

THE UNIVERSITY OF MANITOBA

AN ANALYSIS OF RESULTS OF STANDARDIZED
PSYCHOLOGICAL AND ACHIEVEMENT TESTS OF
THE NINTH AND TENTH GRADE MANITOBA PUPILS
FOR THE YEARS 1947, 1948 AND 1949

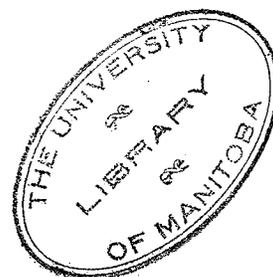
BEING A THESIS SUBMITTED TO THE COMMITTEE
ON POST-GRADUATE STUDIES IN PARTIAL
FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF
EDUCATION

BY

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CHAPTER 1

SECONDARY SCHOOL ORGANIZATIONS IN MANITOBA

The pupils in the Province of Manitoba receive their high school education in various types of schools: Collegiate Institutes, Collegiate Departments, Two-Room High Schools, One-Room High Schools, Continuation Schools and Junior High Schools. Collegiate Institutes are organized in many parts of Manitoba. This type of school employs four teachers or more who hold university degrees and may teach Grades IX to XI or Grades IX to XII. Collegiate Departments are similar to Collegiate Institutes except that in the former three teachers may be employed to teach Grades IX to XI or Grades IX to XII. Next in order comes the Two-Room High Schools where two teachers are employed to teach three or four Grades, IX to XI or XII and the principal is required to be a university graduate and hold a principal's certificate for a Two-Room High School or higher. The assistant must hold at least a First Class A certificate. In the One-Room, High Grades IX to XI may be taught and the teacher in charge must hold at least a First Class B certificate and a principal's certificate for a One-Room High School. In addition to these types, Continuation High Schools may be found in many rural points where Grades VII to XI may be taught in the same room and the teacher qualifications are the same as those for a One-Room High School. Where the enrollment in a One-Room rural school is low and the

teacher has the necessary qualifications, instruction in Grade IX work may be given. Pupils in remote parts of the Province and in areas where they are unable to receive regular classroom instruction, may receive their education in Grade IX and X subjects under the direction of the Correspondence Branch of the Department of Education. Another type of school organization found in the city and a few small town systems is the Junior High School. In this type Grades VII, VIII and IX are taught and the school is recognized as a Junior High School when there are at least three teachers or more employed for the teaching of these Grades.¹

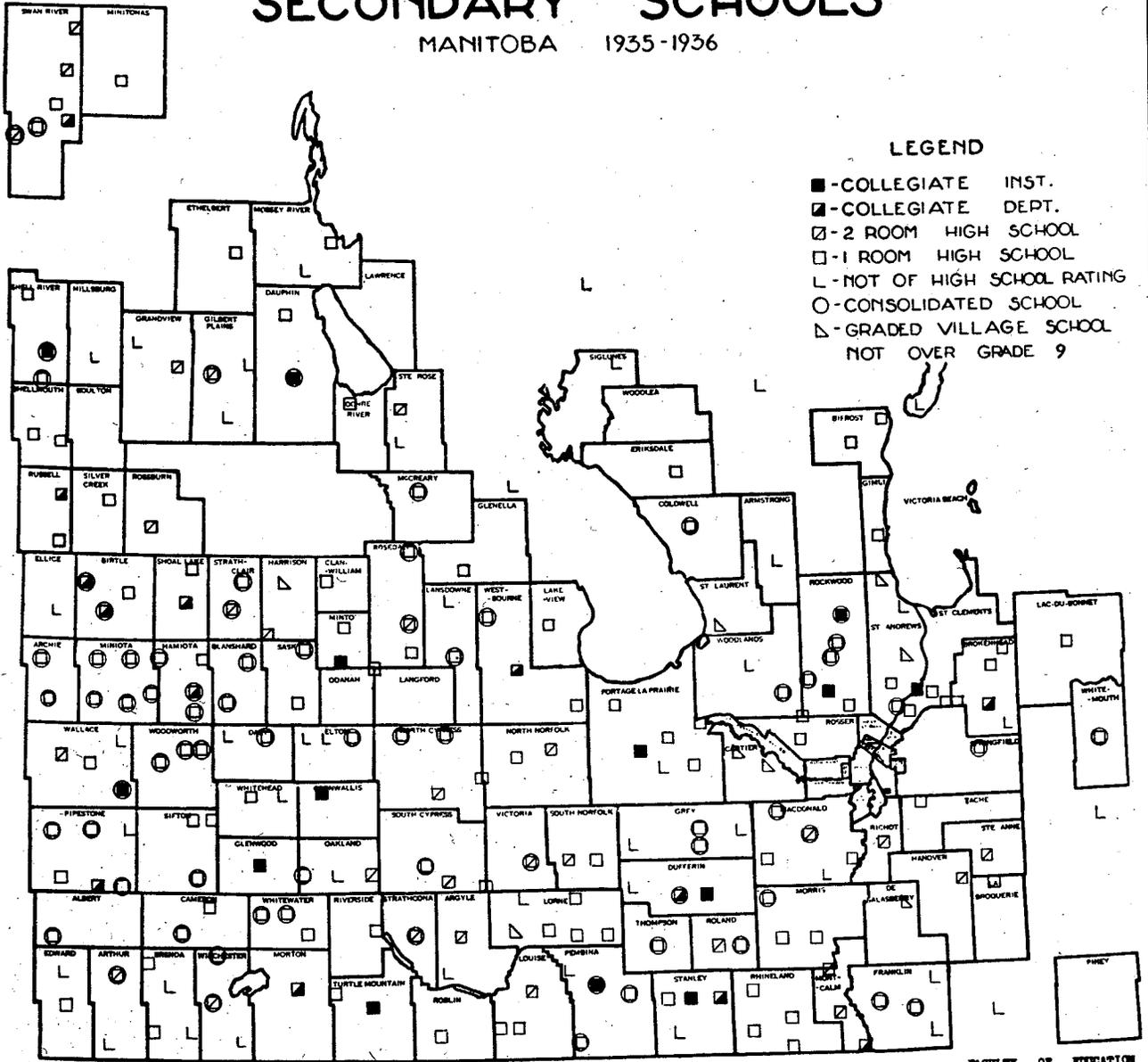
Throughout rural and urban Manitoba all schools are organized as continuous schools having all grades under the direction of one elected board of trustees for each school district. In rural and smaller urban centres elementary and secondary education are provided within the one school building. Only in the larger rural towns or cities is secondary education provided in separate buildings and under separate staff instruction. More important is the fact that complete departmentalization is possible in the collegiate institute and to a lesser degree in the collegiate departments and two-room high schools. Collegiate Institutes and Collegiate Departments only are required to employ a staff each member of which holds a university degree. Under these conditions it

¹ Regulations, Manitoba Department of Education, 1949 p.5

has been difficult to insure a reasonably uniform measure of instruction or to rely upon local estimates of pupil fitness for entrance to or promotion within the secondary school. This practical difficulty has been the implied justification for a provincial system of centrally administered secondary school examinations and has been a much debated problem for years.

Additional factors have complicated the problem of maintaining school standards. There are racial groups in whose homes a language other than English is spoken. There exists a wide variation in economic ability measured in terms of sub-marginal to wealthy land, the former frequently occupied by non-Anglo-Saxon peoples. Coupled with both is the educational perspective or ambition of the individual school district. The problem of variation in ability and effort is indicated roughly in Figures 1 and 2. Figure 1 is a map showing the distribution of all types of secondary schools in the Province and Figure 2 a map indicating the distribution of wealth in relation to the assessment per teacher in each municipality of the Province.

SECONDARY SCHOOLS MANITOBA 1935-1936



LEGEND

- - COLLEGIATE INST.
- ▨ - COLLEGIATE DEPT.
- ▬ - 2 ROOM HIGH SCHOOL
- - 1 ROOM HIGH SCHOOL
- L - NOT OF HIGH SCHOOL RATING
- - CONSOLIDATED SCHOOL
- ▴ - GRADED VILLAGE SCHOOL NOT OVER GRADE 9

DIAGRAM NO. 21 #

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Figure 1.

Woods, D.S., Education in Manitoba, Part 1, Preliminary Report. Published by Economic Survey Board, Province of Manitoba, February, 1938.

SCHOOL DISTRICT ASSESSMENT

RANGE IN ASSESSMENT PER CENSUS PUPIL (5-19 YRS)
MANITOBA 1936

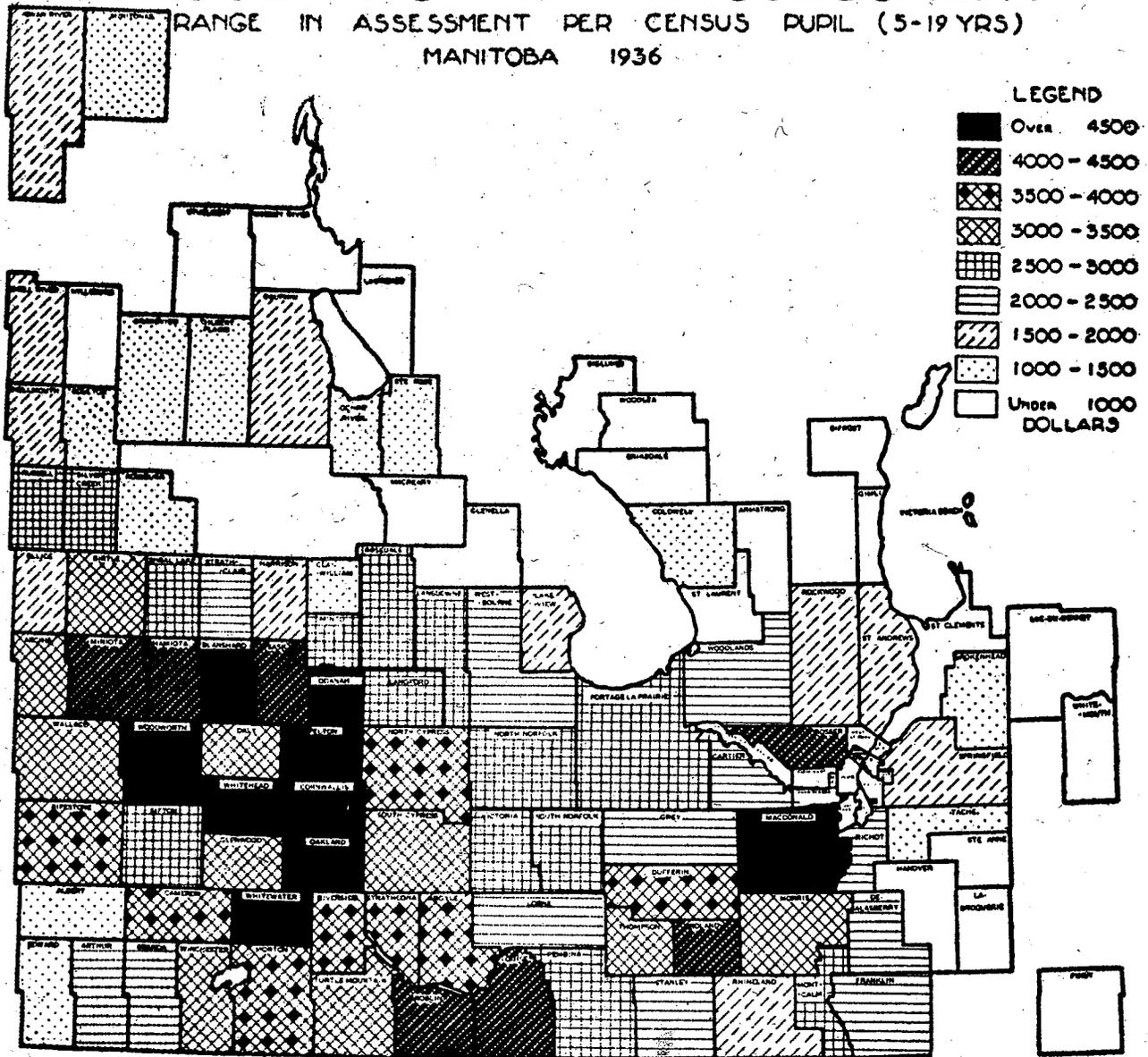


CHART NO. 16

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Figure 2.
Costs, Dates, Education in Manitoba, Part II,
Preliminary Report, Published by Economic Survey Board,
Province of Manitoba, February, 1938.

Provincial Examinations for Grade IX and X
During the Years 1947, 1948, and 1949

The practice of centrally supervised examinations for Grades IX and X was discontinued in Manitoba in the year 1932 and replaced by Inspectors' examinations. It is generally admitted that the latter did not provide a uniform standard of selection for entrance to the high school nor of progress during the first year. This could not be regarded as a serious matter were the quality and conditions of instruction generally acceptable and somewhat permanent in character. However, the situation in this regard became aggravated by the shortage of qualified teachers at this level over a considerable period of years leaving the schools in rural areas under frequent change in instruction and without any overall provision for standardization at the point of admission to high school. As a measure of correction to this situation, psychological examinations, and standardized achievement tests were introduced in 1947 and continued in 1948 and 1949. The limitations of this testing programme will be examined later in this chapter.

Purpose of the Study

This thesis purports to estimate (1) existing variations in achievement as revealed by this testing programme, (2) the adequacy of the present testing programme as a means of portraying the variations in ability and effort of pupils upon entrance to and during the first year of high school in the village and town school districts of the Province. It

assumes that success in achievement applies only to the "General Curriculum" now the privilege of every secondary school whether or not individual schools are equipped to take full advantage of its "required" or "elective" subjects of study.

Administration and Marking of Tests

All tests used in this study were selected by a committee of School Inspectors in the Province. The Department of Education forwarded the tests to schools where pupils were enrolled in Grade IX and X classes. These tests were administered in mid-June of each year in accordance with the timetable provided by the Registrar's Office. All Grade IX test papers were returned to the Department of Education for marking. This procedure was followed with respect to the Grade IX tests in each of the three years. In 1949, however, standardized tests were arranged for the Grade X pupils, and these tests were administered and marked by the teachers and then the test papers were returned to the Department of Education for checking.

To insure uniformity of marking Grade IX tests, a committee of school teachers was appointed to work under the chairmanship of an Inspector of Schools. Test scores were recorded for each pupil on the Score Sheets provided by the Department of Education. On these Score Sheets also appeared letter grades given each pupil by the teachers on the years work as well as the age of the pupil in years and months in June of the year when the tests were written. The Score Sheets

and the marked test papers were grouped by the Inspectoral Divisions, and the type of school: Collegiate, Two-Room High, One-Room High, Junior High, rural and private were marked on each Score Sheet. The Correspondence Branch Score Sheets were grouped as one unit.

Types of Tests Used

In 1947, 1948, and 1949 the Department of Education administered three standardized tests to the Grade IX pupils in the Province and in 1949 three standardized tests to the Grade X pupils. The following tests were used.

Henmon-Nelson Test of Mental Ability, Form: B, Grade IX, 1947 and Form: C, Grade IX, 1948.

Otis Self-Administering Test of Mental Ability. Intermediate Examination, Form: A, Grade IX and X, 1949.

English Minimum Essentials by J. C. Tressler, Form: A, Grade IX, 1947 and Form: C, Grade IX, 1948.

Dominion Arithmetic Test (Fundamental Operations) Form: A, Grade IX, 1947 and Form: B, Grade IX, 1948.

Test of Mathematical Fundamentals by H. R. Beattie, Grades IX and X, 1949.

Haggerty Reading Examination Sigma 3: Form A, Grade IX, 1949.

American Council of Education Co-operative English Test.. Test C1: Reading Comprehension, Form: S, Grade X, 1949.

Further important details pertaining to these tests are indicated in Table 1.

TABLE 1

SUMMARY OF INFORMATION ON TESTS USED IN THE STUDY

Test	Working Time	Possible Score	Information as to Reliability
Henmon-Nelson Test of Mental Ability Forms: B and C.	30 min.	90	Coefficient of Reliability, Grade IX, .893
Otis Self-Administering Test of Mental Ability Intermediate Examination, Form: A	30 min.	75	Average $r = .948$
Dominion Arithmetic Test, Forms: A and B	35 min.	80	Grade VIII, $r = .97$
Tressler Minimum English Essentials Test, Forms: A and C	47 min.	90	not given
Beattie Test of Mathematical Fundamentals	25 min.	60	not given
Haggerty Reading Examination: Sigma 3	30 min.		Correlation on two trials .885
Co-operative English Test: Reading Comprehension, Form: S	40 min.	150	

The Henmon-Nelson Test of Mental Ability is available in three forms: A, B, and C. It is designed for Grades VII to XII. The Clapp-Young Self Marking system is employed. This Test consists of eighty multiple choice questions and one manual; the same norms are used for all three forms. The manual provides tables for converting raw scores into corresponding I.Q.'s and Mental Ages.