

A STUDY OF THE RELATION BETWEEN THE PREPARATION AND
TEACHING SUBJECTS OF THE SECONDARY SCHOOL
TEACHERS OF BRITISH COLUMBIA

by

James French Muir

A Thesis submitted in Partial Fulfilment of
The Requirements for the Degree of

MASTER OF ARTS

in the Department
of
EDUCATION

The University of British Columbia
April, 1940

Approved

ACKNOWLEDGMENTS

I am greatly indebted for the cooperation of all the principals and teachers of the secondary schools of British Columbia who made this study possible. I also wish to thank Mr. H.N. MacCorkindale, the Superintendent of Schools of Vancouver, for making certain data available, and Mr. J.L. Watson, the Registrar of the Department of Education, for the information received from him.

--- oOo ---

CONTENTS

<u>Chapter</u>	<u>Page</u>
I. History of Teacher-Training and Certification in British Columbia	1
II. The Preparation of Secondary School Teachers in British Columbia and Their Teaching Subjects	28
III. A Comparison of the Training of Senior High School Teachers of British Columbia and the United States in Relation to the Subjects They Taught ..	51
IV. Academic and Professional Qualifications of Secondary School Teachers of British Columbia	66
V. Conclusion	87
Bibliography	93
Appendix A. Requirements for the Academic Certificate	95
Appendix B. Requirements for the Special Certificate	98
Appendix C. Questionnaire to Teachers ..	108

LIST OF TABLES

<u>Table</u>	<u>Page</u>
I. Attendance and Diplomas issued at the Vancouver Normal School, 1901-14	13
II. Number of Special Teachers Employed by the Victoria and Vancouver School Boards, 1901-09	20
III. Replies to Questionnaire	28
IV. The Secondary Schools in British Columbia According to the Type of School and Number of Teachers, 1939-40	31
V. Number of Schools in the Province and the Number of Schools Studied, 1939-40	33
VI. Distribution of Teachers According to Type of Subject Taught, 1939-40	36
VII. The Relation Between the University Subjects and High School Subjects Prepared to Teach	37
VIII. Teaching Time in Subjects Prepared for of Academic Teachers in Two-Teacher Senior High Schools, 1939-40	38
IX. Teaching Time in Subjects Prepared for of Academic Teachers in Small, Medium and Large High Schools, 1939-40	39
X. Teaching Time in Subjects Prepared for of Academic Teachers in Medium and Large Junior High Schools, 1939-40	41
XI. Teaching Time in Subjects Prepared for of Academic Teachers in Small, Medium and Large Combined Junior-Senior High Schools 1939-40 .	43

<u>Table</u>	<u>Page</u>
XII. Teaching Time in Subjects Prepared for of Academic Teachers in British Columbia Secondary Schools, 1939-40	44
XIII. Teaching Time in Academic Subjects Prepared for of Academic and Special Teachers in the Senior High Schools, 1939-40	45
XIV. Teaching Time in Academic Subjects Prepared for of Academic and Special Teachers in Medium and Large Junior High Schools, 1939-40	46
XV. Teaching Time in Academic Subjects Prepared for of Academic and Special Teachers in Small, Medium and Large Combined Junior-Senior High Schools, 1939-40	46
XVI. Teaching Time in Special Subjects Prepared for of Academic and Special Teachers in the Secondary Schools of British Columbia, 1939-40	47
XVII. Types of Certificates Held by Special Teachers in the Secondary Schools of British Columbia, 1939-40	48
XVIII. First and Second Class Teachers Teaching Only Academic Subjects and Some Special Subjects in the Secondary Schools of British Columbia, 1939-40	50
XIX. Percent of Time at the Universities in the Major Subject	54
XX. Percent of Senior High School Teachers in Iowa (1921-26) and British Columbia (1939-40) who Taught Subjects that They Majored in	56

<u>Table</u>	<u>Page</u>
XXI. Senior High School Teachers Who Gave No Instruction in Their Own Field	60
XXII. The Number of Sciences in Which a Teacher Had University Training	62
XXIII. Number and Percent of Secondary School Teachers in United States (1930-31) and British Columbia (1939-40) with Degrees ...	67
XXIV. Percent of Teachers with Degrees	69
XXV. Number of Degrees Held by the Secondary School Teachers of British Columbia (1939-40)	71
XXVI. Number and Percent of Degrees Held in the Three Groups by the Secondary School Teachers in United States (1930-31) and in British Columbia (1939-40)	72
XXVII. Distribution of Degrees Held by the British Columbia Secondary School Teachers According to Where Received, 1939-40	73
XXVIII. - Number and Percent of Undergraduate and Graduate Degrees Received at the University of British Columbia, 1939-40	74
XXIX. Number and Percent of Degrees from some Canadian Universities other than the University of British Columbia, 1939-40 ...	75
XXX. Number and Percent of Degrees from some American Universities, 1939-40	76
XXXI. Number and Percent of Degrees in Home Economics from Some of the Universities, 1939-40	76
XXXII. Number and Percent of Secondary School Teachers in British Columbia Who Held Academic Certificates	77

<u>Table</u>	<u>Page</u>
XXXIII. Number and Percent of Junior and Senior High School Teachers in British Columbia Who Held Academic Certificates	78
XXXIV. Number and Percent of Secondary School Teachers in British Columbia Who Held Special Certificates	78
XXXV. Number and Percent of Junior and Senior High School Teachers in British Columbia Who Held Special Certificates	79
XXXVI. Types of Certificates Held by the Secondary School Teachers of British Columbia, 1939-40	82
XXXVII. Number and Percent of Secondary School Teachers Who Received the Academic Certificate Directly Through the University or After Attending Normal School, 1939-40	83
XXXVIII. Number of Times a Special Subject Was Taught, 1939-40	84
XXXIX. Number and Percentage of Various Special Certificates Held by Secondary School Teachers, 1939-40	85

CHAPTER I

History of Teacher-Training and Certification in British Columbia

At one time there was no teacher-training in British Columbia. Prospective teachers needed only sufficient academic qualifications to pass a written examination in order to become fully qualified. As the school population increased, the influx of trained teachers from other localities was insufficient to meet the demand and it soon became evident that some form of teacher-training was needed in the province. To satisfy this growing need a normal school was opened in Vancouver in 1901 and a second in Victoria in 1915. Finally, in order to supply professionally trained high school teachers, the University of British Columbia, in 1923, undertook the training of these candidates.

The constant revision of the types and duration of the teaching certificates paralleled the growth of the British Columbia school system. At first there were First, Second and Third Class certificates. With the opening of the normal school the Academic certificate was added. Later

when the academic qualification of a teacher was raised to Junior Matriculation, the Third Class certificate was eliminated. When the academic qualification was finally raised to Senior Matriculation the Second Class certificate was also eliminated. Along with these definitely academic certificates the special certificates were added as the need arose.

In 1872 the First Annual School Report was published by John Jessop, the Superintendent of Education. At that time there were no facilities for teacher-training in British Columbia. In order to become a teacher it was necessary to write an examination. This examination was marked by a Board of Education.¹ The board was appointed by the Lieutenant-Governor in Council and its members held office during the pleasure of the Lieutenant-Governor. The Superintendent of Education, who was the ex-officio chairman of the board, was also appointed by the Lieutenant-Governor. The examination consisted of (1) spelling (200 marks) (2) reading (200) (3) writing (200) (4) composition (200) (5) grammar (200) (6) arithmetic (200) (7) book-keeping (200) (8) geography (200) (9) history (200) (10) mathematics (100 for each branch)

1. Third Annual Report of the Public Schools of the Province of British Columbia, 1874. (In future foot-notes "Annual Reports" will refer to the Report of the Public Schools of the Province of British Columbia.) p.35.

(11) Latin (100) (12) French (50) (13) drawing (50) and
(14) music (50).²

³
The following types of certificates were issued
by the board on the basis of the results obtained in the
examinations.

First Class A	80 per cent
First Class B	70 per cent
Second Class A	60 per cent
Second Class B	50 per cent
Third Class A	40 per cent
Third Class B	30 per cent

The certificates were granted for the following
periods of time.

A First Class certificate shall be deemed good
until revoked by the Board of Education; a
Second Class certificate shall be deemed good
for three years, and no longer; and a Third Class
certificate shall be deemed good for one year,
and no longer unless as hereinafter provided.⁴

The provision for the renewal of the Second and Third
Class certificates was to take the examination over again.

The first high school opened in Victoria in 1876
and was to be followed by other high schools throughout
the province. The opening of a high school was soon to
bring about a variation in the values of the teaching
certificates.

-
2. Third Annual Report, p. 48.
 3. Third Annual Report, p. 49.
 4. Third Annual Report, p. 36.

In 1877 the Temporary certificate was added to the other six types and at the same time there was a change in the length of time each was to be held before renewal and explicit mention of the type of school in which a teacher was allowed to teach with a particular form of certificate.

Value and Duration of Certificate

- (1) A Temporary certificate, valid until the next examination of teachers, shall entitle the holder to teach temporarily in any school.
- (2) A Third Class certificate, valid for one year, shall entitle the holder to teach in any Public School in which one teacher is employed, or as an assistant in one in which more than one is employed.
- (3) A Second Class certificate, valid for three years, shall entitle the holder to hold any position in any Public School.
- (4) A First Class, Grade B certificate, valid for four years, shall entitle the holder to hold any position in any Public School, or to act as an assistant in a High School.
- (5) A First Class, Grade A certificate, valid for four years, shall entitle the holder to hold any position in any Public or High School.⁵

The Board of Examiners had the authority to issue certificates to graduates of a British University without the necessity of writing examinations.

The next change was made in the year 1882-83

5. Ninth Annual Report, 1879-80, p. 352.

when the following two sections were added

1. Every First Class, Grade A, Certificate, and every First Class, Grade B, Certificate, about to expire, shall be renewed from year to year by the Examiners on the application of the holder of any such expiring certificate, provided such certificate shall in the range and scope of each subject and of all subjects fully satisfy the conditions of the examination in progress at the time of such application for renewal. Provided also, that the applicant produce satisfactory proof of success as a teacher during the time his certificate has been in force.
2. Whenever it shall be deemed necessary to raise the standard of examination, at least twelve months' notice of such intention shall be given.⁶

There were no further changes until the slight change mentioned in the Public School Report of 1886-87.

The principal changes made have reference to duration of certificates - Third Class, Grade A, being valid for two years, Second Class, Grade A, for five years and First Class certificates for life or during good behaviour.⁷

In the revision of the regulations in 1886-87, the clause which gave the Board of Examiners the authority to issue certificates to graduates of a British University, without examination, was deleted.⁸ The following year provision was again made whereby a graduate of a recognized

6. Twelfth Annual Report, 1882-83, p. 141.

7. Sixteenth Annual Report, 1886-87, p. 199.

8. Loc. cit.

British or Canadian University who had proceeded regularly to his degree could obtain a First Class, Grade A, certificate by satisfying the examiners as to his knowledge⁹ of teaching, discipline and management.

The renewal of certificates was made by taking the examination over again or, as mentioned in the Public School Report of 1888-89, the certificate was renewed without further examinations after a teacher had twelve¹⁰ years continuous service in the province.

The Public School Report of 1893-94 mentioned another change:- holders of First Class, Grade B certificates were no longer entitled to act as assistants in high¹¹ schools.

The duration of a certificate now was as follows - Third Class B, one year; Third Class A, two years; Second Class B, three years; Second Class A, five years; and First Class A and B, life. There were no further changes in the duration or value of the certificates until after the opening of the first Provincial Normal School at Vancouver in 1901.

-
9. Seventeenth Annual Report, 1887-88, p. cxix.
 10. Eighteenth Annual Report, 1888-89, p. cxxv.
 11. Twenty-Third Annual Report, 1893-94, p. 305.

The first movement in the direction of teacher-training in British Columbia of which we have record was that inaugurated by John Jessop, Esq., on assuming his duties as Superintendent of Education in 1872- nearly thirty years before the opening of the first Normal School in Vancouver. Referring to the matter in his report to the Lieutenant-Governor in July 1873, he made the following statement: 'A training-school will soon become a necessity in the province; but until such an institution can be established something might be accomplished in securing uniformity of method by inaugurating Teachers' Conventions or Institutes where time-tables and programmes of studies could be submitted and different methods of teaching discussed with a view to adopting some regular system in all schools that may be about equal in attendance and requirements'.¹²

The first convention was organized at a meeting at the Legislative Assembly Hall in July 1874 and was held a year later in the same building. Addresses were given on various topics and a wide range of subjects was discussed. This convention was to become an annual affair.

For a number of years these conventions partly filled the needs of a normal school. During the ten-year period prior to the opening of the first normal school many references were made by Dr. S.D. Pope, the Superintendent of Education, and William Burns, Inspector of Schools, to the growing need for teacher-training in the province. A part of one urgent plea by William Burns

12. Gibson, J.W., Fifty-Seventh Annual Report, 1927-28, p. 40.

is sufficient to show his feelings on the subject.

It would seem almost superfluous to again mention the urgent need for a Normal School in this province, were it not that the necessity is becoming more prominent every year. During this year many of our more experienced teachers have left the profession and their places have been supplied by others entirely untrained or inexperienced. Under these circumstances it is impossible to expect any progress and both time and money are thereby wasted.¹³

Finally it became evident that it was impossible to do without a normal school any longer. On January 9th 1901, the first term of the Provincial Normal School was held in the Vancouver high school buildings. Out of the sixty-one pupils enrolled at the end of the first term, June 28th, forty-six obtained diplomas.

No final examinations were held. Diplomas were granted on the results of work done during the whole session, rather than on that of a few hours at its termination. In other words, the examination extended over the whole term, and every student who showed teaching ability, together with a capacity for steady, conscientious work, was granted a diploma.¹⁴

At that time it was not compulsory to attend the normal school. A teacher could still receive a certificate by passing the teachers' examinations. The

13. Burns, William, Twenty-Ninth Annual Report, 1899-1900, p. 213.

14. Burns, William, Thirtieth Annual Report, 1900-01, p. 277.

certificate obtained through the normal school, however, was permanent.

Another drawback, according to William Burns, principal of the normal school, was that only one type of diploma was issued. It did not distinguish between a teacher capable of teaching primary work and one capable of teaching senior work and entitled everyone to hold the highest teaching position in any graded school.

The Public School Report of 1901-02 described a further change in certification. In the list of certificated teachers First Class A became Academic (by far the majority of these teachers held degrees) and First Class B became First Class. There appeared to be Second Class, Second Class A, Second Class B, Third Class, Third Class A and Third Class B.¹⁵ These latter changes were due to the fact that the normal school issued only Academic, First Class, Second Class and Third Class Certificates. The other types were gradually eliminated.

After July, 1901, the designation of, validity of and requirements for the obtaining of teachers' certificates were changed to the following.

1. Third Class, valid for three years, not renewable
2. Second Class, First Class and Academic, all valid for life

For the last three certificates named

15. Thirty-First Annual Report, 1901-02, p. A lxxix.

graduation from Normal School or a period of ten years active service in the public schools of the Province was required. Students of High Schools in affiliation with recognized universities of Great Britain or Ireland or of the Dominion of Canada who had passed the examination for matriculation in Arts of any such University were exempt from examination in other than professional subjects of Second class teachers' certificates. Similar exemption for First class teachers' certificates was granted to those who passed Senior Matriculation or First year Arts, and for Academic certificates to those who passed at least the intermediate examination in Arts. Thus came into existence two avenues leading to these certificates. One by way of the British Columbia Board of Examiners' examinations and one by way of affiliated Universities.¹⁶

In this same year the examinations for the high school courses were adopted as the examinations for teachers. The subjects of examinations were as follows:

- (a) For a Third Class Certificate, the subjects of examination shall be the same as those for the Junior Grade Course of High Schools, with the exception that Latin is optional with candidates for Third Class teachers' certificates.
- (b) For a Second Class Certificate, the subjects of examination shall be the same as those for the Intermediate Grade Course of High Schools.
- (c) For a First Class Certificate, the subjects of examination shall be the same as those for the Senior Grade Course of High Schools.
- (d) For an Academic Certificate, the subjects

16. Statutes of British Columbia, 1901, Chapter 48, cited in MacLaurin, Donald L., History of Education in British Columbia, 1936, p. 228.

of examination shall be the same as those for the Senior Academic Course of High Schools but all candidates who have not already passed the Senior Grade examination prescribed for High Schools, must also take Sections B, C, and D of the Senior Grade Course.

Every candidate to be successful must obtain at least 33 1/3 per cent. of the marks attached to each subject of examination, and not less than an average of 50 per cent. on all subjects. The fixed standard of marks attached to each subject of examination shall be 100.¹⁷

Three years later by amendment to the Public Schools Act provision was made whereby regularly employed teachers holding Third Class certificate who, prior to August 1901, held either a Third Class, Grade A or Grade B certificate should be entitled to an annual renewal of their Third Class certificates on application to the Superintendent of Education provided either that they were graduates of an approved Normal School or by June 30th, 1904, they had completed ten years of active service on the teaching staff of the Province.¹⁸

One of the most important improvements in teaching in British Columbia was due to the Public Schools Act of 1910 which made it compulsory for all future teachers to attend normal school. The duration of the

17. Manual of School Law, 1901, p. 57, cited in MacLaurin, Donald L., History of Education in British Columbia, 1936, p. 229.

18. Statutes of British Columbia, 1903-04, Chapter 47, cited in MacLaurin, Donald L., History of Education in British Columbia, 1936, p. 229.

certificates was also extended.

The Board of Examiners shall have the authority to grant certificates, the designation and validity of which shall be as follows:-

- (a) Third Class, valid for three years:
- (b) Second Class, valid for life:
- (c) First Class, valid for life:
- (d) Academic, valid for life:

After January 1911, all applicants for Third Class certificates must hold at least a Preliminary certificate of the Provincial Normal School or of other Normal Schools approved by the Council of Public Instruction; provided, however, that a Third Class certificate, supplemented by a Preliminary Normal School certificate or by at least one year of active teaching in the schools of the province, and further supplemented by an Advanced Normal School certificate, shall be valid for life. All applicants for Second and First Class certificates must hold Advanced certificates of the Provincial Normal School or of other Normal Schools approved by the Council of Public Instruction.¹⁹

From the opening of the Vancouver Normal School in 1901 until the middle of 1905, the school year was divided into winter and summer sessions. The duration of the winter session varied but lasted approximately from October to June inclusive. The summer session lasted from July to September inclusive. The 1905 winter session was the final session of this type. The sessions now became known as the Preliminary session, September to December and the Advanced session, January to June. The certificates

19. Thirty-Ninth Annual Report, 1909-10, p. A.32.

issued at the end of these sessions were the Preliminary and Advanced Normal School certificates referred to in the previous paragraph.

TABLE I

Attendance and Diplomas Issued at
the Vancouver Normal School, 1901-14^a

Year	Winter session		Summer session	
	Attendance	Diplomas	Attendance	Diplomas
1901	61	46	97	86
1902	34	18	61	57
1903	37	32	46	42
1904	55	49	33	32
1905	64	57		
	Advanced session		Preliminary session	
	Attendance	Diplomas	Attendance	Diplomas
1905			60	55
1906	58	37	72	66
1907	58	47	55	50
1908	47	46	62	58
1909	61	52	75	72
1910	96	93	120	
1911	160	152	160	
1912	168		162	145
1913	162	152	186	174
1914	168	147		

a. Annual Reports.

From Table I it is seen that the attendance at the Vancouver Normal School gradually increased. Finally, in order to accommodate prospective teachers of Victoria and vicinity, a second normal school was opened in

Victoria on January 14th, 1915. D.L. MacLaurin was the first principal.

The types and duration of teachers' certificates as stated in the 1917-18 report were the same as in the 1909-10 report. Qualifications for the Academic certificate, however, were extended and made clearer.

Graduates in arts, in science or in literature of recognized Canadian, British or colonial universities who have proceeded regularly to their degrees may, on application, be granted academic certificates, provided they hold certificates of Canadian normal schools, or of other normal schools approved by the Council of Public Instruction; or provided they satisfy, by written examination, the Board of Examiners as to their knowledge of the art of teaching, school discipline and management, and the school law of the Province.²⁰

In 1922 the Council of Public Instruction made two important changes. The minimum non-professional qualification for admission to the Provincial Normal Schools was raised to Junior Matriculation. At the same time the issuance of Third Class certificates was dis-
21
continued.

A second important change was the issuing of an interim standing to those students-in-training whose work left some doubt as to their adaptability to the teaching

20. Forty-Seventh Annual Report, 1917-18, p. D99.

21. Fifty-Second Annual Report, 1922-23, p. F48.

profession. Those who were granted interim standing had to prove their adaptability in actual teaching and had to be reported upon favourably by the Provincial Inspectors²² of Schools before they received permanent certificates.

In 1925 regulations were passed whereby all new teachers were issued interim certificates upon completion of the normal school training and could receive permanent certificates only after completing two successful years of teaching. In 1935 a further change was made in the regulations governing the interim certificate. This change will be noted later.

Until 1923 future high school teachers were able to receive elementary school training only. September, 1923, saw the start of teacher-training for secondary school teachers at the University of British Columbia.

At the request of the Provincial Department of Education, the University undertook, in September 1923, the direction of the professional training of candidates for the Academic certificate. Courses in elementary methods and in special subjects of the elementary school curriculum were provided in the Provincial Normal School, and facilities for practice teaching were furnished through the kindness of the Vancouver School Board and the Principal and Staff of the King Edward High School. These courses were open only to the University graduates. Lecturers on methods in high school subjects were appointed

22. Fifty-Second Annual Report, 1922-23, p. F48.

from the University staff.

The first term was devoted to elementary methods and the second term to secondary methods. Teaching practice was compulsory in both the elementary and secondary schools.

The issuing of certificates and diplomas was governed by the following.

At the close of the session, successful candidates will be recommended to the Provincial Department of Education for the Academic certificate and to the Faculty of Arts and Science for the granting of the University Diploma in Education.²⁴

The 1924-25 and 1925-26 University calendars referred to the Teacher Training Course only. From the 1926-27 calendar it was noted that the Teacher Training Course came under the jurisdiction of the newly formed Department of Education.

By comparing the types of courses offered in the 1923-24 and 1939-40 calendars it is seen that there has been no fundamental change in the types of courses which are compulsory. Along with the theoretical courses it is necessary to take forty hours of observation and practice in the elementary schools during the first term and sixty hours of observation and practice in the high

23. University of British Columbia Calendar, 1924-25, p. 259.

24. Calendar, 1924-25, p. 261.

schools during the second term.

Teachers who have their B.A. and normal school diploma may receive their Academic certificate by completing certain academic requirements and in certain cases by additional practice teaching in the secondary schools. The requirements vary with the teaching experience and University records of the teacher but do not call for a complete year in the Teacher Training Course. The complete requirements were described in an article printed by the University of British Columbia.²⁵ (See Appendix A)

As yet no mention has been made of the certificates it is necessary to hold in order to teach in a junior high school. The programme of studies, 1928-29, stated the following.

1. To be qualified for the position of principal of a Junior High School a candidate must be the holder of an Academic Certificate for this Province.
2. With the exception of teachers of special subjects such as Home Economics, Manual Training, Music, Art, Physical Training, Commercial subjects, a candidate for the position of assistant teacher in a Junior High School must hold an Academic Certificate or First-class Certificate for this Province.
3. At least 50 per cent. of the persons selected by a Board of School Trustees as assistant teachers in a Junior High School - exclusive

25. The University of British Columbia, Requirements for the Academic Teachers' Certificate.

of teachers of special subjects referred to above - must be holders of Academic Certificates for this Province.²⁶

At present the holders of certain special certificates are qualified to teach in a junior high school. These certificates will be noted later.

In a pamphlet issued by the Department of Education in 1934, Certification of Teachers, the following was stated.

First-class Certificate (Interim and Permanent)
(entitling the holder to teach in an elementary
or act as the principal of a superior school)

Academic Certificate (Interim and Permanent)
(entitling the holder to teach in an elementary
or high school)²⁷

It is now necessary to hold an Academic certificate in order to get a position in a junior high school.

The requirements necessary to transform an Interim Academic to a Permanent Academic certificate have not been changed.

The holder of an Interim Academic Certificate, who has completed two years' probationary service and has been recommended for permanent standing by the Inspector who has examined his work, will

26. Programme of Studies for the High and Technical Schools of British Columbia and Requirements for Teachers' Certificates, 1928-29, p. 78.

27. Certification of Teachers, 1934, issued by the Department of Education.

be entitled to receive a Permanent Certificate. ²⁸

In 1935 there was a change in the regulations governing First Class Permanent certificates. The present requirements are as follows.

To be eligible for permanent certification, graduates of Provincial Normal Schools must complete in sequence the following requirements:-

- (a) To be in charge of a school or class for at least one term following graduation from Normal School.
- (b) To complete successfully $3\frac{3}{4}$ units of work in the Summer School of Education.
- (c) To be in charge of a school or class for at least one term following (b).
- (d) To complete successfully a second $3\frac{3}{4}$ units of work in the Summer School of Education following (c).²⁹

In 1937 the minimum non-professional training was raised to full university entrance standing and full senior matriculation standing or their equivalents. This eliminated the Second Class certificates.

Academic subjects do not play the same important role in the school curriculum as they did a few years ago. Non-academic subjects have always had a place in the curriculum but even more emphasis has been thrown upon them since the issuing of the latest Course of Studies in 1936 and 1937. The Department of Education

28. Certification of Teachers, Department of Education, 1940, p. 6.

29. Certification of Teachers, 1940, p. 7.

issues not only First Class and Academic certificates but also special certificates in art, commercial, home economics, industrial arts, music, physical education, library and primary work.

TABLE II

Number of Special Teachers Employed by the Victoria and Vancouver School Boards, 1901-09.^a

Year	Manual training		Physical education		Domestic science		Music		Drawing	
	Vic.	Vanc.	Vic.	Vanc.	Vic.	Vanc.	Vic.	Vanc.	Vic.	Vanc.
1901-02			1							
1902-03			1							
1903-04	3	3	1		1					
1904-05	3	3	2		1					
1905-06	3	3	2	1	1	1		1		1
1906-07	3	3	2	1	2	2	1	1	1	1
1907-08	3	4	2	1	2	3	1	1	1	1
1908-09	3	5	2	1	2	3	1	1	1	1

a. Annual Reports.

Table II shows the number of special teachers employed by the Victoria and Vancouver School Boards, 1901 to 1909. A physical education teacher in Victoria was the first special teacher to be employed. Two years later special teachers for manual training were teaching in Victoria and Vancouver. At the same time a domestic science teacher was added to the staff of the Vancouver schools.

During the 1905-6 school year the first special teachers of music and drawing were added to the Vancouver school system.

At one time the types of certificates and the names of the teachers holding each type were listed in the Annual Report. The 1914-15 report makes the first mention of separate certificates issued to teachers of the special subjects. These certificates were as follows.

- First Class Manual Training Certificates.
- Second Class Manual Training Certificates.
- Permanent Manual Training Certificates.
- Commercial Certificates.
- Domestic Science Certificates.
- Art Certificates.
- Physical Training Certificates.
- Special Certificates (music, deaf and sub-normal)

Home Economics.

The first domestic science teacher joined the staff of the Victoria schools in 1903 and two years later a domestic science teacher was added to the staff of the Vancouver schools. In the early years the work of supervising the teachers of domestic science was carried out by the Organizer of Technical Education. The home economic branch grew until finally Miss Jessie McLenaghan was appointed to devote her whole time to the organization and direction of the work at the various centres.

For two reasons the year 1926-27 was an outstanding year for home economics in the province. It was

during this school year that the Director of Home Economics was appointed. Also during this year there was a united drive by women's organizations for a Chair of Home Economics at the University of British Columbia. The objective was \$80,000. The sum of \$11,000 was raised and placed to the credit of the combined organizations to be handed to the university authorities when plans for the chair were completed.

In 1929 it appeared as if a Chair of Home Economics was to be established at the University of British Columbia. A special course was planned for two years and provisions were made to take the technical subjects in the junior and senior years. After two years the university was unable to carry on the work in home economics on account of the depression. The students were given bursaries of \$400 from the interest accumulated from moneys collected in 1926.³⁰

The school year 1935-36 again was an outstanding year in the history of home economics in the province. Up until this time home economics was taught in the schools of the province only on the approval of the various school

30. McLenaghan, Jessie, History of Home Economics From 1926 to 1939. (Most of the material on home economics is based on this unprinted article written by Miss McLenaghan.)

boards. In 1935-36 the following amendment was added to the Public Schools Act.

In Grade VII and VIII in city school districts of the first and second class and in other school districts where the Council of Public Instruction so directs, the Board of School Trustees, in conformity with the regulations governing equipment and courses of study, shall establish in the schools under its jurisdiction courses in practical arts, including manual training and home economics.³¹

The result of this amendment was the re-opening of all centres closed during the depression and in addition the opening of many new ones.

The Department of Education issues interim and permanent home economic certificates for the elementary and junior and senior high schools. Regulations governing these certificates will be found in Appendix B.

Art.

John Jessep, in the 1874-75 Annual Report, made a reference to drawing. He noted how important it was in school instruction but also pointed out the impossibility of employing a special teacher.³²

For several years there was no particular reference to drawing. In 1885, David Wilson, Principal

31. McLenaghan, J., History of Home Economics.

32. Fourth Annual Report, 1874-75, p. 15.

of the Boy's School in New Westminster and later in 1893, William Burns, Inspector of Schools, emphasized the importance of drawing in the schools but also pointed out the poor results that were being obtained.

The drawing books were the main means of teaching. In 1898 Wilson stated,

Where drawing books are in use, there is still a strong inclination to trust entirely to them for bringing pupils to a state of proficiency in drawing. The slate and blackboard should also be employed and a due amount of instruction given. I fear that at present a good deal of what passes for drawing is merely copying, ruler and scale being freely used.³³

A step in the preparation of drawing teachers was inaugurated in 1902 when D. Blair, a British art master, was appointed to the staff of the Vancouver Normal School.

It is seen from Table II that the first special teacher in drawing was appointed by the Vancouver school board in 1905. The following year a special teacher was appointed in Victoria. From then on art developed not only in Victoria and Vancouver but later in other centres of the province.

Present regulations governing the issuing of certificates in Art will be found in Appendix B.

33. Twenty-Seventh Annual Report, 1897-98, p. 1249.

Physical Education.

From Table II it is seen that the first special teacher in physical education was appointed to the staff of the Victoria schools in 1901. It was not until 1905 that a similar appointment was made in Vancouver.

The importance of physical education in the schools was soon recognized. More physical education teachers were added to the staff of the Victoria and Vancouver schools. Physical education became an important subject in the normal school.

The 1928-30 Programme of Studies listed physical education as one of the subjects taken in Grade IX and X. In 1930 physical education was made a compulsory subject in all grades of high school.

The regulations governing the issuing of special certificates in physical education will be found in Appendix B.

Primary.

In 1911 the importance of the work of the primary teacher was first recognized. A supervisor of primary³⁴ classes was appointed in Vancouver.

Regulations governing the issuing of the primary

34. Forty-First Annual Report, 1911-12, p. A.47.

certificate will be found in Appendix B.

Industrial Arts.

The first annual report of Harry Dunnell, the Inspector of Manual Training, was made in July 1908. He briefly reviewed the work done in manual training since it was introduced in 1900.

In November of 1900, Professor Robertson, on behalf of Sir Wm. Macdonald, visited British Columbia to make arrangements with the Education Department and the School Trustees of Victoria and Vancouver for the introduction of Manual Training into the schools, for a period of three years, to illustrate the usefulness of some form of handiwork being taken in connection with a child's school life.³⁵

The Victoria and Vancouver school boards provided rooms in which to carry on the study of industrial arts. The remaining expenses were paid by Sir Wm. Macdonald.

This work was carried on for three years. In 1903 Professor Robertson visited the province again.

On condition that the School Trustees of Victoria and Vancouver carried on the work for one year at their own expense, the equipment of the various schools was given to them free of any expense.³⁶

Both school boards decided to carry on the work which had begun so successfully.

35. Thirty-Sixth Annual Report, 1907-08, p. B.32.

36. Loc. cit.

For two years the entire cost of working the schools was borne respectively by Victoria and Vancouver; since that time, as you know, Sir, the Education Department has assisted in paying the salaries of both the Manual Training and Domestic Science Instructors.³⁷

The teaching of the technical subjects gradually spread to other centres. At present these subjects are taught in the ordinary schools, in technical schools and in night schools.

Regulations governing the issuing of special certificates in industrial arts will be found in Appendix B.

The Department of Education also issues special certificates in commercial, music and library. The regulations will be found in Appendix B.

37. Thirty-Sixth Annual Report, 1907-08, p. B.32.

CHAPTER II

The Preparation of Secondary School Teachers in British Columbia and Their Teaching Subjects

Purpose.

The purpose of this chapter is to study the relationship between the preparation of secondary school teachers in British Columbia and the subjects that the teachers are actually teaching.

For this purpose copies of a questionnaire were circulated to every senior, junior and combined junior-senior high school in the province. Each teacher was requested to answer the questionnaire. A copy of this questionnaire will be found in Appendix C.

The results of the questionnaire were very gratifying. Out of 129³⁸ secondary schools in the province replies were received from 123 schools.

TABLE III
Replies to Questionnaire

Schools	No. of schools	No. replied	Percentage replied
Senior High School	94	89	94.7
Junior High School	14	14	100
Senior-Junior High School	21	20	92.5
Total	129	123	95.3

38. This number was arrived at from a Department list of schools and principals.

Although 123 schools sent in replies to the questionnaire there was not 100 per cent. reply from the teachers of these schools. During the 1939-40 school year 1349³⁹ teachers were registered in the secondary schools of the province. Replies were received from 1251 of these teachers. This constitutes 93.4 per cent. of the secondary school teachers of the province.

Preparation to teach academic subjects.

In the present chapter the answers to the fourth, fifth and part of the sixth questions of the questionnaire will be dealt with. It will be noted that the fourth question lists the major and minor subjects the teacher took in the third and fourth year at a University while studying towards a degree. If a subject was listed under either a major or minor the teacher was considered to be prepared to teach that subject in a secondary school. Naturally, any post graduate work done in a subject was also considered preparation to teach that subject. It is realized of course, that credit in a subject is not a reliable measure of a teacher's ability to teach that subject. Until more refined measures are

39. This number was arrived at from a Department List of teachers compiled by the B.C. Teachers' Federation.

developed we may use this measure as a fair estimate of their preparation.

The answers to question five show the subjects at present being taught by the teacher as well as the number of periods of teaching in each of these subjects per week.

Question six calls for the type of teaching certificate held by the teacher answering the questionnaire.

Distribution of Secondary Schools.

To simplify the discussion it was necessary to divide the secondary school teachers into smaller groups. The first three natural divisions were the senior, junior and combined junior-senior high schools. Table IV shows the distribution of the secondary schools of the province according to these divisions. The table also shows the distribution of each of these divisions according to the number of teachers in the school.

TABLE IV

The Secondary Schools in British Columbia
According to the Type of School and
Number of Teachers, 1939-40^a

No. of teachers	No. of senior high schools	No. of junior high schools	No. of jr-sr. high schools	Total
1	15	-	-	15
2	30	-	-	30
3	5	-	2	7
4	5	-	1	6
5	6	-	1	7
6	3	1	-	4
7	2	1	1	4
8	1	-	-	1
9	2	-	2	4
10	6	-	1	7
11	-	2	1	3
12	2	1	1	4
13	-	1	-	1
14	1	2	-	3
15	1	2	1	4
16	1	-	1	2
17	1	-	1	2
18	3	-	-	3
19	-	1	2	3
20-29	3	-	5	8
30-39	3	-	1	4
40-49	2	2	-	4
over 49	2	1	-	3
Total	94	14	21	129

a. Department List, B.C. Teachers' Federation.

It was decided that it would be necessary to subdivide each of the three main types of secondary schools before further study could be made.

Since in a one-teacher high school it is

impossible for a teacher to have specific preparation in more than a few subjects, it was decided, therefore, to eliminate these schools.

From Table IV it was seen that there were thirty two-teacher senior high schools in the province. This was by far the largest number when the schools were classified according to the number of teachers. Such schools have so much in common that it seemed reasonable to consider them together.

40
E.N. Ferriss⁴⁰ studied 285 rural high schools. He found the median number of teachers in these schools to be three and one-half. The middle 50 per cent. ranged from two to five and one-half. In studying 125 semi-rural schools he found the median number of teachers to be four and one-half. The middle 50 per cent. ranged from two and one-half to six and one-half. He came to the conclusion that the typical small high school contained three to five instructors (including the principal).

From Ferriss' findings and from Table IV it was decided to group together the British Columbia secondary schools with three to five teachers. These were called small schools.

40. Ferriss, E.N., Secondary Education in Country and Village, p. 27.

The next break appeared at the thirteen teacher level. There were no senior or combined junior-senior high schools with thirteen teachers. Schools with six to twelve teachers were called medium sized schools and schools with thirteen or more teachers were called large schools.

The groups were thus as follows:
 one teacher senior high schools (eliminated)
 two teacher senior high schools
 three to five teacher senior high schools (small)
 six to twelve teacher senior high schools (medium)
 over twelve teacher senior high schools (large)
 six to twelve teacher junior high schools (medium)
 over twelve teacher junior high schools (large)
 three to five teacher combined junior-senior high schools (small)
 six to twelve teacher combined junior-senior high schools (medium)
 over twelve teacher combined junior-senior high schools (large)

TABLE V

Number of Schools in the Province and the
Number of Schools Studied, 1939-40

School	No. of schools in province	No. of schools studied
Two teacher senior high school	30	29
Small senior high school	16	13
Medium senior high school	16	15
Large senior high school	17	17
Medium junior high school	5	5
Large junior high school	9	9
Small junior-senior high school	4	3
Medium junior-senior high school	6	6
Large junior-senior high school	11	11
Total	114	108

On the basis of the subjects taught the teachers of each of the school groups were further subdivided into (a) academic (b) academic and special (c) special.

By "academic" teachers we mean teachers who teach the ordinary academic subjects: English, mathematics, French, general science, social studies, etc. By "special" teachers we mean teachers who teach the special subjects: commercial, home economics, music, art, physical education and industrial arts. By "academic and special" teachers we mean teachers who teach both academic and special subjects.

In the modern high school there is little distinction between academic and special subjects. The "special" subjects are not "special" except in the sense that the Department of Education issues special certificates for the teaching of these subjects.

It was not an easy matter to classify the teachers into one of the three groups, academic, academic and special, and special. Although most of the teachers taught strictly academic or special subjects, many taught both.

If a teacher taught academic subjects 85 per cent. or more of the time plus special subjects the remainder of the time, he was included under the academic heading.

In a small high school a teacher often had to spend a few periods a week teaching physical education. It seems reasonable that if his academic subjects took at least 85 per cent. of his teaching time he should be placed under the academic heading. He was studied only from the point of view of his academic teaching subjects.

On the other hand if a teacher taught special subjects 85 per cent or more of the time plus academic subjects the remainder of the time he was placed in the special group. Often a teacher of special subjects had to fill out his timetable with academic subjects. Such a teacher was classified only under special subjects.

The remaining teachers were placed in the academic and special group. These teachers taught academic or special subjects at least 16 per cent. of the time and the remainder of the time was spent teaching the other group of subjects.

It became necessary to study the latter group from two points of view - the academic and the special. In studying the group from the academic point of view only the academic subjects were considered. In this case the teachers were imagined to be in the strictly academic group. In studying the group from the special point of view only the special subjects were considered.

The results from 1088 teachers were analysed.
The teachers were grouped according to Table VI.

TABLE VI
Distribution of Teachers According to
Type of Subject Taught, 1939-40

School	Academic	Academic and Special	Special	Total
Two teacher senior h.s.	48	2	1	51
Small senior h.s.	35	13	8	56
Medium senior h.s.	93	21	15	129
Large senior h.s.	252	51	110	413
Medium junior h.s.	16	10	9	35
Large junior h.s.	90	22	64	176
Small junior-senior h.s.	4	6	-	10
Medium junior-senior h.s.	26	13	9	48
Large junior-senior h.s.	101	22	47	170
Total	665	160	263	1088

Previously, in discussing question four,
it was shown what was meant by the subjects that a
teacher was prepared to teach. Table VII was used
in judging the relation between University work and
the subjects taught in the secondary schools of British
Columbia.

TABLE VII

The Relation Between University Subjects And
High School Subjects Prepared to Teach

University subjects	High school subjects prepared to teach
(a) Languages: French Latin German etc.	French Latin German etc.
(b) English	English, Library
(c) History	Social Studies
(d) History and Economics Geography	Geography
(e) Mathematics, Applied Science	Mathematics
(f) Applied Science Sciences: Physics Chemistry etc.	{ General Science Physics Chemistry etc.
(g) { Home Economics Biology Bacteriology	Health

A teacher is said to be teaching 100 per cent. in his own field if all the subjects he is teaching (question five of questionnaire) are the subjects that he is prepared to teach (question four). Unfortunately this relationship is not always 100 per cent. and it is this discrepancy between the subjects taught and the subjects prepared to be taught that is to be studied.

Academic.

The first column of Table VIII shows the percentage

groups into which a teacher could be placed. It will be noted that the first group, 0 to 4 per cent., and the last group, 95 to 100 per cent., have a much smaller range than the other nine groups. All teachers placed in one of these two groups may be considered to be teaching 0 per cent. or 100 per cent. of the time in their own field. The second column shows the number of teachers in each of these groups.

As previously mentioned, all these teachers spent at least 85 per cent. of their time teaching academic subjects.

TABLE VIII

Teaching Time in Subjects Prepared for
of Academic Teachers in Two-Teacher
Senior High Schools, 1939-40

Percent of teaching time in own field	No. of teachers	Percent of total no. of teachers
0 - 4	4	8.3
5 - 14	1	2
15 - 24	2	4.2
25 - 34	2	4.2
35 - 44	10	20.8
45 - 54	6	12.5
55 - 64	3	6.2
65 - 74	7	14.6
75 - 84	4	8.3
85 - 94	1	2
95 - 100	8	16.9
Total	48	100

Forty-eight of the fifty-eight teachers in the twenty-nine two-teacher high schools were included in the group shown in Table VIII.

As would be expected, a large number (39.5 per cent.) of the teachers were found to be teaching from thirty-five to sixty-four per cent. of the time in their own field. However eight teachers taught 95 per cent. or more of the time in their own field while four taught 4 per cent. or less of the time in their own field.

TABLE IX

Teaching Time in Subjects Prepared for of
Academic Teachers in Small, Medium and
Large Senior High Schools, 1939-40.

Percent of teaching time in own field	Small		Medium		Large	
	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	2	5.7	5	5.4	24	9.5
5- 14	-	-	-	-	1	.4
15- 24	2	5.7	2	2.2	3	1.2
25- 34	2	5.7	1	1.1	10	3.9
35- 44	2	5.7	2	2.2	4	1.6
45- 54	1	2.9	3	3.2	6	2.4
55- 64	-	-	4	4.3	4	1.6
65- 74	5	14.3	2	2.2	5	1.9
75- 84	5	14.3	9	9.7	9	3.6
85- 94	2	5.7	13	13.8	6	2.4
95-100	14	40	52	55.9	180	71.5
Total	35	100	93	100	252	100

Replies were received from thirteen of the sixteen small senior high schools, fifteen of the sixteen medium sized senior high schools and all seventeen large senior high schools.

Although only thirty-five teachers from the small senior high schools were studied the table gives some idea of the distribution of their teaching time. The largest number was in the 100 per cent group although this group constitutes only 40 per cent of the total.

The other two groups, ninety-three and 252 teachers, give a much better idea of the situation in the group. As would be expected, as the schools grow larger the percentage in the 100 per cent group also grows larger. In the medium and large senior high schools we find fifty two (55.9 per cent.) and 180 (71.5 per cent.) of the teachers teaching 95 per cent. or more of the time in their own field. However it must be noted that although the large senior high schools have the largest number of teachers (180 or 71.5 per cent.) teaching 95 per cent. or more of the time in their own field the next largest number (twenty-four or 9.5 per cent.) in the group consists of

those teachers teaching 4 per cent. or less of the time in their own field. The largest number of teachers appears at the two extremes.

TABLE X

Teaching Time in Subjects Prepared for
of Academic Teachers in Medium and
Large Junior High Schools, 1939-40

	Medium		Large	
Percent of teaching time in own field	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	4	24.9	20	22.2
5- 14	-	-	-	-
15- 24	-	-	2	2.2
25- 34	1	6.3	5	5.6
35- 44	1	6.3	3	3.3
45- 54	4	24.9	5	5.6
55- 64	1	6.3	2	2.2
65- 74	-	-	1	1.2
75- 84	-	-	2	2.2
85- 94	-	-	3	3.3
95-100	5	31.3	47	52.2
Total	16	100	90	100

Replies were received from all five of the medium sized and all nine of the large junior high schools.

Sixteen teachers were in the first group.

We note that although no conclusions based on the study of as small a group can be more than suggestive, the teachers seem to fall evenly into three nearly equal divisions. The divisions contain those teachers teaching nearly all, about half and almost none of the time in their own field.

Ninety teachers were placed in the large junior high school academic group. Forty-seven or 52.2 per cent. of these teachers taught 95 per cent. or more of the time in their own field. Twenty or 22.2 per cent., however, taught 4 per cent or less of the time in their own field. This 22.2 per cent. seems a very large percentage, especially when it is noted that these schools are the large junior high schools of the cities. It may be that when a vacancy occurs a teacher is promoted from the elementary to the junior high school without much regard to the subjects that he is prepared to teach. Even though the bare subject matter in the junior high school may be so elementary that the majority of the teachers are capable of teaching most of the subjects, the pupils will, undoubtedly, receive more benefit and lasting good from the course if a teacher is able to draw, for enrichment, upon a wealth of knowledge received through advanced training

in the subject.

TABLE XI

Teaching Time in Subjects Prepared for of Academic
Teachers in Small, Medium and Large Combined
Junior-Senior High Schools, 1939-40

	Small		Medium		Large	
Percent of teaching time in own field	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	-	-	4	15.4	8	7.9
5- 14	-	-	-	-	-	-
15- 24	-	-	1	3.8	-	-
25- 34	1	25	-	-	3	2.9
35- 44	-	-	-	-	3	2.9
45- 54	2	50	-	-	9	8.8
55- 64	-	-	2	7.7	3	2.9
65- 74	-	-	3	11.5	1	.9
75- 84	-	-	2	7.7	8	7.9
85- 94	-	-	-	-	4	3.9
95-100	1	25	14	53.9	62	61.9
Total	4	100	26	100	101	100

Replies were received from three of the four small, all six medium and all eleven large combined junior-senior high schools.

Four teachers were placed in the small combined junior-senior high school group.

Twenty-six teachers in the medium size combined

junior-senior high schools were studied. As in the previous studies it was found that the largest number, fourteen or 53.9 per cent., were in the 100 per cent. group. The next largest number, four or 15.4 per cent., were in the 0 per cent. group.

One hundred and one teachers in the large combined junior-senior high schools were studied. Sixty-two or 61.9 per cent. were in the 100 per cent. group. The next largest number, nine or 8.8 per cent. were in the 50 per cent. group. However eight or 7.9 per cent. were found to be in the 0 per cent. and the 80 per cent. groups.

TABLE XII

Teaching Time in Subjects Prepared for
of Academic Teachers in the British
Columbia Secondary Schools, 1939-40

Percent of teaching time in own field	No. of teachers	Percent of total no. of teachers
0- 4	71	10.8
5- 14	2	.3
15- 24	12	1.8
25- 34	25	3.8
35- 44	25	3.8
45- 54	36	5.2
55- 64	19	2.9
65- 74	24	3.6
75- 84	39	5.9
85- 94	26	3.9
95-100	386	58
Total	665	100

Table XII is a combination of Tables VIII to XI, and therefore refers to the percentage of teaching time in subjects prepared for of academic teachers in the British Columbia secondary schools. Altogether 665 teachers were in this large academic group. Three hundred eighty-six or 58 per cent. of these teachers taught 95 per cent. or more of the time in their own field. The next largest number of teachers is seventy-one or 10.8 per cent. of the total. These teachers were at the other extreme and taught 4 per cent. or less of the time in their own field.

Academic and Special.

TABLE XIII

Teaching Time in Academic Subjects Prepared
for of Academic and Special Teachers
in the Senior High Schools, 1939-40

Percent of teaching time in own field	Small		Medium		Large	
	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	-	-	1	4.7	10	22.7
5- 14	-	-	-	-	1	2.3
15- 24	3	23.1	1	4.7	1	2.3
25- 34	-	-	1	4.7	1	2.3
35- 44	-	-	1	4.7	-	-
45- 54	2	15.4	2	9.8	1	2.3
55- 64	2	15.4	1	4.7	-	-
65- 74	-	-	1	4.7	1	2.3
75- 84	1	7.6	-	-	2	4.5
85- 94	2	15.4	-	-	-	-
95-100	3	23.1	13	62	27	61.3
Total	13	100	21	100	44	100

TABLE XIV

Teaching Time in Academic Subjects Prepared for
of Academic and Special Teachers in Medium
and Large Junior High Schools, 1939-40

Percent of teaching time in own field	Medium		Large	
	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	1	10	2	12.5
5- 14	-	-	-	-
15- 24	-	-	-	-
25- 34	2	20	-	-
35- 44	-	-	-	-
45- 54	-	-	-	-
55- 64	-	-	-	-
65- 74	-	-	-	-
75- 84	-	-	-	-
85- 94	3	30	-	-
95-100	4	40	14	87.5
Total	10	100	16	100

TABLE XV

Teaching Time in Academic Subjects Prepared for of Academic
and Special Teachers in Small, Medium and Large
Combined Junior-Senior High Schools, 1939-40

Percent of teaching time in own field	Small		Medium		Large	
	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers	No. of teachers	Percent of total no. of teachers
0- 4	-	-	3	25	5	27.6
5- 14	-	-	-	-	-	-
15- 24	1	16.7	-	-	-	-
25- 34	-	-	-	-	-	-
35- 44	1	16.7	1	8.3	-	-
45- 54	-	-	1	8.3	-	-
55- 64	-	-	-	-	2	11.2
65- 74	-	-	1	8.3	-	-
75- 84	1	16.7	-	-	1	5.6
85- 94	1	16.7	1	8.3	1	5.6
95-100	2	33.2	5	41.8	9	50
Total	6	100	12	100	18	100

The conclusions based on Tables XIII, XIV and XV are much the same as those based on the previous tables. The largest number of teachers are teaching 95 per cent. or more of the time in their own field. In the large schools the next largest number are those teaching 4 per cent. or less of their time in their own field.

TABLE XVI

Teaching Time in Special Subjects Prepared for of
Academic and Special Teachers in the Secondary
Schools of British Columbia, 1939-40

School	0 per cent	100 per cent	Total
Two-teacher senior h.s.	2	-	2
Small senior h.s.	13	-	13
Medium senior h.s.	20	1	21
Large senior h.s.	39	11	50
Medium junior h.s.	10	-	10
Large junior h.s.	14	8	22
Small junior-senior h.s.	3	1	4
Medium junior-senior h.s.	11	2	13
Large junior-senior h.s.	14	8	22
Total	126	31	157

Definite conclusions could not be arrived at from the available information for the teachers of special subjects in the academic and special group as it was not always possible to say whether a teacher was prepared to teach the special subjects. Often a teacher, by taking

extra courses during the summer or winter, may have been prepared to teach a special subject yet may not have held a special certificate.

Table XVI shows 157 teachers in the academic and special group who were studied from the point of view of special subjects. The teachers, for the purpose of this study, were considered prepared to teach a special subject if they held a special certificate.

One hundred and twenty-six or 80.3 per cent. of these 157 teachers were found to be teaching special subjects between 16 and 85 per cent of the time without being prepared to do so. The remaining thirty-one or 19.7 per cent. were teaching special subjects while holding a special certificate.

Special.

TABLE XVII

Types of Certificates Held by Special Teachers
in the Secondary Schools of British Columbia, 1939-40.

Certificate	No. of teachers	Percent of total no. of teachers
First class	12	3.2
Academic	41	16.9
Special	210	79.9
Total	263	100

Table XVII shows the 263 teachers who were teaching special subjects 85 per cent or more of the time. It was found that twelve or 3.2 per cent. of the teachers held First Class certificates, forty-one or 16.9 per cent. held Academic certificates and 210 or 79.9 per cent. held special certificates.

Teachers holding First and Second Class
certificates and no Special certificate
who were not previously studied

In the previous discussions only teachers with degrees were placed in the academic and academic and special groups while any teacher, regardless of whether he held a degree or not, was placed in the special group if he spent at least 85 per cent. of his teaching-time teaching special subjects. There still remained eighty-six teachers without degrees or special certificates who have not been examined. These teachers taught mainly in the junior high schools although a few taught some subjects in the senior high schools. The eighty-six teachers were divided into two groups (a) teachers who taught academic subjects only (b) teachers who taught some special subjects. While no study was made of the teaching time spent in teaching the special subjects, it was observed that the teachers could not be included

in the special group. The interest was solely in the number of teachers with First and Second Class certificates who taught (1) academic subjects only (2) some special subjects.

TABLE XVIII

First and Second Class Teachers Teaching Only Academic Subjects and Some Special Subjects in the Secondary Schools of British Columbia, 1939-40

	No. of teachers	Percent
Academic subjects only	47	54.7
Some special subjects	39	45.3
Total	86	100

Forty-seven or 54.7 per cent. of the teachers spent all of their time teaching academic subjects. The remaining thirty-nine or 45.3 per cent. of the teachers spent some of their teaching time teaching special subjects.

CHAPTER III

A Comparison of the Training of Senior High School Teachers of British Columbia and the United States in Relation to the Subjects They Taught

Purpose.

The purpose of this chapter is to compare the training of senior high school teachers of British Columbia and the United States in relation to the subjects they taught.

Major Subject.

In the study in the previous chapter, the secondary school teachers were said to be teaching in their own field if they were teaching either their major or minor subject. For the purpose of this chapter "own field" takes on a new meaning. "Own field" will now refer only to the major. The change was necessary because in all the studies examined the teachers were grouped according to the major subject taken at the university.

Before a comparison of the results could be

made it was necessary to investigate what was meant by a "major" in an American university and to see whether this definition differed from that given in the questionnaire and therefore with the definition of a major in the University of British Columbia.

The following extracts are from the University of British Columbia Calendar and show what is meant by a major.

A General Course degree will be granted on completion of courses amounting to sixty units chosen in conformity with Calendar regulations.⁴¹

Third and Fourth Year

For a General Course a student must select two major subjects, according to either of the following schemes.⁴²

- A. minimum of nine units in one subject and a minimum of six units in another subject.
- B. minimum of nine units in each of two subjects.

Certain subjects were listed under both Groups A and B. The subjects in Group A were related to each other while those in Group B were unrelated.

41. University of British Columbia Calendar, 1939-40, p. 53.

42. Ibid., p. 77.

Work in the First or Second Year is required in each of the major subjects, except Education and Music.⁴³

For a major subject a student must take a minimum of twelve units. He must therefore spend at least 20 per cent. of the time at the University of British Columbia taking a major.

The university year is divided into two terms or semesters. The following quotations, which were taken from the University of Pittsburgh Bulletin, define a major.

A credit is given for one hour of recitation or lecture per week throughout a semester of sixteen weeks. In science courses a ratio of two hours for one semester credit is obtained for laboratory work. For graduation a total of 120 credits must be satisfactorily completed.⁴⁴

Major. The major must contain a group of courses aggregating twenty-four credits.⁴⁵

A student must spend at least 20 per cent. of the time at the University of Pittsburgh, in his major subject.

A major at the University of Montana may be

43. University of British Columbia Calendar, 1939-40, p. 77.

44. University of Pittsburgh Bulletin, General Catalogue, 1926-27, p. 73.

45. Ibid., p. 102.

defined from the following quotations.

Candidates for the degree of Bachelor of Arts are required to complete 180 credits in addition to required credits in Physical Education.⁴⁶ (twelve credits)

Credits Required for a Major. A department or school may require that the major students complete from forty to fifty-five credits in the chosen field.⁴⁷

It is seen that out of 192 units a minimum of forty or 20.8 per cent. must be in the major field of study.

TABLE XIX

Percent of Time at the Universities
in the Major Subject

University ^a	Percent
U.B.C.	20
Pittsburgh	20
Montana	20.8
Rochester	21.8
Missouri	18.8
Maryland	23.6
Iowa	19.7

a. University Bulletins.

Table XIX indicates the percentage of time

46. University of Montana Bulletin, 1932-33, pp. 17-18.

47. Loc. cit.

spent in the major subject at the University of British Columbia and six American universities. The percentages for the American universities are approximately the same as that for the University of British Columbia. In the following studies it is assumed that a major means the same thing at an American university and the University of British Columbia.

British Columbia and Iowa.

48

By means of a questionnaire James Henry Inman made a study of the training of 1048 Iowa high school teachers in relation to the subjects they taught.

The graduates of eleven⁴⁹ of the colleges in Iowa, during the period from 1921 to 1926, who had had from one to five years of high school teaching experience since graduation were selected as a basis for this study.⁵⁰

From a study of the teachers in British Columbia and Iowa it was found that no matter what a teacher's major subject was, there was a probability that

-
48. Inman, James Henry, The Training of Iowa High School Teachers in Relation to the Subjects They Teach, Studies in Education, Vol. IV, no. 9, 1928.
49. Central, Coe, Cornell, Des Moines University, Drake University, Grinnel, Iowa Wesleyan, Morningside, Parsons, Penn and Simpson.
50. Inman, op. cit., p. 9.

he would be called upon to teach other subjects as well, if indeed not instead of the subjects majored in.

TABLE XX

a
Percent of Senior High School Teachers in Iowa (1921-26)
and British Columbia (1939-40) who Taught Subjects
that They Majored in

	Iowa			British Columbia		
	Total teaching subject	Number majored	Percent	Total teaching subject	Number majored	Percent
English	505	212	42	195	116	59.6
French	45	25	55.6	99	55	55.5
Spanish	22	4	18.2	2	-	-
Latin	173	26	15	63	25	39.7
Social Studies	454	74	16.3	150	67	44.7
Maths.	373	84	25.6	147	55	37.4
Biology	130	19	14.6	10	7	70
Physics	206	10	4.9	30	6	20
Chemistry	27	15	55.6	40	23	57.5
Home Ec.	111	96	86.5	28	28	100
Music	68	20	29.4	14	1	7.1

a. Inman, op. cit., pp. 28-29.

Table XX indicates the number of senior high school teachers in Iowa and British Columbia who taught the subjects listed and the number and percentage of teachers who majored in these subjects.

The percentages for British Columbia are higher than those for Iowa. There are at least two reasons why this is so. As previously stated, the questionnaire

for Iowa was sent to teachers who had one to five years of high school teaching experience. The results covered a maximum teaching time of five years. A teacher may have been listed as teaching a subject although he may not have taught it for several years. The results for British Columbia were based only upon the one year covered by the questionnaire.

The results for Iowa, moreover, undoubtedly included some one-teacher high schools. These teachers taught a variety of subjects. The percentages would therefore be lower. The results for British Columbia, however, did not include one-teacher high schools.

Although the percentages differ, it must be noted that in one respect there is a similarity between the results for Iowa and British Columbia. Two special subjects are compared. The percentage for home economics is the larger for both Iowa and British Columbia, 86.5 per cent. and 100 per cent. respectively. Music, which is the other special subject compared, has relatively low percentages.

Spanish and biology may be eliminated from the discussion of academic subjects. There are only a few teachers teaching these subjects in British Columbia. It appears that the three academic subjects, English,

French and chemistry, which have the largest percentages of majors in Iowa, are also the subjects with the largest percentages in British Columbia. Physics has the lowest percentage in both Iowa and British Columbia, 4.9 per cent. and 20 per cent. respectively. Latin, social studies and mathematics have the next three lowest percentages in both Iowa and British Columbia.

British Columbia and Alabama.

51

Henry Clifton Pannell, in his article The Preparation and Work of Alabama High School Teachers arrived at the following conclusions.

One-half of the teachers included in this study taught their major college subject, while one-fourth taught subjects for which they had less specialized training than a college minor. In some subjects teachers had no undergraduate specialization whatever.⁵²

Seventy-five per cent. of the teachers in Alabama taught either their major or minor subjects. By using the results of the previous chapter it was found that only 58.7 per cent. of the senior high school

51. Pannell, Henry Clifton, "The Preparation and Work of Alabama High School Teachers", Teacher's College Record, Vol. XXXV, Oct. 1933-May 1934.

52. Ibid, p. 237.

teachers of British Columbia in schools of more than one teacher taught either their major or minor subjects.

British Columbia, United States and New York.

54

E.N. Ferriss made a study of the relation between the teacher's major field and teaching subjects. He found, from the reports of 396 rural high school teachers in the United States, that 16 per cent. taught full time, 68 per cent. part time and the remaining 16 per cent. none of the time in their major field. The data for 612 teachers in semi-rural schools showed that 38 per cent. taught full time, 50 per cent. taught part time and 12 per cent. taught none of the time in their own field.

A similar study was made of teachers in New York State. Data on 1105 who taught in small high schools during 1920-21 showed that 30.5 per cent. were teaching full time, 56.5 per cent. part time and 13 per cent. none of the time in their own field. In the schools of New York with an enrolment of fewer than fifty pupils 14 per cent. were giving all of their time, 72 per cent. part of their time and the remaining 14 per cent. none of their time to subjects representing their major

54. Ferris, E.N., "The Rural High School: Its Organization and Curriculum", Bulletin No. 10, United States Bureau of Education, 1925.

55
field of training.

TABLE XXI

Senior High School Teachers Who Gave No
Instruction in Their Own Field

Place	Total no. of teachers	No. not in own field	Percent
U.S.A. (rural)	396	63	16
U.S.A. (semi-rural)	612	68	12
N.Y. (small)	1105	124	13
N.Y. (fewer than fifty pupils) ^a	-	-	14
B.C. (small and medium)	162	7	4.3
B.C. (large) ^b	296	34	11.5

a. Ferriss, The Rural High School, pp.14-15.

b. Results from previous chapter.

Table XXI shows the percentage of teachers who gave no instruction in subjects in their own field. In United States and New York the major subject was the teacher's "own field". The results from British Columbia were taken from Tables IX and XIII. The major and minor subjects were the teacher's "own field". Because of the wider scope of prepared subjects the British Columbia teachers were more likely to be teaching their major or minor. The percentage for the small and medium high schools of British Columbia approaches zero. The per-

55. Ferriss, The Rural High School, pp. 14-15.

centage for the large high school is 11.5 per cent. The results compare favourably with those from United States.

British Columbia and Minnesota.

In 1921-22 P.W. Hutson⁵⁶ made an investigation of the relation of the preparation of science teachers to the subjects they taught. One thousand one hundred and thirty-four⁵⁷ high school teachers answered a questionnaire that was sent out by the College of Education of the University of Minnesota. Two hundred and seventy⁵⁸ of the teachers reported that they were teaching one or more classes in the natural sciences. Ninety-seven⁵⁹ of these teachers taught general science. The teachers were divided into the following four groups⁶⁰ according to the size of the high school faculties from which they came:-

- Group I - thirty or more teachers
- Group II- eleven to thirty teachers

56. Hutson, P.W., "High School Science Teachers: A Study of Their Training in Relation to the Subjects They are Teaching", Educational Administration and Supervision, Vol. IX, No. 7, Oct. 1923.

57. Ibid., p. 423.

58. Loc. cit.

59. Loc. cit.

60. Loc. cit.

Group III - ten or fewer teachers
Group IV - high school departments of state
graded schools.

TABLE XXII

The Number of Sciences in Which a
Teacher Had University Training

Place	Percent of total number of teachers			
	0 science	1 science	2 sciences	3 or more sciences
Minn.				
Group I & II	-	6.4	21.3	72.3
Group III	23	9.1	13.6	74.9
Group IV ^a	-	43.8	18.7	37.5
B.C.				
large	26.2	36.6	26.6	10.2
medium & small	33.8	25.8	32.3	8.1

a. Hutson, High School Science Teachers, p.423.

Table XXII compares the distribution of general science teachers in the senior high schools of Minnesota and British Columbia according to the number of sciences taken. A teacher in Minnesota was listed as taking a science if he took only one course in his undergraduate work at university. The data were not available for the British Columbia teachers. The only mention of courses in the questionnaire was for the major and minor. The percentages for British Columbia included only the sciences taken as a major or minor. If the sciences taken, but not recorded as a major or minor, were added

there would be a much smaller percentage in the zero and probably the one science groups and a corresponding larger percentage in the other groups.

From Table XX it appears that ten, thirty and forty senior high school teachers taught biology, physics and chemistry respectively while 122 teachers were found to teach general science. If a teacher is going to specialize in science it is better to take at least three sciences, preferably biology, physics and chemistry, rather than to specialize in one science. The present British Columbia high school curriculum throws the greatest emphasis on general science.

The question often asked by prospective high school teachers is "What teaching subject should I take as a major?" This question is usually asked with the idea of being able to get a teaching position after completing the Teacher Training Course. From the point of view of the teacher taking an interest in and knowing his subject matter thoroughly the obvious answer would be, "The subject which you like the best and in which you probably get the highest marks." From the point of view of being able to get a teaching position the answer would be, "The teaching subjects in greatest demand." Is it possible to pick out the teaching subjects

for which there is the greatest demand?

This thesis does not make a study of the supply and demand of teachers in British Columbia. From Table XX, however, it should be possible to arrive at some conclusion with regard to the relative demand for teachers in British Columbia who majored in the various subjects. From the column with the percentages of teachers who majored in the subjects they are teaching it appears that physics, mathematics and Latin are the subjects which have the lowest percentage of teachers teaching their major. The percentages, however, give a false impression. If the number of teachers who majored in a subject is subtracted from the total number of teachers the result gives the number of teachers who did not major in their teaching subject. It is observed that ninety-two, eighty-three, seventy-nine and forty-four teachers who taught some mathematics, social studies, English and French respectively, did not major in their teaching subject. It appears, then, that there is likely to be the greatest demand for teachers who majored in mathematics, social studies and English. The obvious reason why there are so many teachers teaching English and social studies is that both these subjects are compulsory in the high school.

Similarly from Table XVII it should be possible to get some idea of the relative demand for teachers of the special subjects who hold a special certificate. There are 178 physical education teachers teaching without a special certificate. Art and commercial rank second and third with fifty-six and fifty-four respectively. It appears that there would be the greatest demand for teachers holding special certificates in physical education, art and commercial subjects. The reason why there are so many teachers teaching physical education is that it is compulsory in all secondary schools.

It must be remembered that there is not necessarily a scarcity of qualified academic and special teachers in the province. The results only show the subjects with the greatest number of teachers teaching without being specifically prepared (major or special).

CHAPTER IV

Academic and Professional Qualifications of Secondary School Teachers of British Columbia

This chapter studies the academic and professional qualifications of the secondary school teachers of British Columbia, utilizing for the purpose the results of the third, seventh, eighth, ninth and part of the sixth questions of the questionnaire.

Teachers Holding Degrees.

The secondary school teachers were first studied from the point of view of the academic degrees they held.

61
Edward S. Evenden and Guy C. Gamble made a study of 121,133 secondary school teachers in the United States during 1930-31, basing the figures on data received from small and large, rural and urban and junior and senior high schools in all the states. The teachers

61. Evenden, Edward S., and Gamble, Guy C., "Teacher Personnel in the United States", U.S. Bureau of Education, Bulletin 1933, No. 10, Vol. II, p.49.

involved constituted a cross section of all those in the secondary schools of the United States.

TABLE XXIII

Number and Percent of Secondary School Teachers in United States (1930-31)^a and British Columbia (1939-40) with Degrees

School	No. teachers		No. degrees		Percent	
	U.S.A.	B.C.	U.S.A.	B.C.	U.S.A.	B.C.
Senior	84,882	742	72,136	625	85	84.2
Junior	36,251	260	20,552	190	56.7	65
Junior-Senior	-	249	-	192	-	77.1
Total	121,133	1251	92,688	986	76.5	78.9

a. Evenden and Gamble, op. cit.

Table XXIII shows the number and percentage of junior and senior high school teachers in United States and British Columbia and the number and percentage of combined junior-senior high school teachers in British Columbia with degrees. Although the American figures were obtained in 1930-31, the results will give some idea of how British Columbia compares to the United States.

The results indicate that the percentages of secondary school teachers with degrees were approximately equal. In the senior high schools the percentages for

British Columbia and the United States were 84.2 per cent. and 85 per cent. respectively, while for the junior high schools they were 65 per cent. and 56.7 per cent respectively.

One hundred and ninety-two or 77.1 per cent. of the 249 combined junior-senior high school teachers in British Columbia held degrees. As would be expected this average is between the 84.2 per cent for the senior and 65 per cent. for the junior high schools.

A further comparison of the percentage of high school teachers in British Columbia and in the United States who held degrees may be made from the results as
62
stated by Ferriss.

The New York survey showed that in 1920-21, 62 per cent. of the high school staff in schools in centres under 4500 held college or university degrees. In Montana, for 1921-22, 76 per cent. of all the high school teachers in the state were reported as having four years or more academic training above high school. In the high schools in villages of the third-class districts, however, the percentage having such training was only 62. In North Dakota in 1920-21, 70 per cent. of the instructors in second- and third-class high schools held college or university

62. Ferriss, Emery N., Secondary Education in Country and Village.

63

degrees. According to C.J. Anderson , in Wisconsin high schools of two to five teachers, 21 per cent. were graduates of colleges or universities and 77 per cent. were normal-school graduates. In schools of six or more teachers, the percentage of college or university graduates ran from 21 in schools of six teachers to 64 per cent. in schools of eleven to fifteen teachers and 69 per cent. in high schools of over fifteen teachers.⁶⁴

TABLE XXIV

Percent of Teachers
with Degrees

Place	Percent
Montana (1921-22)	76
Montana (1921-22) third class	62
North Dakota (1920-21) 2nd & 3rd class	70
Wisconsin (2-5 teachers)	21
Wisconsin (6 teachers)	31
Wisconsin (11-15 teachers)	64
Wisconsin (over 15 teachers) ^a	69
B.C. (senior high)	84.2
B.C. (all secondary) ^b	78.9

a. Ferriss, Emery N., Secondary Education in Country and Village, p. 14-15.

b. Table XXIII.

Table XXIV shows the percentage of teachers

63. Anderson, J.C., The Status of Teachers in Wisconsin, pp. 86-93, cited in Ferriss, Emery N., Secondary Education in Country and Village, p. 14.

64. Ferriss, Emery N., Secondary Education in Country and Village, pp. 14-15.

with degrees. For Montana it was assumed that the teachers with four or more years training above high school held degrees. Actually the percentage with degrees should be lower. The percentages for British Columbia are the largest shown in the table.

All the teachers in British Columbia who were examined did not hold degrees. The teachers who held degrees were divided into the two groups:- (1) those having degrees and academic certificates (2) those having degrees and no academic certificates. Those not possessing degrees were also examined to see whether or not they were studying towards a degree.

The 986 secondary school teachers in British Columbia with degrees were examined to see whether they held academic certificates. Of the eighty teachers without an academic certificate, twenty-four or 30 per cent. indicated that they were working towards an academic certificate. Fifty-three held a special certificate. Only three of these latter teachers indicated that they were working towards an academic certificate. Twenty-one out of the twenty-four teachers working towards an academic certificate did not possess a special certificate.

It was found that 265 or 21.1 per cent. of the

1251 secondary teachers in British Columbia did not have a degree. Ninety-two or 34.8 per cent. of these teachers were found to be working towards a degree. It must be remembered that some of the teachers without a degree held a special certificate.

Distribution of Degrees.

TABLE XXV

Number of Degrees Held by the Secondary School Teachers of British Columbia (1939-40)

No. degrees	No. teachers	Total degrees
1	800	800
2	169	338
3	15	45
4	2	8
	986	1191

As previously mentioned, 986 secondary school teachers in British Columbia held degrees. Table XXV shows that these 986 teachers held 1191 degrees.

The 1191 degrees were next grouped under the three headings, undergraduate, graduate and doctor. By an undergraduate degree we mean the first degree, such as the B.A. and B.Sc. By a graduate degree we mean a degree such as the M.A. and B.Paed. which is received

after the undergraduate degree but before the doctor's
⁶⁵ degree. By a doctor's degree we mean the Ph.D. and
 D.Paed. The 108,714 degrees held by the secondary school
 teachers in the United States who were studied, were
⁶⁶ classified as B.A., M.A. and Doctor. No mention was
 made of other undergraduate or graduate degrees. They
 were presumably grouped with the B.A. or M.A.

TABLE XXVI

Number and Percent of Degrees Held in the Three Groups by
 the Secondary School Teachers in United States (1930-31)
 and in British Columbia (1939-40)

Group	U.S.A. ^a		B.C.	
	Degrees	Percent	Degrees	Percent
Undergraduate	92,688	85.3	1010	84.8
Graduate	15,631	14.4	178	14.9
Doctor	395	.3	3	.3
Total	108,714	100	1191	100

a. U.S. Bureau of Education, Bulletin, loc. cit.

Table XXVI compares the distribution of the
 108,714 degrees held in the United States and the 1191

65. Actually a graduate degree is a degree received
 after the undergraduate degree but for the purpose
 of this study undergraduate degrees will not
 include doctorates.

66. U.S. Bureau of Education, Bulletin 1933, No. 10, p. 49.

degrees held in British Columbia according to the groups, undergraduate, graduate or doctor. The data for the United States were of course, somewhat older than those for British Columbia. The table shows the percentages of degrees in the three groups to be approximately the same.

TABLE XXVII

Distribution of Degrees Held by the British Columbia
Secondary School Teachers According to
Where Received (1939-40)

Degrees from	No. Degrees	Percent
U.B.C.	806	67.7
Rest of Canada	255	21.4
U.S.A.	72	6
British Isles	58 ^a	4.9
	1191	100

a. Including one degree from Bombay, India.

From Table XXVI it is seen that by far the largest number of degrees, 806 or 67.7 per cent., were received from the University of British Columbia. The next largest number, 255 or 21.4 per cent., were received from universities situated in the remainder of Canada. Only seventy-two or 6 per cent. of the degrees were received from universities in the United States, while

fifty-eight or 4.9 per cent. were received from universities in the British Isles.

Degrees from the University of British Columbia.

TABLE XXVIII

Number and Percent of Undergraduate and Graduate
Degrees Received at the University
of British Columbia (1939-40)

	Undergraduates	Graduates
Total degrees	1010	178
No. U.B.C.	721	85
Percent U.B.C.	71.4	47.7

From Table XXVIII the relatively greater importance of the University of British Columbia for undergraduate than graduate work is evident. Thus while 71.4 per cent. of the undergraduate degrees were received from this university it is seen that only 47.7 per cent. of the graduate degrees were from the university.

Degrees from other Canadian Universities.

TABLE XXIX

Number and Percent of Degrees
from some Canadian Universities other than
the University of British Columbia, 1939-40.

	Degrees	
	Number	Percent
Manitoba	45	17.6
Toronto	35	13.7
Queens	34	13.3
Saskatchewan	24	9.4
McGill	23	9
Others	94	37
Total	255	100

It was found that if the University of British Columbia was excluded, 255 degrees were issued from Canadian universities. Table XXIX indicates the five universities that issued the largest number, 161 or 63 per cent., of these degrees. The University of Manitoba ranks first with forty-five or 17.6 per cent. of the degrees. The University of Toronto and Queens rank second and third with thirty-five or 13.7 per cent. and thirty-four or 13.3 per cent. of the degrees

respectively.

Degrees from United States.

TABLE XXX

Number and Percent of Degrees from some
American Universities, 1939-40

University	No. degrees	Percent
Washington	39	54.2
Columbia	10	13.9
California	6	8.3
Others	47	23.6
Total	72	100

The secondary school teachers in British Columbia who were examined held seventy-two degrees from American universities. Table XXX shows the three universities that issued fifty-five or 76.4 per cent. of these degrees. The University of Washington easily ranks first with thirty-nine or 54.2 per cent. of the total. Columbia and the University of California rank second and third with ten or 13.9 per cent. and six or 8.3 per cent. of the degrees respectively.

Home Economic Degrees.

TABLE XXXI

Number and Percent of Degrees in Home Economics
from Some of the Universities, 1939-40.

University	No. degrees	Percent
Manitoba	27	64.7
Washington	6	14.4
Others	9	20.9
Total	42	100

The home economics teachers are the only teachers who need a special type of degree. Forty-two of the secondary school teachers who were examined held a B.Sc. degree in home economics. Table XXXI shows that by far the greatest number, twenty-seven or 64.7 per cent., were obtained at the University of Manitoba. The University of Washington ranks second with six or 14.4 per cent. of the total.

Certificates.

TABLE XXXII

Number and Percent of Secondary School Teachers in British Columbia Who Held Academic Certificates^a

Year	Number teachers	No. academic certificates	Percent
1925-26	401	362	90.2
1926-27	469	397	81.3
1927-28	549	447	81.5
1928-29	672	521	77.5
1929-30	735	562	76.9
1930-31	798	578	72.9
1931-32	837	613	73.3
1932-33	890	653	73.4
1933-34	883	662	74.9
1934-35	933	716	76.7
1935-36	958	735	76.7
1936-37	1072	794	74.1
1937-38	1183	833	70.4
1938-39	1312	886	67.5
1939-40	1251 ^b	906	70.2

a. Annual Reports.

b. Not total number - results of questionnaire.

TABLE XXXIII

Number and Percent of Junior and Senior High School Teachers in British Columbia Who Held Academic Certificates^a

Year	Junior high schools			Senior high schools		
	Number teachers	Number academic certificates	Percent	Number teachers	Number academic certificates	Percent
1925-26	-	-	-	401	362	90.2
1926-27	17	3	17.7	452	394	87.2
1927-28	68	32	47.7	481	415	86.3
1928-29	157	59	36.9	515	462	89.7
1929-30	181	69	38.1	554	493	88.9
1930-31	209	85	40.7	589	493	83.7
1931-32	205	86	41.9	632	527	83.4
1932-33	234	102	43.5	656	551	83.9
1933-34	213	101	47.4	670	561	83.7
1934-35	218	107	49.1	715	609	85.1
1935-36	215	107	49.7	743	628	84.5
1936-37	270	135	50	802	659	82.1
1937-38	351	162	46.1	832	671	80.5
1938-39	411	187	45.5	901	699	77.6

a. Annual Reports.

TABLE XXXIV

Number and Percent of Secondary School Teachers in British Columbia Who Held Special Certificates^a

Year	Number teachers	No. special certificates	Percent
1925-26	401	28	6.9
1926-27	469	50	10.7
1927-28	549	70	12.8
1928-29	672	59	8.8
1929-30	735	70	9.5
1930-31	798	127	15.9
1931-32	837	126	15.1
1932-33	890	141	15.9
1933-34	883	144	16.4
1934-35	933	152	16.3
1935-36	958	157	16.4
1936-37	1072	192	17.9
1937-38	1183	222	18.9
1938-39	1312	285	21.7
1939-40	1251 ^b	229	18.3

a. Annual Reports.

b. Not total number = results of questionnaire.

TABLE XXXV

Number and Percent of Junior and Senior High
School Teachers in British Columbia
Who Held Special Certificates^a

Year	Junior high schools			Senior high schools		
	Number teachers	Number special certificates	Percent	Number teachers	Number special certificates	Percent
1925-26	-	-	-	401	28	6.9
1926-27	17	5	29.4	452	45	9.9
1927-28	68	17	25	481	53	11
1928-29	157	27	16.9	515	32	6.2
1929-30	181	40	22.1	554	30	5.4
1930-31	209	46	22	589	81	13.7
1931-32	205	47	22.4	632	79	12.5
1932-33	234	46	19.7	656	95	14.5
1933-34	213	45	21.1	670	99	14.7
1934-35	218	48	22	715	104	14.5
1935-36	215	45	20.9	743	112	15.1
1936-37	270	60	22.2	802	132	16.5
1937-38	351	86	21.6	832	136	16.3
1938-39	411	98	23.8	901	187	20.7

a. Annual Reports.

Table XXXII shows the percentage of secondary school teachers in British Columbia who held academic certificates. The school year 1925-26 is the first year shown because it was during the following year that the first junior high school in the province was opened. Only the teachers who answered the questionnaire were shown for the 1939-40 school year. The percentage of these teachers with an academic certificate would vary

only slightly from the percentage of the total number of teachers with an academic certificate.

Before the opening of the first junior high school in the province the percentage of secondary school teachers with an Academic certificate was 90.2 per cent. This percentage gradually decreased until during the 1930-31 school year it reached 72.9 per cent. For the next four years it increased to 76.7 per cent. and then decreased again until in 1938-39 it reached the lowest it had been, 67.5 per cent. In 1939-40 it was 70.2 per cent. Many of the teachers who did not answer the questionnaire were teachers of the special subjects and without a degree. This caused the slight increase in the percentage of academic certificates.

Table XXXIII states the number and percentage of junior and senior high school teachers in British Columbia who held Academic certificates. During 1938-39 the percentage of junior high school teachers with this certificate was 45.5 per cent. This was the lowest it had been since 1932-33. In the same year the percentage in the senior high schools was 77.6. This was the lowest percentage shown for the senior high schools.

The courses of study issued in 1933, 1936 and 1937 widened the scope of subjects that it was possible

to take. Many special subjects were added to those already available. The high school graduation diploma was also issued. Many pupils who dropped out of school because they could not complete their junior matriculation now completed their four years of training by taking some special subjects. Although there has been an increase in the number of teachers holding an Academic certificate it is seen from Table XXXIII that there has been a decrease in the percentage of teachers holding this certificate.

Table XXXIV shows the number and percentage of secondary school teachers in British Columbia who held special certificates. From the table it appears that the percentage is increasing.

From Table XXXV it appears that the percentage of junior high school teachers who held a special certificate varied from year to year. In 1938-39, however, it reached its largest percentage (except for the first two years that the junior high school opened in the province). During the same year the percentage in the senior high schools was the largest it has been. The apparent reason for these increases is that there is now a greater emphasis upon the special subjects. There must be a corresponding increase in the number of

teachers of these subjects.

TABLE XXXVI

Types of Certificates Held by the Secondary School
Teachers of British Columbia, 1939-40

Certificates	Permanent	Interim	Total	Percent
Academic (only)	774	106	880	70.3
First (only)	120	8	127	10.2
Second (only)	6	-	6	.5
Special & Academic	25	1	26	2.1
First or Second & Sp.	170	32	203	16.2
Temporary	-	9	9	.7
Total	1095	156	1251	100

The results from the sixth question of the questionnaire are indicated in Table XXXVI. The table shows how the certificates of the 1251 teachers answering the questionnaire were grouped according to permanent or interim and academic only, first only, second only, special and academic, first or second and special, and temporary. It was found that 1095 or 86.7 per cent. of the certificates were permanent. As would be expected the largest number of teachers, 880 or 70.3 per cent. held only the academic certificate. The next largest number, 202 or 16.2 per cent., held a first or second class certificate and a special certificate.

TABLE XXXVII

Number and Percent of Secondary School Teachers
Who Received the Academic Certificate Directly
Through the University or After
Attending Normal School, 1939-40

Professional training	No. teachers	Percent
University	467	59.2
Normal ^a	323	40.8
Total	790	100

a. The teachers who went through normal school received some secondary school training - see Appendix A.

The results of question seven are shown in Table XXXVII. The table shows the number and percentage of secondary school teachers who received their professional training at a university and at a normal school. Although the majority were found to have taken their professional training at a university and had thus received specific training for secondary work a large number (40.8 per cent.) had not received this specific training.

67. The number of teachers shown, 790, does not agree with the total number of teachers who held an academic certificate. It was impossible to place some of the teachers in either of the two groups as they did not answer the question.

TABLE XXXVIII
Number of Times a Special Subject
was Taught, 1939-40.

	No. times without special	No. times with special	Total	Percent with special
Home Economics	1	66	67	99
Commercial	54	57	111	51.3
Industrial Arts	20	63	83	75.9
Physical Education	178	16	194	.8
Music	40	8	48	16.7
Art	56	19	75	25.3
Total	349	229	578	

Table XXXVIII shows the number of times a subject is being taught by a secondary school teacher in British Columbia without a special certificate. Each teacher was examined to see whether he was teaching a special subject. If he taught physical education and music along with academic subjects he was listed as teaching both special subjects once. By "times" is meant how often the special subjects were taught. The special subjects were found to be taught 578 times. There were slightly fewer than 578 teachers involved as some of the teachers were teaching more than one special subject. When a number refers to a particular subject it was actually the number of teachers teaching the subject.

A teacher might have been counted under more than one subject.

It was found that 229 teachers held special certificates. These teachers taught the special subjects 229 times or 39.6 per cent. of the number of times they were taught. Home Economics was taught 99 per cent. of the time by a holder of a special certificate. Industrial Arts ranks second. It was taught 75.9 per cent. of the total number of times by a holder of a special certificate. At the other extreme it was found that physical education and music were taught .8 per cent. and 16.7 per cent. of the total number of times by teachers having a special certificate.

TABLE XXXIX

Number and Percentage of Various Special
Certificates Held by Secondary
School Teachers, 1939-40

Special certificates	Number teachers	Percent
Home Economics	66	28.9
Commercial	57	24.9
Industrial Arts	63	27.5
Physical Education	16	6.9
Music	8	3.5
Art	19	8.3
Total	229	100

Table XXXIX shows the distribution of 229 secondary school teachers according to the special certificate they held. Sixty-six or 28.9 per cent. of the teachers held special certificates in home economics. Music ranks last with eight or 3.5 per cent. of the total number of teachers.

CHAPTER V

Conclusion.

In order to obtain material for this thesis a questionnaire was sent to all the secondary school teachers in British Columbia. Returns were received from 1251 of these teachers. The results were studied in the previous chapters and certain conclusions were arrived at. The main conclusions will be briefly summarized.

1. Academic Group.

It was found, that if the major and minor were considered to be the teacher's "own field", the largest number of secondary school teachers were teaching 95 per cent. or more of the time in their own field and the next largest number were teaching 4 per cent. or less of the time in their own field.

2. Academic and Special Group.

From an academic standpoint the same conclusion was arrived at as in the academic group. From a special point of view it was found that 80.3 per cent of the

teachers examined were teaching special subjects between 16 and 85 per cent of the time without specific special preparation to do so and the remaining 19.7 per cent. were teaching the special subjects while holding special certificates.

3. Special Group.

Approximately 80 per cent. of the teachers in the special group held Special certificates, 17 per cent. held Academic certificates and 3 per cent. held First Class Certificates.

4. First and Second Class.

It was found that nearly 55 per cent. of the teachers who were teaching in the secondary schools with a First or Second Class certificate spent all their time teaching academic subjects and the remaining 45 per cent. spent some of their time teaching special subjects.

5. Iowa and British Columbia.

If the major subject was taken as the teacher's "own field" it was found that there was a similarity in the percentages of senior high school teachers in Iowa and British Columbia who taught subjects that they

majored in. The percentages were not equal but the same subjects were in the higher and lower percentage groups.

6. Alabama and British Columbia.

Seventy-five per cent. of the senior high school teachers in Alabama and 58.7 per cent. in British Columbia taught either their major or minor subject nearly 100 per cent. of the time.

7. United States, New York and British Columbia.

It was found that there was a similarity in the percentages of senior high school teachers teaching in their own field.

8. Minnesota and British Columbia.

A study was made of the distribution of teachers of general science according to the number of sciences in which they had university training. It was impossible to get complete information for British Columbia from the questionnaire. However, from the information available, it was indicated that the distribution of the number of sciences taken would probably be the same in both studies.

9. Subjects With Least Specific Training.

It was shown that mathematics and physical

education were the academic and special subjects which the greatest number of secondary school teachers of British Columbia were teaching without being specifically prepared to do so (major or special).

10. Degrees - Secondary Schools - United States and British Columbia

The percentages of junior and senior high school teachers with degrees, in United States and British Columbia were approximately equal.

11. Degrees - Senior High Schools - Montana, North Dakota, Wisconsin and British Columbia

The senior high schools of British Columbia had the largest percentage of teachers with degrees.

12. Degrees - Undergraduate, Graduate and Doctor - United States and British Columbia

A study was made of the percentage of undergraduate, graduate and doctor degrees held by the secondary school teachers of the United States and British Columbia. The results indicated that they were nearly equal.

13. Degrees - Where Received

The largest number of degrees held by the British

Columbia secondary school teachers were received at the University of British Columbia.

14. Degrees from the University of British Columbia.

The results showed the relatively greater importance of the University of British Columbia for undergraduate than graduate work.

15. Degrees from other Canadian Universities.

Excluding the University of British Columbia the largest number of degrees from a Canadian university were from the University of Manitoba.

16. Degrees from the United States

The largest number of American degrees were received from the University of Washington.

17. Degrees in Home Economics

Most of the degrees in home economics were received from the University of Manitoba.

18. Academic Certificates

The percentage of secondary school teachers in British Columbia with Academic certificates is steadily decreasing. This decrease is probably due to the greater emphasis upon the special subjects.

19. Special Certificates

The percentage of Special certificates held by the secondary school teachers of British Columbia is increasing.

20. Types of Certificates

By far the largest number of certificates held by the secondary school teachers were academic certificates.

21. Academic Certificates - Professional Training

Nearly 60 per cent. of the holders of Academic certificates received their professional training at a university.

22. Special Subjects - With Special Certificates

Home economics was taught nearly 100 per cent. of the time by holders of Special certificates. At the other extreme it was found that physical education was taught .8 per cent. of the total number of times by teachers having Special certificates.

BIBLIOGRAPHY

- Annual Reports of Public Schools of the Province of British Columbia, Victoria, King's Printer.
- Certification of Teachers, Department of Education, Victoria, King's Printer, 1940, pp.25.
- Evenden, Edward S., Gamble, Guy C., and Blue, Harold G., "Teacher Personnel", United States Bureau of Education, No. 10, Vol. II, 1933, Washington, Government Printing Office, 1933, pp. 258.
- Ferriss, Emery N., "The Rural High School: Its Organization and Curriculum", United States Bureau of Education, Bulletin No. 10, 1925, Washington, Government Printing Office, 1925, pp. 74.
- Ferriss, E.N., Secondary Education in Country and Village, New York and London, D. Appleton and Company, 1927, pp. xix - 401.
- Hutson, P.W., "High School Science Teachers: A Study of Their Training in Relation to the Subjects They are Teaching", Educational Administration and Supervision, Vol. IX, No. 7, October 1923, Baltimore, Warwick and York, 1923, pp. 389-452.
- Inman, James Henry, "The Training of Iowa High School Teachers in Relation to the Subjects They Teach", University of Iowa Studies, Vol. IV, No. 9, Iowa City, University Press, 1928, pp. 66.
- MacLaurin, Donald L., History of Education in British Columbia, 1936, pp. 359.
- McLenaghan, Jessie, History of Home Economics From 1926 to 1939. (unprinted material)
- Pannell, Henry Clifton, "The Preparation and Work of Alabama High School Teachers", Teachers' College Record, Vol. XXXV, October 1933-May 1934, pp.237-238.

Programme of Studies for the High and Technical Schools of British Columbia and Requirements for Teachers' Certificates, 1928-29, Victoria, King's Printer, 1928, pp. 80.

University of British Columbia, Requirements for the Academic Teacher's Certificate.

University of British Columbia Calendar, Vancouver.

University of Iowa Bulletin, 1937, Iowa City, University Press.

University of Maryland Official Publication, 1932-1933, College Park, 1932, pp. 320.

University of Missouri Bulletin, 1937-1938, Columbia, 1938, pp. 415 - 129.

University of Montana Bulletin, 1932-1933, Missoula, 1933, pp. 103.

University of Pittsburgh Bulletin, 1926-1927, Pittsburgh, University Press, 1926, pp. 544.

University of Rochester Bulletin, 1939-40, New York, University Press, 1939, pp. 212.

APPENDIX A

Requirements for

The Academic Teacher's Certificate

- I. Candidates qualifying for the "Academic Certificate" (given by the Provincial Department of Education, Victoria, on the completion of the Teacher Training Course) take the course as prescribed in the University Calendar. This course is open only to graduates who have the standing required. (Teachers, on the basis of their professional standing, may be granted exemption, by the Provincial Department of Education, from attendance upon the full term of the Teacher Training Course.)
- II. Teachers who are graduates of The University of British Columbia and who have had Normal School training of this Province may qualify for the "Academic Certificate" without taking the Teacher Training Course. There are three groups of such candidates:
 - "A" Group: Persons who have their Permanent Second or First Class Teacher's Certificate and their B.A. Diplomas and who have had at least five years' successful teaching experience in the elementary schools of British Columbia;
 - "B" Group: Persons who have their B.A. and Normal School Diplomas and whose University records entitle them to admission to the Teacher Training Course conducted by the University of British Columbia;

"C" Group: Persons who have their B.A. and Normal School Diplomas and whose University records do not entitle them to admission to the Teacher Training Course conducted by The University of British Columbia.

---oOo---

"A" Group

A person in "A" Group who has complied with the following conditions will be granted the Academic Certificate:

- (a) Completed $4\frac{1}{2}$ units in Education in addition to the 60 units required for the B.A. diploma;
- (b) Completed under the direction of the Head of the Department of Education of The University of British Columbia a reading course in the Methodology of two subjects of the High School Curriculum.

"B" Group

The Interim Academic Certificate will be granted to a person in "B" Group who, in addition to meeting requirements (a) and (b) as set forth for those in "A" Group, completes under the direction of the Head of the Department of Education at The University of British Columbia, 15 hours' observation and 15 hours' practice teaching in High Schools.

"C" Group

The Academic Certificate (Interim or Permanent) will be granted to a person in "C" Group who has complied with the following conditions:

- (a) Secured a Permanent First Class Certificate or raised his or her University standing to the standard required for admission to the Teacher Training Course conducted by The University of British Columbia;
- (b) Completed $4\frac{1}{2}$ units in Education in addition to the 60 units required for the B.A. Diploma;

- (c) Completed, under the direction of the Head of the Department of Education of The University of British Columbia a reading course in the Methodology of two subjects of the High School Curriculum;
- (d) Completed under the direction of the Head of the Department of Education of The University of British Columbia, 15 hours' observation and practice teaching in high schools. (Five years' successful teaching experience in elementary schools to be accepted in lieu of this requirement.)

APPENDIX B

All the information in this appendix is contained in an article printed in 1940 by the Department of Education - Certification of Teachers.

Home Economics Certification

Elementary School Home Economics Certificate (Interim)

Qualifications.

- (a) Diploma in Home Economics from a recognized training institution in Canada, the United Kingdom, or the United States.
- (b) First-class Teacher's Certificate for British Columbia.

Junior and Senior High School Home Economics Certificate (Interim)

Qualifications.

- (a) A Degree in Home Economics from a recognized university in Canada, the United Kingdom, or the United States.
- (b) A Diploma in Education from the University of British Columbia, or its equivalent.

Home Economics Certificate (Permanent)

To be eligible for permanent certification in Home Economics, teachers holding British Columbia Interim Home Economics Certificates are required:-

- (a) To complete two years' teaching experience in the schools of British Columbia.
- (b) To be recommended for permanent standing by the Director of Home Economics.
- (c) To attend one session of the Summer School of Education (if the Diploma of Education has been obtained outside the Province of British Columbia) and complete courses (one of which is compulsory) totalling 5 units of credit.

Art Specialist Certification

The Department of Education issues to those qualified the following certificates as Specialists in Art:-

Elementary School Art Certificate.
Junior High School Art Certificate.
Senior High School Art Certificate.

Prerequisites for the Elementary School Art Certificate are a First class (or higher) Teacher's Certificate, for the Junior High School Art Certificate, a First class or Academic Teacher's Certificate and an Elementary School Art Certificate, and for the Senior High School Art Certificate, full university entrance, graduation from the Vancouver School of Art and a diploma of the Provincial Normal School. In each case certain required courses are also listed. These courses are given at the summer school.

Students who are interested in Art and have a natural aptitude for this subject may enrol for these courses without intending to proceed to Art Specialist certification. Only grades of A and B will be accepted as credit for Art certification, but grades of C and D will be accepted as credit for other purposes.

Commercial Teacher Certification

The Department of Education issues to those who qualify the following certificates:-

Assistant Commercial Teacher's Certificate (Interim).- This certificate qualifies the holder to teach commercial subjects in any school.

Commercial Teacher Certification (contin.)

Commercial Specialist Certificate (Permanent).-

This certificate qualifies the holder to be the head of a commercial department in any school.

The prerequisite for the Assistant Commercial Teacher's Certificate is the First class or Academic Certificate and for the Commercial Specialist Certificate the prerequisites are an Assistant Commercial Teacher's Certificate and an Academic Certificate or First class Certificate, with a minimum of two years in Arts. The required courses are also listed. These courses are given at the summer school.

Music Certification

The Department of Education issues to those qualified the following certificates as Specialists in Music Education.

Elementary School Music Certificate.

High School Music Certificate.

Elementary School Music Certificate

Requisites.

- (a) A First-class (or higher) Teacher's Certificate.
- (b) Music Courses to total 10 units as here-with prescribed, or equivalent courses from recognized schools, universities, or conservatories.
- (c) Sufficient knowledge of the piano for accompanying songs listed for Grades I. to VI.
- (d) Sufficient knowledge of the voice for demonstration purposes.
- (e) The passing of a Musical Aptitude test.

Music Certification (contin.)

High School Music Certificate

Requisites.

- (a) An Academic Teacher's Certificate for British Columbia.
- (b) Music Courses to total 15 units as prescribed herewith, or equivalent courses from recognized schools, universities, or conservatories.
- (c) Sufficient knowledge of piano for accompanying songs listed for Grades VII.-XII.
- (d) Sufficient knowledge of voice for demonstration purposes.
- (e) The passing of a Musical Aptitude test.

NOTE.- Holders of a First-class Teacher's Certificate who complete the training prescribed herewith are eligible to teach music in a junior high school.

OR

- (a) Bachelor's Degree in Music from a recognized university or conservatory.
- (b) One year of professional training at a Normal School in British Columbia or a Diploma in Education from the University of British Columbia.
- (c) Music Courses to total 10 units as may be prescribed upon examination of the applicant's record.

The required and elective courses, given at the summer school, are also listed.

Teachers who are interested in music may enrol for any of these courses without intending to proceed to Music Specialist Certification. Only grades A and B will be accepted as credit for Specialist certification, but grades of C and D will be accepted as credit for other purposes.

School Physical Education Certification

The Department of Education issues to those qualified the following certificates as Specialists in Physical Education:-

- Elementary School Physical Education Certificate.
- High School Physical Education Certificate.
- Physical Education Specialist's Certificate.

Elementary School Certificate

Requisites.

- (a) A First-class Teacher's Certificate for British Columbia.
- (b) Physical Education Courses to total 10 units as prescribed herewith.
- (c) First Aid (St. John Ambulance Certificate).
- (d) Swimming and Life-saving (Bronze Medallion).

High School Certificate

Requisites.

- (a) An Academic Teacher's Certificate for British Columbia.
- (b) Physical Education Courses to total 10 units as prescribed herewith.
- (c) First Aid (St. John Ambulance Certificate).
- (d) Swimming and Life-saving (Silver Medallion).

NOTE.- Holders of First-class Teachers' Certificate who complete the training prescribed herewith are eligible to teach Physical Education in junior high school.

Physical Education Specialist's Certificate

Requisites.

- (a) An Academic Teacher's Certificate for British Columbia.
- (b) Physical Education Courses to total 15 units as prescribed herewith.
- (c) First Aid (St. John Ambulance Certificate).
- (d) Swimming and Life-saving (Silver Medallion).

Physical Education Specialist's Certificate (contin.)

Requisites.

OR

- (a) Graduation from a recognized School of Physical Education.
- (b) One year of professional training at a Normal School in British Columbia or a Diploma in Education from the University of British Columbia.
- (c) Physical Education and other courses to total 10 units as prescribed upon examination of applicant's record.
- (d) First Aid (St. John Ambulance Certificate).
- (e) Swimming and Life-saving (Silver Medallion).

The required and elective courses are also listed. These courses are given at the summer school.

Only grades A and B are accepted as credit for Specialist certification.

Primary Specialist Certificate

The Department of Education issues to those qualified a Primary Education Specialist Certificate.

This certificate is valid for six years from date of issue and may be renewed by the presentation to the Department of Education of five units in primary education (or its equivalent in credits, points or semester hours) taken during the six-year at a recognized educational institution.

Requisites.

- (a) A First-class or Academic Certificate for British Columbia.
- (b) Five years of experience as a teacher in at least two, and preferably three, of the first three grades.

Primary Specialist Certificate

Requisites (contin.)

- (c) A favourable report from a supervisory officer on the candidate's ability as a teacher in the primary grades. Candidates for the certificate should request the preparation of the report on a prescribed form at least one year before they expect to receive the certificate.
- (d) A total of 15 units of credit as prescribed herewith.

The required and elective courses are also listed. These courses may be taken at the summer school.

Only grades A and B are accepted as credit for special certification.

Library Service Certification

The Department of Education issues to those qualified the following Specialist certification in Library Service:-

School Librarian Certificate.

Teacher-Librarian Certificate.

These certificates are valid for six years from the date of issue and may be renewed by presentation to the Department of Education of a minimum of three units of credit in some phase of Library Service (or its equivalent in credits, points, or semester hours) taken during the six-year period at a recognized educational institution. A approved research project or investigation may be substituted for the credits.

School Librarian Certificate

The School Librarian Certificate is granted by the Department of Education to holders of Academic Certificates who hold a Library Service Degree from an approved Library School.

Teacher-Librarian Certificate

Requisites.

- (a) A First-class Teacher's Certificate for Elementary Schools and an Academic Certificate for Junior and Senior High Schools.
- (b) Ten units of credit in Library Service courses as prescribed herewith.

The required courses are also listed. These courses may be taken at the Provincial Summer School of Education.

Only grades of A and B are accepted for credit toward the Teacher-Librarian certification.

Industrial Arts Teacher Certification

The Department of Education issues to those qualified the following teacher-certification in Industrial Arts:-

- Junior High School Industrial Arts Teacher's Certificate.- This certificate entitles the holder to teach Industrial Arts in an elementary or junior high school.
- Senior High School Industrial Arts Teacher's Certificate.- This entitles the holder to teach Industrial Arts in a senior high school.
- Technical Certificate.- This entitles the holder to teach in a technical or vocational school.

Persons in the following classes are eligible to commence training:-

- (a) Teachers holding First-class or Academic Certificates.
- (b) Graduates of senior or technical high schools.
- (c) Craftsmen with education equivalent to the standard set for High School Graduation.

Industrial Arts Teacher Certification (Contin.)

All persons in above classes shall have completed the Junior and Senior High School Courses in Metalwork, Electricity, Woodwork, and Drawing.

The courses necessary to obtain the Junior and Senior High School Certificates are also listed.

The following are the prerequisites for the Technical certificate (interim and permanent)

- (a) The candidate must be a bona-fide craftsman who has had not less than five years' experience and trade training of 100 per cent. standard analysis.
- (b) High School Graduation Diploma or its equivalent.

The courses necessary for this certificate are also listed. The Industrial Arts courses are available during the summer at the Vancouver Technical School

The Department of Education issues the following certificates. These are the minimum requirements.

Technical School Certificates

- (a) Technical

Senior High School Certificates

- (a) Academic
- (b) Senior High School Art
- (c) Assistant Commercial
- (d) Commercial Specialist
- (e) Senior High School Industrial Arts
- (f) Teacher Librarian
- (g) School Librarian

Senior High School Certificates (contin.)

- (h) High School Music
- (i) High School Physical Education
- (j) Physical Education Specialist

Junior High School Certificates

- (a) Academic
- (b) Junior High School Art
- (c) Assistant Commercial
- (d) Commercial Specialist
- (e) Junior High School Industrial Arts
- (f) Teacher Librarian
- (g) School Librarian
- (h) High School Music
- (i) High School Physical Education
- (j) Physical Education Specialist

Elementary School Certificates

- (a) First Class
- (b) Elementary School Art
- (c) Junior High School Industrial Arts
- (d) Teacher Librarian
- (e) School Librarian
- (f) Elementary School Music
- (g) Elementary School Physical Education
- (h) Physical Education Specialist
- (i) Primary Specialist.

Department of Education

- [illegible]