRST-YEAR TYPEWRITING

Number of Classes Taught in First-Year Typewriting	No. of Teachers Reporting	Per Cent
1	18	12.0
2	57	38.0
3	44	29.4
4	17	11.3
5	5	3.3
6	8	5.3
7	1	.7
Total	<u>150</u>	<u>100.0</u>

Nearly one-eighth of the teachers, 18, reported that they each teach only one class in first-year typewriting; over one-third, 57, two classes; over one-fourth, 44, three classes; and over one-fifth, 31, from four to seven classes in first-year typewriting during the day.

Table XII shows the enrollment of the 412 classes in first-year typewriting reported by the 150 teachers.

TABLE XII

ENROLLMENT IN EACH OF THE 412 CLASSES  
OF FIRST-YEAR TYPEWRITING REPORTED

Enrollment in Each Class	No. of Classes Reported	Per Cent of Classes Reported
1 to 19	227	55.1
20 to 39	143	34.7
40 to 59	39	9.4
Over 60	3	.8
Total	412	100.0

There are 227 classes with enrollments of less than twenty. This is over one-half the total of 412 classes. Over one-third, 143, are reported as having enrollments between twenty and thirty-nine. Forty-two classes are reported with enrollments of over forty. The smallest class reported in first-year typewriting is one class with an enrollment of four pupils. Three classes with enrollments of seventy-four pupils each are the largest reported. The median class enrollment is twenty-four pupils.

The various lengths of the class periods reported are shown in Table XIII.

TABLE XIII  
LENGTH OF FIRST-YEAR TYPEWRITING CLASS PERIODS

Number of Minutes in Class Periods	No. of Teachers Reporting	Per Cent
35 to 44	1	.7
45 to 54	53	35.3
55 to 64	95	63.3
65 to 74	1	.7
Total	150	100.0

It is assumed that each teacher indicated the length of time devoted to class work only as "the length of class period" rather than the class time plus the time consumed in passing to and from classes.

Only one teacher reported class periods of fewer than forty-five minutes, however, the use of double periods is reported in this particular instance. Over one-third, 53, indicated class periods of between forty-five and fifty-four minutes. All except two teachers, who reported class periods of less than fifty-five minutes, reported the use of double periods. Ninety-five, or nearly two-thirds, reported periods of fifty-five to sixty-four minutes in length. One teacher reported class periods of seventy minutes. The median length of periods is fifty-seven minutes.

Nearly two-thirds of the teachers, 93, reported the use of the state adopted text. The others, 57, are using one of four other books in preference to the state adopted one.

Twenty teachers indicated mixed enrollments of first-year and second-year typewriting pupils during the same class periods. The other teachers indicated that they either teach no second-year typewriting at all, or if they do, it is being taught as a separate class.

Eighteen teachers, or about one-eighth of the total, indicated that they are using the "glass partition" method of trying to teach typewriting and some other class at the same time.

Double periods are in use in typewriting by 52, or over one-third, of the teachers. Of these same teachers, 11 indicated that the "practice period" is not supervised. Of the 41 teachers who reported that the double periods were supervised, only two teachers indicated that the periods were supervised by a teacher other than the typewriting teacher himself.

#### SUMMARY

In this study all the 150 teachers who reported had bachelor's degrees. Approximately two-thirds of them were received from institutions within the state of Oklahoma. Only about one-eighth of the teachers had master's degrees.

The teachers received their training in typewriting in high school, in college, or in business college. In some instances, the teachers received training in two or all three types of these schools. The greatest number of teachers received their typewriting training in high school and college. Following closely is the group who had typewriting only in college. The third largest group is composed of those who had training in typewriting in college and business college. The median number of college hours of credit of those who had typewriting in college is 6.19. The median length of training in a business college of those who attended a business college is 6.2 months.

Approximately two-thirds of the teachers have from two to eight college hours of credit in methods courses. The median number of college hours for those who had had one or more such courses is 3.7 hours.

A high percentage of the teachers have the ability to typewrite at a fairly high rate of speed, the median rate being 58.9 words a minute.

The years of typewriting teaching experience vary from one year of experience reported by thirty teachers to nineteen years of experience reported by one teacher, the median number of years of experience being 5.4.

Approximately one-half of the teachers have taught typewriting in only one school. Of this number, thirty are obtaining their first year of experience. No one

teacher has taught typewriting in more than five different school systems.

As to business experience in which the typewriter had been used, over two-thirds of the teachers reported themselves as having had such experience ranging from one to 158 months. The median number of months of business experience for those who have held positions in which the typewriter had been used is 23.7 months.

Nearly two-thirds of the teachers reporting are in schools that have high school enrollments of less than three hundred. About one-fourth are teaching in schools with enrollments that range between three hundred and five hundred. The remaining few are in schools in which the enrollments are between one thousand and five thousand, the median of these enrollments being 453.

A majority of the teachers, over two-thirds, indicated that they are the only teacher of typewriting in their buildings. Others reported from two to eight teachers in their respective departments.

The number of typewriters in the various classrooms reported varies from six to 176. The total number reported by the 150 teachers is 4505, which is approximately thirty typewriters to the teacher.

The number of classes taught in first-year typewriting by each teacher varies from one to seven classes a day, the mean number being approximately three.

The size of the classes varies from four to seventy-four pupils. The median enrollment of a class is twenty-four pupils.

The lengths of the class periods vary from thirty-five to seventy minutes in length, the median being fifty-seven minutes.

Approximately one-third of the teachers are using texts other than the state adopted one.

Only about one-fifth of the teachers indicated that they have second-year students enrolled in the same classes with the first-year typewriting students.

About one-eighth of the teachers are teaching other classes at the same time that they are conducting typewriting classes.

Over one-third of the teachers are using double periods. These are being supervised by the teachers themselves, except in two instances.



## CHAPTER III

## NATURE OF PROBLEMS REPORTED

The questionnaire used in this study was composed of two parts. The first part is concerned with questions of personal nature which were discussed in the preceding chapter. The second part pertains to the problems which may confront the teachers of first-year typewriting. This chapter is a treatment of the nature of these problems.

Twenty-three problems were listed on the questionnaire, and space was provided for the addition of any others. No additional problems were suggested. On the basis of experience, the teachers were asked to indicate whether each problem was of major, minor, or incidental importance. These problems were further checked as to whether each was a problem because it was difficult in solution or because it occurred frequently, or both. If the problem was considered a problem because of the difficulty of solution, it was checked as to its degree of difficulty: considerable, somewhat, or little or none. The frequency of occurrence was checked as to frequent, occasional, or infrequent in occurrence.

A scatter diagram was used in tabulating the number of times each part of each problem was answered. Twenty-three diagrams were constructed,<sup>1</sup> one for each problem,

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<sup>1</sup>

See Appendix

for tabulating and weighting purposes. A more extensive discussion of the weighting process may be found in another part of this chapter.

#### DISTRIBUTION OF PROBLEMS RELATIVE TO IMPORTANCE

Table XIV shows the total distribution of answers for each of the twenty-three problems relative to the importance of each in terms of major, minor, or incidental. A problem is assumed to be incidental in importance if it <sup>were</sup> was not checked. Therefore, the column "Incidental" includes the total of those who checked the problem as incidental in importance and of those who failed to check it at all. It also gives in the "Not Stated" column the number who did not check it relative to its importance.

The table shows, for example, that 28 teachers checked the first problem as major in importance; 52 as minor; and 70 considered it as incidental, 45 of whom checked it as incidental, and 25 of whom failed to check it at all. In like manner, 41 regarded the second problem as a major one; 50 considered it of minor importance; and 50 thought it to be incidental in importance, 36 of whom checked it as incidental and 23 of whom did not make any reply to it.

It is assumed that a problem is definitely classed as major, minor, or incidental in importance if 50 per cent or more of the total number of teachers placed it in one of the three respective groups. The asterisks in the following table indicate those problems which are thus classed by the respondents.

TABLE XIV  
DISTRIBUTION OF PROBLEMS AS TO IMPORTANCE

Problems	Major	Minor	Incidental	
			Total	NS
1. Determining the aims of typewriting	28	52	70	25
2. Determining grade placement	41	50	59	23
3. Using prognostic tests	17	36	97*	54
4. Determining the teaching method	43	59	48	21
5. Grading accuracy tests	35	53	62	20
✓6. Grading speed tests	28	56	66	20
7. Grading budgets	46	45	59	22
✓8. Determining grades at end of the terms	49	53	48	22
9. Analyzing errors	73**	41	36	17
10. Planning and using remedial measures	84*	35	31	19
11. Aiding in the development of desirable character traits	56	40	54	24
12. Adapting the course to local conditions and needs	36	53	61	20
13. Securing suitable equipment and physical needs for the room	49	43	58	18
14. Caring for individual differences	78*	47	25	10
15. Determining amount of work for the semester	39	55	56	18
16. Aiding the students to avoid plateaus	83*	34	33	17
✓17. Providing procedures for securing effective motivation or stimulation	52	54	44	24
18. Handling disciplinary problems	1	30	119*	21
19. Selecting the typewriting text	33	27	90*	37
20. Caring for students who are physically handicapped	15	33	102*	29
21. Providing supplementary material for skill in transcription	33	46	71	28
22. Providing supplementary material for students of more mature years	27	39	84*	30
✓23. Determining criteria for measuring one's own work as a teacher	93*	34	23	16

\*Problems checked by at least one-half of the teachers

\*\*Considered as major for comparison

✓ Ninety-seven teachers, nearly two-thirds, considered the problem concerned with prognostic tests of little importance. Yet, on the other hand, 56 of the teachers considered caring for individual differences a problem of some importance, for over one-half checked it as a problem of major importance to them. It would appear in view of the fact that 54 teachers did not check this problem, that a number of teachers are not familiar with prognostic testing, or the meaning of the word "prognostic."

✓ The ninth problem concerned with analyzing errors is one which is so close to being definitely classed by at least 50 per cent of the respondents that for practical purposes it may be considered as such. This problem was considered of major importance by 73, nearly one-half, of the teachers. Possibly because of the close relationship of analyzing errors to planning and using remedial measures, the latter was considered of major importance by 84 teachers, 11 more than the number who considered the former as of major importance. The relationship between each of these problems and two other problems, viz., caring for individual differences and aiding the students to avoid plateaus, may be noted. In each of these four problems over one-half of the teachers, with one exception which was previously mentioned, considered the problem to be of major importance. Only one other problem, determining criteria for measuring one's own work as a

teacher, was checked as a problem of major importance by a greater number of teachers.

Over three-fifths of the teachers indicated the problem of determining criteria for measuring one's own work as a teacher to be one of major importance. Yet, quite in contrast it would seem, nearly one-half of the teachers considered determining the aims of typewriting, which includes determining the criteria for measuring one's own work as a teacher, as a problem of incidental importance.

Other problems which are definitely classed as to importance are the problems concerned with handling disciplinary problems, selecting the typewriting text, caring for students who are physically handicapped, and providing supplementary material for students of more mature years. All of these were classified as problems of incidental importance.

On the other hand, a number of the problems were not definitely classified by the respondents but which are more or less evenly distributed in each of the three divisions. It cannot be said that they are major or minor; nor can they be classed as incidental in importance. Thus, determining grade placement was considered of major importance by 41 teachers, minor by 50 teachers, and incidental by 59. The same applies to the problems concerned with determining the teaching method to be used, grading budgets, determining grades at the end of the terms, aiding in the development of desirable character traits,

securing suitable equipment and physical needs for the room, determining the amount of work to be covered each semester, and providing procedures for securing effective motivation or stimulation. In no one instance does the number in one division vary more than eighteen from the number in either of the other two divisions in these problems.

#### DISTRIBUTION OF PROBLEMS RELATIVE TO DEGREE OF DIFFICULTY

Table XV shows the distribution of the problems in relation to the degree of difficulty in the solution of each. "Not Stated" has reference to the fact that the importance of the problem was checked but the degree of difficulty was not.

The first problem was checked by 125 teachers. Of this number 11 considered it a major problem of considerable difficulty in solution; 10 thought it a major problem somewhat difficult of solution; 5 regarded it a major problem but of little difficulty in solution, if any; and 2 checked it as a major problem but did not check the degree of difficulty.

In a similar manner, one person considered the first problem a minor problem of considerable difficulty in solution; 23, a minor problem somewhat difficult in nature; 26, a minor problem of little difficulty, if any; and 2, a minor problem without the degree of difficulty checked.

No one person regarded the first problem of incidental importance and of considerable degree of difficulty. Four considered it of incidental importance and somewhat difficult, while 41 thought it to be of incidental importance and of little difficulty, if any, in solution.

In a like manner, each of the problems may be interpreted in the light of the degree of difficulty.

There are five problems which were designated as of considerable difficulty by more than one-third of the teachers. Sixty-nine teachers indicated that they thought the problem of determining criteria for measuring one's own work as a teacher to be of considerable difficulty. Planning and using remedial measures was considered of considerable difficulty by 69 other teachers. Aiding the students to avoid plateaus was considered by 63 teachers to be of considerable difficulty. Fifty-seven respondents checked the problem concerned with caring for individual differences as one of considerable difficulty. Analyzing errors was considered a problem of considerable difficulty by 54 teachers.

It may be noted that these five problems which were checked as problems of considerable difficulty are the same five problems which were each checked as major problems by over one-half of the teachers.

On the other hand, twelve problems were checked as giving little or no difficulty in solution by one-third or more of the teachers. They are: handling disciplinary

TABLE XV

## DISTRIBUTION OF PROBLEMS RELATIVE TO DEGREE OF DIFFICULTY

Problems	Major					Minor					Incidental				
	Tot.	Cons.	Some	LN	NS	Tot.	Cons.	Some	LN	NS	Tot.	Cons.	Some	LN	NS
1. Determining the aims of typewriting	28	11	10	5	2	52	1	23	26	2	45	0	4	41	0
2. Determining grade Placement	41	26	13	1	1	50	2	21	26	1	36	0	2	33	1
3. Using prognostic Tests	17	15	0	0	2	36	1	15	16	4	43	1	4	37	1
4. Determining the teaching method	43	23	17	2	1	59	2	36	17	4	27	0	2	24	1
5. Grading accuracy tests	35	22	6	2	5	53	4	28	19	2	42	0	0	39	3
6. Grading speed tests	28	19	2	3	4	>56	3	27	25	1	46	0	0	41	5
7. Grading budgets	46	26	13	3	4	45	3	24	15	3	37	0	2	31	4
8. Determining grades at end of the terms	49	36	10	1	2	53	2	27	20	4	26	0	1	21	4
9. Analyzing errors	73	52	16	0	5	41	2	29	7	3	19	0	0	17	2
10. Planning and using remedial measures	>84	66	14	0	4	35	2	23	6	4	12	1	4	7	0
11. Aiding in the development of desirable character traits	>56	35	16	4	1	40	2	31	6	1	30	2	3	23	2
12. Adapting the course to local conditions and needs	36	22	12	2	0	53	3	34	14	2	41	1	3	37	0
13. Securing suitable equipment and physical needs for the room	49	37	8	3	1	43	0	24	17	2	40	0	2	38	0
14. Caring for individual differences	>78	54	19	2	3	47	3	33	7	4	15	0	4	10	1
15. Determining amount of work for the semester	39	23	12	2	2	55	0	36	18	1	38	0	3	34	1



TABLE XV (CONTINUED)

## DISTRIBUTION OF PROBLEMS RELATIVE TO DEGREE OF DIFFICULTY

Problems		Major				Minor				Incidental					
		Tot.	Cons.	Some	LN NS	Tot.	Cons.	Some	LN NS	Tot.	Cons.	Some	LN NS		
16. Aiding the students to avoid plateaus	>83	61	15	1	6	34	2	27	3	2	16	0	0	13	3
17. Providing procedures for securing effective motivation or stimulation	52	34	16	1	1	54	0	47	5	2	20	0	1	18	1
18. Handling disciplinary problems	1	1	0	0	0	30	0	11	19	0	98	0	1	88	9
19. Selecting the typewriting text	33	22	9	1	1	27	0	16	11	0	53	1	0	49	3
20. Caring for students who are physically handicapped	15	12	0	3	0	33	1	11	17	4	73	0	3	61	9
21. Providing supplementary material for skill in transcription	33	23	6	2	2	46	2	32	7	5	43	0	1	40	2
22. Providing supplementary material for students of more mature years	27	19	5	3	0	39	1	21	10	7	54	0	0	51	3
23. Determining criteria for measuring one's own work as a teacher	>93	68	22	2	1	34	1	30	2	1	7	0	1	6	

Key for abbreviations used:

Tot.--Total  
 Cons.--Considerable  
 Some.--Somewhat  
 LN--Little or None  
 NS--Not Stated

problems, checked by 107 teachers; caring for students who are physically handicapped, 81 teachers; determining the aims of typewriting, 72 teachers; grading speed tests, 69 teachers; providing supplementary material for students of more mature years, 64 teachers; selecting the typewriting text, 61 teachers; determining grade placement, 60 teachers; grading accuracy tests, 60 teachers; securing suitable equipment and physical needs for the room, 58 teachers; determining the amount of work to be covered each semester, 54 teachers; using prognostic tests, 53 teachers; and adapting the course to local conditions and needs, 53 teachers.

Two other problems may be included in this group for purposes of classification, since each lacks only one point or number of falling into the group that was checked as giving little or no difficulty by teachers. One of the problems is concerned with grading budgets and the other is providing supplementary material for the development of typewriting skill necessary in transcription.

Three other problems which were checked as problems of somewhat difficulty in nature by one-third or more of the teachers are: determining the teaching method to be used, aiding in the development of desirable character traits, and providing procedures for securing effective motivation or stimulation. The problem of determining grades at the end of terms was rather evenly distributed in all three divisions.

DISTRIBUTION OF PROBLEMS RELATIVE TO  
FREQUENCY OF OCCURRENCE

The frequency of occurrence of the several problems is shown in Table XVI, just as the degree of difficulty was shown in the preceding table.

From the table it may be seen that, of the 28 who checked the first problem as major in importance, 11 considered it as frequent in occurrence, 7 as occasional, 3 as infrequent, and 7 did not answer.

Of the 52 who considered the first problem of minor importance, 5 thought it to be of frequent occurrence, 9 of occasional occurrence, 16 as infrequent; and 23 did not state the frequency of occurrence.

Two of the 45 who checked the first problem as incidental considered it as occurring frequently, 5 as occurring occasionally, 29 as occurring infrequently, and 9 did not state their opinions at all.

In a like manner, each of the problems may be interpreted in the light of the frequency of their occurrence.

Five problems were considered problems by over one-third of the teachers because of their frequency of occurrence. Planning and using remedial measures was so considered by 70 teachers. This problem was followed closely in number by the problem concerned with analyzing errors, which was checked by 68 teachers. Sixty-four teachers indicated that aiding students to avoid plateaus was a problem of frequent occurrence. Caring for individual differences was designated as occurring frequently by 58 teachers.

TABLE XVI

## DISTRIBUTION OF PROBLEMS RELATIVE TO FREQUENCY OF OCCURRENCE

Problems	Major					Minor					Incidental				
	Tot.	Fre.	Oc.	Inf.	N.S.	Tot.	Fre.	Oc.	Inf.	N.S.	Tot.	Fre.	Oc.	Inf.	N.S.
1. Determining the aims of typewriting	28	11	7	3	7	52	5	9	16	22	45	2	5	29	9
2. Determining grade placement	41	25	7	2	7	50	10	16	13	11	36	0	5	19	12
3. Using prognostic tests	17	7	5	0	5	36	5	12	7	12	43	1	4	28	10
4. Determining the teaching method	43	19	10	4	10	59	6	21	12	20	27	0	3	17	7
5. Grading accuracy tests	35	28	4	0	3	53	15	17	5	16	42	6	1	23	12
6. Grading speed tests	28	20	3	0	5	56	19	14	7	16	46	9	3	22	12
7. Grading budgets	46	32	6	0	8	45	11	22	3	9	37	6	4	15	12
8. Determining grades at end of the terms	49	24	10	2	13	53	4	26	7	16	26	1	3	18	4
9. Analyzing errors	73	56	8	0	9	41	11	16	3	11	19	1	0	12	6
10. Planning and using remedial measures	84	59	14	0	11	35	10	13	3	9	12	1	3	4	4
11. Aiding in the development of desirable character traits	56	31	15	3	7	40	4	17	1	18	30	2	4	18	6
12. Adapting the course to local conditions and needs	36	15	6	3	12	53	1	23	8	21	41	2	5	27	7
13. Securing suitable equipment and physical needs for the room	49	21	8	4	16	43	4	14	11	14	40	0	2	30	8
14. Caring for individual differences	78	48	12	3	15	47	8	23	5	11	15	2	2	7	4
15. Determining amount of work for the semester	39	15	11	4	9	55	3	22	7	23	38	0	2	25	11

TABLE XVI (CONTINUED)

## DISTRIBUTION OF PROBLEMS RELATIVE TO FREQUENCY OF OCCURRENCE

Problems	Major					Minor					Incidental				
	Tot.	Fre.	Oc.	Inf.	N.S.	Tot.	Fre.	Oc.	Inf.	N.S.	Tot.	Fre.	Oc.	Inf.	N.S.
16. Aiding the students to avoid plateaus	83	56	11	1	15	34	5	15	2	12	16	3	1	11	1
17. Providing procedures for securing effective motivation or stimulation	52	27	10	2	13	54	9	28	2	15	20	0	3	13	4
18. Handling disciplinary problems	1	1	0	0	0	30	1	7	15	7	98	0	2	84	12
19. Selecting the typewriting text	33	3	4	13	13	27	0	6	9	12	53	0	0	45	8
20. Caring for students who are physically handicapped	15	2	4	5	4	33	1	8	15	9	73	0	2	62	9
21. Providing supplementary material for skill in transcription	33	19	8	2	4	46	9	19	5	13	43	0	1	34	8
22. Providing supplementary material for students of more mature years	27	11	5	5	6	39	3	23	4	9	54	2	0	44	8
23. Determining criteria for measuring one's own work as a teacher	93	48	16	3	26	34	2	21	4	7	7	0	1	5	1

## Key for abbreviations used

Tot.--Total  
 Fre.--Frequent  
 Oc.--Occasional  
 Inf.--Infrequent  
 N.S.--Not Stated

Fifty teachers checked the problem of determining criteria for measuring one's own work, as a teacher, as one which occurs frequently.

It may be pointed out that these five problems which were considered problems of frequent occurrence by over one-third of the total number of teachers are the same problems which were checked as problems because of the considerable degree of difficulty by one-third or more of the teachers, and also which were checked as problems of major importance by one-half or more of the teachers.

Only four problems were checked by one-third or more of the teachers as occurring infrequently. The problem pertaining to the handling of disciplinary problems was checked by nearly two-thirds, 99, of the teachers as occurring infrequently; caring for students who are physically handicapped by 82 teachers; selecting the typewriting text by 66 teachers; and providing supplementary material for students of more mature years by 53 teachers.

The remaining fourteen problems were not definitely classed as frequent, occasional, or infrequent in occurrence by one-third or more of the teachers. In other words, in each of these problems the numbers are well distributed in all three groups.

#### RELATIONSHIP OF DIFFICULTY AND FREQUENCY

It is necessary to weight each of the parts of each problem in order to determine whether a problem is to be considered a major problem, a minor problem, or a problem

of little importance according to, and in the light of, the answers given by the 150 teachers who responded to the questionnaire. For this purpose an arbitrary method is used.

It is assumed for the purpose of weighting that a major problem is one of considerable difficulty and frequent in occurrence. However, the teachers were privileged to check a problem as a major one and yet not check it as being of considerable difficulty to solve or as being one of frequent occurrence.

It may be seen in the accompanying scatter diagram of the first problem, concerned with determining the aims of typewriting, that a weight of three is given for frequent occurrence in the major problem division; two for occasional occurrence; one for infrequent occurrence; and no weight is placed on those not stated. A weight of three is given for considerable degree of difficulty in the major problem division; two for somewhat difficulty; one for little or none; and no weight is placed on those not stated. For example, a reply to a major problem checked considerable and frequent is given a weight of nine, while a reply checked considerable and occasional is given a weight of six. In this manner the weight of each answer marked as major in importance is determined. As previously stated, a scatter diagram for each of the twenty-three problems may be found in the Appendix.

## ILLUSTRATION OF THE WEIGHTING OF PROBLEMS

Problem No. 1  
Determining the Aims of Typewriting

Designated as a Major Problem

Occurrence Difficulty	(3) Frequent	(2) Occasional	(1) Infrequent	(0) Not St.	Total
Considerable (3)	(9)x6=54	(6)x2=12	(3)x1=3	(0)x2=0	69
Somewhat (2)	(6)x3=18	(4)x3=12	(2)x0=0	(0)x4=0	30
Little or None (1)	(3)x1=3	(2)x1=2	(1)x2=2	(0)x1=0	7
Not Stated (0)	(0)x1=0	(0)x1=0	0	0	0
Total	75	26	5	0	106

Designated as a Minor Problem

Occurrence Difficulty	(2) Frequent	(3) Occasional	(1) Infrequent	(0) Not. St.	Total
Considerable (2)	(4)x1=4	(6)x0=0	(2)x0=0	0	4
Somewhat (3)	(6)x2=12	(9)x7=63	(3)x3=9	(0)x11=0	84
Little or None (1)	(2)x2=4	(3)x2=6	(1)x11=11	(0)x11=0	21
Not Stated (0)	0	0	(0)x2=0	0	0
Total	20	69	20	0	109

Designated as an Incidental Problem

Occurrence Difficulty	(1) Frequent	(2) Occasional	(3) Infrequent	(0) Not. St.	Total
Considerable (1)	(1)x0=0	(2)x0=0	(3)x0=0	0	0
Somewhat (2)	(2)x0=0	(4)x3=12	(6)x0=0	(0)x1=0	12
Little or None (3)	(3)x2=6	(6)x2=12	(9)x29=261	(0)x8=0	279
Not Stated (0)	0	0	0	0	0
Total	6	24	261	0	291



✓ A minor problem is assumed to be one which is somewhat difficult to solve and of occasional frequency. For this reason a weight of two is given problems checked as having a considerable degree of difficulty; three for being somewhat difficult; one for giving little or no difficulty; and no weight for those not stated. Similarly, a weight of two is placed on minor problems checked as frequent in occurrence; three on those which are marked as occurring occasionally; one for the ones occurring infrequently; and no points are given those not stated. Thus, as shown in the illustration, when a problem is checked as minor in importance, somewhat difficult in solution and occurring occasionally, it receives a weight of nine. In like manner each part of the minor division is obtained.

✓ An incidental problem is assumed to mean one which gives little, if any, difficulty in solution, and which occurs infrequently. An incidental problem thus checked is given a weight of nine. This is obtained because all problems marked incidental and considerable are given a weight of one; somewhat, a weight of two; little or none, three; and not stated, no weight at all. Likewise, a weight of one is given incidental problems checked as occurring frequently; two for those checked as occasionally occurring; three for those occurring infrequently; and no weight is placed on those not stated.

To determine the total weightings of each problem, the weight assigned each part is multiplied by the number

of cases or answers which fall into that respective group when tabulated. For example, 6 teachers checked the first problem as being major in importance, as giving considerable difficulty, and as being frequent in occurrence. Since a weight of nine is assigned each answer which falls into that particular group, and six fall there, a weight of fifty-four is computed for the first group in the major division of the first problem. A weight of six is given a major problem which was also checked as one which is somewhat difficult and occurs frequently. Three answers fall in that group, therefore a weight of eighteen is assigned. A weight of three is placed on major problems checked also as being of little or no difficulty in solution, but occurring frequently. In the same way a weight of six is given each answer which was checked as one of considerable difficulty and occasional occurrence; four, if somewhat difficult and if it occurs occasionally; and two, if of little or no difficulty and occasional occurrence. No weight is placed on an answer which was checked as to frequency of occurrence but not checked as to the degree of difficulty, or on an answer checked as to the degree of difficulty but not checked as to frequency of occurrence. After the weight is obtained for each group in the major division, the total is found as shown in the accompanying illustration.

In a similar manner the total weight of problems checked as minor and the total weight of those checked as incidental are computed. There is a difference in the

weight placed on the answers in each of these divisions. A weight of four is given an answer in the minor division which is checked as being of considerable difficulty and of frequent occurrence. In the same way, a weight of six is placed on an answer that is checked as somewhat difficult and frequent occurrence, and a weight of two on a minor problem which was considered as having little or no difficulty but of being frequent in occurrence. A weight of six is placed on minor problems if checked considerable and occasional; nine, if checked somewhat and occasional; and three, if checked little or none and occasional. A minor problem also checked considerable and infrequent is given a weight of two; somewhat and infrequent, a weight of three; and little or none and infrequent, a weight of one. As in the case of major problems no weight is given a problem which falls into the group "Not Stated."

In the incidental division, a weight of one is assigned to a problem checked considerable and frequent; a weight of two to one checked somewhat and frequent; and a weight of three to one checked little or none and frequent. A weight of two is given a problem marked as considerable and occasional; four to one checked somewhat and occasional; and six to one checked little or none and occasional. A problem checked considerable and infrequent receives a weight of three; somewhat and infrequent, a weight of six; and little or none and infrequent, a weight of nine. No weight is given an answer which is "Not Stated."

Table XVII shows the total weights of each of the three divisions of each of the twenty-three problems. It is apparent that a number of the problems are clearly problems of major importance and a number are clearly of incidental importance. None is definitely minor.

The problems are classified as to whether they are clearly problems of importance or problems of unimportance. It is assumed that a problem is clearly one of importance if its weight in the major division is equal to or greater than the sum of the weights in the other two divisions. In like manner, a problem is assumed to be clearly unimportant in nature if the weight in the incidental division is equal to or greater than the sum of the weights in the other two divisions. The asterisks in Table XVII indicate the problems thus classified. As shown in the table, a number of the problems are not major problems nor can they be said to be of incidental importance.

Thus, in Table XVII it may be seen that the first problem, concerned with determining the aims of typewriting, is incidental in nature. The second problem, determining grade placement, is not definitely a major problem, yet it is not one of unimportance. The third problem, using prognostic tests, is clearly one incidental in nature. In a similar manner, the table shows the classification of each of the twenty-three problems.

TABLE XVII

## WEIGHT OF EACH DIVISION OF THE PROBLEMS SUBMITTED

	Major	Minor	Incidental
1. Determining the aims of typewriting	106	109	291*
2. Determining grade placement	233	173	188
3. Using prognostic tests	81	97	257 <sup>^</sup>
4. Determining the teaching method	199	194	157
5. Grading accuracy tests	209	193	216
6. Grading speed tests	140	196	212
7. Grading budgets	241	201	149
✓ 8. Determining grades at end of the terms	239	199	157
9. Analyzing errors	467*	176	99
10. Planning and using remedial measures	549*	133	49
11. Aiding in the development of desirable character traits	324*	155	158
12. Adapting the course to local conditions and needs	155	192	269
13. Securing suitable equipment and physical needs for the room	230	238	190
14. Caring for individual differences	433*	216	68
15. Determining amount of work for semester	175	202	224
16. Aiding the students to avoid plateaus	492*	151	99
✓ 17. Providing procedures for securing effective motivation or stimulation	276	280	124
18. Handling disciplinary problems	9	82	687*
19. Selecting the typewriting text	79	67	378*
20. Caring for students who are physically handicapped	47	60	484*
21. Providing supplementary material for skill in transcription	188	200	291
22. Providing supplementary material for students of more mature years	128	140	381*
23. Determining criteria for measuring one's own work as a teacher	484*	194	49

\*Division in which problem is placed as determined by weighting

It is found according to the weighting scale used that the following six problems are clearly classes as major problems of importance:

- Planning and using remedial measures
- Aiding the students to avoid plateaus
- Determining criteria for measuring one's own work as a teacher
- Analyzing errors
- Caring for individual differences
- Aiding in the development of desirable character traits

Six problems are clearly classed as incidental or unimportant. They are:

- Handling disciplinary problems
- Caring for students who are physically handicapped
- Selecting the typewriting text
- Providing supplementary material for students of more mature years
- Using prognostic tests
- Determining the aims of typewriting

The weights of each of the three divisions in the remaining eleven problems are more or less evenly distributed; therefore, these problems cannot be definitely classified as either major problems or as problems of incidental importance. They are:

- Grading budgets
- Determining grades at the end of terms
- Determining grade placement

- Determining the teaching method to be used
- Providing procedures for securing effective motivation or stimulation
- Securing suitable equipment and physical needs for the room
- Providing supplementary material for the development of typewriting skill necessary for transcription
- Adapting the course to local conditions and needs
- Determining the amount of work to be covered in a semester
- Grading accuracy tests
- Grading speed tests

A comparison of the six major problems reveals that four of them are very similar, relative to errors and individual improvement. No such relationship is apparent among the problems of incidental importance. However, where the problems of major importance have weights within a relatively close range, the weights of the incidental problems are widely distributed. Indeed, the discipline problem with a weight of 687 is more than twice that of the prognostic test problem, which is also considered incidental by the teachers. This diversity indicates that the extent of agreement on the frequency of occurrence and degree of difficulty involved in the solution of incidental is not as great as that of the major problems.

Certain problems, while not weighted sufficiently to be designated as major, minor or incidental, may on the other hand be clearly shown not to be so classified.

Thus, the problem concerned with grading speed tests is clearly not a major one, although it cannot be said to be either incidental or minor. Likewise the problem concerned with grading budgets is neither a major nor a minor problem, yet it is definitely not an incidental one. The seventeenth problem is similar in that it cannot be classed as a minor problem nor a major problem, yet it can be seen that it is definitely not an incidental problem.

It should be pointed out that the problem concerned with the aims of typewriting received a weight of 291 in the incidental division which is greater than the total weights of the major division and minor division. Thus, the problem is classed as an incidental problem. The same weight, 291, was also received by the problem concerned with providing supplementary material for skill in transcription. In this instance, however, the weight does not exceed the sum of the weights of the other two divisions. Therefore, this problem cannot be classed definitely as a problem of incidental importance.

#### SUMMARY

The following chapter analyzes the major problems and the incidental problems in the light of some of the personal qualifications of the teachers.

In this chapter, concerned with the nature of the problems reported, the problems are first distributed in relation to their importance in terms of major, minor, or incidental. Problems which were checked as major by 50



per cent or more include the following: Determining criteria for measuring one's own work as a teacher, planning and using remedial measures, aiding the students to avoid plateaus, caring for individual differences, and analyzing errors. No one problem was checked as minor by one-half or more of the teachers. Five problems were checked as incidental in importance by at least one-half of the teachers. They are: Providing supplementary material for students of more mature years, selecting the typewriting text, using prognostic tests, caring for students who are physically handicapped, and handling disciplinary problems. The remaining problems could not be clearly classified as major, minor, or incidental.

The problems were then classified in relation to the degree of difficulty. Five problems were considered of considerable difficulty by at least one-third of the teachers. They are the same five which were checked as problems of major importance by one-half or more of the teachers.

The same five problems which were checked as major problems by fifty per cent or more of the teachers and checked as problems of considerable difficulty by one-third or more were also checked by at least one-third of the teachers as problems because of their frequency of occurrence.

An arbitrary method of weighting was used by which each problem was determined to be either of major

importance or of incidental importance. It was assumed for the purpose of weighting that a major problem was one of considerable difficulty and frequent occurrence. Therefore, a scatter diagram was constructed in which a different weight was assigned to each of the three parts which pertained to difficulty and a different weight to each of the three parts which pertained to occurrence in the major division.

✓ A minor problem was assumed to be one which was somewhat difficult to solve and of occasional frequency. A different weight from that of the major group was placed on each of the three parts in the scatter diagram which pertained to difficulty and to each part which pertained to occurrence.

✓ An incidental problem was assumed to be one which gave little, if any, difficulty in solution and which occurred infrequently. In each of the parts of the scatter diagram concerned with difficulty and each of the parts concerned with occurrence a weight was assigned which differed from the weights assigned to either the major or minor divisions.

Such a scatter diagram was constructed for each of the twenty-three problems. The total weightings of each problem was determined by multiplying the weight assigned each part by the number of answers which were placed in that respective part. Thus, the weight was determined for the major, minor, and incidental divisions of each problem.

A problem was considered to be classed as a major problem if the weight in the major division was equal to or exceeded the sum of the weights of the other two divisions. Likewise, a problem was determined as being incidental in nature if the weight received in the incidental division was equal to or greater than the sum of the weights in the other two divisions.

✓ In this way the following six problems were clearly classed as problems of importance: Planning and using remedial measures, aiding the students to avoid plateaus, determining criteria for measuring one's own work as a teacher, analyzing errors, caring for individual differences, and aiding in the development of desirable character traits.

✓ In a similar manner the following six problems were classed as incidental or unimportant in nature: Handling disciplinary problems, caring for students who are physically handicapped, selecting the typewriting text, providing supplementary material for students of more mature years, using prognostic tests, and determining the aims of typewriting.

The remaining eleven problems were not classified as to their degree of importance. While they were not weighted sufficiently to be classed as major, minor, or incidental, yet they were shown not to be so classified.

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The problems of major importance have weights within a relatively close range while the incidental problems are widely distributed.

## CHAPTER IV

ANALYSIS OF PROBLEMS IN THE LIGHT OF PERSONAL  
QUALIFICATIONS OF THE TEACHERS

In the preceding chapter the problems of the teachers of first-year typewriting are discussed as to their importance, degree of difficulty, and frequency of occurrence.

In this chapter the six major problems and the six incidental problems are each considered in relation to a number of the factors in the background of the teachers which may have some causal effect on the problem.

## ANALYSIS OF MAJOR PROBLEMS

Of the six problems which were weighted as major problems, five of them were each checked as a major problem by at least one-half of the teachers. They were also checked as problems of considerable difficulty by more than one-third of the teachers and were checked as problems of frequent occurrence by at least one-third of the teachers. They are:

Planning and using remedial measures

Aiding students to avoid plateaus

Determining criteria for measuring one's  
own work as a teacher

Analyzing errors

Caring for individual differences

The sixth problem in the major group is concerned with aiding in the development of desirable character traits.

Planning and using remedial measures is the first problem to be considered. Several factors may have some

influence on this problem as to its importance in the minds of the teachers. Among these may be the type or types of schools in which the teacher received his training in typewriting; the number of college hours credit in a typewriting methods course or courses, if any; and, the number of years of typewriting teaching experience.

Eighty-four teachers checked the problem of planning and using remedial measures as a major problem. As shown in Table XVIII all the various types and combinations of schools are represented in this number.

TABLE XVIII

RELATION OF THE PROBLEM OF PLANNING AND USING REMEDIAL MEASURES TO THE VARIOUS TYPES OF SCHOOLS ATTENDED

Type of School	No. of Teachers Reporting	No. Checking Problem as Major	Per-Cent
High School Only	4	3	75.0
High School and College	49	27	55.1
H. S. and Bus. College	1	1	100.0
H. S., College, and Bus. Col.	12	6	50.0
College Only	46	29	63.0
College and Bus. College	30	11	36.7
Business College Only	8	7	87.5
Total	150	84	

Comparatively speaking, the teachers who received their typewriting training in college and business college considered the problem to be of less importance than the teachers in any other group. In general, the place of training seems not to have any causal relation to this problem. It should be noted, however, that teachers with some college training had less difficulty with this problem than those without college training.

The amount of college credit received in a typewriting methods course, if any, may also have some influence on whether or not a teacher considered planning and using remedial measures to be a problem of major importance.

Table XIX shows the relationship between the two.

TABLE XIX

RELATION OF THE PROBLEM OF PLANNING AND USING REMEDIAL MEASURES TO COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
None	56	29	51.8
1 to 3	52	30	57.7
4 to 6	40	23	57.5
7 to 9	2	2	100.0
Total	150	84	

Comparatively, more teachers without any credit in a typewriting methods course considered the problem to be of less importance than the teachers with credit, but the differences between the groups are so very little that it may be said no relationship exists. It is significant, however, that teachers with methods credit consider remedial work as much of a problem as those without such credit.

Table XX shows the amount of typewriting teaching experience of the teachers and the number of teachers in each group who considered planning and using remedial measures to be a problem of importance.

TABLE XX

RELATION OF THE PROBLEM OF PLANNING AND USING REMEDIAL  
MEASURES TO NUMBER OF YEARS OF EXPERIENCE IN  
TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
1 to 4	91	47	51.6
5 to 9	37	18	48.6
10 to 14	15	12	80.0
15 to 19	7	7	100.0
Total	150	84	

All seven teachers who have fifteen or more years of experience in teaching typewriting considered the problem of planning and using remedial measures to be a problem of importance. The next highest group, comparatively, is the group who has from ten to fourteen years of experience. Apparently, planning and using remedial measures does not decrease as a problem as one's teaching experience increases.

Another major problem is aiding students to avoid plateaus. The importance of this problem may be affected by the number of hours credit which the teacher may have in a typewriting methods course, if any, and the number of years of typewriting teaching experience. Table XXI is concerned with the former.

Three-fourths of the teachers who have from four to six hours in a typewriting methods course thought the problem of aiding the students to avoid plateaus to be of importance and, therefore, checked it as major.



TABLE XXI

RELATION OF THE PROBLEM OF AIDING STUDENTS TO AVOID PLATEAUS TO COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
None	56	27	48.2
1 to 3	52	25	44.6
4 to 6	40	30	75.0
7 to 9	2	1	50.0
Total	150	83	

One-half and less than one-half of the teachers in each of the other three groups checked it as major. Apparently, however, there is no relationship between the problem and the amount of credit in a typewriting methods course. It should be noted, however, that teachers with methods course credit rate this problem as major equally as often as those without such credit.

The number of years of experience in teaching typewriting may have some bearing on whether the teacher considered aiding students to avoid plateaus to be a major problem. Table XXII shows the number of teachers, classified according to the number of years of typewriting teaching experience, who indicated the problem to be of major importance.

More than one-half of the teachers in each of the groups checked the problem as one of major importance to them. However, an examination of the table shows there is no relationship since the percentages vary so little.

TABLE XXII

RELATION OF THE PROBLEM OF AIDING STUDENTS TO AVOID PLATEAUS TO THE NUMBER OF YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
1 to 4	91	47	51.8
5 to 9	37	22	59.5
10 to 14	15	8	53.3
15 to 19	7	6	85.7
Total	150	83	

Experience, apparently, does not aid in solving this problem

Determining criteria for measuring one's own work as a teacher was considered to be of major importance by nearly two-thirds of the teachers. The number of teachers, grouped according to the hours of college credit received in a typewriting methods course, who considered the problem to be a major problem is shown in Table XXIII.

TABLE XXIII

RELATION OF THE PROBLEM OF DETERMINING CRITERIA FOR MEASURING ONE'S OWN WORK AS A TEACHER TO COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
None	56	33	58.9
1 to 3	52	31	59.6
4 to 6	40	27	67.5
7 to 9	2	2	100.0
Total	150	93	

According to the percentages shown in the table, as the number of hours credit in a methods course increased, the higher the percentage of teachers in each group who checked as major importance the problem of determining criteria for measuring one's own work as a teacher.

The number of years of typewriting teaching experience is another factor which may have some bearing on the problem of determining criteria for measuring one's own work as a teacher. The number of teachers who checked this problem as a major one, grouped according to the number of years of experience, is shown in Table XXIV.

TABLE XXIV

RELATION OF THE PROBLEM OF DETERMINING CRITERIA FOR MEASURING ONE'S OWN WORK AS A TEACHER TO YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
1 to 4	91	58	63.7
5 to 9	37	22	59.5
10 to 14	15	8	53.3
15 to 19	7	5	71.4
Total	150	93	

More teachers in the group with the least amount of experience and in the group with the greatest amount of experience in teaching typewriting, comparatively speaking, considered the problem of determining criteria for measuring one's own work as a teacher to be of major importance than in the other groups. It would seem that years of teaching experience have no causal relationship to this problem.

Another major problem is that of analyzing errors. Table XXV presents the data on the relation of the type of schools attended to the problem of analyzing errors.

TABLE XXV

## RELATION OF THE PROBLEM OF ANALYZING ERRORS TO THE VARIOUS TYPES OF SCHOOLS ATTENDED

Type of School	No. of Teachers Reporting as Major	No. Checking Problem as Major	Per Cent
High School Only	4	2	50.0
High School and College	49	20	40.8
H. S. and Bus. College	1	0	----
H. S., College, and Bus. Col.	12	7	58.3
College Only	46	26	56.5
College and Bus. College	30	13	43.3
Business College Only	8	5	62.5
Total	150	73	

An examination of the table shows there are no significant differences in the various percentages; therefore, it may be said that no relationship exists.

Whether a teacher has had a typewriting methods course or, if so, the number of hours credit in such a course or courses may influence the teacher's judgment in determining the rank of importance of the problem of analyzing errors. Table XXVI shows the number of hours of credit in a typewriting methods course the 73 teachers have who checked the problem as one of major importance.

TABLE XXVI

RELATION OF THE PROBLEM OF ANALYZING ERRORS TO THE COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Check- ing Problem as Major	Per Cent
None	56	27	48.2
1 to 3	52	24	46.0
4 to 6	40	21	52.5
7 to 9	2	1	50.0
Total	150	73	

In all four groups it may be seen that about one-half of the teachers considered the problem as major. Apparently, no relationship exists.

The third factor which may have some bearing on whether the teacher considered analyzing errors to be a problem of major importance is the number of years of experience in teaching typewriting. The relationship is shown in Table XXVII.

TABLE XXVII

RELATION OF THE PROBLEM OF ANALYZING ERRORS TO THE NUMBER OF YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Check- ing Problem as Major	Per Cent
1 to 4	91	41	45.0
5 to 9	37	16	43.2
10 to 14	15	10	66.7
15 to 19	7	6	85.7
Total	150	73	

According to the percentages shown in the preceding table, the highest groups are the two groups consisting of those teachers with ten years or more of experience. This indicates that experience apparently has some slight relationship to this problem.

The fifth problem is concerned with caring for individual differences. This may be affected by the number of hours credit in a typewriting methods course and the number of years of experience in teaching typewriting. The relation of the former to the problem is shown in Table XXVIII.

TABLE XXVIII

RELATION OF THE PROBLEM OF CARING FOR INDIVIDUAL DIFFERENCES TO COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
None	56	31	55.4
1 to 3	52	24	46.0
4 to 6	40	22	55.0
7 to 9	2	1	50.0
Total	150	78	

Approximately the same percentage in each group checked the problem of caring for individual differences as a major problem. Therefore it is apparent that there is no relationship between the problem and college credit in a typewriting methods course.

The number of years a teacher has taught typewriting may also have some bearing on the problem of caring for individual differences. Table XXIX shows the amount of experience of the 78 teachers who checked this problem to be a major one.

TABLE XXIX

## RELATION OF THE PROBLEM OF CARING FOR INDIVIDUAL DIFFERENCES TO YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
1 to 4	91	43	47.3
5 to 9	27	22	59.5
10 to 14	15	7	46.7
15 to 19	7	6	85.7
Total	150	78	

On a comparative basis, more teachers in the group who reported the greatest number of years of experience in teaching typewriting consider the problem of caring for individual differences to be a major one than in any other group. A smaller proportion of the less experienced teachers indicated individual differences to be a major problem than did teachers with five or more years of experience. Whereas 91 or sixty per cent of the 150 had less than five years of teaching experience, only 43 or fifty-five and one-tenths per cent of the 78 teachers checking this problem were from this group. The difference is not significant.

The sixth major problem is concerned with aiding in the development of desirable character traits. The number of years of experience in teaching typewriting may be an influencing factor as to whether or not a teacher regards this problem to be of importance. Table XXX shows this relationship.

TABLE XXX

RELATION OF THE PROBLEM OF AIDING IN THE DEVELOPMENT OF DESIRABLE CHARACTER TRAITS TO YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Major	Per Cent
1 to 4	91	31	34.0
5 to 9	37	12	32.4
10 to 14	15	9	60.0
15 to 19	7	4	57.1
Total	150	56	

An examination of the table indicates that the teachers with ten years or more of experience in teaching typewriting held this problem to be more important than those with less experience.

#### ANALYSIS OF INCIDENTAL PROBLEMS

Each of the six problems which were weighted as incidental problems are also considered in relation to some of the factors which may have some influence on their being classes as problems of incidental importance. These incidental problems are:

Handling disciplinary problems

Caring for students who are physically handicapped



Selecting the typewriting text

Providing supplementary material for  
students of more mature years

Using prognostic tests

Determining the aims of typewriting

Table XXXI shows the relationship of teaching experience and handling disciplinary problems.

TABLE XXXI

RELATION OF THE PROBLEM OF HANDLING DISCIPLINARY PROBLEMS  
TO YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
1 to 4	91	72	79.1
5 to 9	37	32	86.5
10 to 14	15	10	66.7
15 to 19	7	5	71.4
Total	150	119	

An examination of the table shows there is very little difference in the percentages of the several groups. This would seem to indicate that there is no particular relationship between the years of experience in teaching typewriting and the problem of handling discipline.

Table XXXII shows the relation between the discipline problem and the enrollment of the high school.

According to the percentages shown in this table, apparently there is no relationship between the problem of handling disciplinary difficulties and high school enrollment.

TABLE XXXII

RELATION OF THE PROBLEM OF HANDLING DISCIPLINARY PROBLEMS  
TO THE TOTAL ENROLLMENT OF THE HIGH SCHOOL

Enrollment of School	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
Less than 100	13	10	76.9
100 to 299	80	63	78.8
300 to 499	20	15	75.0
500 to 999	18	14	77.8
Over 1000	19	17	
Total	150	119	

The next incidental problem, in the order of the greatest weight is that of caring for students who are physically handicapped. The relation of this problem to college hours of credit in a typewriting methods course is shown in Table XXXIII.

TABLE XXXIII

RELATION OF THE PROBLEM OF CARING FOR STUDENTS WHO ARE  
PHYSICALLY HANDICAPPED TO COLLEGE HOURS OF CREDIT  
IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
None	56	41	73.2
1 to 3	52	37	71.2
4 to 6	40	23	57.5
7 to 9	2	1	50.0
Total	150	102	

An examination of the table shows that as the number of hours credit in a typewriting methods course increased, the percentage decreased. It would appear from this that

the problem becomes more important as one takes more methods work.

Caring for students who are physically handicapped may also have some relation to the number of years of typewriting teaching experience of the teachers. Table XXXIV shows the relationship of the two.

TABLE XXXIV

RELATION OF THE PROBLEM OF CARING FOR STUDENTS WHO ARE PHYSICALLY HANDICAPPED TO NUMBER OF YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
1 to 4	91	64	70.3
5 to 9	37	25	67.3
10 to 14	15	10	66.7
15 to 19	7	3	42.9
Total	150	102	

The table indicates that as the years of experience in teaching typewriting increased, the number of teachers comparatively, who consider the problem to be one of incidental importance, decreased.

Selecting the typewriting text is another incidental problem. Table XXXV shows the relation of this problem to enrollment of the high school.

Apparently but slight relationship exists between the problem of selecting the typewriting text and the total enrollment of the high school.

TABLE XXXV

RELATION OF THE PROBLEM OF SELECTING THE TYPEWRITING TEXT  
TO THE TOTAL ENROLLMENT OF THE HIGH SCHOOL

Enrollment of School	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
Less than 100	13	8	61.5
100 to 299	80	51	63.8
300 to 499	20	12	60.0
500 to 999	18	10	55.6
Over 1000	<u>19</u>	<u>9</u>	47.4
Total	150	90	

The relationship of the problem of selecting the typewriting text to the text in use at present is shown in TABLE XXXVI.

TABLE XXXVI

RELATION OF THE PROBLEM OF SELECTING THE TYPEWRITING TEXT  
TO THE TEXT IN PRESENT USE IN THE HIGH SCHOOL

Text Used	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
State-Adopted	93	61	65.6
Others	<u>57</u>	<u>29</u>	50.9
Total	150	90	

According to the comparative percentages shown there is no great difference between the two groups, although more teachers who are using the state-adopted text consider the problem of selecting the text of incidental importance than those teachers who are using other texts.

The number of years of experience in teaching typewriting may also have some effect on a teacher in checking

the problem of selecting a typewriting text. Table XXXVII shows the number of years of experience of the 90 teachers who checked this problem as incidental.

TABLE XXXVII

RELATION OF THE PROBLEM OF SELECTING THE TYPEWRITING TEXT TO THE NUMBER OF YEARS OF TYPEWRITING TEACHING EXPERIENCE

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
1 to 4	91	55	60.4
5 to 9	37	22	59.5
10 to 14	15	8	53.3
15 to 19	<u>7</u>	<u>5</u>	71.4
	150	90	

It is evident that no relationship exists between the problem of selecting a typewriting text and the number of years of typewriting teaching experience.

Another incidental problem is providing supplementary material for students of more mature years. The relation of high school enrollment to this problem is shown in Table XXXVIII.

TABLE XXXVIII

RELATION OF THE PROBLEM OF PROVIDING SUPPLEMENTARY MATERIAL FOR STUDENTS OF MORE MATURE YEARS TO THE TOTAL ENROLLMENT OF THE HIGH SCHOOLS

Enrollment of School	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
Less than 100	13	6	46.2
100 to 299	80	42	52.5
300 to 499	20	12	60.0
500 to 999	18	12	
Over 1000	<u>19</u>	<u>12</u>	
Total	150	84	

In general, as the enrollment of the schools increased, the percentages of teachers who checked the problem as one of incidental importance increased. This may be taken to indicate that in general providing supplementary materials is more of a problem in smaller schools than large ones.

The years of experience in teaching typewriting may have some relation to the problem of providing supplementary material for students of more mature years. This relationship is shown in Table XXXIX.

TABLE XXXIX

RELATION OF THE PROBLEM OF PROVIDING SUPPLEMENTARY MATERIAL FOR STUDENTS OF MORE MATURE YEARS TO YEARS OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
1 to 4	91	49	53.8
5 to 9	37	22	59.5
10 to 14	15	8	53.3
15 to 19	7	5	71.4
Total	150	84	

An examination of the table reveals there is no relationship between the problem of providing supplementary material for students of more mature years and the factor of teaching experience.

Using prognostic tests is another problem considered as an incidental problem. The relation of the number of hours credit in a typewriting methods course to this problem is shown in Table XL.

TABLE XL

RELATION OF THE PROBLEM OF USING PROGNOSTIC TESTS TO  
COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS  
COURSE

Hours of Credit	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
None	56	41	73.2
1 to 3	52	32	57.1
4 to 6	40	22	55.0
7 to 9	2	2	100.0
Total	<u>150</u>	<u>97</u>	

With the exception of the last group, in which only two teachers reported, more teachers, comparatively, in the group without any credit in a typewriting methods course considered the problem of using prognostic tests to be of incidental importance than the teachers in any other group.

Another factor which may have some influence on the problem of using prognostic tests is the number of years of teaching experience. Table XLI shows the relationship of the two.

TABLE XLI

RELATION OF THE PROBLEM OF USING PROGNOSTIC TESTS TO YEARS  
OF EXPERIENCE IN TEACHING TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
1 to 4	91	59	64.8
5 to 9	37	22	59.5
10 to 14	15	10	66.7
15 to 19	7	6	85.7
Total	<u>150</u>	<u>97</u>	

It may be said that no relationship exists between the years of experience in teaching typewriting and the problem of using prognostic tests.

The last incidental problem to be considered is concerned with the aims of typewriting. The relation of this problem to the number of hours credit in a typewriting methods course is shown in Table XLII.

TABLE XLII

RELATION OF THE PROBLEM OF DETERMINING THE AIMS OF TYPEWRITING TO COLLEGE HOURS OF CREDIT IN A TYPEWRITING METHODS COURSE

Hours of Credit	No. of Teachers Reporting	No. Checking Problem as Incidental	Per Cent
None	56	26	46.4
1 to 3	52	31	59.6
4 to 6	40	12	30.0
7 to 9	2	1	50.0
Total	150	70	

No definite relationship exists between the problem of determining the aims of typewriting and the college hours of credit in a typewriting methods course.

Table XLIII shows the relation of the years of experience in teaching typewriting to the problem of determining the aims of typewriting.

An examination of this table reveals there is no relationship between the problem of determining the aims of typewriting and the years of experience in teaching typewriting.



TABLE XLIII

RELATION OF THE PROBLEM OF DETERMINING THE AIMS OF TYPE-  
WRITING TO THE YEARS OF EXPERIENCE IN TEACHING  
TYPEWRITING

Years of Experience	No. of Teachers Reporting	No. Check- ing Problem as Incidental	Per Cent
1 to 4	91	43	47.3
5 to 9	37	19	51.3
10 to 14	15	5	33.3
15 to 19	7	3	42.9
Total	150	70	

## SUMMARY

Twelve problems are considered in this chapter in relation to some of the factors in the qualifications and teaching situations of the teachers. Six of these are the problems which were determined to be major problems and the remaining six are the ones which were clearly shown to be problems of incidental importance.

✓ Planning and using remedial measures is the first major problem discussed. It is discussed in relation to the following factors: The various types of schools attended, the college hours of credit in a typewriting methods course, the number of years of experience in teaching typewriting. ✓ In general, the place of training seems not to have any relation to the problem nor does the number of college hours of credit in a typewriting methods course. Experience in teaching typewriting has some relation, it seems.

✓ The second major problem discussed is the problem concerned with aiding students to avoid plateaus. ✓ No relationship exists between this problem and the number of college hours of credit in a typewriting methods course. There is no relationship of the problem to the number of years of experience in teaching typewriting.

✓ Determining criteria for measuring one's own work as a teacher is considered in the light of two factors, viz., the number of college hours of credit in a typewriting methods course and the number of years of typewriting teaching experience. ✓ As the number of hours credit in a methods course increased, the higher the percentage of teachers in each group who checked the problem as one of major importance. Comparatively, more teachers in the group with the least amount of typewriting teaching experience and in the group with the most experience consider the problem to be of major importance than the teachers in the other groups.

✓ The problem of analyzing errors is discussed in relation to three different factors. No relationship exists, however, between this problem and the various types of schools attended, nor is there any relationship between the problem and the number of hours of credit in a typewriting methods course. ✓ More teachers, comparatively, in the groups with ten years or more of experience in teaching typewriting checked the problem as one of major importance than did the teachers with less than ten years of experience.

✓ No relationship exists between the problem of caring for individual differences and the number of college hours of credit in a typewriting methods course, nor is there any relationship between the problem and the number of years of experience in teaching typewriting.

✓ The sixth major problem discussed is the problem of aiding in the development of desirable character traits. Comparatively, more teachers in the groups with ten years or more of experience in teaching typewriting considered the problem a major one than did the teachers with less experience.

✓ The first incidental problem discussed is the problem of handling disciplinary problems. Apparently, there is no relationship between this problem and the years of experience in teaching typewriting, nor is there any relationship between the problem and the total enrollment of the high school.

✓ The problem of caring for students who are physically handicapped is the next incidental problem discussed. ✓ There is some relation between this problem and the number of college hours of credit in a typewriting methods course. As the number of hours credit in the methods course increased, the comparative percentages decreased. ✓ Also some relationship is indicated between the problem and the number of years of experience in teaching typewriting by the fact that as the years of experience increased, the number of

teachers, comparatively, who consider the problem to be incidental in importance, decreased.

✓No definite relationship exists between any of the factors discussed in relation to the problem of selecting the typewriting text. The factors discussed in relation to the problem are: Total enrollment of the high school, the text in present use in the high school, the number of years of experience in teaching typewriting.

✓There is some relation between the problem of providing supplementary material for students of more mature years and the enrollment of the high school. In general, as the enrollment increased, the percentages of teachers who considered the problem to be of incidental importance increased. There is no relationship, however, between the problem and the number of years of experience.

✓The problem of using prognostic tests is influenced to some extent as to importance by the factor of the hours of credit the teachers have in a typewriting methods course. In general, the fewer the hours of credit, the more teachers, comparatively, who considered the problem to be incidental in importance. No relationship exists, however, between the problem and the number of years of experience in teaching typewriting.

✓The sixth and last incidental problem is determining the aims of typewriting. There is no relationship between this problem and the number of hours of credit in a

typewriting methods course nor between the problem and the years of experience in teaching typewriting.

## CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was undertaken to determine the most important problems which confront the teachers of first-year typewriting. It is hoped that it will serve as a basis for future studies, and that it will be helpful in solving these problems. In this way it will be helpful to both the prospective teachers and the teachers who are already actively engaged in the profession. It is further hoped that the institutions in the state which offer teacher-training courses will become aware of the need for placing more emphasis on certain points in their typewriting methods courses and probably less stress on others.

## SUMMARY

The study has included a discussion of the personal data of a representative group of 150 typewriting teachers of the state. It has included a survey of their problems and has shown the relation of some of these problems to a number of factors in the background of the teachers, such as training, experience, etc.

The nature of the personal data was determined and classified. The problems were distributed as to their importance, degree of difficulty and frequency of occurrence. An arbitrary method of weighting was employed, by which it was found that six of the twenty-three problems may be considered as problems of importance, six as unimportant problems, and the remaining eleven as problems

which cannot be said to be definitely with either group. The six important problems and the six unimportant problems were each analyzed in the light of some of the personal qualifications of the teachers.

The findings with respect to the teachers themselves are:

1. Nearly two-thirds of the teachers had received their bachelor degrees from one of the state teachers colleges.

2. Typewriting training of the teachers averaging slightly more than six credit hours, had been received in every type of educational institution.

3. Over one-third of the teachers have not had a course in the methods of teaching typewriting.

4. One-fifth of the teachers reported that the year of this study was their first year of experience in teaching typewriting. The median years of experience was 5.4.

5. Over two-thirds of the teachers reported business experience ranging from one month to thirteen years, in which the typewriter was used.

6. Nearly two-thirds of the teachers were teaching in schools with enrollments of less than three hundred.

7. Over three-fourths of the teachers were the only teacher of typewriting in their respective school.

8. Only about one-fifth of the teachers indicated that second-year pupils were enrolled in the first-year typewriting classes.

9. Approximately one-third of the teachers are using double periods both of which they themselves supervise in teaching typewriting.

The findings concerning the problems are:

1. Five problems were each checked as problems of major importance and five were each checked as problems of incidental importance by over one-half of the teachers, while the remaining thirteen could not be definitely classified.

2. The same five problems which were each checked as problems of major importance by over one-half of the teachers were also checked as problems of considerable difficulty and of frequent occurrence by one-third or more of the teachers.

3. By employing a weighting scale, six problems were definitely classed as problems of major importance and six as problems of unimportance. The problems of major importance are: *stated before*

Planning and using remedial measures

Aiding students to avoid plateaus

Determining criteria for measuring one's  
own work as a teacher

Analyzing errors

Caring for individual differences

Aiding in the development of desirable  
character traits



The problems of little or no importance are:

Handling disciplinary problems

Caring for students who are physically  
handicapped

Selecting the typewriting text

Providing supplementary material for  
students of more mature years

Using prognostic tests

Determining the aims of typewriting

Other findings may be listed as follows:

1. The type or types of schools attended by the teachers did not have any relationship to any of the major problems.

2. The only major problem in which a relationship was shown to exist between the problem and the number of college hours of credit in a typewriting methods course was the problem of determining criteria for measuring one's own work as a teacher. In this instance, as the number of college hours of credit increased, the number of teachers, comparatively, who considered the problem to be of major importance, increased.

3. Experience in teaching typewriting had a relationship to more major problems than any other one factor. Problems affected by this factor were: Planning and using remedial measures, which became more of a problem as the teaching experience increased; determining criteria for measuring one's own work as a teacher, which was

considered a problem by more teachers, comparatively, who had the least experience and the most experience; and analyzing errors, which was a major problem to more teachers, comparatively, in the groups with the most experience.

4. The number of years experience in teaching typewriting had some relation to only one incidental problem. This particular problem was concerned with caring for students who are physically handicapped, in which it was shown that as the years of experience increased, the number of teachers, comparatively, who considered it to be a problem of incidental importance, decreased.

5. The total enrollment of the high schools did not have any bearing on the problems of handling disciplinary problems nor on selecting the typewriting text. It was shown, however, that it did have some relation to the problem of providing supplementary material for students of more mature years; for, in general, as the enrollment of the schools increased, the percentage of teachers who checked the problem as one of incidental importance, increased.

6. As the number of hours credit in a typewriting methods course increased, the number of teachers, comparatively, who considered the problem of caring for students who are physically handicapped to be incidental in importance, decreased. The same relationship was shown between this factor and the problem of prognostic tests.

7. More teachers who used the state-adopted text considered the problem of selecting the typewriting text an incidental problem than did the teachers who used other texts.

#### CONCLUSIONS

The following conclusions are warranted from the data presented:

1. Four of the six major problems are concerned in some way with individual learning problems.

2. The six incidental problems are diverse and unrelated.

3. Due to lack of agreement other problems of typewriting teachers cannot be classified as major, minor, or incidental.

4. Certain personal factors or qualifications apparently have definite causal relationships to certain problems, but typewriting training, typewriting methods course, and typewriting teaching experience have more influence than any other factors.

5. The more typewriting teaching experience the teachers have, the more conscious they seem of certain problems confronting them.

6. Because teachers with typewriting methods credit seem to be troubled by the same problems as teachers without such credit it would seem that the teacher-training institutions have failed to equip the typewriting teachers with a thorough knowledge of the techniques and procedures

whereby they may be able to solve their own problems or to know from what sources to seek information and material needed to aid in their solution.

7. The lack of unanimity concerning the importance of teaching problems seems to indicate that they are influenced by individual viewpoints, preparation, and situations. Teacher-training institutions, therefore, should prepare students to adapt themselves to various teaching conditions.

8. This study does not present conclusive evidence, but it indicates that many of the teachers could work out some of the problems for themselves if they were more professionally minded, and would take advantage of the suggestions given by leaders in the field as found in professional periodicals and books.

#### RECOMMENDATIONS

It is recommended that institutions giving teacher-training orient their methods courses in typewriting to make them conform to the needs of the teachers as presented in this study. This is necessary if the teachers are to give the service they hope to render and are expected to give. It is further suggested that in such a methods course more time be devoted to discussions and demonstrations, where possible, of the major problems as indicated in this study. However, this does not mean that the minor problems should be neglected. By no means should they be omitted just because they are considered to be of less importance than some other problems.

Since four of the six major problems are concerned with related individual learning problems, it is suggested that considerable time be devoted in method courses to this phase of work, which is remedial in nature.

It would seem that teachers who had credit in typewriting methods would not be confronted with the same problems as teachers without credit in such a course. Because both groups of teachers, as shown in this study, are meeting the same problems in general, it is evident that the methods courses have failed somewhat in providing the teachers with training necessary to enable them to meet the various difficulties they encounter. It is suggested that such a course be enlarged to care for all these problems. A problem may be of little importance to one teacher but it may be of great importance to another.

Several discrepancies in the answers of the teachers are evident. For example, using prognostic tests is considered a problem of incidental importance while, on the other hand, caring for individual differences is considered a problem of major importance. Because of this it would seem that teachers do not know what prognostic tests are.

Another discrepancy may be noticed in that determining the aims of typewriting is considered an incidental problem, yet determining criteria for measuring one's own work as a teacher is a problem of major importance. It may be readily seen that in this instance the discrepancy

involved is the fact that determining the aims of typewriting includes within itself the determining of the criteria for measuring one's own work as a teacher. The latter would determine the effectiveness of the degree to which the aims are achieved. A methods course in typewriting should undoubtedly establish or set up desirable aims in typewriting from which all activities will be the outcome.

Experience in teaching typewriting had a relationship to more major problems than any other one factor. Since it had a relationship to more problems than the number of college hours of credit in a typewriting methods course, the latter should attempt to take the place of experience.

Considering the number of teachers who teach second-year students in the same classes with the first-year students, it is suggested that method courses give some consideration to this situation.

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## APPENDIX



Tishomingo, Oklahoma  
May 7, 1938

Dear Fellow-Typewriting Teacher:

You will find enclosed with this letter two blank forms. I shall appreciate it if you will fill these in and return to me within the next few days. Your name is not required on either sheet. Furthermore, all responses will be treated confidentially.

The first page, as you will notice, is general information about your qualifications, your department, and your school. At the top of the second page is an explanation for the checking of problems that may have confronted you as a teacher of beginning typewriting.

If you do not teach beginning typewriting, please give this letter to a teacher in your school who has charge of the beginning classes.

Will you kindly fill these in and return as soon as possible? Your cooperation in this matter will be appreciated.

An addressed and stamped envelope is enclosed.

Very truly yours,

Linnie Ruth Hall

## PERSONAL DATA BLANK

Location of school: City \_\_\_\_\_

Total enrollment of high school: \_\_\_\_\_ Length of school  
term: \_\_\_\_\_ months

Name of schools from which you graduated: \_\_\_\_\_

Degree: \_\_\_\_\_ Degree: \_\_\_\_\_

Typewriting studied: High School (units) \_\_\_\_\_

College (hours) \_\_\_\_\_ Business College (months) \_\_\_\_\_

Typewriting methods course studied: \_\_\_\_\_  
(college hours)

Typewriting teaching experience (include this year): \_\_\_\_\_  
years

Number of different schools in which you have taught  
typing: \_\_\_\_\_

Total number of teachers of typing employed this year in  
your school: \_\_\_\_\_

Number of typewriters in the commercial department: \_\_\_\_\_

Number of first year typewriting classes you teach this  
year: \_\_\_\_\_

Enrollment by classes: (1) \_\_\_ (2) \_\_\_ (3) \_\_\_ (4) \_\_\_ (5) \_\_\_  
(6) \_\_\_

Total number of students enrolled in first-year type-  
writing: \_\_\_\_\_

Grade placement of first-year typewriting: Grade 8 \_\_\_;  
9 \_\_\_; 10 \_\_\_; 11 \_\_\_; 12 \_\_\_

Name of first-year typing text used this year: \_\_\_\_\_

Are second-year typing students enrolled in the same class  
periods with first-year students? \_\_\_\_\_

Is typing taught at the same time some other class is  
taught? \_\_\_\_\_

Length of typewriting periods: \_\_\_\_\_ minutes

Are double periods used: \_\_\_\_\_ If so, are they supervised: \_\_\_\_\_

By whom? \_\_\_\_\_

Total months of business experience in which you used the  
typewriter: \_\_\_\_\_

Average rate of speed at which you type: \_\_\_\_\_

(net words a minute)

STRATHMORE PARCHMENT

100% RA, U.S.A.



## Problem No.1

## Determining the Aims of Typewriting

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	6	2	1	2	11
Somewhat (2)	3	3	0	4	10
Little or None(1)	1	1	2	1	5
Not Stated (0)	1	1	0	0	2
Total	11	7	3	7	28

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	1	0	0	0	1
Somewhat (3)	2	7	3	11	23
Little or None(1)	2	2	11	11	26
Not Stated (0)	0	0	2	0	2
Total	5	9	16	22	52

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	3	0	1	4
Little or None(3)	2	2	29	8	41
Not Stated (0)	0	0	0	0	0
Total	2	5	29	9	45

Problem No. 2  
Determining Grade Placement

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	17	3	1	5	26
Somewhat (2)	7	4	0	2	13
Little or None(1)	0	0	1	0	1
Not Stated (0)	1	0	0	0	1
Total	25	7	2	7	41

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	2	0	0	0	2
Somewhat (3)	5	11	2	3	21
Little or None(1)	2	5	11	8	26
Not Stated (0)	1	0	0	0	1
Total	10	16	13	11	50

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	2	0	0	2
Little or None(3)	0	3	18	12	33
Not Stated (0)	0	0	1	0	1
Total	0	5	19	12	36

## Problem No. 3

## Using Prognostic Tests

		Major				
		(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(3)	7	3	0	5	15
Somewhat	(2)	0	0	0	0	0
Little or None	(1)	0	0	0	0	0
Not Stated	(0)	0	2	0	0	2
Total		7	5	0	5	17

## Minor

		(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(2)	0	0	1	0	1
Somewhat	(3)	2	7	0	6	15
Little or None	(1)	2	4	4	6	16
Not Stated	(0)	1	1	2	0	4
Total		5	12	7	12	36

## Incidental

		(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable	(1)	1	0	0	0	1
Somewhat	(2)	0	1	3	0	4
Little or None	(3)	0	3	24	10	37
Not Stated	(0)	0	0	1	0	1
Total		1	4	28	10	43

## Problem No. 4

## Determining the Teaching Method to be Used

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	14	1	1	7	23
Somewhat (2)	4	9	1	3	17
Little or None(1)	0	0	2	0	2
Not Stated (0)	1	0	0	0	1
Total	19	10	4	10	43

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	1	1	0	
Somewhat (3)	5	14	3	14	36
Little or None(1)	0	4	7	6	17
Not Stated (0)	0	2	2	0	4
Total	6	21	12	20	59

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	1	1	0	2
Little or None(3)	0	2	15	7	24
Not Stated (0)	0	0	1	0	1
Total	0	3	17	7	27



## Problem No. 5

## Grading Accuracy Tests

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	19	1	0	2	22
Somewhat (2)	3	2	0	1	6
Little or None(1)	2	0	0	0	2
Not Stated (0)	4	1	0	0	5
Total	28	4	0	3	35

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	2	1	0	1	4
Somewhat (3)	8	12	0	8	28
Little or None(1)	3	4	5	7	19
Not Stated (0)	2	0	0	0	2
Total	15	17	5	16	53

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	0	0	0	0
Little or None(3)	4	1	22	12	39
Not Stated (0)	2	0	1	0	3
Total	6	1	23	12	42

Problem No. 6  
Grading Speed Tests

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	12	2	0	5	19
Somewhat (2)	2	0	0	0	2
Little or None(1)	2	1	0	0	3
Not Stated (0)	4	0	0	0	4
Total	10	3	0	5	28

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	1	1	0	1	3
Somewhat (3)	11	10	1	5	27
Little or None(1)	6	3	6	10	25
Not Stated (0)	1	0	0	0	1
Total	19	14	7	16	45

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	0	0	0	0
Little or None(3)	5	3	21	12	41
Not Stated (0)	4	0	1	0	5
Total	9	3	22	12	46

Problem No. 7  
Grading Budgets

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	17	3	0	6	26
Somewhat (2)	9	2	0	2	13
Little or None(1)	2	1	0	0	3
Not Stated (0)	4	0	0	0	4
Total	32	6	0	8	46

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	1	1	0	1	3
Somewhat (3)	6	15	0	3	24
Little or None(1)	4	3	3	5	15
Not Stated (0)	0	3	0	0	3
Total	11	22	3	9	45

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	2	0	0	2
Little or None(3)	4	2	13	12	31
Not Stated (0)	2	0	2	0	4
Total	6	4	15	12	37

## Problem No. 8

## Determining Grades at End of the Terms

		Major				
		(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(3)	16	8	0	12	36
Somewhat	(2)	6	2	1	1	10
Little or None	(1)	0	0	1	0	1
Not Stated	(0)	2	0	0	0	2
Total		24	10	2	13	49

## Minor

		(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(2)	0	1	0	1	2
Somewhat	(3)	3	17	0	7	27
Little or None	(1)	0	5	7	8	20
Not Stated	(0)	1	3	0	0	4
Total		4	26	7	16	53

## Incidental

		(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable	(1)	0	0	0	0	0
Somewhat	(2)	0	1	0	0	1
Little or None	(3)	0	0	17	4	21
Not Stated	(0)	1	2	1	0	4
Total		1	3	18	4	26

Problem No. 9  
Analyzing Errors

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	39	5	0	8	52
Somewhat (2)	13	2	0	1	16
Little or None(1)	0	0	0	0	0
Not Stated (0)	4	1	0	0	5
<b>Total</b>	<b>56</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>73</b>

	Minor				Total
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	
Considerable (2)	1	1	0	0	2
Somewhat (3)	8	10	1	10	29
Little or None(1)	1	4	1	1	7
Not Stated (0)	1	1	1	0	3
<b>Total</b>	<b>11</b>	<b>16</b>	<b>3</b>	<b>11</b>	<b>41</b>

	Incidental				Total
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	0	0	0	0
Little or None(3)	0	0	11	6	17
Not Stated (0)	1	0	1	0	2
<b>Total</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>6</b>	<b>19</b>

Problem No. 10  
Planning and Using Remedial Measures

		Major				
		(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(3)	49	8	0	9	66
Somewhat	(2)	6	6	0	2	14
Little or None	(1)	0	0	0	0	0
Not Stated	(0)	4	0	0	0	4
<b>Total</b>		<b>59</b>	<b>14</b>	<b>0</b>	<b>11</b>	<b>84</b>

		Minor				
		(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(2)	0	1	0	1	2
Somewhat	(3)	8	8	0	7	23
Little or None	(1)	0	2	3	1	6
Not Stated	(0)	2	2	0	0	4
<b>Total</b>		<b>10</b>	<b>13</b>	<b>3</b>	<b>9</b>	<b>35</b>

		Incidental				
		(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable	(1)	0	0	0	1	1
Somewhat	(2)	1	2	1	0	4
Little or None	(3)	0	1	3	3	7
Not Stated	(0)	0	0	0	0	0
<b>Total</b>		<b>1</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>12</b>

## Problem No. 11

## Aiding in the Development of Desirable Character Traits

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	24	5	2	4	35
Somewhat (2)	6	7	0	3	16
Little or None(1)	1	2	1	0	4
Not Stated (0)	0	1	0	0	1
Total	31	15	3	7	56

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	0	0	
Somewhat (3)	3	14	1	13	31
Little or None(1)	1	2	0	0	1
Not Stated (0)	0	1	0	0	1
Total	4	17	1	18	40

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	1	1	
Somewhat (2)	0	3	0	0	3
Little or None(3)	2	0	15	6	23
Not Stated (0)	0	0	2	0	2
Total	2	4	18	6	30

## Problem No. 12

## Adapting the Course to Local Conditions and Needs

		Major				
		(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(3)	11	2	2	7	22
Somewhat	(2)	3	4	0	5	12
Little or None	(1)	1	0	1	0	2
Not Stated	(0)	0	0	0	0	0
Total		15	6	3	12	36

## Minor

		(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(2)	1	1	0	1	3
Somewhat	(3)	0	18	3	13	34
Little or None	(1)	0	2	5	7	14
Not Stated	(0)	0	2	0	0	2
Total		1	23	8	21	53

## Incidental

		(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable	(1)	0	1	0	0	1
Somewhat	(2)	0	3	0	0	3
Little or None	(3)	2	1	27	7	37
Not Stated	(0)	0	0	0	0	0
Total		2	5	27	7	41



## Problem No. 13

## Securing Suitable Equipment and Physical Needs for the Room

		Major				
		(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(3)	20	5	1	11	37
Somewhat	(2)	0	3	2	3	8
Little or None	(1)	0	0	1	2	3
Not Stated	(0)	1	0	0	0	1
Total		21	8	4	16	49

## Minor

		(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable	(2)	0	0	0	0	0
Somewhat	(3)	1	12	2	9	24
Little or None	(1)	2	2	3	5	17
Not Stated	(0)	1	0	1	0	2
Total		4	14	11	14	43

## Incidental

		(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable	(1)	0	0	0	0	0
Somewhat	(2)	0	1	0	1	2
Little or None	(3)	0	1	30	7	38
Not Stated	(0)	0	0	0	0	0
Total		0	2	30	8	40

## Problem No. 14

## Caring for Individual Differences

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	34	5	1	14	54
Somewhat (2)	10	6	2	1	19
Little or None(1)	2	0	0	0	2
Not Stated (0)	2	1	0	0	3
Total	48	12	3	15	78

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	1	0	
Somewhat (3)	7	17	2	7	33
Little or None(1)	0	2	3	2	7
Not Stated (0)	1	3	0	0	4
Total	8	23	5	11	47

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	2	1	0	1	4
Little or None(3)	0	1	6	3	10
Not Stated (0)	0	0	1	0	1
Total	2	2	7	4	15

## Problem No. 15

## Determining the Amount of Work to be Covered Each Semester

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	13	4	1	5	23
Somewhat (2)	0	6	2	4	12
Little or None(1)	0	1	1	0	2
Not Stated (0)	2	0	0	0	2
Total	15	11	4	9	39

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	0	0	
Somewhat (3)	1	20	1	14	36
Little or None(1)	2	1	6	9	18
Not Stated (0)	0	1	0	0	1
Total	3	22	7	23	55

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	2	0	1	3
Little or None(3)	0	0	24	10	34
Not Stated (0)	0	0	1	0	1
Total	0	2	25	11	38

## Problem No. 16

## Aiding the Students to Avoid Plateaus

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	46	4	0	11	61
Somewhat (2)	4	7	1	3	15
Little or None(1)	0	0	0	1	1
Not Stated (0)	6	0	0	0	6
Total	56	11	1	15	83

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	1	0	1	
Somewhat (3)	3	14	0	10	27
Little or None(1)	0	0	1	2	3
Not Stated (0)	1	1	0	0	2
Total	5	15	2	12	34

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	0	0	0	0
Little or None(3)	1	1	10	1	13
Not Stated (0)	2	0	1	0	3
Total	3	1	11	1	16

## Problem No. 17

Providing Procedures for Securing Effective  
Motivation or Stimulation

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	23	2	0	9	34
Somewhat (2)	4	8	0	4	16
Little or None(1)	0	0	1	0	1
Not Stated (0)	0	0	1	0	1
Total	27	10	2	13	52

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	0	0	
Somewhat (3)	9	24	1	13	47
Little or None(1)	0	2	1	2	5
Not Stated (0)	0	2	0	0	2
Total	9	28	2	15	54

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	1	0	0	1
Little or None(3)	0	2	12	4	18
Not Stated (0)	0	0	1	0	1
Total	0	3	13	4	20

## Problem No. 18

## Handling Disciplinary Problems

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	1	0	0	0	1
Somewhat (2)	0	0	0	0	0
Little or None(1)	0	0	0	0	0
Not Stated (0)	0	0	0	0	0
Total	1	0	0	0	1

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	0	0	
Somewhat (3)	1	6	2	2	11
Little or None(1)	0	1	13	5	19
Not Stated (0)	0	0	0	0	0
Total	1	7	15	7	30

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	0	0	1	1
Little or None(3)	0	2	75	11	88
Not Stated (0)	0	0	9	0	9
Total	0	2	84	12	98

Problem No. 19  
Selecting the Typewriting Text

Major					
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	3	2	8	9	22
Somewhat (2)	0	2	4	3	9
Little or None(1)	0	0	0	1	1
Not Stated (0)	0	0	1	0	1
Total	3	4	13	13	33

Minor					
	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	0	0	0	0	0
Somewhat (3)	0	5	5	6	16
Little or None(1)	0	1	4	6	11
Not Stated (0)	0	0	0	0	0
Total	-	6	9	12	27

Incidental					
	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	1	1
Somewhat (2)	0	0	0	0	0
Little or None(3)	0	0	42	7	49
Not Stated (0)	0	0	3	0	3
Total	0	0	45	8	53

## Problem No. 20

## Caring for Students Who Are Physically Handicapped

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	2	2	4	4	12
Somewhat (2)	0	0	0	0	0
Little or None(1)	0	2	1	0	3
Not Stated (0)	0	0	0	0	0
Total	2	4	5	4	15

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	0	1	
Somewhat (3)	0	4	3	4	11
Little or None(1)	1	0	11	5	17
Not Stated (0)	0	4	0	0	4
Total	1	8	15	9	33

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	1	1	1	3
Little or None(3)	0	1	52	8	61
Not Stated (0)	0	0	9	0	9
Total	0	2	62	9	73



## Problem No. 21

Providing Supplementary Material for the Development of  
Typewriting Skill Necessary for Skill in Transcription

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	15	4	1	3	23
Somewhat (2)	1	4	0	1	6
Little or None(1)	1	0	1	0	2
Not Stated (0)	2	0	0	0	2
Total	19	8	2	4	33

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	2	0	
Somewhat (3)	8	14	0	10	32
Little or None(1)	0	0	4	3	7
Not Stated (0)	1	3	1	0	5
Total	9	19	5	13	46

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	0	1	0	1
Little or None(3)	0	1	31	8	40
Not Stated (0)	0	0	2	0	2
Total	0	1	34	8	43

## Problem No. 22

Providing Supplementary Material for Students  
of More Mature Years

	Major				Total
	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	
Considerable (3)	10	2	3	4	19
Somewhat (2)	0	3	0	2	5
Little or None(1)	1	0	2	0	3
Not Stated (0)	0	0	0	0	0
Total	11	5	5	6	27

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
	Considerable (2)	0	1	0	
Somewhat (3)	1	12	2	6	21
Little or None(1)	0	5	2	3	10
Not Stated (0)	2	5	0	0	7
Total	3	23	4	9	39

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
	Considerable (1)	0	0	0	
Somewhat (2)	0	0	0	0	0
Little or None(3)	1	0	42	8	51
Not Stated (0)	1	0	2	0	3
Total	2	0	44	8	54

## Problem No. 23

Determining Criteria for Measuring One's  
Own Work as a Teacher

## Major

	(3) Frequent	(2) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (3)	40	7	1	20	68
Somewhat (2)	7	8	1	6	22
Little or None(1)	0	1	1	0	2
Not Stated (0)	1	0	0	0	1
Total	48	16	3	26	93

## Minor

	(2) Frequent	(3) Occas.	(1) Infreq.	(0) Not St.	Total
Considerable (2)	1	0	0	0	1
Somewhat (3)	1	19	3	7	30
Little or None(1)	0	1	1	0	2
Not Stated (0)	0	1	0	0	1
Total	2	21	4	7	34

## Incidental

	(1) Frequent	(2) Occas.	(3) Infreq.	(0) Not St.	Total
Considerable (1)	0	0	0	0	0
Somewhat (2)	0	1	0	0	1
Little or None(3)	0	0	5	1	6
Not Stated (0)	0	0	0	0	0
Total	0	1	5	1	7

Typist:  
Florence Lackey  
Stillwater, Oklahoma

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