

A COMPARATIVE SURVEY OF VOCATIONAL TYPEWRITING
IN THE HIGH SCHOOLS OF CANADA

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Alberta Lucille Pybus

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ABSTRACT OF THESIS

Purpose. The purpose of this study was to survey vocational typewriting, including office practice, in the various provinces of Canada under the headings of general information, objectives, content, final measurement and the link between teachers and employers; to make a comparison from province to province and to make a further comparison with findings and recommendations in recent literature.

Sources of data. Information was obtained from a questionnaire sent to the director of curriculum in each province, from letters from directors of curriculum, from course outlines in each province, from prescribed texts, and from departmental examinations where such could be obtained. The description of the course in each province was submitted to the director of curriculum, for correction of any possible misinterpretations or errors as to facts, before being incorporated into the report.

Conclusions. It was concluded that, regarding length of course, combination of typewriting and office practice, objectives, and content, there was considerable similarity

in the various provinces and between the provinces and recommendations from the literature. In the fields of measurement and the link between teachers and employers, however, while there was considerable similarity among the provinces, there was considerable dissimilarity with recommendations in literature.

Specifically, these conclusions were reached:

- (1) that the 3-year course is appropriate, especially if some applied typing and transcription is combined with typing,
- (2) that applied typewriting, or practice in solving typing problems should be, and is, part of the course,
- (3) that the major objective whether stated or implied, should be, and is, to develop sufficient skill for students to secure and hold beginning office positions, and to advance in these positions,
- (4) that in regard to office practice, objectives and measurement tend to stress factual knowledge and typewriting skill rather than understandings and personal development,
- (5) that weaknesses in the field of personal development may be due to lack of time devoted to this portion of the course, and to the difficulty of measurement in this area,
- (6) that

measurement tends to cling to scores in net words per minute on straight-copy typing rather than to suggestions from research that measurement of vocational typewriting should be in terms of mailable words per minute in the various areas of production typewriting, or in mailable items completed on an hourly basis, (7) that where final measurement is made in terms of words per minute for certain areas of typewriting or items completed per hour, only typing skill is measured, whereas the literature indicates that as many as possible of the non-typing but associated activities ought to be measured by being included in the timing period, (8) that a certain link between teachers and employers is evidenced by the existence of advisory committees whose membership includes both teachers and employers, (9) that the existence of commercial teachers' associations forms a basis for co-operation with associations of employers such as NOMA and Personnel Associations.

Recommendations. The study gave rise to these recommendations: (1) that more attention should be given to personality development in most provinces, (2) that

information concerning films and film strips should be included in course outlines, (3) that consideration should be given to instituting a co-operative school and office experience program, and (4) that teachers and employers should work together to develop examinations which would give scores which would be meaningful and useful to both teachers and employers. Such examinations should give not just one score but separate scores in mailable words per minute for such areas of typewriting as letters with carbon copies and envelopes, tabulations with carbon copies, business forms and fill-ins with carbon copies where required, and should give point scores on understanding of purposes and procedures of office practice and point scores on personal characteristics. The separate scores would enable teachers to note individual strengths and weaknesses, and assist teachers in providing remedial assistance to students, and would enable employers to select the most suitable applicant for a particular position.

CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS

THE PROBLEM

Statement of the Problem. This study was designed: (1) to present and analyze the high school vocational typewriting course in each Canadian province in terms of general information, objectives, content, measurement, and liaison between teachers and employers; (2) to make comparisons of the course as offered in the different provinces; (3) to draw conclusions regarding the agreement or disagreement of current practices in Canada with practices recommended in the literature on vocational typewriting; and (4) to make recommendations in those areas in which this study may indicate that current practices are in disagreement with recommended practices.

Reasons for Selecting this Problem. This problem was selected because: (1) a survey of titles of theses accepted by Canadian Universities since 1933^{1, 2} indicated

¹Willard Brehaut, "A Quarter Century of Educational Research in Canada", (Ph. D. dissertation, University of Toronto, 1958).

²Willard Brehaut, Canadian Education, (Official

that a study similar to the present one had not previously been reported; (2) enrollment is increasing each year in the high school business education programme; and (3) the writer wished to discover whether courses in vocational typewriting are making use of the research findings reported during the many years in which a complete course in typewriting has been offered in Canada.

Sources of Material. The sources of material for this study included: the course outlines in authorized governmental publications in the various provinces; the texts, prescribed or approved in the different provinces; copies of recent Departmental Grade XII Typewriting examinations; answers to a questionnaire sent to the director of curriculum in each province; letters from the directors of curriculum; NOMA (National Office Management Association) statistics, as well as Federal Civil Service statistics; and findings reported or described in recent literature on vocational typewriting.

Publication of the Canadian Education Association, Toronto: June 1960, Vol. 15, No. 3), pp. 41-84.

Delimitations. This study was limited to a consideration of the vocational typewriting course and did not concern itself with the typewriting option of the general course. The study was also limited to the courses which were predominantly typewriting courses, even if otherwise designated in certain provinces. Shorthand transcription classes were omitted from the study although they do give some practice in typewriting. The study was further limited to vocational typewriting in the public high schools and did not include typewriting in privately owned and operated commercial schools. Finally, the study was limited to a consideration of vocational typewriting under the headings of: (1) general information concerning the course in each province; (2) objectives of the course; (3) content of the course; (4) measurement at the conclusion of the course; and (5) liaison between teachers and employers.

DEFINITIONS OF TERMS

Comparative Study. "Comparative study" is used to indicate a study made of certain aspects of a prescribed course in each province, a comparison of these aspects from

province to province, and a comparison with findings in recent literature.

Vocational Typewriting. This term is used to refer to the typewriting courses of the vocational business education programme which is designed to prepare students to secure beginning office positions and to advance in these positions. Because the clerical practice, secretarial practice and office practice courses offered in certain provinces are so closely associated with typewriting, these courses were included in the term, "vocational typewriting". In other words, vocational typewriting includes typewriting and office practice or a similar practice course.

Typewriting and Typing. The terms "typewriting" and "typing" are used synonymously in this study, just as they are used synonymously in the titles of the two typewriting texts most commonly used in Canada, Gregg Typing, and 20th Century Typewriting.

NWAM and nwpm. "NWAM" and "nwpm" are used interchangeably to refer to Net Words A Minute and net words per minute respectively. These abbreviations refer to

scores quoted for straight-copy speed tests in which a ten-word penalty per error is applied.

Production Typewriting. "Production typewriting" refers to problem-solving activities which require the typist, working within time limitations, to complete such tasks as the following:

1. to read, interpret, and follow instructions,
2. to assemble needed paper, insert it into the typewriter, remove it from the typewriter, and dispose of it as directed,
3. to make whatever computations are necessary,
4. to type as directed,
5. to prepare carbon copies as required,
6. to proofread all typewritten copy and correct occurrent errors,
7. to consult references.

Production Rate. "Production rate" indicates the speed of a typist, in words a minute, on tests of production typewriting competence. Production rate is determined by totalling the number of strokes typed during the entire testing period. The total-stroke count is then divided by five to determine the number of words typed. An error penalty of fifteen words (ten for the ribbon copy and five for the carbon copy) for each uncorrected error is subtracted from the total number of words in order to ascertain

the net words typed. The number of net words typed is divided by the total number of minutes in the timing period so that the net-rate-a-minute score may be determined. This score is referred to as the Net Production Rate A Minute or N-PRAM.

Complete Course in Typewriting. This is a term used arbitrarily to describe a typewriting course which was considered by directors of curriculum to constitute a complete course.

An Area of Typewriting. This term is used to include typing tasks which bear similarities as to content or method of typing. The content of typewriting texts can be organized into six general areas of typing as follows:

- (1) speed and accuracy
- (2) letters
- (3) tabulations
- (4) business forms and fill-ins, including legal documents
- (5) manuscripts
- (6) rough drafts

Item of Typewriting. This term is used to refer to a single typing task, such as one letter, one invoice, one tabulation.

Correctible Error. This term refers to an inaccuracy which can be corrected by the typist, thereby changing the status of an item from "not mailable" to "mailable".

Incorrectible Error. This term is used to refer to the type of error which renders an item of typing "not mailable" and which disallows a change of status from "not mailable" to "mailable" except by the retyping of the item. Incorrectible errors call for disqualification of the item, and a score of zero strokes on the item.

Good judgment must be exercised in regard to errors pertaining to instructions. Where deviations from instructions occur, but where an item is otherwise mailable, it is advisable to charge against the word-count a fifteen-word penalty for each deviation from instructions rather than to disqualify the item. Most offices would accept an errorless item even though it deviated in form from that usually followed in the office.

Measurement. "Measurement" is used in this study to refer to the measurement of vocational typewriting proficiency

at the conclusion of the two-, three-, or four-year course as prescribed in the various provinces. In particular, the term measurement is used to refer to the type of final examination administered at the conclusion of the course.

NOMA. The term "NOMA" refers to the National Office Management Association which has chapters in most of the larger cities in Canada and the United States of America.

Summary

The purpose of this study was to make a comparison of certain aspects of vocational typewriting from province to province in Canada, and to draw conclusions regarding the agreement or disagreement of current practices in Canada with practices recommended in the literature on vocational typewriting. The sources of material included course outlines in governmental publications, texts, recent final Departmental examinations, answers to a questionnaire sent to the director of curriculum in each province, statistics from NOMA and Federal Civil Service, and findings in recent literature. The study was limited to a consideration of typewriting and office practice in the vocational course of the public high schools.

Literature, relevant to this study, is reviewed in Chapter II.

CHAPTER II

REVIEW OF THE LITERATURE

The literature on typewriting was reviewed in order to secure findings and expert opinion having reference to: general information, objectives, content, measurement, and liaison between the teacher and the employer.

General Information

General information was sought on prognosis and criterion of success, use of television, scheduling of typewriting classes, and length of the course.

Prediction of Success. In 1949, Lessenberry¹ summarized the research on prediction of success done by several of his contemporaries and concluded that no single measure or combination of measures had proved reliable and that research must continue. He suggested that the first step might be to discover the factors which must be present for successful typing and that, of these factors, interest

¹ D. D. Lessenberry, "Methods of Teaching Typewriting", (Cincinnati: South-Western Publishing Co., Monograph Number 71, 1949).

might probably be the chief factor.

In the various studies pertaining to prognosis which were reviewed by Lessenberry, the criterion for measuring success in typewriting appeared to play a significant role. Those studies using the speed test as the criterion showed no correlation with intelligence but those studies using production typing as the criterion consistently showed a positive correlation with intelligence. Lessenberry's study pointed out the need for making a decision concerning the criterion to be used for measuring success in typewriting. The various methods used to measure achievement in vocational typewriting in Canada will indicate that such a decision has not yet been made.

Stroop² summarized research conclusions to 1954.

Regarding prognosis, Stroop concluded that all pupils who are anxious to learn to type should be allowed to do so, and that those possessing high achievement records in other subjects, high intelligence, and a superior eye span should

² Christina Stroop, "Research Conclusions for Teaching Typewriting", The Journal of Business Education, (May, 1954), pp. 333, 334.

be expected to do better work in typewriting than pupils who do not possess these factors.

Use of Television. An investigation into the effectiveness of television as a medium of learning typewriting was reported in 1956 by Pasewark. He concluded that:

- (1) telestudents' typewriting performance on a timed writing test at the conclusion of the course was superior to the conventional students' performance on an identical test,
- (2) telestudents' pattern of learning to typewrite tended to be similar to the conventional students' pattern of learning to typewrite, and
- (3) there is no significant difference in telestudents' and conventional students' ability to use typewriting skills to complete a production test at the end of the course.³

Some of the findings of the preceding study were substantiated and some were qualified by a study made by T. James Crawford, and reported in 1960. The purpose of this investigation was to determine the effect of television on

³ William Robert Pasewark, "The Effectiveness of Television as a Medium of Learning Typewriting", (Abstract of Ph.D. dissertation, New York University, 1957), The Journal of Business Education, (January, 1958), p. 174.

(a) the students, (b) the teacher, and (c) student performance.

Of the fourteen findings pertaining to the effects on the students, five were these: students learned to type well, whether they learned by television at home or in a regular classroom; television commanded attention--at first; many students showed evidence of resentment and frustration because the pace of television was too rapid for them; techniques were not so well developed by television as by personal contact of the teacher; adults evidenced more "staying power" than the younger students.

Of the eight findings pertaining to effects on the teacher the following two seemed most important: teacher presentations were improved by the quality and quantity of visual aids possible through television; and the successful methods of the television teacher were popularized to a large body of regular teachers.

Of the seven findings regarding effects on student performance, two important ones were: television students learned to type well but techniques were not well developed; television students' scores compared favorably with, though

were not as high as, those attained in the regular classroom.

A general summary of the investigation was that,

television instruction cannot be considered a substitute for superior classroom teaching by an individual; however, televised instruction can be superior to mediocre classroom performance by mildly interested teachers.⁴

The increasing use of television made the inclusion of these two studies significant, although television is not yet widely used in vocational typewriting in Canada.

Scheduling of Typewriting Classes. Yuen, in 1959, reported his study of the effects of variable scheduling on achievement of typewriting skill. He hypothesized that a scheduling pattern different from the widely used single-period-per-day, five-days-per-week scheduling pattern might result in superior straight-copy speed and accuracy and superior typewriting skill. He also assumed that one of the double-period scheduling groups would be more accurate and slightly faster than the other variably scheduled groups. The conclusions reached are summarized as follows: (1) none

⁴T. James Crawford, "Teaching Typewriting by Television", The Balance Sheet, (February, 1960), pp. 244-246, 253.

of the experimental groups was able to exceed the performance standards reported in other studies, (2) the double-period groups did not exceed the performance of the other variable scheduling patterns in this study, and (3) the overall effect of variable scheduling on the achievement of typewriting skill seems to be more accurate, but slower typing.⁵

Yuen's findings are important to a survey of vocational typewriting in Canada because scheduling of subjects and classes is one of the major tasks of school administrators.

Length of the Typewriting Course. The achievement of second-year typists was studied by McCoy and reported in 1959.

The most significant findings were:

The straight-copy typewriting proficiency of approximately 80 per cent of the students is still below the speed and accuracy standards for beginning employment.

Production typewriting standards are quite nebulous. However, at the end of the second year of instruction in typewriting, it appears that most students do not possess production-

⁵Jack Yuen, "The Effects of Variable Scheduling on the Achievement of Typewriting Skill", (Abstract of Ed.D. dissertation, Stanford University, 1959), Dissertation Abstracts, (Vol. XX, No. 8), p. 3138.

typewriting proficiency equivalent to employment standards for beginning typists.⁶

The findings in this study are important to persons who plan the length of a typewriting course. Typewriting courses in Canadian high schools vary from two to four years in length. According to the findings in McCoy's study a vocational typewriting course should be longer than two years of the high school programme.

Objectives

The study by Stroop⁷ stated the broad objectives of typewriting to be development of (1) a marketable skill, and (2) a personal commodity. Stroop pointed out that the objectives found in research studies seemed to be vague and scarce. Of seventy-nine studies directly related to typewriting which she investigated, only two gave statements of objectives, and these emphasized the development of skill in operating the

⁶Carl McCoy, "A Study of Achievement in Second-Year Typewriting", (Abstract of Ed.D. dissertation, University of Oklahoma, 1959), Dissertation Abstracts, (Vol. XX, No. 3), pp. 961, 962.

⁷Stroop, op. cit., 333.

typewriter. Stoop recommended that the objectives of developing proper work habits, pleasing personalities, and a better understanding of business should be added to the list.⁸

In 1956 Crawford reported an investigation into a comparison of emphasizing production typewriting contrasted with speed typewriting in developing production typewriting ability. This study stated that the specific objective of vocational typewriting is proficiency in production typewriting. The specific objectives listed in some of the Canadian course outlines sometimes obscure or ignore this objective.

Crawford's study also contained two implications concerning objectives in two of its recommendations which are summarized as follows: (1) production typewriting should be interpreted in a broad and all-inclusive form; and (2) a teaching method which emphasizes efficient production techniques and procedures rather than speed building is preferred.⁹

⁸Stoop, op. cit., p. 334.

⁹Thomas James Crawford, "The Effect of Emphasizing

Crawford's study is important in a survey of vocational typewriting in Canada, because it indicates the change from the specific objective of a speed in net words per minute on straight-copy speed tests, which dominated the typewriting course for many years, to the specific objective of recent years pertaining to quality and quantity of production typewriting.

Russon and Wanous, in Philosophy and Psychology of Teaching Typewriting, summarize the general objectives of typewriting, by quoting the "ideal aims" suggested by Lomax et al.

The pupil should desire to develop and hold:

1. To a critical attitude in judging his own work and in taking pride in work well done.
2. To the ideals of accuracy and speed; of neatness, good arrangement, and thoroughness in all his work--that is, the ideal of systematic working habits.
3. To the ideal of good appearance of his person and his working surroundings.
4. To the ideal of co-operation, courtesy,

Production Typewriting Contrasted with Speed Typewriting in Developing Production Typewriting Ability", (Ph.D. dissertation, University of Pittsburgh, 1956), p. 194.

dependability, self-reliance, loyalty, and sense of responsibility.

5. To the ideal of self-improvement.¹⁰

In the matter of determining the specific objectives of typewriting, Russon and Wanous point out that the preferred method is to list the typing duties that are common to most of the office typing jobs, and then to discover whether the course set forth is adequate to develop student competence in these duties. Here, they show that typing tasks in offices have not changed much in the past thirty years. They made a comparison of two lists of typing duties, one compiled in 1924 by Charters and Whitley, and the other compiled in 1956 by Mulkerne, and found the two lists to be almost identical. The two lists are shown on the following pages. Russon and Wanous further point out that during the past thirty years most schools have attempted to incorporate these duties into their courses through the use of texts

¹⁰Allien R. Russon and S. J. Wanous, Philosophy and Psychology of Teaching Typewriting, (Cincinnati: South-Western Publishing Company, 1960) p. 33, citing the work of Paul S. Lomax, Helen Reynolds, and Margaret Ely, Problems of Teaching Typewriting, (New York: Prentice-Hall, Inc., 1935).

which include these tasks, and that the goals set for vocational typewriting are very similar throughout the United States.

The Thirty Most Frequently Performed Typing Duties taken from a study by Charters and Whitley, reported in 1924.

1. Type letters
2. Address envelopes, packages, etc.
3. Insert letters in envelopes
4. Fold letters
5. Compose letters
6. Clean and oil typewriters
7. Mark, attach, or get enclosures
8. Type telegrams
9. Type reports
10. Type memoranda
11. Type lists
12. Type notices
13. Type cards used in filing
14. Type articles
15. Type recommendations
16. Type minutes
17. Type orders
18. Type copy for newspapers
19. Type bills
20. Type advertisements
21. Type contracts
22. Type expense accounts
23. Type checks
24. Type speeches
25. Type receipts
26. Punctuate articles, manuscripts, etc.
27. Type outlines
28. Compile one report from numerous small ones

29. Type requisitions
30. Cut stencils¹¹

Compilation of the Duties Mentioned in the Findings of the years 1940 - 1955.

Tasks required of office workers include the typing of:

1. Addresses on envelopes and packages
2. Letters and carbon copies
3. Cards used in filing
4. Form letters and fill-ins
5. Manuscripts, legal forms and specifications
6. Brief outlines, reports, and memorandums
7. Telegrams, radiograms, and cablegrams
8. Lists of various kinds
9. Notices
10. Magazine articles, speeches, and news releases
11. Recommendations and minutes of meetings
12. Orders, bills, advertisements, and contracts
13. Machine dictation
14. Tabular material
15. Material to be placed on ruled lines
16. Material to be placed in between ruled lines
17. Special characters not found on the keyboard
18. Requisitions, circulars, and estimates
19. Expense accounts, checks, and vouchers
20. Programs, applications, and property descriptions
21. Leases, by-laws, wills, deeds, and credit inquiries
22. Interviews, resolutions, claims, and case histories
23. Mortgage contracts and bills of sale
24. Decrees, surveys, sermons, plays, blueprints, and passports

¹¹Ibid., p. 34, citing the work of W. W. Charters and I. B. Whitley, Analysis of Secretarial Duties and Traits, (Baltimore: The Williams and Wilkins Company, 1924).

25. Profit and loss statements, balance sheets, worksheets, and trial balances
26. Bulletins, testimony, and articles of incorporation
27. Building specifications
28. Rough drafts
29. Tabulation work¹²

Russon and Wanous conclude their chapter, "Objectives of the Typewriting Course", by suggesting that schools should attempt to raise their standards to the level demanded of competent office workers according to a list of hourly production rates. A list of hourly production rates will be given later in this chapter under the heading of measurement.

Content

In 1951 The Canadian Research Committee on Practical Education published a report of a survey made with the co-operation of the National Office Management Association and the Canadian Chamber of Commerce. The main purpose of

¹²Ibid., p. 35, citing the work of Donald J. D. Mulkerne, "Levels and Competencies in Typewriting", Curriculum Patterns in Business Education. The American Business Education Yearbook (1956), pp. 61-62.

the survey was to discover which skills are actually used by employees and which skills ought to be taught in the schools. Other purposes were to ascertain areas in which employers felt training had been inadequate, and to learn what methods were used by employers to secure employees.

Regarding the skills required in offices, the data were divided in two ways, (1) the actual number of employees using certain skills were noted, then (2) the responses to a question asked of employers concerning what should be included in a commercial course besides typing and shorthand were listed. The results are tabulated as follows:

<u>Skills Used in Offices</u> ¹³ (percentage refers to employees)		<u>Skills Which Should be Taught</u> ¹⁴ (percentage refers to firms)	
Calculating machines	37%	Calculating machines	69%
Typewriting	27%	Bookkeeping by hand	59%
Filing	16%	Filing	58%
Bookkeeping by hand	14%	Transcribed machines	36%
Shorthand	12%	Bookkeeping machines	35%
Transcribing machines	3%	Telephone - switchboard	34%
Bookkeeping machines	3%	Office routine	12%
		Others--mainly reproducing and IBM Machines	4%

¹³A Report of the Canadian Research Committee on Practical Education, (206 Huron Street, Toronto, Canada, April, 1951), p. 8.

¹⁴Ibid., p. 10.

(The total per cent exceeds 100 because of multiple answers).

These two lists are quite similar, but on a percentage basis there is a wide margin between what should be included in a high school course and what will be required in an office. The two lists do, however, indicate the order of need and use for the various subjects in the business education programme and indicate that typewriting is considered to be an essential course.

Employers were asked to indicate in what respects they were seriously dissatisfied with the commercial skills, non-commercial basic skills, and personality or character of high school graduates. In the matter of commercial skills, forty-one per cent of the firms expressed no dissatisfaction, but in firms expressing dissatisfaction complaints pertained to incompetence in: shorthand, typewriting, bookkeeping, filing; and in use of calculating machines, transcribing machines, telephones, and switchboard.

Regarding non-commercial basic skills, again forty-one per cent of the firms indicated no dissatisfaction, but other firms levelled criticisms at: spelling, English, writing, and arithmetic.

In the areas of personality or character, one half of the firms expressed no serious dissatisfactions, but where dissatisfaction was expressed it concerned: lack of initiative, irresponsibility, and lack of interest.

This study indicated that the business education course and the typewriting course had content deficiencies which were being felt in the business offices. Findings from this Canadian study pertaining to employment practices will be presented later in this chapter, under the heading of the teacher and the employer.

Liguori¹⁵, in 1955, reported his study of the problems of women-office workers in obtaining and holding jobs. In regard to job finding, the employees reported difficulties in completing application blanks, being interviewed, handling references, and taking employment tests. Concerning job holding, the difficulties centred around problems related to job skills, attitude toward work, personal relationships, personal qualities, and office

¹⁵Frank Edward Liguori, "Problems of Beginning Office Workers", (Abstract of Ph.D. dissertation, University of Pittsburgh, 1955), Dissertation Abstracts, (Vol. XVI, No. 1), p. 47.

environmental conditions.

Liguori recommended establishment of closer co-operation between business and education for the purpose of providing realistic instruction and practice in various phases of job getting and job holding. He further recommended that high schools consider modifying course offerings to include instruction in personality development and good grooming. Liguori's work shows the inadequacy of courses in which typing speed dominates course content.

A valuable study in regard to course content was reported by Lanham in 1956. The purpose of the investigation was to evaluate the co-operative business occupations programme, a combination of school and office experience, as practised in Midland (Michigan) High School. Lanham stated the value of the investigation to be, "promise of an added programme to implement secondary school curriculum experiences to meet the needs of an increasing number of enrolled pupils".¹⁶

¹⁶Frank Wesley Lanham, "A Field Investigation of the Co-operative Business Educations Program in the Midland (Michigan) High School", (Abstract of Ph.D. dissertation, University of Michigan, 1956). Dissertation Abstracts, (Vol. XVII, No. 1), p. 6.

Lanham hoped to find evidence to support three hypotheses:

1. co-operative business education is a school program applicable to groups of pupils possessing a wide range of differing abilities;
2. the experiences obtained meet important growth and developmental needs of pupils enrolled in the program; and
3. co-operative experience can be applied without compromising other educationally sound objectives.¹⁷

On the basis of the evidence obtained, all three hypotheses were validated. The greatest observed changes in pupils were in the areas of (1) personal relations with other people, (2) development of poise and confidence, and (3) development of wholesome job attitudes. Lanham recommended that the co-operative school and office experience programme be included in the high school business education course. A survey of vocational typewriting in Canada should indicate the extent to which the co-operative programme is stressed in Canada.

Crawford's¹⁸ report of his findings on the superiority

¹⁷Ibid.

¹⁸Crawford, op. cit., p. 195.

of stressing production typing contained an important implication for course content in his recommendation that course content should include instruction in many nontyping but associated areas.

In 1959 Shepherd reported his investigation into an appraisal of business education through job competence. This report contained two implications of importance to the present study: (1) a recommendation that a course in human relations should be part of the curriculum, and (2) a recommendation that different typing speeds might be required in different courses.¹⁹

Measurement

The Stroop study,²⁰ referred to under the headings of general information and objectives, contained an implication in regard to measurement. Stroop quoted fifty words

¹⁹Reginald William Shepherd, "Job Competence--An Approach to the Appraisal of Business Education", (Abstract of Ed. D. dissertation, Stanford University, 1959), Dissertation Abstracts, (Vol. XIX, No.12, June, 1959), p.3239.

²⁰Stroop, op. cit. p. 334.

per minute on straight-copy typing as the requirement of business, but added that the businessman's criterion for judging accuracy of typewritten work is mailability. Here again is the problem of criterion, the speed test or the production test.

Tonne answers the question of criterion in discussing standards in business education. He says:

Two types of standards concern business teachers-- learning and job-placement standards. The problem that business teachers have perennially faced in dealing with, and evaluating their achievements by these standards is because of the confusion between the two types. While one is not only desirable but also necessary in learning the basic business-education skills, it is often most disastrous and, in any case, completely useless when applied to job placement. This is a basic truth which most business teachers do not realize, or at least do not practise. Unfortunately, it is perpetuated in the methods they learn in many teacher training institutions.²¹

Later Tonne says:

For learning purposes, classroom standards may serve better than job standards; but when the student looks for a job, he should be aware that he will have to meet job standards.... Moreover, teachers should talk to the businessmen about a student's ability in terms

²¹Herbert A. Tonne, Principles of Business Education, (Toronto: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1954), p. 158.

of learning or classroom standards.... The business man wants an adequate amount of production of mailable letters from the typist and stenographer.²²

The distinction between classroom standards and vocational standards is made more obvious when Tonne writes:

SCHOOL STANDARDS FOR TYPING

What, then, can we conceive as being good school and job criteria? ... Definitive studies have not been made to prove, in a final sense, that the objective of typing a certain number of words, and of taking dictation, per minute is the best measure of school learning. Nevertheless, the concensus of experienced and competent teachers of the clerical skills seems to be that setting up a definite goal of words a minute in shorthand and typing is the most effective means of motivating learning....

JOB STANDARDS FOR TYPING

On some jobs, the number of strokes written a day is the basis for minimum salary and for bonuses; however, this is unusual. The work of the competent typist on the job is generally measured by the number of usable pages of typed material produced.²³

The preceding quotations from Tonne indicate that vocational competence should be judged by the amount of

²²Ibid., p. 162.

²³Ibid., pp. 164, 165.

mailable copy which a typist produces. The present study should disclose whether or not vocational competence in typewriting is measured in Canada by means of the amount of mailable copy which a typist produces.

In 1956 Balsley reported the results of her comprehensive study entitled, "The Validity of Some Methods of Measuring Straight-Copy Typing Skill". Concerning the net-words-per-minute scoring method, Balsley said, "'Net words per minute' still remains the most commonly used basis for measuring the level of performance on straight-copy typing, even though its validity as a measuring device has been doubted for many years."²⁴ In giving her appraisal of the net-words-per-minute scoring method Balsley said:

Summarizing, it has been explained that the nwpm scoring system is not a valid method of evaluating typing skill because:

²⁴Irol Balsley, "The Validity of Some Methods of Measuring Straight-Copy Typing Skill", (Department of Research, School of Business Administration, Louisiana Polytechnic Institute, Ruston, Louisiana, November, 1956), p. 11.

1. The system assumes incorrectly that the faster a person types, the more quickly he makes corrections.

2. The system assumes incorrectly that the amount of time needed to make a correction is the same regardless of the amount of training a typist has had and regardless of whether one or more copies are being made.

3. The system is usually used with a set maximum of errors permitted for a writing to qualify. This setting of an error limit on a time basis rather than a strokes-typed basis may result in the disqualification of papers that actually are better performances than other papers.

4. The method tells in effect how many words a person typed without error in a certain period of time--not how long it takes him to make a certain amount of copy mailable. In other words, the base for computation is different from that used in the office situation.

The conclusion may be reached, then, that the nwpm scoring method is not valid for measuring accurately and completely basic typing skill.²⁵

The significance of Balsley's study will become apparent when it is disclosed that accreditation in all Canadian provinces is based in part on a NWAM score obtained on a straight copy speed test.

²⁵Ibid., p. 15.

Shepherd's study²⁶ concluded among other things, that the degree of typing skill required of the general clerk is usually lower than that required of the stenographer and typist-clerk. This conclusion indicates that typing requirements should be different in the different courses. The present study should disclose whether or not typing speed requirements in Canada are adjusted to the various courses.

Crawford's investigation into a comparison of emphasizing production typewriting contrasted with speed typewriting in developing production typewriting ability was reported earlier in this chapter but certain recommendations from that study pertain to measurement and will be included at this point. Crawford recommended that, to realize maximum growth in production typewriting ability, a method of teaching emphasizing efficient production techniques and procedures rather than speed building be utilized. He stated that net stroking-rates (nwpm) may be seriously challenged as reliable indices of true typewriting ability.

²⁶Shepherd, loc. cit.

He further stated that teaching methods should include measurement of speed on tests requiring preparation of carbon copies and the correction of occurrent errors during the period of timing.²⁷

Russon and Wanous also mention speed tests on which errors are corrected during the timing period. In their discussion of goals of achievement they describe the various scoring methods used and the purposes of each.

Two such methods are quoted as follows:

Net Performance Rate (NPR). Net performance rate is the score obtained on a straight-copy timed writing when errors are erased. No penalty is charged for corrected errors, except for the time that is lost in erasing and correcting them. A penalty is, however, charged for uncorrected errors. It is usually higher than ten words an error. This method of rate calculation is frequently used in third- and fourth-semester classes. It is a more realistic method of determining a student's actual proficiency on straight-copy writing than the method which employs the net-words-a-minute formula.²⁸

Net Production Rate a Minute (N-PRAM). Net

²⁷Crawford, op. cit., pp. 194 - 196.

²⁸Russon and Wanous, op. cit., p. 38.

production rate a minute is the score obtained on production tests when errors are erased and corrected. A penalty is charged for all of a student's errors not erased and corrected by him. This method of scoring is used when the purpose of the writing is production measurement.²⁹

Russon and Wanous state that considerable use is made of a second method of measuring vocational competence on production tests, namely, the number of mailable items typed per hour.

Of the three types of scores, then, it appears that the net performance rate (NPR) gives a realistic score on straight-copy speed tests, while the net production rate a minute (N-PRAM), or the number of items typed per hour give realistic scores on production tests.

Appropriate speeds for NPR, N-PRAM, and items completed per hour are suggested by Russon and Wanous who are quoted as follows.

²⁹ Ibid., p. 40.

<u>NPR</u> (Net Performance Rate)	<u>Grade</u>
52 or more	A
47 - 51	B
40 - 46	C
35 - 39	D ³⁰

The rates are based on 10-minute writings.

The speeds quoted in N-PRAM in the following list are approximately Grade XI level but are quoted because no such detailed list was given for a more advanced level. Grade XII minimum passing rates would be higher. The N-PRAM scores quoted here are based on 20-minute writings.

Type of Copy	Minimum Passing Rate
Business letters with carbon and envelopes	23 N-PRAM
Business letters with special parts, carbons and envelopes	23 N-PRAM

³⁰Ibid., p.61, citing a recommendation made by D. D. Lessenberry, T. James Crawford, and Lawrence W. Erickson, Manual for 20th Century Typewriting (7th ed., Cincinnati: South-Western Publishing Company, 1957), p.110.

Telegrams, postal cards, invoice, and statement, multiple copies	10 N-PRAM
Manuscript copy, rough draft and straight copy, with footnote	16 N-PRAM
Tables, rough draft and straight copy, ruled and unruled	9 N-PRAM ³¹

The following list quotes hourly production rates but the writer could not ascertain whether they were based on one-hour tests or on short tests from which hourly rates were computed.

Typing Task	Hourly Production Rate
1. Form letters and envelopes	10
2. Addressing envelopes--3-line	150-225
3. Addressing envelopes--chain fed	200
4. Fill-ins--name, street, address, city, salutation	100-200
5. Salutation only	225
6. Business letters--20-line body with envelope	10

³¹Ibid., p. 66, citing speeds quoted by D. D. Lessenberry and S. J. Wanous, Manual for College Typewriting (6th ed., Cincinnati: South-Western Publishing Company, 1959), p. 35.

7. Stencils--8½ x 10 having 200 words	4-6
8. Articles	8-10 pages
9. Straight copy--60-space line, double	1000 lines per day
10. Ediphone and Dictaphone	124 lines or 1½ cylinders
11. Printed copy	200 lines
12. Transcribing stenographic notes	125 lines
13. Addresses or labels from printed copy	141
14. Ledger sheets	111 lines ³²

Russon and Wanous urge that standards should be used cautiously and as guides only because,

It is not known what type of equipment was used by operators who established these standards. It is not known in what form the copy from which the operators worked came to them. It is not known how much editing the copy required before it could be typed.³³

The literature on measurement indicates that emphasis

³²Ibid., p. 68, citing the work of Donald J. D. Mulkerne, "Levels and Competencies in Typewriting", Curriculum Patterns in Business Education, The American Business Education Yearbook (1956), p. 67.

³³Ibid.

has shifted from a score in nwpm to a score in NPR on straight-copy speed tests, but that a more realistic score is obtained from a score in N-PRAM or number of mailable items completed per hour on production tests.

The Teacher and the Employer

The Canadian survey³⁴ disclosed that the methods used by employers for securing employees included National Employment Service, Want Ads, Public High Schools, and Private Business Schools. Regardless of what method was used, thirty-five per cent of employers requested official school records and of these, seventy-seven per cent found them sufficiently informative. Fifty-five per cent of employers contacted schools for appraisal as to a candidate's personality, character and suitability for the position, and of these eighty-eight per cent reported that the information received was reliable. The report suggested that more firms take advantage of the service offered by schools, both as to official records and as to appraisal

³⁴A Report of the Canadian Research Committee on Practical Education, op. cit. pp. 2, 5, 13.

of character and personality.

The study by Liguori³⁵ recommended establishment of closer co-operation between business and education for the purpose of providing realistic instruction and practice in various phases of job getting and job holding. Liguori further recommended that high schools consider modifying the curriculum to include courses in personality development and grooming.

A job placement study by Kleiner was reported in 1959. The purpose of the study was to survey and appraise the job placement practices of vocational high schools of large cities in the United States. Two important conclusions reached were: (1) vocational schools tend to place their own graduates, even where the school system maintains a central placement service, or where the state employment service has a setup of close co-operation with the schools; and (2) the co-operative work-experience programme shows itself to be a

³⁵Liguori, loc. cit.

strong force in placement.³⁶

Summary

General Information. The literature indicates that the difficulty in prognosis hinges upon the criterion used to measure success in typewriting--the speed test, or the production test. Until that difficulty is resolved, prognostic measures may remain unreliable. Television may serve useful purposes in the teaching of typewriting in the future. The usual one-period-per-day, five-days-per-week appears to be the best scheduling programme. Two years is probably not long enough for a vocational typewriting course.

Objectives. Objectives should be clearly stated and should be of two types: general objectives pertaining to development of the individual in terms of attitudes, understandings, and personal relations; and specific objectives, pertaining to achievement in typewriting in terms

³⁶Julius Kleiner, "Job Placement in the Vocational High Schools: A Survey and an Appraisal of Job Placement Services in Vocational High Schools of Large Cities", (Abstract of Ed.D. dissertation, New York University, 1959), Dissertation Abstracts, (Vol. XV, No. 9), p. 3574.

of N-PRAM (Net Production Rate a Minute), or number of mailable items typed per hour. The problems of criterion to be used in measuring success is important in establishing objectives. The recent studies and articles assume that the ultimate goal of vocational typewriting is proficiency in production typing, and that objectives should be aimed toward this goal.

Content. A number of studies recommended that the content of the business education course include: instruction in personal appearance, personal relations, and job seeking and job holding; courses stipulating different minimum speed requirements for the different occupations; timed tests requiring correction of occurrent errors; and a co-operative work-experience programme.

Literature relating to this thesis topic indicates that typewriting is considered to be an essential course in business education and that the content should contain the typewriting tasks required of beginning office employees. These tasks have been incorporated into the textbooks which are used in schools, and the course content is similar



throughout the United States.

Measurement. Literature on measurement indicates that the NWAM scoring method is not valid for measuring success, and that the newer NPR (Net Performance Rate) would be the better score to use in connection with straight-copy typing. The literature, however, indicates that office standards would be preferable, and that these should be quoted in N-PRAM (Net Production Rate a Minute) or number of mailable items completed per hour.

The Teacher and the Employer. Several studies recommended closer co-operation between teachers and employers for the purpose of providing realistic instruction within the course itself and in the various phases of obtaining beginning office positions and advancing in these positions.

CHAPTER III

DESIGN OF THE STUDY

Following suggestions found in research texts, the writer proceeded to use these sources of data: (1) a questionnaire to the director of curriculum in each province; (2) replies to an explanatory letter accompanying the questionnaire; (3) course outlines from each province; (4) prescribed or approved texts in each province; (5) copies of final Departmental examinations from those provinces which administer such final examinations in typewriting; (6) NOMA (National Office Management Association) statistics, regarding the number of students in each province who wrote the NOMA Typewriting Test in 1960; and (7) Federal Civil Service statistics, regarding the number of students in each province who wrote the Federal Civil Service Typing Test in 1960. This chapter deals with the use made of these sources.

The Questionnaire

Origin and Scope. A questionnaire was developed and sent to the director of curriculum in each province. The names and addresses of the directors of curriculum were obtained through the office of the director of curriculum

in Manitoba. The purposes of the questionnaire were: (1) to obtain the names and addresses of sources of information concerning typewriting in each province; (2) to obtain the titles of texts most commonly used, if no texts were prescribed; (3) to ascertain the particular combination of typewriting and office practice; (4) to obtain information regarding the construction and scoring of final examinations; and (5) to learn something of the liaison between business educators and employers.

The Questions. Questions 1, 2, and 3 were designed to elicit information concerning the general plan of the business education programme in each province so that the place of typewriting within this programme could be determined.

1. The High School Commercial Course (Business Education Course) in this province is a 2-year or a 3-year course. 2-year___3-year___
2. The High School Commercial Course is prescribed by the Provincial Department of Education. Yes___No___
3. An outline of the course as prescribed may be obtained from

(Organization)

(Address)

necessary because the writer had prior knowledge that differences existed in the combination of typewriting and office practice courses offered in Canada.

9. "Office Practice" or "Secretarial Practice" is a part of the typewriting course. Yes ___ No ___
10. "Office Practice" or "Secretarial Practice" is an independent course, taught and evaluated as a course in itself. Yes ___ No ___
11. High School Typewriting is designated as a 3-year course but the third year is mainly a course in Office Practice or Secretarial Practice. Yes ___ No ___

Questions 12 and 13 were designed to indicate which provinces administer Departmental final examinations in typewriting and which provinces allow each school to administer its own examination and score its own papers.

12. Each school sets and marks its own examination at the conclusion of the High School Typewriting course. Yes ___ No ___
13. A Departmental examination is administered at the conclusion of the High School Typewriting course. Yes ___ No ___

Questions 14, 15, and 16 were intended to elicit information concerning the construction and scoring of final

examinations.

14. The Departmental examination is constructed by a committee or by one person. Committee ___ One person ___
15. The candidates' papers are marked in the home schools of the candidates by the candidates' classroom teachers. Yes ___ No ___
16. The candidates' papers are marked by a central committee of markers outside of the schools. Yes ___ No ___

Questions 17, 18, 19, 20, and 21 were included in order to obtain information concerning the content of the final examination in each province.

17. A speed test (administered and scored according to International Rules) is administered on the day of the final examination as part of the typewriting examination. Yes ___ No ___
18. A speed test of _____ type (other than as in 17) is given on the day of the final examination as part of the typewriting examination. Yes ___ No ___
19. The speed test (as either of above) is of 5, or 10 minutes. 5 min. ___ 10 min. ___
20. Each candidate must attain or exceed a minimum speed, on a speed test of some type, in order to receive a "passing" grade at the conclusion of the High School Typewriting course. Yes ___ No ___

21. The final Typewriting examination (conclusion of Typewriting course) consists entirely of production work. Yes___No___

Questions 22 and 23 were designed to elicit information concerning the basis for co-operation between teachers and employers. Question 22 stipulated "oftener than twice a year" because the Easter convention and local conventions could bring commercial teachers together twice a year without the existence of a bona fide association.

22. There is a local association of commercial teachers, which meets oftener than twice a year. Yes___No___
23. There is a local advisory committee on commercial education whose membership includes commercial teachers and business men. Yes___No___

The questionnaire was submitted to two educators for constructive criticism and was revised before being sent out.

The Explanatory Letter

An explanatory letter to accompany the questionnaire was composed for the purpose of indicating the nature and scope of the research in order to enlist the co-operation

of directors of curriculum in completing the questionnaire and supplying such additional information as might be useful. The letter explained that the purpose of the research was to make a comparative survey of vocational typewriting in the various provinces of Canada, and it asked for three things: the source of the course outlines; the completed questionnaire; and a copy of a recent final Departmental examination if such were available.

Tabulation of Answers to Questionnaire

A large master tabulation sheet was drawn up, and, in order to facilitate comparisons, the answers to the questionnaire were transferred to it under the names of the ten provinces. The answers were incorporated into the description of the course in each province under the planned headings of; general information, objectives, content, measurement, and the teacher and the employer. The information gleaned from the questionnaire was meagre compared to the information gleaned from course outlines and from texts, but it provided a very valuable check on interpretation of course outlines and also supplied information not obtained

from other sources.

Analysis of Course Outlines and Approved Texts

The course outlines and approved texts were analyzed to ascertain the particular combination of typewriting and office practice followed, and were further analyzed under the separate headings of typewriting and office practice.

Typewriting. The course outlines were analyzed to determine the length of the course, grade placement, the particular combination of typewriting and office practice, objectives, content, and the type of measurement employed at the conclusion of the course. The prescribed and approved typewriting texts were reviewed for the purpose of discovering whether the course in each province included work in the six major areas of typewriting and the common typewriting tasks suggested by Russon and Wanous. The six major areas of typewriting are: (1) speed and accuracy, (2) letters, (3) tabulations, (4) business forms and fill-ins, including legal documents, (5) manuscripts, and (6) rough drafts. The most common typewriting tasks, suggested by Russon and Wanous are listed in Chapter II.

Office Practice. The course outlines for office practice were analyzed in order to determine the length of the course, grade placement, objectives, content, and type of measurement employed. The prescribed and approved office practice texts were reviewed to ascertain details of the course content. The frame of reference used for making comparisons of course content was the course outline for the province of British Columbia. This outline lists the following units: (1) personality development, (2) office organization, (3) work of the receptionist, (4) business information and business practice, (5) filing, (6) the search for employment, (7) the operation of duplicating, adding, and calculating machines, and (8) related typewriting projects. The outline for British Columbia was used as the basis for making comparisons because it was given in detail, because it was Canadian, and because it included the thirty most frequent duties of general clerks as quoted by Tonne.¹ The outline of the office practice course for British Columbia will be found in Appendix B on page 148, and the list

¹Tonne, op. cit., p. 332.

of the most frequent duties of general clerks will be found in Appendix C, on page 155.

Provincial Department of Education Examinations

Provincial Department of Education examinations were analyzed under the headings of: speed test, production typewriting, and office practice. A detailed description of the 1960 Departmental examination was written and included in the description of the course in each province which administers a Departmental examination.

High School Student Statistics

NOMA Statistics. The office of the local chapter of NOMA was contacted with a request for information concerning the number of students in each province who wrote the NOMA Typewriting Test in 1960. These statistics were subsequently received from the head office of NOMA and will be found in the description of the course in each province.

Federal Civil Service Statistics. The writer contacted the local office of the Federal Civil Service Commission requesting information concerning the number of students in

each province who wrote the Federal Civil Service Typewriting Test in 1960. The local office submitted the statistics for Manitoba students, but was informed from Ottawa that similar statistics for the other provinces were not available.

Plan of Treatment of Data

Verification. A description of the vocational typewriting course as prescribed for 1960-61 in each province was written under the headings of: (1) general information, (2) objectives, (3) content, (4) final measurement, and (5) the teacher and the employer. The description of the course was sent to the director of curriculum of each province respectively asking for correction of any possible misinterpretations or errors as to facts. Where changes were suggested, these changes were made in the descriptions which are presented in Chapter IV.

Comparisons. Comparisons of practices in vocational typewriting were made interprovincially under the five headings used in the descriptions, and further comparisons were made between what is being done in the provinces and

what ought to be done according to recommendations made in the pertinent literature.

Conclusions. Conclusions were drawn from the data as to the agreement and disagreement of the high school vocational typewriting course in Canada with the recommendations made in the literature on vocational typewriting.

Recommendations. Recommendations were made in those areas in which this study indicated disagreement between current practices and practices recommended in the literature which was reviewed in Chapter II.

The comparisons, conclusions, and recommendations are presented in Chapter V.

SUMMARY

In order to assemble material for comparative purposes a questionnaire was drawn up, tested locally, revised, and then sent to the director of curriculum in each province. Copies of course outlines were obtained from all provinces and prescribed or approved texts in both typewriting

and office practice were secured. Final Departmental examinations were obtained from those provinces which administer such examinations. Completed questionnaires, course outlines, texts, and Departmental examinations were analyzed and a description of the course in each province was prepared. The respective description was submitted to the director of curriculum in each province for correction of any possible misinterpretations. A comparison of practices in vocational typewriting was made, and a further comparison was made between present practices and practices recommended in the pertinent literature. Conclusions were drawn regarding the areas which showed agreement or disagreement with recommendations made in the literature. Recommendations were made in those areas which showed disagreement between current practices and recommended practices. The data collected are presented in Chapter IV in the form of a description of the course in each province under the headings of: general information, objectives, content, measurement, and the teacher and the employer. These headings were again used in Chapter V when reporting comparisons, drawing conclusions, and making recommendations.

CHAPTER IV

PRESENTATION OF DATA

Courses in typewriting have been authorized in the provinces of Canada for many years. During this time expansion has led to the authorization of two courses, the vocational typewriting course and the typewriting option of the general course. The vocational typewriting course in each province is described in this chapter, beginning with British Columbia and progressing eastward.

BRITISH COLUMBIA

General Information. A complete course in typewriting has been authorized in British Columbia for almost fifty years, although the vocational course is a more recent development. The Department of Education has published a one hundred and eighteen-page booklet dealing with the division of the curriculum pertaining to commerce. The course in typewriting and the related practice courses (clerical practice, office practice, and secretarial practice) extend over three years. A choice of grade placement is offered but the usual placement of courses is:

<u>Grade X</u>	<u>Grade XI</u>	<u>Grade XII</u>
Typewriting	Typewriting and one of Clerical Practice or Secretarial Practice	Office Practice and Clerical Practice or Office Practice and Secretarial Practice

Objectives. In the commercial curriculum booklet the general objectives of the typewriting and related practice courses are clearly stated. The general objectives deal with development of the individual in terms of his attitudes, understandings and competences, and his place in the business world. Specific objectives in terms of net words per minute on straight-copy typing are stated, but specific objectives of production typing are not stated.

Content. The content for each of the courses in office practice, clerical practice, and secretarial practice is set out in units, covering twenty pages in the curriculum booklet. The texts prescribed for typewriting and office practice are:

Lessenberry, et al. 20th Century Typewriting, Seventh Edition. Cincinnati: South-Western Publishing Company, 1958.

Sparling, Allan E. Complete Course in Office Practice. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1951.

Measurement. Measurement in the typewriting portion of the clerical practice course and the secretarial practice course, at the Grade XII level, is on the basis of speed on straight-copy typewriting plus production typing. A ten-minute straight-copy speed test, of the type giving a score in net words per minute, is part of the final examination in each course. The speed test score is derived from an average of the best two out of four tests administered during one week early in June. A minimum speed of fifty nwpm is required in each course. A score of sixty nwpm receives a maximum mark in the advanced clerical course, and sixty-five nwpm receives a maximum mark in the advanced secretarial course. No specific indication is given as to the quality and quantity of production work expected, although the outline states that students must be required to meet the standards set by business for quality and quantity of production. There is a Departmental examination set and marked by a committee at the end of Grade XII in the clerical practice course and the secretarial practice course.

The August 1960 Departmental examination in secretarial practice was a 3-hour examination made up of

four parts.

Part A was composed of two ten-minute speed tests of the type which gives a score in nwpm. This part of the examination carried a point value of 50.

Part B consisted of five letters which were to be dictated at speeds from eighty wpm to one hundred ten wpm. The letters dictated at eighty and ninety wpm constituted the test for Grade XI students while the letters dictated at ninety, one hundred, and one hundred ten wpm constituted the test for Grade XII students. Forty-five minutes was the time allowed for the transcription of the letters. Part B had a point value of 100.

Part C was made up of two typing problems; a short tabulation, and a letter. The point value of Part C was 25.

Part D consisted of questions pertaining to office practice and included questions on filing, cutting stencils, arranging an itinerary, equating time in different time zones, proofreading, mailing, abbreviating, typing Roman numerals, folding letters, addressing envelopes, and typing letters. Part D had a point value of 25.

The total point value of the examination was 200.

The Teacher and the Employer. In British Columbia there is a commercial teachers' association which meets oftener than twice a year and there is a provincial advisory committee whose membership includes commercial teachers and business men. No students in British Columbia wrote the NOMA Typewriting Test in 1960.

ALBERTA

General Information. A complete course in typewriting has been authorized in Alberta for forty years. The Department of Education has published a thirty-two-page booklet entitled, Curriculum Guide for Business Education. The Curriculum Guide indicates that vocational typewriting is a three-year course of which Grade XII is the final year. Office practice is a separate course which includes typing in Grades XI and XII.

Objectives. In the Curriculum Guide, typewriting objectives are implied in descriptive terms rather than stated in definite terms. The implied objectives are specific, relating to achievement in typewriting, rather than to the broader objectives of attitudes and understandings. The lack

of stated general objectives for typewriting is partly offset by the fact that the general objectives pertaining to attitudes and understanding are included in the outline of the separate office practice course which is studied concurrently with the typewriting course in Grades XI and XII.

Content. The content of the courses in typewriting and office practice is set out in the prescribed texts.

The typewriting texts are:

Lessenberry et al. 20th Century Typewriting. Seventh Edition. Cincinnati: South-Western Publishing Company, Limited, 1958.

or

Rowe, John L. and Alan C. Lloyd. Gregg Typing. Second Edition, Complete Course. Toronto: Gregg Publishing Division, McGraw-Hill Book Co., Inc., 1958.

The texts for Office Practice 20 (Grade XI) are:

One of 1 and 2 and one of 3 and 4.

1. Sparling, Allan E. A Complete Course in Office Practice. Toronto: McGraw-Hill Book Company, Inc., 1951.
2. Agnew, Peter L. Typewriting Office Practice. Second Edition. E84. Cincinnati: South-Western Publishing Company, Limited.

3. Bassett-Agnew. Filing Office Practice Set. E981.
Cincinnati: South-Western Publishing Company,
Limited.
4. Smith, M. D. Canadian Filing Practice. Toronto:
Sir Isaac Pitman & Sons (Canada) Limited.

The texts for Office Practice 30 (Grade XII) are:

- (A) Agnew et al. Secretarial Office Practice. Fifth
Edition. E34. Cincinnati: South-Western Publishing
Company, Limited.

Workbook: To accompany the text.

OR

- (B) Gregg, John Robert et al. Applied Secretarial Practice.
Fourth Edition. Toronto: Gregg Publishing Division,
McGraw-Hill Book Company, Inc., 1957.

Handbook: To accompany the text.

Measurement. Measurement for final accreditation,
in Alberta, is based on three factors in these proportions:

Speed and accuracy	30% (straight copy)
Problem and production Work	60%
Work attitudes	10% ¹

The speed and accuracy score is determined from a scale

¹Alberta Senior High School Curriculum Guide for
Business Education. September, 1960, p. 30.

printed in the Guide. The scale indicates that the better of two five-minute tests is used for scoring purposes. A score of sixty gross words per minute with a maximum of three errors receives a top score, while a score of forty-five gross words per minute with a maximum of three errors is the minimum score which can receive a passing grade. No indication is given as to standards of quality or quantity of production work, nor is any indication given as to grading work attitudes. No Departmental examination is given in Grade XII typewriting, therefore each school sets its own examination and marks its own papers.

The Teacher and the Employer. There is no commercial teachers' association which meets oftener than twice a year, but there is a provincial advisory committee whose membership includes commercial teachers and business men. Thirty-one students in Alberta wrote the NOMA Typewriting Test in 1960.

SASKATCHEWAN

General Information. A complete course in typewriting has been authorized in Saskatchewan for twenty-five years.

The Department of Education published a one hundred nineteen-page booklet, A Guide to Technical and Vocational Courses for High School and Special Classes, in which twenty-one pages were devoted to commercial education.

Typewriting in Saskatchewan is a four-year course beginning in Grade IX, with Grade XII being the final year. In Grades XI and XII the course is listed in the Guide as, Typewriting and Office Practice. The Guide has this to say about the combination of typewriting and office practice:

"In Grades XI and XII the time required for typewriting has been increased by one hour in order to make allowance for units in office practice in each grade. The combining of typewriting and office practice should strengthen the work in the senior grades".²

No separate office practice course is offered.

Objectives. General objectives pertaining to personal development in terms of attitudes and understandings are not stated as such in the Guide, but are implied under specific objectives. Specific objectives are given as to net speed

²A Guide to Technical and Vocational Courses for High School and Special Classes. Regina: Saskatchewan Book Bureau, p. 31.

on straight-copy typing, while recommended standards in terms of words per minute are stated for timed production of letters, of manuscripts, and of tabulations.

Content. The content of the typewriting course and the office practice course is set out in the prescribed texts which are:

Moreland, Paul A. Typewriting and Office Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited.

AND

Lessenberry et al, 20th Century Typewriting. Latest Edition. Cincinnati: South-Western Publishing Company, Limited, 1958.

OR

Rowe, John L. and Alan C. Lloyd. Gregg Typing. New Series. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1953.

AND

Moreland, Paul A. Senior Secretarial Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited.

A detailed course outline is presented in the Guide, and supplementary material for typing and office practice is also listed.

Measurement. The system of measurement in Saskatchewan

differs from that in other provinces in that minimum speed scores are required for typing letters, manuscripts, and tabulations. Achievement at the Grade XII level is measured by an external, two-hour Departmental examination, which is set by a committee. The examination for 1960 consisted of five questions, the first of which was two ten-minute speed tests of the type which gives a score in net words per minute. Only the better of the two tests was submitted by each candidate for scoring purposes. The percentage value for this question was thirty-five. A scoring scale for such tests is provided in the Guide. While ten is set as the maximum error limit, extra errors may be allowed and penalized by lowering the score for each additional error.

The second question on the 1960 examination was a two hundred and eighty-word letter, a copy of which was to be addressed to each of two persons. Three minutes were allowed for reading the instructions and setting the machine. Ten minutes were allowed for typing the letters. Students were instructed to retype the letters if time permitted. The stroke count was given at the end of each line in the copy so the speed of each student could be recorded in terms

of words per minute of mailable typing. There was no mention of a carbon copy or of an envelope. The directions to the students stated the length of typing line to be used, the style of letter and form of punctuation, as well as the paragraphing. The percentage value assigned to this question was twenty.

Question 3 consisted of an Estimate of Revenue and Expenditures for a firm. The total number of words was one hundred and eighty-two. Five minutes were allowed for planning the tabulation and setting the machine, and ten minutes were allowed for the typing. Directions advised students to retype the item if time permitted. The material was correctly arranged on the test paper and was to be copied by the students. As in Question 2, the stroke count was indicated so the typing speed of each student could be recorded in words per minute of mailable copy. The percentage value given to this question was twenty.

Question 4 asked for the typing of a table titled, "Comparison of Branch Expenses, 1959". Five minutes were allowed for planning and setting the machine and ten minutes

were allowed for the typing. The material was unarranged. The students were instructed to prepare the table, provide suitable headings, indicate certain information by the use of a footnote, find totals, and include these totals in the table. The stroke count was not given for this question. There were approximately sixty-six words in the table exclusive of title, headings, and totals. No mention was made of a carbon copy. The emphasis in this question was on planning, computation, and meaning. The value assigned was fifteen per cent.

Question 5 was made up of seven sub-questions on office practice. The percentage value for this question was ten, which appeared to allow one mark per answer. The questions required explanations of the meaning of common terms in office practice, or the purpose of certain procedures. The answers were to be typed.

The values for the five questions totalled one hundred per cent. No indication was given concerning the scoring of the production portion of the examination or of the office practice.

Saskatchewan is the only province which administers a Departmental examination which sets minimum speed scores, in terms of words per minute, in three areas of typewriting. The standards for these speed scores are based on a per cent of speed on straight-copy typewriting.

Recommended speed standards in Saskatchewan are: letter rate, forty-five wpm; manuscript rate, thirty-five wpm; tabulation rate from eighteen to twenty-four wpm depending on the difficulty of the material.

The Teacher and the Employer. There is a commercial teachers' association which meets oftener than twice a year, and there is an advisory committee whose membership includes commercial teachers and business men. In 1960 no students in Saskatchewan wrote the NOMA Typewriting Test.

MANITOBA

In Manitoba certain commercial courses, including the typewriting and office practice course, are currently under revision, and, therefore, some of the information given here may soon be out of date.

General Information. A complete course in typewriting has been authorized in Manitoba for thirty-five years. The Department of Education has published a one hundred and ninety-five-page programme of studies for the senior high schools of Manitoba, of which programme eighteen pages were devoted to the commercial course. Typewriting and office practice are combined in each year of the three-year course which extends over Grades X, XI, and XII.

Objectives. General objectives of the commercial course in terms of personal development are stated very briefly in the programme of studies. General objectives of the typewriting and office practice course are also listed briefly. Specific objectives of typewriting are not listed although a speed in net words per minute on straight-copy typewriting is suggested, and a minimum speed rate is stipulated.

Content. The course is outlined in topic form in the programme of studies. The texts prescribed for typewriting and office practice are:

1. Moreland, Paul A. New Course in Typewriting. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, 1957.

or

Smith, Harold H. et al. Typewriting Technique.
Toronto: Gregg Publishing Division, McGraw-Hill
Book Co., Inc., 1943.

2. Gregory, W. F. and L. Jean Cameron. Office Practice.
Toronto: The Ryerson Press, Revised 1956.
3. Moreland, Paul A. Typewriting and Office Practice.
Toronto: Sir Isaac Pitman & Sons (Canada) Limited,
1952.
4. Sprott, Arthur F. Office Practice for Stenographers.
Revised Edition. Toronto: Sir Isaac Pitman &
Sons (Canada) Limited.

In the past few years the use of alternative typewriting texts has been sanctioned. The two typewriting texts most frequently used as alternatives have been Gregg Typing and 20th Century Typewriting, which are the same texts as are prescribed in Alberta.

Measurement. Measurement in typewriting at the conclusion of Grade XII is based on a score in terms of net words per minute on a speed test of straight-copy typing, and a percentage score from the speed test plus a percentage score from the final production examination. The programme of studies suggests a minimum speed of fifty net words per

minute with one per cent of errors, on ten- of fifteen-minute speed tests, but adds that a minimum rate of forty words per minute may be permitted. The programme of studies further states that fifty per cent of the final mark should be given for the speed test, but special instructions issued in 1960 lowered this to twenty-five per cent. The production examination is made up of typing problems, scored on a point basis. There is no Departmental typewriting examination at the Grade XII level in Manitoba, so each school sets its own examination and marks its own papers. Office practice is also part of the machines course in Grade XII, in which course achievement in office practice is measured by means of a written examination which gives a point score.

The Teacher and the Employer. There is a commercial teachers' association in Winnipeg which meets approximately once a month. Many teachers from the suburbs and neighboring towns belong to the association and attend the meetings, while some teachers from distant points are members of the association and receive the monthly newsletter but do not attend meetings. There is an advisory committee, the membership of which includes commercial teachers and

business men. The local chapter of NOMA is very active in Winnipeg, and is of great assistance to the teachers. Five hundred and twenty-three students in Manitoba wrote the NOMA Typewriting Test in 1960, and three hundred twenty-four students wrote the Federal Civil Service Typing Test in 1960.

ONTARIO

General Information. A complete course in typewriting has been authorized in Ontario for sixty years. The Department of Education has published a thirty-seven-page booklet, Curriculum I. and S. 8, which outlines the vocational commercial course. The designated typewriting course, in Ontario, is a two-year course, completed in Grades IX and X, or a one-year course studied in Grade X, followed by a two-year course in office practice in Grades XI and XII. This means that at the Grade XI and XII levels the typewriting work is part of the office practice course. A Grade XIII course in secretarial practice is offered in some large schools.

Objectives. The general objectives of the commercial course, pertaining to personal development in terms of

attitudes and understandings, are stated in broad terms in the introduction to Curriculum I. and S. 8. The specific objectives concerning typewriting are limited to achievement of speed on straight-copy typing in terms of net words per minute. The objectives of the office practice course are stated in general terms and pertain to course content rather than to personal development. The booklet also suggests that approximately three quarters of the time allotted to office practice should be spent in practical work and skill development in the typing room or office practice room. A further suggestion indicates that the remaining one quarter of the time should be spent in teaching or discussing the theory of office practice.

Content. The content of the two-year typewriting course and the two-year office practice course is outlined in the curriculum booklet in considerable detail. No texts are prescribed, but the teachers are given freedom in choosing texts from a list of approved texts. The approved texts for typewriting and office practice are:

Gregory, W. F. and L. Jean Cameron. Office Practice.
Toronto: The Ryerson Press, revised 1956.

- Moreland, Paul A. New Course in Typewriting. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, 1957.
- _____. Senior Secretarial Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, revised 1959.
- _____. Typewriting and Office Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, 1952.
- Roszell, M. C. and B. H. Hewitt. Applied High School Typewriting. Toronto: Gregg Publishing Division, McGraw-Hill Book Co., Inc., 1959.
- _____. High School Typewriting. Second Edition. Toronto: Gregg Publishing Division, McGraw-Hill Book Co., Inc., 1959.
- Seggie, A. P. Basic Typewriting. Toronto: Sir Isaac Pitman & Sons (Canada) Limited.
- Sparling, Allan E. Complete Course in Office Practice. Toronto: Gregg Publishing Division, McGraw-Hill Book Co., Inc., 1951.
- Stuart, Esta Ross and Evelyn M. Rutledge. Complete Typewriting Course. Toronto: The Copp Clark Publishing Co. Limited, 1939.

Measurement. Measurement in Ontario differs from that in other provinces in several respects. Grade XIII is the final year of high school, and admission to University is based upon results of external Grade XIII examinations. Three Grade XIII commercial subjects form part of the system of external examinations. These three subjects are: Secretarial Practice, Accountancy Practice, and Mathematics

of Investment. These courses are outlined in a special booklet, Curriculum S. 24.

There is no Departmental examination at the Grade XII level, so each school sets its own examination and marks its own papers. However, the Ontario Commercial Teachers' Association, which is a very large group, sets examinations annually and distributes them to the schools as requested. Curriculum I. and S. 8 indicates minimum speed scores as follows:

The minimum net rate of 60 words per minute, with not more than 1% error, should be required at the end of the fourth year of the Secretarial Course. Grading of speed skill should be based on a series of tests of at least ten minutes' duration, and not on one test only. The standard for pupils of the General Business Course may be five words per minute lower, and for pupils of the Accountancy Course, ten words per minute lower, but the same degree of quality and accuracy should be maintained.³

It seems, then, that a minimum speed on straight-copy typing is required for each course and that this speed is measured over a period of time. This means that the final

³ Curriculum I. and S. 8. Toronto: Department of Education, p. 29.

examination consists of production typing plus some questions on office practice.

The Grade XII office practice examination for June 1960, which was set by the Commercial Teachers' Association, was a printed test similar in appearance to Departmental examinations in other subjects. Question 1 was a treasurer's report of receipts and expenditures in unarranged form, requiring the computation of a final bank balance as well as the planning and typing of the report. The value assigned to this question was fifteen marks. Question 2 dealt with a letter requiring a carbon copy and an envelope. The value of this question was also fifteen marks. Question 3 required construction of a graph and had a value of fifteen marks. Question 4, which carried a value of twenty marks, called for the setting up of an itinerary. Question 5 examined upon knowledge and understanding of forms and procedures in office practice. The value for this question was thirty-five marks. The total mark for the examination was one hundred.

The Departmental examination in secretarial practice

at the Grade XIII level for 1960 was composed of six questions. Question 1 required typewritten answers explaining the meaning of fifteen business terms. Question 2 asked for the preparation of a tabulated report indicating advantages and disadvantages of suggested methods of reproducing copies of material. Question 3 requested the preparation of tabulations which would indicate a knowledge of the duties of a secretary of an organization and a knowledge of information necessary for setting up financial statements. Question 4 presented nine problems which a private secretary might have to solve in the absence of her employer. The students were instructed to type their solutions to the problems and then compose a letter to the employer summarizing the matters and the manner in which they had been handled. Question 5 necessitated a knowledge of the kinds of charges which might be included in an expense account and the type of vouchers which would be attached. Question 6 asked for the transcription of four letters taken down in shorthand. The letters varied in length and were dictated at an average speed of approximately ninety words per minute in office style dictation. The time

length of the examination was not stipulated and the values for the questions were not indicated. In general, the Grade XIII examination attempted to measure the ability to solve abstract problems rather than the ability to solve concrete typing problems.

The Teacher and the Employer. The Ontario Commercial Teachers' Association is a large group which holds a convention at Easter, and holds regional conventions in the fall. This association has functioned for many years and its influence extends over a large part of the province. One of its projects is the preparation of Grade XI and XII examinations which may be used by schools on an optional basis. All vocational and composite schools must have an advisory vocational committee which is appointed to assist the school board. The outline of the Grade XIII secretarial practice course suggests some part-time office experience as being part of the course. One hundred and sixty students in Ontario wrote the NOMA Typewriting Test in 1960.

QUEBEC (PROTESTANT DIVISION)

The syllabus in commercial subjects, in the Protestant Division of Quebec, is under revision at the present time. The course as outlined for 1960-1961 will be presented here, inasmuch as the only information available concerning the revised course was the following statement in a letter from the director of curriculum:

The main difference is that the new course will not include Office Practice, which will be taught as a separate subject. The authorized text will be Twentieth Century Typewriting by Lessenberry and others. It will be a three-year course but may in special circumstances be given in two years, beginning in Grade X.⁴

General Information. A complete course in typewriting has been authorized in Quebec, Protestant Division, for forty-five years. The Department of Education issued a ten-page syllabus in commercial subjects for Grades IX - XI, which indicated that typewriting is a three-year course begun in Grade IX and continued through Grade XI, being

⁴Letter from the Director of Curriculum, Quebec, (Protestant Division).

combined with office practice in Grades X and XI. No separate course in office practice is prescribed.

Objectives. General objectives pertaining to development of attitudes and understandings are stated briefly in the syllabus. Specific objectives regarding achievement in typewriting are limited to straight-copy speed in terms of gross words per minute on ten-minute speed tests. The objective in office practice is simply stated as typing "of office standard".

Content. The texts prescribed for typewriting and office practice are:

Moreland, Paul A. New Course in Typewriting. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, 1957.

_____. Typewriting and Office Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, 1952.

_____. Senior Secretarial Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited, revised 1959.

Roszell, M. C. and B. H. Hewitt. High School Typewriting. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1959.

Sparling, Allan E. Complete Course in Office Practice. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1951.

Measurement. There is no Grade XII typewriting course in Quebec, Protestant Division. Since, however, the course is a three-year one, measurement at the Grade XI level will be described at this point. Achievement is measured by a Departmental examination set by one person and reviewed by a committee. The candidates' papers are marked by a central committee. Types of questions which may be used for measuring the skills are listed in the syllabus.

The Grade XI examination in June, 1960, was a two and one-half-hour examination. Question 1 was one attempt at a ten-minute speed test, requiring a minimum speed of fifty gross words per minute. No mention was made of the error allowance. The percentage value for this question was twenty. Question 2, valued at twenty per cent, was a letter of approximately two hundred and fifty words in unarranged form, with instructions that it be set up, punctuated, paragraphed, and typed with all errors corrected. No mention was made of a carbon copy or an envelope. Question 3 required that a table be set up from unarranged material of approximately ninety words. Students were instructed to

centre and tabulate the information, supplying suitable title and headings. The percentage value for this question was twenty. Question 4, also valued at twenty per cent, was a rough draft of a two hundred and forty-word letter involving the correction of approximately fifty indicated errors. No mention was made of a carbon copy or an envelope. The remainder of the examination, worth twenty per cent, consisted of theory questions. The answers, which were to be typed, required a knowledge and understanding of office practice. The total value of the examination was one hundred per cent.

The Teacher and the Employer. There is a commercial teachers' association in Quebec, Protestant Division, but the frequency of its meetings could not be ascertained. There is no advisory committee which includes commercial teachers and business men in its membership. No students in Quebec, Protestant Division, wrote the NOMA Typewriting Test in 1960.

QUEBEC (CATHOLIC DIVISION)

General Information. A complete course in typewriting has been offered in Quebec (Catholic Division) for

approximately thirty years. The Department of Education has published course outlines in both French and English. The French version of the outline is a three hundred and eighty-one-page programme of which sixty-six pages are devoted to commercial work. There is also a thirty-five page booklet pertaining specifically to the regular commercial course. The English version of the outline is a one hundred and forty-five-page book of which five pages pertain to commercial courses. The course in typewriting may extend over Grades VIII to XI but is generally a two-year course combined with office practice and offered in Grades X and XI. Opportunity is provided for an advanced course in Grade XII in those schools which are equipped to offer such a course. A feature of commercial education which is unique to the Catholic Division of Quebec is a separation of the training for boys and girls. The training for boys is aimed toward bookkeeping, commercial law, and managerial studies, while the training for girls is aimed toward clerical work, stenography, and secretarial work. The French-speaking students are required to be proficient in their work in both French and English, but no such requirement is made of

the English-speaking students. For the guidance of markers and classroom teachers, the Department of Education publishes yearly a one hundred and thirty-page booklet containing copies of examinations in all subjects and desirable answers.

Objectives. The general objectives of the business education course are clearly stated in the course outlines, while objectives pertaining to typewriting and office practice tend to be specific and relate to achievement in terms of typewriting proficiency. Office practice is not listed in the English version of the outline, while typewriting is not listed in the thirty-five-page French version of the outline of commercial courses.

Content. The prescribed English text in typewriting is:

Smith, C. E. A Practical Course in Touch Typewriting.
Toronto: Sir Isaac Pitman & Sons (Canada) Limited,
revised 1959.

No French typewriting text is listed in the course outline, and no English text in office practice is listed. For boys the French office practice texts are:

Belisle, L. A. Le francais des affaires, Publication du
Ministre des Postes.

Bassett, E. D. and Peter L. Agnew. Filing Office Practice
Set. Second Edition, Cincinnati: South-Western
Publishing Company.

For girls the French office practice texts are:

Bassett, E. D. and Peter L. Agnew. Filing Office Practice
Set. Second Edition. Cincinnati: South-Western
Publishing Company.

Gregory, W. F. and L. Jean Cameron. Office Practice.
Toronto: The Ryerson Press, revised 1956.

Measurement. A Departmental examination, set and
marked by a committee, is administered at the conclusion of
the vocational typewriting course. For the boys, office
practice is combined with the examinations in commercial
law, bookkeeping and commercial mathematics. Answers to the
office practice portion of these examinations require a
knowledge and understanding of the work and procedures of
office practice, and these answers are scored on a point
basis. Some of the questions require the student to assume
the role of a manager rather than that of a typist or clerk.
For the girls, office practice is combined with the
examination in bookkeeping. The questions in office practice

are scored on a point basis, and are similar to those for the boys but are aimed more toward clerical and stenographic work. The typewriting examination is a short straight-copy test consisting of one question which is timed, with the score given on a percentage basis rather than in terms of words per minute. The score is determined by the following formula:

$$\frac{\text{Total strokes typed} - \text{number of errors} \times 10}{\text{Total strokes}} \times 100 = x\%$$

The examination in the advanced typewriting course which may be offered in Grade XII consists of one letter from unarranged material, requiring a carbon copy and envelope. The letter is scored on a point basis.

The minimum speed required at the end of Grade XI is forty wpm for girls and twenty-five wpm for boys. At the end of Grade XII the minimum speed required is fifty wpm for girls and thirty-five wpm for boys.

The Teacher and the Employer. There is no commercial teachers' association in the Catholic Division of Quebec, but there is an advisory committee whose membership includes commercial teachers and business men. No students in the

Catholic Division of Quebec wrote the NOMA Typewriting Test in 1960.

NEW BRUNSWICK

General Information. A complete course in typewriting has been authorized in New Brunswick for fifty years. The Department of Education has published a fifty-page outline of the commercial course for Grades X, XI, and XII for urban and regional composite high and vocational schools of New Brunswick. The outline indicates that the typewriting and office practice course is an optional two-year or three-year course. The course may be considered as having two parts: Typewriting I, and Typewriting II and Office Practice. Typewriting I is designed for Grades X and XI, or Grade XI, while Typewriting II and Office Practice is designed for Grade XII.

Objectives. The outline of the course lists eight general objectives in typewriting and five general objectives in office practice. These objectives pertain to development of the individual as a future employee. Some specific

objectives pertaining to typewriting skills are included in the general objectives. Specific objectives in terms of words per minute are stated in terms of minimum standards of achievement for straight-copy typing, and items completed on an hourly basis for production typing.

Content. The recommended typewriting and office practice texts for the two- or three-year course are:

1. Lessenberry et al. 20th Century Typewriting. Seventh Edition. Cincinnati: South-Western Publishing Company, 1958.

or

Rowe, John L. and Alan C. Lloyd. Gregg Typing. Second Edition. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1958.

2. Gregory, W. F. and L. Jean Cameron. Office Practice. Toronto: The Ryerson Press, Revised 1956.

or

Sparling, Allan E. Complete Course in Office Practice. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1951.

3. Smith, M. D. Canadian Filing Practice. Toronto: Sir Isaac Pitman & Sons (Canada) Limited.

The course outline gives a suggested lesson schedule for the typewriting portions of the two-year and the three-year

course, and also lists suggestions to teachers regarding the use of textbooks, workbooks, manuals, reference books, and tests.

Measurement. Measurement of achievement at the Grade XII level is two-fold: speed on straight-copy typing; and a final examination in production typing plus theory questions pertaining to office practice. A minimum speed on straight-copy typing is stated as forty net words per minute with an error tolerance of one error per two minutes. Accreditation depends upon two separate scores; a minimum speed score on straight-copy tests of ten minutes' duration, and a "passing" score on the final examination. Each school sets its own final examination and marks its own papers, but is guided by minimum standards of achievement set out in the course outline. These minimum standards are based on a time of one hour and are quoted as:

Business letters of medium length, with envelopes	6 - 8
Envelopes (chain feeding)	80 - 100
Stencils, masters, single spaced for 8½ x 11 sheets	2 - 3 ⁵

⁵Outline of Commercial Course for Grades X - XI -

The Teacher and the Employer. There is a commercial teachers' association, in New Brunswick, known as the New Brunswick Business Teachers' Association. In many localities there are advisory committees on business education whose membership includes both business men and commercial teachers. One hundred and sixty-seven students wrote the NOMA Typewriting Test in New Brunswick in 1960.

NOVA SCOTIA

General Information. A complete course in typewriting has been authorized in Nova Scotia for twenty-five years. The Department of Education has published an eighteen-page pamphlet entitled, Curriculum Notes, dealing with special subjects plus science and French. The pamphlet includes four pages devoted to commercial subjects. Typewriting in Nova Scotia is a two-year course which may be offered in Grades X and XI, or in Grades XI and XII. In order to receive Departmental recognition in typewriting a student

XII Urban and Regional Composite High and Vocational Schools of New Brunswick. Fredericton: Department of Education, Vocational Branch, p. 45.

must also take either shorthand or bookkeeping. The syllabus outlining commercial subjects does not mention office practice but answers to the questionnaire indicate that office practice is part of the typewriting course in some cases, and is a separate course in others.

Objectives. General objectives are not stated in Curriculum Notes but specific objectives in terms of a minimum typing speed on straight-copy typing, and a "pass" mark on a production type of examination are stated.

Content. A new textbook rental plan is being instituted in Nova Scotia so suggested textbooks are not listed in the course outline. A brief outline of content of the two-year typewriting course is given in the syllabus. No mention is made of an office practice course.

Measurement. Measurement of achievement concerns speed on straight-copy typing, and a minimum mark of seventy-five per cent on a production type of examination. There is no Departmental examination in typewriting so each school sets its own final examination and marks its own papers. A certain amount of guidance is given to the

schools regarding measurement. The syllabus states that the minimum speed for straight-copy typing is forty-five words per minute for ten minutes, with not more than five errors. Regarding the final examination the syllabus states:

Tabular typing examination--At least five business forms (including an invoice); one exercise on tabulation; one long letter to arrange, paragraph, capitalize and punctuate. Pass mark 75%⁶

Accreditation, thus, is based on two scores; a minimum speed score in net words per minute on straight-copy typing, and a minimum percentage score of seventy-five per cent on a production type of examination. The practice varies regarding giving the speed test on the day of the final examination.

The Teacher and the Employer. In Nova Scotia there is no commercial teachers' association which meets oftener than twice a year. An advisory committee whose membership will include business men and commercial teachers is to be set up in the near future. In 1960 no students in Nova

⁶Curriculum Notes. Halifax: Department of Education, p. 7.

Scotia wrote the NOMA Typewriting Test.

PRINCE EDWARD ISLAND

General Information. A letter from the Deputy Minister of Education, who is also the director of education, stated that most students in Prince Edward Island who seek commercial training attend Prince of Wales College, a junior college at Charlottetown, which is under the control of the Department of Education. Two regional high schools, however, have recently introduced courses in commerce. The two-year course in commerce has been offered by Prince of Wales College for thirty years. Typewriting is taught in Grades XI and XII. Approximately eighty students were enrolled in the two-year commercial course at Prince of Wales College in 1959-1960.

Objectives. General objectives of typewriting are not stated in the Calendar of Prince of Wales College, although a specific objective in terms of words per minute on straight-copy typewriting is stipulated.

Content. The prescribed typewriting text is:

Rowe, John L. and Alan C. Lloyd. Gregg Typing. Second Edition. Complete Course. Toronto: Gregg Division, McGraw-Hill Book Co., Inc., 1958.

Office practice is part of the typewriting course although a separate office practice course is offered. No description of the content of the office practice course appears in the Calendar of Prince of Wales College and no text is mentioned.

Measurement. There is no Departmental examination in Prince Edward Island, so Prince of Wales College sets its own examination and marks its own papers. A ten-minute speed test is part of the final examination and is administered on the day of the final examination. The Calendar indicates that fifty words a minute is the minimum speed required at the end of the second year of typewriting, and that a "passing" percentage score on the production examination is also required.

The Teacher and the Employer. There is no commercial teachers' association which meets oftener than twice a year, and there is no advisory committee, the membership of which includes business men and teachers. No students in Prince

Edward Island wrote the NOMA Typewriting Test in 1960.

NEWFOUNDLAND

General Information. The Department of Education published a forty-page outline of courses for Newfoundland schools, of which outline two pages refer to the commercial course. A letter from the Director of Curriculum stated that typewriting is authorized as a one-year course which is taught at the Grade XI level, although two schools have introduced a two- and a three-year programme respectively.

Objectives. The information in the preceding paragraph indicates that the authorized course is not designed to develop typewriting skill to a vocational level but that progress is being made toward development of a vocational programme. The minimum speed requirement of twenty words per minute for the one-year course is a further indication that the prescribed course is a one-year course of what may develop into a three-year vocational course. The objective of the course presently authorized is that it shall provide an introduction to a vocation.

Content. Office practice is part of the typewriting course, although in some schools a separate office practice course is offered. No text is prescribed for typewriting, but a brief outline of topics is presented in the programme of studies.

Measurement. A Departmental examination for the one-year course is set by a committee and the papers are marked by a central committee. A ten-minute speed test is part of the Departmental examination and is given on the day of the final examination. The production typing and office practice portion of the typewriting examination gives a percentage score. Accreditation appears to depend upon two things: a minimum speed score on straight-copy typing, and a "pass" percentage score on the production typing and office practice portion of the final examination.

The Teacher and the Employer. In Newfoundland there is no commercial teachers' association which meets oftener than twice a year, and there is no advisory committee, the membership of which includes business men and commercial teachers. No students in Newfoundland wrote the NOMA

Typewriting Test in 1960.

In order to make comparisons, the information contained in this chapter has been condensed in tabular form and presented in the following chapter.

CHAPTER V

COMPARISONS, CONCLUSIONS, AND RECOMMENDATIONS

COMPARISONS

General Information. A complete course in typewriting has been offered in Ontario for as long as sixty years, while in Newfoundland a complete course is not yet offered. The approximate number of years in which a complete course in typing has been offered in the various provinces is shown in Table I.

TABLE I

NUMBER OF YEARS IN WHICH A COMPLETE COURSE IN TYPING
HAS BEEN OFFERED IN CANADIAN PROVINCES

Province	Number of Years
British Columbia	50
Alberta	40
Saskatchewan	30
Manitoba	35
Ontario	60
Quebec (Protestant Division)	45
Quebec (Catholic Division)	30
New Brunswick	50
Nova Scotia	25
Prince Edward Island	30
Newfoundland	Not yet

The amount of space devoted to vocational commercial education in the publications of the Departments of Education varies from two to one hundred and eighteen pages. Table II shows the number of pages devoted to descriptions of vocational commercial courses in each province.

TABLE II

AMOUNT OF SPACE IN DEPARTMENT OF EDUCATION PUBLICATIONS
DEVOTED TO DESCRIPTIONS OF
VOCATIONAL COMMERCIAL EDUCATION

Province	Number of Pages
British Columbia	118
Alberta	32
Saskatchewan	21
Manitoba	18
Ontario	37
Quebec (Protestant Division)	10
Quebec (Catholic Division)	100
New Brunswick	50
Nova Scotia	4
Prince Edward Island	5
Newfoundland	2

The length of the vocational typewriting course varies from the one-year introductory course in Newfoundland to the four-year courses offered in Saskatchewan and Ontario.

Nova Scotia and Prince Edward Island offer two-year courses, and the other provinces, British Columbia, Alberta, Manitoba, Quebec (Protestant Division), Quebec (Catholic Division), and New Brunswick offer three-year courses.

There is no indication that the course in any province varies to any appreciable extent from the usual one-period-per-day, five-days-per-week plan. The various combinations of typewriting and office practice in the different provinces made impossible an exact comparison of the amount of time devoted to typewriting.

All provinces offer courses in typewriting and courses in office practice, but they offer them in different combinations. British Columbia offers: two courses in Grade XI, typewriting, and one of clerical practice or secretarial practice; and two courses in Grade XII, office practice, and one of clerical practice or secretarial practice. Alberta offers: two courses in Grade XI, typing, and office practice; and two courses in Grade XII, typing, and office practice. All other provinces offer one course each year, typing, or typing and office practice, except

Ontario where the course is listed as office practice in Grades XI and XII.

In Canada grade placement of vocational typewriting does not follow a consistent pattern. Reasons for the lack of pattern include these: (1) the course varies in length in the different provinces; (2) the course is begun in different grades; (3) the combination of typewriting and office practice differs; and (4) a certain amount of freedom in grade placement is permitted within some provinces. Table III summarizes the information given on grade placement of subjects and the combination of typewriting and the related practice course in each province.

TABLE III
GRADE PLACEMENT
OF
TYPEWRITING AND RELATED PRACTICE COURSES

Prov.	Grade IX	Grade X	Grade XI	Grade XII
B. C.		Typing	Typing and one of Clerical Practice or Secretarial Practice	Office Practice and one of Clerical Practice or Secretarial Practice

TABLE III (Continued)

Prov.	Grade IX	Grade X	Grade XI	Grade XII
Alta.		Typing	Typing Office Practice	Typing Office Practice
Sask.	Typing	Typing	Typing and O.P.	Typing and O.P.
Man.		Typing and O.P.	Typing and O.P.	Typing and O.P.
Ont.	Typing	Typing	Office Practice	Office Practice
Que. Prot.	Typing	Typing and O.P.	Typing and O.P.	Nil
Que. Cath.	Typing (Optional)	Typing and O.P.	Typing and O.P.	Typing and O.P. (in some schools)
N. B.		Typing	Typing	Typing and O.P.
N. S.		Typing	Typing and O.P.	
		OR	Typing	Typing and O.P.
P. E. I.			Typing	Typing and O.P.
Nfld.			Typing and O.P.	Nil

No mention of prognostic tests in typewriting can be found in the publications of the Departments of Education

in Canada.

Objectives. The objectives of vocational typewriting are of two types: general objectives, pertaining to personal development in terms of attitudes, understandings, and personal relations; and specific objectives, pertaining to achievement in typewriting in terms of mailable words per minute, or mailable items typed per hour.

The general objectives of typewriting and office practice are clearly stated in the programmes of some provinces, are implied in others, and are lacking in several. The overall objective in all provinces, whether stated, implied, or assumed is to prepare students to secure and hold beginning office positions and to advance in these positions.

The specific objectives for the final year of the course are clearly stated in all provinces in regard to a minimum nwpm score on straight-copy typing. These minimum rates range from forty to fifty nwpm. The specific objectives regarding production typing are not so clearly stated. In the matter of quality of typing most provinces

indicate some standard of mailability, but concerning quantity of typing only Saskatchewan and New Brunswick indicate an objective in terms of mailable words per minute or number of mailable items typed per hour.

The general objectives of the office practice course are listed in the course outlines of British Columbia and of Alberta, where separate office practice courses are offered. In New Brunswick, where typewriting and office practice are combined into one course, general objectives are listed in the outline, but in other provinces the objectives of the office practice course tend to stress the understanding of information and the application of typing skill.

Content. In order to make a comparison of the content of the typewriting courses, the writer examined the typewriting texts and the governmental publications, in terms of: (1) the six major areas of typewriting listed on page 49 of this study; and (2) the common typewriting tasks listed on page . A comparison of the course content indicated that all provinces offer courses which

include work in the six major areas of typewriting, and also include the common typewriting tasks. The typewriting texts prescribed or authorized in the various provinces are summarized in Table IV.

In order to make a comparison of the content of the office practice courses the writer reviewed the texts and the course outlines, using as a frame of reference the topical outline of the office practice course for the province of British Columbia. Although the information on office practice was meagre in the course outlines of some provinces, the information contained in the texts indicated a close consistency of course content from one province to another. The main difference is one of time allotment. In British Columbia and Alberta, where a separate course in office practice is offered in Grade XI and XII, more time is accorded to office practice. Table V lists the prescribed or authorized office practice texts.

No reference could be found in course outlines of a co-operative business occupations programme in Canada, except in the secretarial course for Grade XIII in Ontario, where

TABLE IV

TYPEWRITING TEXTS, PRESCRIBED OR APPROVED
IN CANADA

Province	Gregg Typing, Complete Course, 2nd Edition	Gregg Typing, New Series	20th Century, Complete Course, 7th Edition	New Course in Typewriting (Moreland)	Typewriting and Office Practice (Moreland)	Others
B. C.			X			
Alta.	X		or X			
Sask.		X	or X			
Man.	X			X	X	
Ont.			Choice of	X	X	X
Que. Prot.			X after Sept. (1961)			
Que. Cath.						X
N. B.	X		or X			
N. S.	New list not ready					
P. E. I.	X					
Nfld.	No text prescribed					

✓ Recommended by Curriculum Committee for use after September 1961, to replace the two texts currently prescribed.

TABLE V

PRESCRIBED OR AUTHORIZED OFFICE PRACTICE TEXTS

Province	Complete Course in O.P. (Sparling)	Office Practice (Gregory & Cameron)	Filing O.P. Set (Bassett-Agnew)	Canadian Filing Practice (M. D. Smith)	Typewriting and O.P. (Moreland)	Senior Secretarial Practice (Moreland)	Others
B. C.	X						
Alta.	X		X	X			X
Sask.					X	X	
Man.		X			X		
Ont.	X	X			X	X	
Que. Prot.	X				X	X	
Que. Cath.	X	X	X				X
N. B.	X	X		X			
N. S.	New list not ready, old list not quoted						
P. E. I.	No office practice prescribed						
Nfld.	No office practice text in the one-year course.						

part-time experience in a business office is a suggested project. The writer is of the opinion that individual schools in other provinces do conduct a work-experience programme, although no mention of it was found in the course outlines.

Measurement. In provinces where measurement is conducted, at the end of the final year of the course, on a school basis, no attempt was made by the writer to secure copies of examinations. In provinces where Departmental examinations are administered, the writer secured copies of 1960 final examinations and included an analysis of them in the description of the course in the provinces concerned. Table VI shows which provinces administer Departmental final examinations and which, school examinations.

Final examinations have certain similarities across Canada. A minimum score in nwpm on a straight-copy speed test is part of the final examination in all provinces, in spite of the fact that research studies and the opinions of experts indicate that the use of a nwpm score is not a justifiable measure of vocational competence.

TABLE VI

FINAL EXAMINATION--SCHOOL OR DEPARTMENTAL

Prov.	<u>School Exam</u>		<u>Departmental Exam</u>	
	Papers Marked by Classroom Teachers	-	Prepared or Approved by Committee	Papers Marked by a Central Marking Committee
B. C.		-	X	X
Alta.	X	-		
Sask.		-	X	X
Man.	X	-		
Ont.	X [⌘]	-	X [⌘] X [⌘]	
Que. Prot.		-	X	X
Que. Cath.		-	X	X
N. B.	X	-		
N. S.	X	-		
P. E. I.	X	-		
Nfld.		-	X	X

⌘ The Ontario Teachers' Association prepares and distributes an examination for optional use. The candidates' papers are marked in own schools by classroom teachers.

⌘⌘ Departmental examinations are administered in Grade XIII in secretarial practice, accountancy practice, and mathematics of investment.

Production typing forms the main portion of the examination in all provinces. In Saskatchewan a minimum score is required of all students in terms of words per minute for letters, tabulations, and rough drafts. In New Brunswick, although each school sets its own examinations and marks its own papers, the course outline offers some guidance in measurement regarding the desirable number of items to be completed per hour. In other provinces the production portion of the final examination is scored on a point basis. British Columbia is currently conducting a research programme in typewriting.

The office practice portion of the final examination in British Columbia, Saskatchewan, Quebec, and Ontario tends to measure the extent of knowledge and understanding of terms, procedures, and the informational parts of the course. The final examination makes no attempt to measure the extent to which the general objective of personal development has been attained. In Alberta, although no Departmental examination is administered, the course outline stipulates that ten per cent of the final mark must be used as a basis for indicating desirable work habits. Table VII shows the

TABLE VII

TYPE OF FINAL EXAMINATION

Province	5-min. speed test is part of exam. score in nwpm	10-min. speed test is part of exam. score in nwpm	work attitudes is part of exam.	production work is main part of exam.	each student's speed indicated for each area of typing tested
B. C.		X		X	
Alta.	X		X	X	
Sask.		X		X	X
Man.		X		X	
Ont.		X		X	
Que. Prot.		X		X	
Que. Cath.		X		X	
N. B.		X		X	
N. S.		X		X	
P. E. I.		X		X	
Nfld.		X		X	

type of final examination given in each province.

The comments of the writer in regard to examinations in the various provinces are based on a limited knowledge of the types of examinations administered. The Departmental examinations for 1960 were analyzed because this was the only year for which copies of examinations were secured from the four provinces which administer final Departmental examinations, British Columbia, Saskatchewan, Ontario, and Quebec.

The Teacher and the Employer. This section was intended to indicate the liaison between the schools and business. If co-operation between teachers and employers is to be achieved on more than an individual basis, it must be accomplished through groups. The writer ascertained that at the present time in only six provinces: British Columbia, Saskatchewan, Manitoba, Ontario, Quebec (Protestant Division), and New Brunswick are there commercial teachers' associations which meet oftener than twice a year. Six provinces: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and New Brunswick have

advisory committees whose membership includes business men and commercial teachers. Nova Scotia is planning to set up an advisory committee in the near future. Table VIII shows the existence of commercial teachers' associations and vocational advisory committees in Canadian provinces.

TABLE VIII
COMMERCIAL TEACHERS' ASSOCIATION
AND
VOCATIONAL ADVISORY COMMITTEE

Province	Commercial Teachers' Association	Vocational Advisory Committee
B. C.	X	X
Alta.	0	X
Sask.	X	X
Man.	X	X
Ont.	X	X
Que. Prot.	X	0
Que. Cath.	0	0
N. B.	0	in some cases
N. S.	0	to be set up

TABLE VIII Continued

Province	Commercial Teachers' Association	Vocational Advisory Committee
P. E. I.	0	0
Nfld.	0	0

X represents "yes"

0 represents "no"

The local chapters of NOMA (National Office Management Association) sponsor the Noma Business Entrance Tests each year in various cities. The Noma Typewriting Test is a two-hour production typing test, with no straight-copy speed test. The number of students in each province who wrote the Noma Typewriting Test in 1960 is shown in Table IX. It is not known whether these were Grade XII students or Grade XI students, but it is probable that the majority of them were Grade XII students.

CONCLUSIONS

General Information. The length of the three-year vocational typewriting course offered in British Columbia,

TABLE IX

NUMBER OF STUDENTS IN EACH PROVINCE WHO WROTE
NOMA TYPEWRITING TEST IN 1960

Province	Number of Students
British Columbia	-
Alberta	31
Saskatchewan	-
Manitoba	523
Ontario	160
Quebec (Protestant Division)	-
Quebec (Catholic Division)	-
New Brunswick	167
Nova Scotia	-
Prince Edward Island	-
Newfoundland	-

Alberta, Manitoba, Quebec, and New Brunswick is in agreement with the findings of research. The McCoy¹ study concluded that a two-year course is not long enough to develop the necessary typewriting skills. If two years is not long enough to develop these skills, then two years is not long enough for the development of typewriting skills plus the development of desirable attitudes, adequate understandings,

¹McCoy, op. cit., p. 962.

and satisfactory personal relations which are stressed in the office practice course.

Part of the time scheduled for typewriting is frequently used for office practice and shorthand transcription, so the amount of time actually devoted to typewriting could not be ascertained, but it seems to approximate one-period-per-day, five-days-per-week which Yuen² said was the usual plan.

The amount of time actually devoted to office practice could not be determined for all provinces, but British Columbia and Alberta, by offering a separate office practice course in Grades XI and XII, accord more time and attention to this portion of the vocational typewriting course than do most other provinces. Saskatchewan has increased the amount of time devoted to the typewriting programme to allow for work in office practice.

Grade placement of vocational typewriting in all provinces except Nova Scotia, Quebec (Protestant), and

²Yuen, loc. cit.

Newfoundland is Grades X to XII inclusive, while in Saskatchewan, Ontario, and Quebec (Protestant and Catholic) typing is also offered in Grade IX. The literature indicates that the course is usually offered in the final year of high school, so grade placement in Canada is appropriate.

No mention of prognostic tests in typewriting can be found in the publications of the Departments of Education in Canada. The writer is of the opinion that the omission of any reference to prognosis is due to the fact that typewriting is a compulsory course at some level of the vocational business education programme in all provinces. The literature implies that typing is a continuum from a skill which has little correlation with intelligence, to an applied skill, the application of which bears a relatively high correlation with intelligence. Jobs, too, according to Tonne,³ form a continuum from routine jobs, requiring little, if any, typing, to responsible jobs requiring speedy solutions to complex typing problems. If this is so, then some skill in typing appears to have a

³Tonne, op. cit., p. 162.

vocational advantage over no knowledge of typing. Lessenberry⁴ and Stroop⁵ concluded that interest or desire to learn is very important in achieving competence in typewriting. The fact that typing is a compulsory course poses a problem for teachers who must try to develop a skill in students who have little desire to master the skill. Where student-interest is lacking, perhaps the most the teacher can do is to try to develop correct techniques as a basis for the development of proficiency in post high school years when interest may become a motivating factor. Post high school proficiency might be developed through the use of television.

Objectives. The main general objective of vocational typewriting in Canada is stated or implied as being to develop in students those characteristics and competences which will enable the students to secure and hold beginning office positions and to advance in these positions. This overall objective is in agreement with objectives mentioned

⁴Lessenberry, loc. cit.

⁵Stroop, op. cit., p. 334.

in the literature, but it is not stated as clearly as it should be in some programmes of studies.

Specific objectives regarding speed in terms of net words per minute are clearly stated in all provinces. Balsley⁶ and Crawford⁷ stated that the net-words-per-minute scoring method was not valid for measuring vocational competence, while Russon and Wanous⁸ and Tonne⁹ point out that scores in net words per minute may be used in the classroom to stimulate interest, provide incentive, and act as a measure of individual improvement, but should not be used to indicate the extent of competence in vocational typewriting. In most provinces specific objectives for production work are indicated in terms of quality of work, but only in Saskatchewan and New Brunswick are specific objectives indicated in terms of quantity as well as quality of work typed. The literature states that, while standards

⁶Balsley, op. cit., p. 15.

⁷Crawford, op. cit., p. 195.

⁸Russon and Wanous, op. cit., 386, 394.

⁹Tonne, op. cit., p. 164.

in production work are nebulous as yet, some production-rate objectives should be suggested as being appropriate for the different courses.

In British Columbia objectives are listed for each unit of the office practice course, but in other provinces the objectives of office practice tend to refer to applied typewriting only. Personal development and personal relations form part of the office practice course, so objectives pertaining to them should be listed.

Content. The course content of vocational typewriting is similar across Canada. In each province the course includes: (1) work in the six major areas of typewriting; (2) the common typewriting tasks; and (3) the duties of general clerks. Course content is, therefore, in agreement with recommendations made in the pertinent literature.

Measurement. In regard to straight-copy typing, measurement is similar in the various provinces of Canada, but is in contradiction to recommendations from research. All provinces set a minimum speed in net words per minute on straight-copy typing as one of the requirements for

certification in vocational typewriting, but research studies and expert opinion state that such a score is not a valid measure of vocational competence.

In production typing, evidence was not obtained from all provinces, but the examinations in Saskatchewan and New Brunswick appear to bear a closer relationship to the recommendations made in research studies than do the examinations in other provinces. Saskatchewan requires that students equal or surpass minimum speeds on letters, tabulations, and manuscripts, while New Brunswick suggests minimum speeds in terms of items completed per hour for letters, envelopes, and stencils. A conclusion regarding the appropriateness of the speeds required in Saskatchewan could not be reached because the timing period in this province included only the time devoted to typing, whereas the speeds quoted in the literature are based on tests which include many nontyping but associated activities in the timing period. The course outline for New Brunswick gave no indication of what activities were to be included in the timing period, so no conclusion regarding the appropriateness of the suggested speeds could be made.

In office practice measurement tends to emphasize the understanding of terms and procedures as well as the application of typewriting skill. Only in Alberta is part of the final score assigned to personal development. The Canadian survey,¹⁰ reported in 1951, disclosed that fifty-five per cent of the employers participating in the survey contacted schools in order to obtain information concerning students in the areas of personality, character and suitability for the particular position, and yet schools are not including appraisal in these areas in the office practice course which deals specifically with these topics.

The Teacher and the Employer. Kleiner,¹¹ Liguori,¹² and Lanham¹³ recommended closer co-operation between education and business. Co-operation could be achieved through groups such as commercial teachers' associations working with NOMA and other associations of business men and women.

¹⁰A Report of the Canadian Research Committee on Practical Education, op. cit., p. 5.

¹¹Kleiner, loc. cit.

¹²Liguori, loc. cit.

¹³Lanham, loc. cit.

In only six provinces, however, British Columbia, Saskatchewan, Manitoba, Ontario, Quebec (Protestant) and New Brunswick are there associations of commercial teachers which meet oftener than twice a year. Only six provinces, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and New Brunswick have advisory committees whose membership includes teachers and business men. The local chapters of NOMA are willing to sponsor the NOMA Business Entrance Tests each year, but in 1960 only four provinces, Alberta, Manitoba, Ontario, and New Brunswick participated in the NOMA Typewriting Test. Those provinces in which there are commercial teachers' association and advisory committees whose membership includes commercial teachers and business men have a basis on which close co-operation between business education and business could be established.

RECOMMENDATIONS

The purpose of this study was to survey the vocational typewriting course in the high schools of Canada and to discover whether the course incorporated findings of

recent research. The conclusions reached indicate that in certain respects: length of course, grade placement, scheduling, objectives and content, the course is in harmony with recommendations contained in the literature but that in some respects, such as measurement and the link with employers, the course is in contradiction to recommendations substantiated by research.

Analyses and comparisons of data give rise to the following recommendations:

General Information.

(1) The three-year course offered in British Columbia, Alberta, Manitoba, Quebec (Protestant Division), and New Brunswick should be considered as being adequate and practical.

(2) More attention should be given to the personal-development portion of the office practice course in all provinces other than British Columbia and Alberta.

Objectives.

(1) A clear and separate listing of the objectives of typewriting and of office practice should be given in

the course outline.

(2) The specific objectives for the final year of typewriting should be stated in terms of Net Production Rate a Minute (N-PRAM) for letters, tabulations, business forms and fill-ins, and manuscripts.

(3) The objectives for straight-copy typewriting should be considered as classroom objectives used for individual motivation, not as objectives for vocational competence.

Content.

(1) The course outline should include information regarding films and film strips appropriate for each year of typewriting and office practice. Such information should include title, brief description of content, and source from which films or film strips may be obtained.

(2) Investigations should be commenced or renewed into establishing a co-operative school and office experience programme.

Measurement.

(1) Speed tests scored in nwpm should be considered as classroom measures used for individual motivation.

(2) Production tests should be used to measure vocational competence.

(3) Departmental examinations, set and marked by a committee, should be administered at the conclusion of the final year of the course, and should include the following features:

- a. The examination should be at least a two-hour examination.
- b. Of the four major areas of typewriting, (letters, tabulations, business forms and fill-ins including legal documents, and manuscripts) three areas should be tested each year.
- c. The length of test in each area should be thirty minutes.
- d. Each item of typing should be short so that in addition to typing skill, many related skills such as reading and following instructions, making necessary computations, handling supplies, and making machine adjustments, could be tested during the thirty minutes.
- e. Carbon copies should be required of all items of which carbon copies are usually required in offices.
- f. Items which are usually written in longhand in offices, should be written in longhand on the examination. Such items include receipts, deposit slips, and telephone messages.
- g. Envelopes should be required for all letters.
- h. Problems should be presented to students on the

examination in much the same form used in offices, i.e. some tabulations from unarranged material, some items from rough draft, and invoices to be typed from purchase orders.

- i. The penalty for each deviation from instructions should be a fifteen-word penalty rather than disqualification, if the item could otherwise be made mailable.
- j. Disqualification of an item should be reserved for items containing uncorrectible errors.
- k. Judgment as to what constitutes an error should be based on rules governing production tests, such as the NOMA Typewriting Test, rather than International Rules for speed tests. It must be remembered that standards of quality vary from office to office and from situation to situation within a single office so a certain amount of intelligent subjective judgment is required.
- l. Some of the marks for office practice should be allotted to personal development as recorded throughout the year.
- m. Records should be kept pertaining to personal development and students should be informed privately of areas in which improvement is desirable.

(4) The central marking committee should prepare recommendations arising from the marking, and the Department of Education should distribute these recommendations to all commercial teachers in the province.

Many of the recommendations regarding measurement

might be summed up in a statement by Clem who said:

"The time may not be far away when speed in typing will mean rate on a designated type of production work."¹⁴

The Teacher and the Employer.

(1) Consideration should be given to the formation of commercial teachers' associations in provinces where no such association now exists.

(2) Advisory committees composed of business personnel and business educators should be established in all provinces.

(3) Research should be conducted with the cooperation of business groups to determine standards in N-PRAM on letters, tabulations, business forms and fill-ins, and manuscripts on thirty-minute tests of each area, for experienced and for beginning typists. Such a research project is already being planned by the Manitoba Commercial Teachers' Association and the Personnel Association of Greater Winnipeg.

¹⁴Jane E. Clem. Techniques of Teaching Typewriting, Second Edition, Toronto: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1959. p. 299.

(4) Employers should be encouraged to report to schools the adjustment and progress of employees who have recently left high school. Through the combined efforts of The Manitoba Commercial Teachers' Association, The Personnel Association of Greater Winnipeg, and the Winnipeg office of the National Employment Service plans for reporting system are presently under consideration.

SUMMARY

A complete course in typewriting has been offered in Canada for many years. The Department of Education in each province prescribes the course and authorizes or approves the use of certain textbooks. The usual length of the course is three years during part of which time office practice is combined with typewriting. The major objective of the typewriting course in all provinces, except Newfoundland, is to prepare students to secure beginning office positions and to advance in these positions. The content of the courses in typewriting and office practice is similar in all provinces and includes the typing and related tasks suggested in the literature,

although some weakness is apparent in the time and attention given to personality development. Five provinces administer Departmental examinations at the conclusion of the course, while in five provinces each school sets and marks its own examination. A minimum speed in terms of net words per minute on a straight-copy test is part of the requirements for accreditation in all provinces, although the literature states that this type of test is not valid for measuring vocational typewriting competence. Only Saskatchewan and New Brunswick state minimum requirements on production typing in terms of words per minute or items completed per hour, as is suggested in the literature. The Ontario Grade XIII examination in secretarial practice stresses the solution of problems of an abstract nature rather than mere typing problems. In six provinces there are associations of commercial teachers and in six provinces there are advisory committees, the membership of which includes teachers and employers.

In general the data presented in this report indicate that regarding the length of the course, grade placement, objectives, and content, vocational typewriting

in Canada bears a close relationship to recommendations made in recent literature; but that regarding measurement and the liaison between teachers and employers improvements could and should be made if the major objective of the course is to be achieved.

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QUESTIONNAIRE

Province _____

Please use check marks where applicable.

1. The High School Commercial Course (Business Education Course) in this province is a 2-year, or a 3-year course. 2-year _____ 3-year _____
2. The High School Commercial Course is prescribed by the Provincial Department of Education. Yes _____ No _____
3. An outline of the course as prescribed may be obtained from
 (Organization) _____ (Address) _____
4. High School Typewriting is a 2-year, or a 3-year course. 2-year _____ 3-year _____
5. A text is prescribed for the final year of High School Typewriting. Yes _____ No _____
6. The title of the text prescribed for the final year is:
 (Text) _____ (Author) _____
7. No text is prescribed. The texts most commonly used are:
 (Text) _____ (Author) _____
 (Text) _____ (Author) _____
8. A complete course in Typewriting has been offered in the High Schools in this province for approximately (how many? 20, 25, 30 etc.) _____ years.
9. "Office Practice" or "Secretarial Practice" is a part of the typewriting course. Yes _____ No _____
10. "Office Practice" or "Secretarial Practice" is an independent course, taught and evaluated as a course in itself. Yes _____ No _____
11. High School Typewriting is designated as a 3-year course but the 3rd year is mainly a course in Office Practice or Secretarial Practice. Yes _____ No _____
12. Each school sets and marks its own examination at the conclusion of the High School Typewriting course. Yes _____ No _____

APPENDIX B

OFFICE PRACTICE

Outline of course in the province of British
Columbia

"Commerce" pages 80 - 86

Unit 1--PERSONALITY DEVELOPMENT

Objectives

To assist students in developing attitudes and habits that will enable them to make a satisfactory adjustment to actual office conditions.

Content

1. Importance of an Attractive Personality.
2. Personal Appearance.
3. Voice and Expression.
4. Desirable Character Traits.
5. Wholesome Attitudes.
6. Steps in Achieving an Attractive Personality.

Unit 2--OFFICE ORGANIZATION

Objectives

To give the students a clear picture of the routine of the business office.

To impress on the students the fact that each office worker is an integral part of a larger unit and that each worker must do his utmost to make his own department, and therefore the entire organization, function smoothly.

Content

1. The Office Manual--purpose and content.
2. Departmentalization in the Office.
 - (a) Necessity for division of labour in a large office.
 - (b) Various departments--functions of each.
 - (c) Duties of employees.
 - (d) Stream of work--the course of various business forms through the departments of the office; e.g., order forms (multiple copies), incoming orders, filled orders, invoices (multiple copies), shipping orders.
 - (e) Interdepartmental forms.
3. Equipment
 - (a) Office machines--description of commoner types of machines; the work that each does and the kind of business in which each is used most extensively.
 - (b) Office appliances--description and function of each.
 - (c) Office supplies--grades, weights, sizes, rulings, and different kinds of paper; other supplies.
4. Standards of Performance; e.g., number of envelopes to be addressed per hour, number of letters to be filed in a ten-minute period, number of postings per hour on a ledger-posting machine, number of lines to be transcribed from Dictaphone or Ediphone records in an hour.

Unit 3--WORK OF THE RECEPTIONIST

Objectives

To give students information concerning the work of the receptionist.

To develop in the students the qualities required in a good receptionist; e.g., courtesy, alertness, and discrimination.

To give students practice in the duties of the receptionist.

Content.

1. Function of the Receptionist.
2. Duties of the Receptionist.
 - (a) Classification of callers.
 - (b) Methods of dealing with callers.
 - (c) The reporting of messages.
 - (d) Use of the appointment book.
3. Training on the Switchboard and in Effective Use of the Telephone.

Unit 4--BUSINESS INFORMATION AND BUSINESS PRACTICE

Objectives

To review factual material relating to office procedures taught in previous courses, and to expand the pupils' knowledge of such procedures.

To give practice in the performance of actual office duties.

Content

1. Reference Books Used in the Office.
 - (a) Secretarial reference books--dictionary, style-book of business English, Who's Who, book of synonyms.
 - (b) Trade and professional directories--financial and manufacturers' directories, Canada Postal Guide, shippers' guides, trade and firm catalogues.
 - (c) City directories, telephone directories.
 - (d) Almanacs and year-books.
 - (e) Credit reference books.
 - (f) Atlas, gazetteer.

2. Preparation and Sending of Various Classes of Telegrams, Cablegrams, and Radiograms.
3. Financial and Banking Duties.
 - (a) Deposits.
 - (b) Bank reconciliation statements.
 - (c) Expense accounts.
 - (d) The payroll-computation of wages, payroll deductions, payroll time-sheets, currency memoranda.
4. Transportation of Goods-Shipping.
 - (a) Methods of shipping--express, freight.
 - (b) Documents--straight bill of lading, order bill of lading, express receipt, freight bill, advice notice.
 - (c) Shipping regulations and rates.
 - (d) Customs duties and customs forms.
5. Invoicing.
 - (a) Preparation of outgoing bills.
 - (b) Disposition of incoming bills--checking quotations, checking extensions and discounts, checking goods against invoices.

Unit 5--FILING

Objectives

To acquaint the pupils with the various systems of filing and the conditions under which each may be used.

To teach the pupils the most effective techniques of filing.

To give practice in filing business papers employing various standard filing systems.

To give practice in the use of different types of card files.

Content

1. The Need for Efficient Filing.

2. Various Methods of Filing and the Conditions Favourable to the Use of each Method.
3. Review of Indexing.
4. Filing Equipment--cabinets, card files, sorting trays, transfer cases, other equipment.
5. The Successive Steps in the Filing of Correspondence and Other Business Papers.
6. Practice in Filing Correspondence, with Special Emphasis on Alphabetic Filing.

Unit 6--THE SEARCH FOR EMPLOYMENT

Objectives

To give pupils information on occupational opportunities in local business-houses.

To teach pupils techniques that will assist them in securing business positions.

Content

1. Job Specification--duties, salaries, opportunities for promotion.
2. Sources of Information about Job Openings.
3. Job Opportunities in the Community.
4. The Job-hunting Campaign.
5. The Application.
 - (a) The letter of application.
 - (b) The application blank.
 - (c) The application interview.
 - (d) The follow-up.

Unit 7--THE OPERATION OF DUPLICATING, ADDING, AND CALCULATING MACHINES

Objectives

To teach the students how to use efficiently various duplicating-machines and appliances.

To train the students how to perform at a reasonable speed the fundamental operations on adding and calculating machines.

Content

1. Types of Duplicators and Their Special Uses.
 - (a) Stencil-using machines, rotary style-- Gestetner, Mimeograph, Roneo, Duplimat.
 - (b) Embossed metal-stencil machines--Dupligrath.
 - (c) Gelatine-duplicating machines, flat-bed and rotary style--Hectograph, Ditto.
 - (d) Addressing-machines--Addressograph.
 - (e) Offset-type duplicating-machines--Ditto, Copyrite.
2. Types of Adding-machines--ten-key, full keyboard.
3. Calculating-machines--commoner types in use and work for which each is specially adapted.

Unit 8--RELATED TYPEWRITING PROJECTS

Objectives

To supplement the students' previous training in handling routine jobs; e.g., preparing invoices and statements, filling in blank forms, typing legal forms, copying manuscript, and typing reports and statistical material of various kinds.

To raise the students' skill in applied typewriting to vocational standards.

Content

Typical Duties of Representative Business Offices.
 (An excellent series of projects may be found in Part V of the third edition of Gregg Typing, Book II, Advanced Course, by Sorelle, Smith, Foster, and Blanchard, "Related Typing Projects." The following fifteen projects are contained in this section: Railroad, banking, real

estate and insurance, manufacturing, department store, electrical, automobile agency, legal, club organization, hotel, building company, investment office, publishing, wholesale offices, and advertizing. Projects covering work done in other types of business offices, such as lumber office and customers-broker's office, may be included as a part of the unit.)

APPENDIX C

MOST FREQUENT DUTIES OF GENERAL CLERKS

Duties	Rank
1. Use filing system or systems	1
2. Use telephone	2
3. Use adding machine	3
4. Type addresses on envelopes	4
5. Make carbon copies	5
6. Use calculating machines	6
7. Copy data from one record to another on typewriter	7
8. Verify and/or list information from business papers	8
9. Prepare material for filing	9
10. Use stapler	10.5
11. Copy from rough draft or corrected copy on typewriter	10.5
12. Figure extensions on bills, invoices, statements	12
13. Type letters	13
14. Fold, insert letters, and seal envelopes	14
15. Type cards	15
16. Fill in printed forms on typewriter	16
17. Use follow-up files	17
18. Prepare trial balances	18
19. Examine and/or sort business papers	19
20. Prepare operating and/or financial statements	20
21. Keep inventory records	21
22. Make journal entries	22
23. Figure discounts	23
24. Compose and type letters with or without instruction as to content	24
25. Make cross references	26
26. Prepare stencil for use on duplicating machine	26
27. Receive business callers	26

Most Frequent Duties of General Clerks--Continued

Duties	Rank
28. Type bills, invoices, statements	28.5
29. Make entries in ledger accounts	28.5
30. Open, sort, and distribute mail	30

Tonne, Principles of Business Education, op. cit., p. 332, citing the 30 most frequent of 78 duties, operations, and tasks performed by 442 general clerks according to "Survey of Office Duties and Employer Recommendations for Improving High School Training," Pittsburgh Schools, XXIII (September-October, 1948), pp. 21-22.

DEPARTMENT OF EDUCATION

QUEBEC. QUE.

February 1, 1961

COPY

Mrs. A. Pybus,
457 Niagara Street,
Winnipeg 9,
Manitoba.

Dear Mrs. Pybus,

The statement attached to your letter of January 16 concerning the teaching of Typewriting in Quebec Protestant schools seems to give an accurate description of the present course.

A new course has just been approved to come into effect next September, but the syllabus has not yet been reproduced for distribution, and I cannot send you a copy at this stage.

The main difference is that the new course will not include Office Practice, which will be taught as a separate subject. The authorized text will be Twentieth Century Typewriting by Lessenberry and others. It will be a three-year course but may in special circumstances be given in two years, beginning in Grade X.

Yours sincerely,

(E. Owen)

Director of Curriculum.

EO/hw