A COMPARATIVE ANALYSIS OF PROGRAM OFFERINGS IN THE LARGER AND SMALLER REGIONAL HIGH SCHOOLS OF NEWFOUNDLAND

HUDSON H. DAVIS

A COMPARATIVE ANALYSIS OF PROGRAM OFFERINGS IN THE LARGER AND SMALLER REGIONAL HIGH SCHOOLS OF NEWFOUNDLAND

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HUDSON H. DAVIS

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The undersigned certify that they have read, and recommend for acceptance, a thesis entitled A COMPARATIVE ANALYSIS OF PROGRAM OFFERINGS IN THE LARGER AND SMALLER REGIONAL HIGH SCHOOLS OF NEWFOUNDLAND submitted by Hudson H. Davis in partial fulfilment of the requirements for the degree of Master of Education.

Dr. C. R. Barrett (Supervisor)

Dr. H. W. Kitchen (Internal Reader)

Dean R. J. Love (External Reader)

Date _____

ABSTRACT

This investigation presents a comparative analysis of program offerings in the larger and smaller Regional High Schools of Newfoundland. A basic assumption of the study was that a balanced program of academic, cultural, physical, and social activities is necessary for high school students today; and, that this is a realistic program for the larger and the smaller Regional High Schools of the province. The subject areas investigated were English, mathematics, science, art, music, physical education, and student activities.

In the conduct of the study the investigator visited the seven largest and the seven smallest Regional High Schools. Data were obtained through interviews with teachers and principals, using an interview schedule adapted from the Evaluative Criteria of the National Study of Secondary School Evaluation, an American organization. The schedule contained almost a thousand checklist items, and 169 criteria evaluations. A median test was applied to each of these evaluative items to determine whether there was any statistical significance between the ratings assigned the larger and the smaller high schools.

Underlying the whole study was the general hypothesis that the larger schools would be assigned higher ratings on the evaluative instrument than the smaller schools. The findings of the study confirmed the general hypothesis, in that on eighty-two items a significant difference was evident. When large school median evaluations were compared with small school medians the difference appeared more pronounced, as 147 of these ratings favoured the larger schools. The areas

showing least difference were art, mathematics, music, and student activities. Greatest differences were evident in the programs for science and physical education.

The findings lead to one general conclusion: to the extent that higher ratings on the evaluative criteria may indicate superiority of one program over another, the larger Regional High Schools of Newfoundland offer a better program than do the smaller Regional High Schools.

The most important recommendations arising from the study are: (1) that future consolidation of high schools be such that the schools will be large enough to provide a differentiated and balanced program of studies; and that, where possible, smaller high schools which are presently existing in close proximity to one another be consolidated; (2) that where small schools must continue to exist, the program in these schools be supplemented by all available means of modern educational technology, and by the provision of visiting specialist teachers; (3) since ratings on the study were generally fairly low, research should be carried out by a team of curriculum experts to determine the extent to which Newfoundland high schools are meeting the educational requirements of the province.

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CHAPTER I

THE PROBLEM

This study analyses the program offerings of the Regional High Schools in Newfoundland, and compares the larger institutions with the smaller ones.

The investigator collected his data during visits to fourteen Regional High Schools in the months of May and June, 1967. The instrument used was an adaptation of Evaluative Criteria,[1] and was administered by the investigator through interviews with teachers and principals in these schools.

I. THE BACKGROUND OF THE PROBLEM

One-room Schools. The first formal school, according to Rowe, was established at Bonavista in 1722. This was a one-room school enrolling pupils of all ages.[2] More than two hundred years later, in 1949, of the 1187 schools in operation in the province, 778 were still of the single room variety, where one teacher taught all grades.[3] Rowe, in his Blueprint for Newfoundland Education, noted that a child attending a one-room school in Newfoundland had little hope of reaching Grade XI

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[1] National Study of Secondary School Evaluation, Evaluative Criteria, 1960 Edition (Washington: National Study of Secondary School Evaluation, 1960).

[2] Frederick W. Rowe, The Development of Education in Newfoundland (Toronto: The Ryerson Press, 1964), p. 28.

[3] Ibid., p. 156.

Matriculation standard.[1] The low percentage of students matriculating from these schools was a cause of concern to Newfoundland educators and to the governments of Newfoundland in the late 1940's and early 1950's. They realized that centralization of school facilities, and the elimination of many small schools should be effected as soon as possible.

The Building of Regional and Central Schools. In 1953 the government announced a policy of providing half a million dollars annually for a period of five years to assist boards of education in building regional high schools. In 1954 the first regional schools were opened, and four years later the government increased the annual grant to one million dollars and extended the policy for an additional ten years. Initially, it was intended that only students of Grades IX, X, and XI be enrolled in "Regional" high schools, but this policy was later amended to include grades VII and VIII in "Central" high schools. By 1967 there were 114 of these Regional and Central high schools enrolling 80 per cent of all the high school students in the province.[2]

These centralized schools are academic in nature. In Newfoundland, academic and vocational education have developed along different routes and remain separate at the time of this study. Rowe reasons that the prevailing poverty, and the insistent demands for ordinary school

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[1]Frederick W. Rowe, Blueprint for Newfoundland Education (St. John's: Department of Education, 1958), p. 7.

[2]Statistics obtained from the Department of Education in January, 1967.

facilities, prevented successive governments, and the denominational authorities, from undertaking the financial burden that a comprehensive modern vocational education program would have entailed.[1] In 1960 the Federal and Provincial governments signed a Vocational Agreement, wherein federal contributions of 75 per cent would be made on any capital vocational outlays during the succeeding three years. Under this agreement the Newfoundland government built eleven District Trade Schools and a College of Trades and Technology. These schools being administered, not by school boards, but by the vocational division of the Department of Education, and reporting directly to the Deputy Minister of Education, have little connection with the existing academic high schools of the province. Therefore, the comprehensive or composite high school does not exist in Newfoundland, and could not be a concern of this study.

The Proliferation of Regional and Central Schools. Of the 114 centralized high schools all but seventeen (Amalgamated Schools) are operated by denominational authorities. Where Newfoundland once had denominational duplication of all-grade schools it now has denominational duplication of centralized schools. This fact is underlined in the recent Report of the Royal Commission on Education and Youth, where it is stated that the Commission found quite a number of Central and Regional High Schools only five to ten miles apart and joined by good highways. Furthermore, it found that there were seventeen communities

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[1] Frederick W. Rowe, The Development of Education in Newfoundland (Toronto: The Ryerson Press, 1964), p. 171.

that had more than one Central or Regional high school.[1]

Only nine of the 114 schools had more than one hundred students in Grade XI, eighty-eight enrolled fewer than fifty students in that grade, and sixty-two schools fewer than twenty-five. Individual school enrolments varied all the way from zero to 456 in Grade XI, and from six to 502 in Grade X.[2]

The Need for the Study. It was the discovery of these facts that motivated the investigator to undertake a study of the program offerings of the Newfoundland high school, and to cause him to speculate as to whether the proliferation of centralized high schools has been in the best interests of Newfoundland students.

Further motivation to conduct the study was provided by the recommendations of others relative to the size of high schools. Some of these recommendations are reported in Chapter II. All the sources studied raise serious doubts about the ability of the smaller high schools to provide suitable programs for today's students.

This study attempts to identify any differences which may exist in the program offerings of the smaller and the larger high schools. To the extent that these differences may be determined to be significant, it is hoped that the conclusions and recommendations following from the

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[1]Province of Newfoundland and Labrador, Report of the Royal Commission on Education and Youth, Volume 1 (St. John's: 1967), p. 105

[2]Statistics obtained from the Department of Education in January, 1967.

study may help provide some guidelines for those involved in educational planning in Newfoundland.

11. STATEMENT OF THE PROBLEM

The study involved two basic problems:

1. Making an analysis of the program offerings of the Newfoundland Regional high schools.

2. Comparing the findings for the smaller schools with those of the larger schools.

Hypothesis. Underlying the study was one general hypothesis:

> With respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

Actually, there were 169 specific hypotheses, one for each of the evaluation items of the instrument. For example, "Larger Regional High Schools provide a more extensive variety of experiences in speech than do smaller Regional High Schools" corresponds to the evaluation item "How extensive is the variety of experiences in speech?" The remaining hypotheses are not stated since all follow the same pattern.

The Instrument. The instrument used for the study contained 735 checklist items, and a number of supplementary questions, from which the evaluation items on school programs were later completed. Interviews were conducted, using this instrument, in each school of the study. The areas English, mathematics, science, art, music, physical education, and student activities were studied in depth in a manner described

fully in Chapters 1V to V11.

111. MAJOR ASSUMPTION OF THE STUDY

It is assumed that the balanced program of academic, cultural, physical and social activities, as defined through the different sections of the instrument, is a realistic program for the larger and for the smaller Regional High Schools of Newfoundland.

1V. DEFINITIONS OF TERMS USED

Central High School. A school that has been established within an area and in a building separate from other schools for the express purpose of accomodating all pupils in designated Grades not lower than Grade V11.[1]

Regional High School. A school that has been established within an area and in a building separate from other schools for the express purpose of accomodating all pupils in designated Grades not lower than Grade 1X from any or all schools within a district or districts.[2]

Amalgamated high school. A high school, including Regional and Central High Schools, operated co-operatively by two or more religious denominations that have school districts co-inciding geographically in whole or in part.[3]

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[1]The Province of Newfoundland and Labrador, The Education Act, 1960 No. 50, p. 1.

[2]Ibid., p. 2.

[3]Ibid., p. 13.

Denominational high school. A high school, including Regional and Central High Schools, operated by one of the religious denominations recognized in the Education Act, 1960.

University-Preparatory Program. A program which leads to a high school matriculation certificate, and which consists of seven subjects, English Language, English Literature, Mathematics A (Algebra), Mathematics B (Geometry), history, a foreign language, a science.[1]

Provincial General Program. A program which, for Grade X, consists of six subjects: English Language, English Literature, mathematics, and any other three subjects from the prescribed list of subjects from the General or University-Preparatory Program. For Grade XI the mathematics requirement is dropped, and any four other subjects from the prescribed list of General or the University-Preparatory subjects may be studied.[2]

Program Offerings. Where this expression is used in the study it is meant to include all those factors analysed in the instrument under the headings: Organization, Nature of Offerings, Physical Facilities, Direction of Learning (Instructional Staff, Instructional Activities, Instructional Materials).

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[1]The Department of Education, Province of Newfoundland and Labrador, Public Examinations Regulations, 1968, p. 15.

[2]Ibid., pp. 15-16.

V. LIMITATIONS OF THE STUDY

Several limitations of the study should be noted:

1. It was confined to fourteen Regional High Schools. These represented over half the twenty-seven Regional High Schools in Newfoundland, which, in 1967, enrolled 60 per cent of all Grade XI pupils in the province. Central High Schools were not included since they are a different type of institution involving grades VII and VIII as well as the grades IX, X, and XI. Moreover, in 1967, the eighty-seven Central High Schools enrolled but 20 per cent of the Grade XI pupils in the province.

2. Of the academic subjects, only three were studied, and these merely for Grade X.

3. No attempt was made to assess the extent of the variation in program offerings attributable to variables other than school size.

In this study the schools assigned the symbols B, C, E, F and G are city schools. School D serves an urban community, and A a semi-urban area. These are all large schools, and none serve a rural area. Of the smaller schools, T and U are in semi-urban communities, and the remainder, schools V, W, X, Y, Z, serve rural areas. It is apparent that the larger schools of the study operate in a predominately urban environment, whilst the smaller schools serve predominately rural areas. This fact alone could be a strong influence on any difference in the quality of staff, of school plants, and program offerings in the two types of schools.

No consideration was given to the different socioeconomic backgrounds of the communities involved; or to any difference in the leadership provided by superintendents, supervisors, principals, and school boards. Omission of any consideration of these variables is, therefore, a basic limitation of the study.

V1. ORGANIZATION OF THE REPORT

Chapter 11 reviews the related literature. The design of the study, including a description of the instrument used, is set forth in Chapter 111. Chapter 1V presents, analyses, and discusses the findings for the academic subjects, English, mathematics, and science. Chapter V deals similarly with art and music, Chapter V1 with physical education, and Chapter V11 with student activities. Finally, Chapter V111 summarizes the study and presents the conclusions and the recommendations arising from it.

CHAPTER II

REVIEW OF THE LITERATURE

Much has been written about the relationship between school size and school program. The review which follows presents a summary of some of the research findings on this topic. Most of the research studies indicate a positive relationship between the two factors.

1. LITERATURE ON THE POSITIVE RELATIONSHIP BETWEEN SCHOOL SIZE AND SCHOOL PROGRAM

United States studies. The size of the senior high school has proven to be a definite factor in the ability to provide a comprehensive, quality program. This was the conclusion arrived at by Evans after summarizing four research studies. These studies indicated the need for a graduating class of four hundred pupils or more.[1]

Four hundred students in a graduating class is considerably higher than the one hundred suggested by Conant. But, Evans was talking of maximum requirements, and Conant minimum.

The latter, in his study of the American high school, found that the enrolment of many high schools was too small to allow for a diversified curriculum. He strongly suggested that the presence of so many small schools constituted one of the serious obstacles to good secondary

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[1] N. Dean Evans, "How Large Should a High School Be", Delaware School Journal, XXX, No. 4 (1965), p. 9.

education throughout most of the United States. Small high schools, his research suggested, could offer academic programs of limited scope only.[1] In a later study of the American junior high school he has raised the figure to a minimum of 250 for each of the grades VII to IX.[2]

Alcorn, Kinder and Schunert, while not suggesting a minimum enrolment figure, did find in their study of American high schools that the larger schools were providing broader and more varied offerings in curriculum.[3]

It is of interest to see that Woodham's study of 290 Florida high schools, (though prepared in 1951), produced figures very close to Conant's. One of the questions Woodham attempted to answer was, "What effect does the size of the school have upon the breadth of educational opportunity?"[4]

His survey included six-year white secondary schools, three and four-year white secondary schools, and negro secondary schools. Enrolments in the schools ranged from nineteen to 2385 for white secondary

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[1]J. B. Conant, The American High School Today. (New York: McGraw Hill Book Company Inc., (1959), pp. 77-8.

[2]J. B. Conant, Education in the Junior High School Years, (Princeton, New Jersey: Educational Testing Service, 1960).

[3]Marvin D. Alcorn, James S. Kinder and Jim. R. Schunert, Better Teaching in Secondary Schools, (Revised Edition), (New York: Holt, Rinehart and Winston Inc., 1965), p. 370.

[4]William Jesse Woodham, "The Relationship Between the Size of Secondary Schools, the per Pupil Cost, and the Breadth of Educational Opportunity", Unpublished Doctoral Dissertation, University of Florida, 1951, p. 6.

schools, and from twenty-four to 1650 for negro schools. For each school he set up a quantitative measurement of the breadth of educational opportunity based upon subject offerings and special services provided. Each subject for a full term, except physical education, was valued as one unit of educational opportunity. Physical education, since its content would not vary appreciably from grade to grade, rated one-half a unit. Each full time special or administrative service (library, guidance, etc.) was valued at five units.[1]

Woodham concluded that:

> The breadth of educational opportunity provided in the secondary schools is directly related to the size of the schools. As the size of the school increases, the scope of educational opportunity becomes broader. The amount by which the breadth of educational opportunity is affected by changes in size depends upon size level in which the change occurs. The smaller the size the more pronounced is the effect of change in size upon the breadth of opportunity.[2]

As a result of his findings Woodham recommended five hundred pupils as a minimum for a six-year secondary school, and 450 pupils for three or four-year high schools. In areas where school districts were dividing a larger school into two smaller centers, he found the minimum size at which such a division could be made, without materially affecting the breadth of educational opportunity, was fifteen hundred pupils.[3]

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[1] Ibid., p. 57-8.

[2] Ibid., p. 175.

[3] Ibid., p. 176.

Herrick suggests that a school which is too large or too small can impair the effectiveness of the educational program. He lists the following favourable factors that tend to be present in schools of larger enrolment:

> 1. Greater variety of courses offered with more frequency and regularity, and with greater adaptation of content and method to varying abilities of different groups of pupils.
>
> 2. More extensive and balanced programs of pupil activity (inter-school athletics, intra-mural athletics, hobby clubs, literary groups, musical organizations, student councils and so forth).[1]

From a study made in the state of Michigan, Woods arrived at similar conclusions to those of Herrick and his co-workers. His research further concluded that the optimum size for a four-year high school would be in the enrolment range 1200-1599 pupils.[2]

Kewitz and Sayers, when commissioned by the State of New York Division of Research, to determine the optimal size range for six-year secondary high schools, investigated a total of one hundred schools representing enrolments from 87-1338 pupils. They selected also an alternate sample of one hundred schools for checking purposes.

Their study indicated that schools with secondary enrolments of less than five hundred pupils were operating at a disadvantage in terms of certain indices of educational opportunity, and were operating

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[1]John H. Herrick and Others, From School Program to School Plant (New York: Henry Holt and Company, 1956), pp. 91-2.

[2]Thomas E. Woods, "Relationship of High School Size to Curricular Offerings", Dissertation Abstracts, XVIII (Ann Arbor, Michigan: Microfilm Inc., 1958), p. 481.

uneconomically compared with schools somewhat larger. They concluded that the most economical size for the six-year secondary school seemed to be between six hundred and eight hundred pupils. In this interval, also, the indices of educational opportunity showed generally to greatest advantage relative to cost.[1]

In 1960, Smith studied the optimum size of secondary schools in Ohio. He assumed that the number of course offerings available per grade would be a measure of the breadth of educational opportunity, and of the ability of the school to meet the needs of its pupils. The total number of course offerings available in Ohio high schools was obtained by means of a questionnaire to principals. This number was then reduced to the number of course offerings per grade, as a measure of the breadth of educational opportunity available, and to permit comparison of this factor to schools of various sizes.[2] The research revealed that the breadth of educational opportunity increased as school size increased up to the 1400-1600 size interval, after which there appeared to be a leveling off or possible decline through the 1800-2000 interval.[3]

Continuing his study of other "institutional factors"--teaching aids available, administrative and special service personnel available,

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[1]Gerald T. Kowitz and William C. Sayers, Size, Cost, and Educational Opportunity in Secondary Schools (New York: The University of the State of New York, the State Education Department, Division of Research, May, 1959), p. 71.

[2]Clifford Basil Smith, A Study of the Optimum Size of Secondary Schools, Doctoral Dissertation, Ohio State University, 1960, p. 79.

[3]Ibid.

pupil use of library, and teacher salaries--Smith determined that when the relationship of these factors to school size was studied carefully, it suggested an optimal size range of 800-1200 pupils.[1] He concluded that when all factors were considered, 800-1200 pupils was the size range at which favourable factors approach the maximum and unfavourable factors approach the minimum; and that the optimal size range for three and four-year secondary schools in Ohio was from eight hundred to twelve hundred pupils.[2]

Canadian Sources, other than Newfoundland. In a recent study, of the small high school in Alberta, Downey took as an arbitrary dividing point for large and small schools the figure of three hundred students in grades, X, XI, and XII. He found that while schools of over three hundred enrolment accounted for only 14 percent of the province's schools, they enrolled 61 percent of Alberta's high school students.[3]

Comparing course offerings in the schools, Downey discovered a range of from 97 credits in the smallest high schools (1 - 39 pupils) to 408 credits in schools of over four hundred students.[4] He concluded from his study that only the larger urban high schools (more than 500 students) offer completely adequate programs.

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[1] Ibid., p. 145.

[2] Ibid., p. 146.

[3] Lawrence W. Downey, The Small High School in Alberta, A report of an investigation. (Edmonton, Alberta: Alberta School Trustees Association, 1965), p. 19.

[4] Ibid., p. 37.

> ... those in the middle range (200 - 499 students) offer reasonably full program; small high schools (100 - 199) offer quite limited programs; small high schools (40 - 99) offer inadequate programs; and small high schools (fewer than 40 students) offer grossly inadequate programs.[1]

The achievement of students was found to vary from superior in the largest high schools to "grossly" inferior in the smallest.[2]

Downey also discovered that library, instructional supplies and equipment, leadership and consultative services approach adequacy in the large schools; and are "grossly" inadequate in the very small high schools.[3]

One of Downey's recommendations following from the study was that schools enrolling fewer than two hundred students be called, in future, "partial or special purpose high schools"; and be encouraged to join with others to form a "larger high school complex". He urged that "this recommendation...be regarded as imperative in the case of the smaller schools (less than 100 students", and suggested that those who support such schools "must cease to pretend that they offer a full secondary education, or that they <u>are</u> high schools".[4]

Other Canadians have also made studies of the relationship between school size and school programs. In British Columbia, Conway found a direct relationship between the size of high school and graduation with full university entrance standing, up to an enrolment that produces two

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[1] <u>Ibid</u>., p. 57.

[2] <u>Ibid</u>.

[3] <u>Ibid</u>., p. 58

[4] <u>Ibid</u>., p. 59

hundred Grade XII students. Both retention, and high school graduation, he reported, seemed to be functions of the facilities related to size of high school enrolment.[1]

The Andrews and Brown study of Canadian composite high schools discovered a trend toward larger rural high schools. They doubted that rural high school enrolments would exceed six to seven hundred, and therefore felt that many of these schools might not be able to offer the complete provincial curriculum. The larger rural schools could, however, provide "those parts of the curriculum... most suited to educational needs of its community." At this time (1958) they saw the trend to larger city schools as having levelled off at an enrolment of somewhere between one thousand and fifteen hundred.[2]

In 1953 a group of school superintendents and inspectors from the ten provinces spent three weeks developing a series of criteria for the desirable minimum size of a larger school unit. One of their recommendations was that

> ...the unit should be large enough to provide for at least one secondary school with a minimum enrolment of 300, and sufficient pupils in feeder elementary schools to ensure continuation of that enrolment.[3]

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[1]C. B. Conway, "Educational Effectiveness of Schools in Relation to School District Size", British Columbia Educational Research Council, Report No , (Undated, but dealing with data from 1956 through 1960) (Vancouver: University of British Columbia), (mimeographed).

[2]John H. M. Andrews and Alan F. Brown, Composite High Schools in Canada. (Edmonton: University of Alberta, 1958) p. 102.

[3]Canadian Education Association, "Some Problems of the Superintendency in Canada", Report of the 1953 C.E.A. Kellogg Pilot Short Course in Educational Leadership. (Toronto: The Canadian Education Association, 1953) (mimeographed).

Flower thinks that if a comparable group of superintendents and inspectors were to rework their criteria today, they would arrive at a figure much in excess of three hundred.[1] He does not suggest any figure of his own, but if the following statement represents his definition of a minimum, then he would have to settle for not less than two hundred students in a graduation class:

> Let us think in terms of a community of 15,000 to 20,000 with a school population of about 4000. (This may seem large to be called small; but in the future it most certainly will be small).[2]

Dr. C.O. Fitzwater, Chief of Local School Systems Section, U.S. Office of Education, believes that a multiplier of twenty is sound with respect to the ratio of high school seniors to total district enrolment.[3]

If this figure is realistic, and can be applied to Flower's small school population, two hundred students would be the approximate number in the senior class.

The Report of the Royal Commission of Inquiry on Education in the Province of Quebec stated that the varied instruction necessary to meet the needs of all students, and the demands of industry, would certainly necessitate the establishment of larger schools than those presently operating in the province. It was further stated that a composite

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[1] George E. Flower, How Big Is Too Big?, Quance Lectures (Toronto: W.J. Gage Limited, 1964), p. 22.

[2] Ibid., p. 45

[3] Ross L. Neagley and N. Dean Evans, Handbook for Effective Curriculum Development, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), p. 131.

high school would not be able to function satisfactorily with an enrolment of less than twelve hundred.[1]

Two years ago the province of New Brunswick undertook a major re-organization of its school system. In outlining some of the features of this change the Minister of Education referred to the provision in high schools of a broad program of basic compulsory subjects and a wide selection of electives. This kind of program, he said, could only be offered in a school of at least six hundred pupils.[2]

Newfoundland Sources. In the late 1940's, Frecker, then Secretary for Education in Newfoundland, was delegated with the task of "surveying the position regarding Regional High Schools in Canada, the United States, the United Kingdom and Scandinavia."[3]

His interim report to the Commission of Government covered surveys made in the provinces of Canada, and in four American States. He recommended that Newfoundland proceed with the establishment of regional schools, and among other guidelines suggested the following relative to size of the proposed schools.

> In order that a Regional High School may give a number of courses such as recommended by the 1943 Report of the Survey Committee of the Canadian Education Association, the school should have a fairly

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[1] Report of the Royal Commission of Inquiry on Education, Volume 4, (Quebec City: Printers for Government of Quebec, 1966), p. 32.

[2] Minister of Education, New Brunswick, as quoted in the Report of the Royal Commission on Education and Youth, Volume 1 (St. John's: Province of Newfoundland and Labrador, 1967), p. 103.

[3] G. A. Frecker, "Interim Report, Education Survey 1946-47-48" (St. John's: Commission of Government, 1948), p. 1. (mimeographed).

> large enrolment. One hundred and fifty students would permit some diversification of the curriculum but two hundred and fifty to three hundred students for each school should be the aim.[1]

From the survey of Newfoundland secondary education, the Royal Commission on Education and Youth concluded that there were too many small high schools. The Commission stated that many of these schools could and should be consolidated, in order to bring to all students the kind of facilities available only to students in larger schools. "While no-one will contend", said the report, "that larger schools of themselves do provide good education, few will doubt that small schools rarely do."[2]

The report continued with the assertion that small high schools can provide but one program of studies for all students. These schools could not employ the staff necessary to provide for the complete range of needs of all students.[3] Many small schools, for example, failed to offer any of the specialized sciences, biology, chemistry and physics, while some large schools offered all three. "And", the Commission stated, "small schools tend to be 'text-book oriented' and to make little use of library and laboratory facilities."[4]

Concluding this section of the report, on school size, the Commission recommended:

> ...a five-year high school should have at least five hundred students, and a three-year high school at least three hundred.

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[1] Ibid., p. 16.

[2] Province of Newfoundland and Labrador, Report of the Royal Commission on Education and Youth, Volume 1 (St. John's: Province of Newfoundland and Labrador, 1967), p. 90.

[3] Ibid., p. 93.

[4] Ibid., p. 99.

> A much larger enrolment is necessary if these schools are to provide the diversity of curriculum and services that are considered desirable.[1]

11. LITERATURE ON THE NEGATIVE RELATIONSHIP BETWEEN SCHOOL SIZE AND SCHOOL PROGRAM

The literature in this field tends to psychological studies rather than administrative, as was the case for most of the literature in the previous section. The studies selected here show a concern for the student as an individual as schools become larger.

Five leading education groups in the United States combined forces to examine the importance of the individual in the schools. The first statement issued from this project warned of school practices that reduce the individual's role:

> With an eye to masses rather than indivuduals, the schools are departing from their unique historic character by manipulating pupils and teachers into organizational patterns and by leaning on administrative and mechanical devices that tend to destroy the very quality which has made them great.[2]

In discussing the individual pupil in the large high school, McNassor has expressed concern about the anonymity of an adolescent in a school of two thousand pupils. He thinks that there may be a direct connection between the apathy of students regarding civic-social matters

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[1] Ibid., p. 104.

[2] American Association of School Administrators, Planning America's School Buildings. Report of the Association's School Building Commission (Washington, D.C.: American Association of School Administrators, 1960), p. 3.

in the adult community, and the fact that their time is spent in dense population centres in large high schools which promote feelings of anonymity.[1]

Plath states that in seeking to solve this dilemma of educating more pupils in larger schools, and at the same time providing better individual attention, educators are increasingly turning to the schools-within-a-school-plan.[2] For example, the Association for Supervision and Curriculum Development publication The Junior High School We Need states:

> In a junior high school of larger than 500, administrative devices which provide for smaller subunits or for "schools within the school" are wise. The young adolescent needs to find a respected place for himself. He needs to be known and seen; he deserves attention.[3]

Some comprehensive studies of school size were undertaken at the Midwest Psychological Field Station of the University of Kansas, and published in 1964 under the editorship of Barker and Gump.[4] A total of 218 high schools with student populations ranging from thirty-five to 2,287 were involved in the cluster of studies.

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[1]Donald McNassor, "New Designs for Civic Education in the High School". In Franklin Patterson (ed.), The Adolescent Citizen (Glenco, Illinois: The Free Press, 1960), p. 316.

[2]Karl R. Plath, Schools Within Schools. A Study of High School Organization (New York: Teachers College, Columbia University, 1965), p. 4.

[3]Jean D. Grambs and others, The Junior High School We Need (Washington, D.C.: Association for Supervision and Curriculum Development, 1961), p. 13.

[4]Roger G. Barker and Paul V. Gump, Big School, Small School (Stanford, California: Stanford University Press, 1964.)

The findings of these studies indicated that students from the larger schools were exposed to a larger number of school activities, and the best of them achieved standards in many activities that were unequalled by students in the small schools; but, students in the small schools participated in more activities... academic, cultural, and extra-curricular. Students from the smaller schools reported more and "better" satisfactions, and displayed stronger motivation in all areas of school activity.

To the question, "What size should a school be?", Barker and Gump give this answer,

> The data of this research and our own educational values tell us that a school should be sufficiently small that all of its students are needed for its enterprises. A school should be small enough that students are not redundant.[1]

III. SUMMARY

While some psychological studies indicate a negative relationship between school size and the degree of participation by students in school programs, the great majority of studies find a positive relationship between school size and the program offerings of a school.

High schools with fewer than one hundred pupils per grade offer an inferior program. The optimal size for high schools would appear to fall in the range of two hundred to three hundred pupils per grade.

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[1] Ibid., p. 202.

CHAPTER III

DESIGN OF THE STUDY

This chapter sets forth the methods used to test the detailed aspects of the general hypothesis of the study, namely: that with respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools. Separate sections deal with the instruments, the sample, the collection of data and the methods used to analyse data.

1. THE INSTRUMENT

Data was gathered by means of the interview schedule contained in Appendix A. This schedule was basically the instrument Evaluative Criteria developed by the National Study of Secondary School Evaluation,[1] but modified for this study by the investigator.

Evaluative Criteria. This instrument is designed for use of a school staff in self evaluation of the school program and school plant; and for use by visiting committees of qualified teachers, administrators, and specialists, who may use the instrument for purposes of accreditation, or as a guide to recommendations for improvement of a school's program and facilities.

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[1] National Study of Secondary School Evaluation, Evaluative Criteria, 1960 Edition (Washington: National Study of Secondary School Evaluation, 1960).

The instrument contains sections designed to elicit information on the philosophy and objectives of a school, its program of studies (nineteen subject areas ranging from agriculture to vocational education), the student activity program, instructional materials services, guidance services, health services, the school plant, the school staff and administration.

Originally the instrument was developed in the 1930's by the Cooperative Study of Secondary School Standards, a corporate body administered by a general committee composed of respresentatives of regional accrediting associations in the United States. The committee first published Evaluative Criteria in 1940, a second edition was published in 1950, and a third in 1960. Since 1940 the instrument has been used in thousands of schools throughout the United States. A modified edition was used in schools in India, and adapted translations were used in Egypt, Cuba and Japan. The Alberta Teachers Association has revised the criteria for use in Alberta schools, and it has had widespread use in that province in recent years.

As stated previously the instrument, when used in its entirety, is processed by a team of qualified teachers and others who visit a school for purposes of accreditation or otherwise. The team is subdivided to study specific areas of the school program and its facilities. By observing classes, and by questioning school personnel, the team members garner information and complete an extensive list of checklist items for each area of the study. After the checklists have been rated, evaluation items are marked using a five point scale, which will be

described in detail later in this chapter.

Modifications for the Present Study. Once the basic instrument had been chosen, it was necessary to select those sections which could be most effectively administered by the investigator; and which would, at the same time, provide enough of a picture of the Newfoundland Regional High Schools on which to test the hypothesis.

The investigator assumed that a high school program for Newfoundland should provide a reasonable balance of academic and cultural studies; and that every high school student should have the opportunity to participate in a program of physical and social activities. He, therefore, chose from Evaluative Criteria the sections on art, music, physical-education and student activities. The academic studies were limited to three: English, mathematics, and science. There were two reasons for this particular selection of academic subjects:

1. The Newfoundland Provincial Committee on Curriculum, and the Newfoundland Royal Commission on Education and Youth have both recommended that every high school student should have a basic program in English Literature, English Language, and history for all three years of high school, and mathematics and science for some or all of the three years.[1]

2. In the subjects chosen the investigator has majors in each of English and mathematics, and strength in science subjects as well.

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[1]Province of Newfoundland and Labrador, Report of the Royal Commission on Education and Youth, Volume 1 (St. John's: Province of Newfoundland and Labrador, 1967), pp. 164-166.

His teaching experience for the previous fourteen years has been entirely in the fields of English, mathematics, and science.

A further decision was made to limit the study of academic subjects to Grade X:

1. Because two of the high schools selected for the study enrol no pupils in grades below Grade X.

2. Because in all the high schools selected for the study, Grade XI students write provincial examinations, whereas in some of these schools many of the Grade X students write only school examinations, it was considered that if any difference in program offerings of the various schools existed, it would more likely be found in Grade X than in Grade XI.

Finally then, the decision was made to conduct a study of the following program areas: Grade X English, mathematics, and science; and art, music, physical-education (boys and girls), and student activities in Grades X and XI.

The criteria sections chosen were next subjected to rigorous editing and validating with the help of university teachers in all subject areas but student activities, which was modified with the assistance of two high school principals. (The names and positions of these university and school advisors are listed in Appendix B).

Following the initial editing of the criteria, the revised instrument was tested in two pilot studies; one in a large, city high school (Grade X and XI enrolment 363), the other in a small-town high school (Grade X and XI enrolment 141). These pilot studies enabled the

investigator (a) to test the instrument in a real school setting, and to further modify it, where necessary, (b) to develop a technique of administration, and (c) to finalize the criteria ratings to be used in the actual evaluative situations to follow.

In these editing and testing procedures all checklist and evaluative items which could not be applied to the Newfoundland schools and to the limiting factors of the study (Grade X academics for example) were either eliminated or modified to suit. Thus, a checklist item such as "a continuous science program is provided from the seventh through the twelfth grade" was deleted, and the item, "although Canadian and English literatures are emphasized, opportunity is offered for the study of appropriate selections from other literatures" was modified by deletion of the word American and insertion of the word Canadian in its place. Items requiring expert knowledge such as "The teaching of grammar is in agreement with current research findings" were also deleted. Any evaluative items involving the word "quality" were eliminated: for example, "How adequate is the quality of writing activities". The investigator did not consider himself competent to mark such an item. Some sub-sections of the criteria were eliminated in their entirety, notably those on Methods of Evaluation, Outcomes, Special Characteristics of (the subject) and, General Evaluation of Instruction in (the subject). The investigator, and his advisors, considered that these sections had no value for the present study.

A major modification was made in the procedure for applying the instrument. As already indicated, the instrument is normally used by

a team; for this study the investigator worked alone. An investigating team might spend three or four days in a school; the investigator covered the smaller schools in one day, the larger schools in two. The investigating team interviews students in some instances; the investigator did not. The investigating team visits classrooms in session; the investigator applied this technique only to activity sections, such as art, physical-education, and science laboratory classes. In evaluating the section, student activities, the investigating team might interview several staff advisors; the investigator interviewed only the school principal or a staff member assigned by him.

The Instrument Used. The revised instrument, including checklist and evaluation items, is included as Appendix A. All school-subject studies are divided into sections on Organization, Nature of Offerings, Physical Facilities, Instructional Staff, Instructional Activities, and Instructional Materials. The area of student activities covers sections on Organization, Student Publications, Dramatics and Speech Activities, Social Life, School Clubs, and Financing of Student Activities.

In addition to the checklist items for each school subject investigated, further information was called for on the subject matter taught in these areas, on the percentage of the grade registered in any elective program, and on the teaching qualifications of the teachers involved with these subjects. This section of the instrument may be found in Appendix A, immediately following the checklists for English, mathematics, science, art, music, and physical education.

The following sample from the criteria is taken from the Art section.

INTERVIEW CHECKLIST — ART

1. ORGANIZATION

( ) 1. General art courses are available to all students.
( ) 2. Flexibility in organization provides opportunity for extensively exploring a variety of art media.
( ) 3. Provisions are made for students with particular art interests and ability to work intensively in art media.
( ) 4. Class sizes are consistent with the nature of the course.
( ) 5. Art classes are assigned only to qualified art teachers.
( ) 6. Sufficient funds are allocated to provide supplies, tools, and equipment for art.
( ) 7. Provision is made for common planning by teachers of courses in the arts, such as music, home economics, industrial art, drama, and dance.
( ) 8. The school schedule makes it possible for students with art interests and abilities to elect art courses.

EVALUATIONS — ART

( ) 1. To what extent are general art courses available for all students?
( ) 2. To what extent are elective art courses available to meet art needs of individual students?
( ) 3. To what extent does the school schedule make it possible for students with art interests and abilities to elect art courses?

Each item of the checklist was assigned one of three letters:

E...if the provision or condition was made extensively.

S...if the provision or condition was made to a moderate extent.

L...if the provision or condition was very limited or missing, but needed.

Evaluation items were assigned values on a five-point scale:

5 - Excellent: The provisions or conditions are extensive and are functioning excellently.

4 - Very good: (a) the provisions or conditions are extensive and are functioning well, or

(b) the provisions or conditions are moderately extensive and are functioning excellently.

3 - Good: The provisions or conditions are moderately extensive and are functioning well.

2 - Fair: (a) the provisions or conditions are moderately extensive but are functioning poorly, or

(b) the provisions or conditions are limited in extent but are functioning well.

1 - Poor: The provisions or conditions are limited in extent and functioning poorly; or they are entirely missing, but needed.

Validity of the Instrument. The final form of the instrument was so constructed that it would bring forth those factors governing school programs with which the investigator was concerned, namely: course or activity content, electives, balance, facilities, and teacher qualifications. These factors are described by the many criteria items studied, and can then be rated by means of the evaluative items.

The criteria items chosen from the original instrument, Evaluative Criteria, had been devised by committees of secondary school and university teachers, and had been revised several times after use in thousands of schools in the United States over the period from 1940 to 1960. These criteria items have also been used in revised forms, in India, Japan, Egypt, Cuba, and in the province of Alberta.

All those persons involved in the modification of the criteria; university teachers, high school principals (Appendix B), and pilot-school teachers, were in unanimity on two points:

1. The criteria should provide an adequate measure of the program to be studied.

2. The investigator, though not an "expert" in any subject area of the study, was qualified to administer the instrument effectively enough for the purpose required.

Reliability of the Instrument. Matthews states that the reliability of the Evaluative Criteria was checked out in a research project. Dr. Earle Hawkins, currently President of Towson State College, Baltimore, Maryland, arranged for two committees to visit twenty-five schools. Each committee was provided with a complete copy of the criteria, worked independently, and visited the schools at the same time. Judgements of the committees were summarized separately and compared. Comparisons were made between the reports for the same school, and, although there were differences, Hawkins concluded that the differences were not significant, and that the results obtained from using the procedures recommended by the Cooperative Study (now National Study) were reliable.[1]

Three tests were conducted to check the reliability of the revised instrument.

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[1]Personal letter from R. D. Matthews, Executive Secretary, Administrative Committee, National Study of Secondary School Evaluation, dated March 4, 1968.

1. School A of the study was visited by two persons, a senior staff member of the Faculty of Education, Memorial University of Newfoundland, and the investigator. Each completed the checklist and the evaluations on the academic subjects, physical-education and student activities. Art and music were treated similarly by the same investigators in School G. The Pearson's r between the rating of the two investigators is shown in Table 1.

The overall reliability coefficient was .96.

2. School A was revisited by the investigator, and the subject areas, mathematics, physical-education (boys), and student activities, re-checked and re-evaluated. The resultant stability coefficients between the two sets of evaluations were: mathematics .92, student activities .92 and physical-education boys .93.

TABLE 1

RELIABILITY COEFFICIENT (r) BETWEEN INSTRUMENT EVALUATIONS OF TWO INVESTIGATORS

Subject		Subject	
Art	.85	English	.83
Music	.90	Mathematics	.88
Physical Education (boys)	.92	Science	.95
Physical Education (girls)	.94	Student Activities	.94

3. The investigator completely re-evaluated all criteria items in each subject area investigated in School B, using the original markings of the checklist items. The Pearson's r between first and second evaluations is shown in Table 11.

TABLE 11

STABILITY COEFFICIENT (r) BETWEEN TWO SETS OF CRITERIA EVALUATIONS USING THE ORIGINAL CHECKLIST SCORES

Subject		Subject	
Art	1.00	English	.98
Music	1.00	Mathematics	.98
Physical Education (boys)	.98	Science	.98
Physical Education (girls)	.97	Student Activities	.95

The overall stability coefficient was .99.

111. THE SAMPLE

As noted in Chapter 1, only Regional High Schools were to be studied, and there were twenty-seven in Newfoundland in the school year 1966-67. Two of these schools were used for the pilot studies. The remaining twenty-five were listed in order of the total Grade X and Grade X1 enrolment, with the seven largest and the seven smallest being chosen for the study.

Grade X and Grade XI enrolments in the larger schools ranged from 233 to 958, and in the small schools from forty to ninety-seven.

IV. THE COLLECTION OF DATA

Permission to visit schools was sought and quickly received from all schools but one of the smallest. In this instance the school next in size was chosen. Boards of Education also readily extended permission to visit their schools and interview teachers, as did the Superintendents of Education and the Director of Amalgamated Schools. Pertinent letters and forms are shown in Appendix C.

The actual study was conducted over a five week period, and involved a concentrated program of interviews, observations, and data gathering. Without exception, teachers and principals were extremely patient and cooperative, and gave all information requested in the conduct of the study. Each item of the checklist was covered during interviews with the principal of the school, or with a teacher designated by him as best qualified to deal with the area under study. The investigator took great care to ask the same questions and to use the same interview technique in each school. The checklist markings E, S, L were made by the investigator alone. Evaluation items were assessed immediately after the visit to the school had terminated, or during the visit as time permitted. The period of one day for small schools, and two days for larger schools, as decided from the pilot studies, was found to be quite satisfactory--though in four of the smaller schools this involved some night interviews to complete the work.

V. THE METHODS OF ANALYSIS

The visitations completed, the next task was to tabulate the data and analyze results. The table which follows shows the method used in tabulating, and the evaluations actually assigned schools on item (1) of the Art example previously shown.

ITEM: To what extent are general art courses available for all students?

TABLE 111

A SAMPLE EVALUATIVE CRITERIA RATING

Larger Schools								Smaller Schools							
A	B	C	D	E	F	G	Med.	T	U	V	W	X	Y	Z	Med.
1	4	1	2	1	2	4	2	2	2	2	2	3	1	2	2.1

The symbols A, B, C, D, E, F, G, were those assigned each of the larger schools throughout the study. T, U, V, W, X, Y, Z were the symbols for the smaller schools.

In schools A, C, E, Y no art periods were provided any student of the school. Since the provision of art was entirely missing, the rating was 'Poor', and the evaluation 1.

Schools D, F, T, U, V, W and Z provided art classes for some students. In these schools the provisions were either moderately extensive and functioning poorly, or limited in extent but functioning well. The rating was 'Fair', the evaluation 2.

School X provided art for all students, under the guidance of an academic teacher who in the investigator's opinion appeared to have some

talent in art. His students had entered some of their art work in an International Red Cross contest, and had won awards. The program was rated 'Good', with an evaluation of 3.

Schools B and G had full time art teachers, both graduates of a university school of art. Their programs were either extensive and functioning well, or moderately extensive and functioning excellently. The rating, therefore, was 'Very Good', and the evaluation 4.

The data gathered on program content and the percentage of a grade registered in elective subjects lent itself best to descriptive analysis. This was done in Chapters IV, V, and VI in the appropriate sections.

The data on teacher qualifications was subjected to statistical analysis, as were the evaluative criteria items. This was done in the latter case to determine if any significant difference existed in the evaluations assigned larger and smaller high schools. This analysis is shown in detail in the Chapters IV, V, VI and VII. The test used in the analysis is known as a "median" test.

The median test was used to find out whether it was likely that the median evaluations on any item would be the same for the large and for the small schools. The hypothesis for the study was that the medians would not be the same; but that the median evaluations for the larger schools would be higher than those for the smaller schools.

To carry out the median test, the median evaluation for the combined schools was determined for each item of the criteria. The evaluations were then dichotomized at the joint median, and placed in a 2 X 2 table like Table IV.

TABLE IV

MEDIAN TEST: FORM FOR DATA

	Large Schools	Small Schools	Total
No. of evaluations above the combined median.	A	B	A + B
No. of evaluations at or below the combined median.	C	D	C + D
Total	A + C	B + D	

To overcome the problem of dealing with ratings which fell at the joint median, the evaluations were dichotomized as those which exceeded the median and those which did not.

Siegel[1] states that for an N 20 (as in this study) an appropriate test for the significance of the medians would be Fisher's Exact Probability Test. It is this test which was used in the study. The investigator chose to use with it a significance level of .05.

Table V shows the method of treatment of the data of the main study. ITEM: How extensive is the variety of experiences in speech?

In the item shown the difference between large-school and small-school medians was found to be significant, and the main hypothesis was accepted for this item.

The reader will note that in tabulating the evaluations of the sample item shown, the median evaluations for the small schools and for

[1]Sidney Siegel, Nonparametric Statistics for the Behavioural Sciences (New York: McGraw Hill, 1956), pp. 96-104 and 111-115.

TABLE V

EVALUATIVE CRITERIA RATINGS SHOWING JOINT MEDIAN AND SIGNIFICANCE AT .05 LEVEL

Larger Schools								Smaller Schools								Joint Med.	Signif. .05 level
A	B	C	D	E	F	G	Med.	T	U	V	W	X	Y	Z	Med.		
1	3	3	3	3	3	2	2.9	2	2	1	2	2	1	1	1.8	2.1	S

the large schools was calculated. These medians were not required for the median test, but served as an additional basis for comparison of large-school with small-school evaluations. Every criteria item in Chapters IV, V, VI, and VII received the same treatment.

CHAPTER IV

ANALYSIS OF FINDINGS: ENGLISH, MATHEMATICS, SCIENCE

Each of the three subjects, Grade X English, mathematics, and science, is treated separately in this chapter. Information is presented first on the courses of study offered in each subject area. Then follows some statistical data on teacher qualifications (level of teaching certificate, the number of university courses in the subject area, and the number of methods courses completed). Finally, all criteria items for each subject area are listed in one table with accompanying description and summary of findings. Each item of the table shows the individual school evaluations, the small-school and large-school medians, the joint median, and a statement of significance (S) or non-significance (N/S) at the .05 level, based on the Fisher Exact Probability Test.

For each criteria item examined in Tables IX, XII, and XV, the hypothesis was that, with respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

1. ENGLISH

The overall finding for English was that the programs offered in larger Regional High Schools, the qualifications of staff, and the scores on the evaluative instrument were generally rated higher than those of the smaller Regional High Schools. The findings are now presented in detail.

Programs Offered. An analysis of program offerings, as revealed in Tables VI and VII, shows that the larger Regional High Schools had a greater variety of courses in English Language and English Literature than the smaller ones.

Table VI presents information on the Courses of Study (Grade X English Literature) for each school, with the percentage of the grade involved. Three of the larger schools, and six of the smaller offered only the provincial University-Preparatory program. One large school supplemented this program with Science Research Associates Reading Laboratories for two classes of non-matriculant students, and with an enriched program of studies for all others. Two larger schools had one class each on selected topics from the provincial anthology, while one larger school had a class (mainly repeaters) on the provincial General Course.

In the seven smaller schools, one student only was studying the provincial General Course; all other students were on the University-Preparatory program.

Further detail not shown in the table is that, in the schools studied, 2405 Grade X pupils were registered. Of the 2127 pupils in larger schools, 2026 were on the University-Preparatory program; and of the 278 Grade X pupils in smaller schools all but one followed this program.

Table VII is the comparable picture in Grade X English Language for each school -- the pupils involved in different programs were the same pupils as shown for the English Literature.

All schools were using as a basic text the provincial text,

TABLE VI

COURSES OF STUDY: GRADE X ENGLISH LITERATURE

	School	Course of Study	% of grade involved
LARGER SCHOOLS	A	Provincial University-Preparatory	100
	B	Provincial University-Preparatory plus one Shakespearean comedy, and additional novels.	80
		Provincial University-Preparatory plus S. R. A. Reading Labs.	20
	C	Provincial University-Preparatory	86
		Selected topics from provincial course	14
	D	Provincial University-Preparatory	100
	E	Provincial University-Preparatory	93
		Provincial General Course	7
	F	Provincial University-Preparatory	92
		Selected topics from provincial course	8
	G	Provincial University-Preparatory	100
SMALLER SCHOOLS	T	Provincial University-Preparatory	100
	U	Provincial University-Preparatory	100
	V	Provincial University-Preparatory	100
	W	Provincial University-Preparatory	98
		Provincial General Course	2
	X	Provincial University-Preparatory	100
	Y	Provincial University-Preparatory	100
	Z	Provincial University-Preparatory	100

TABLE V11

COURSES OF STUDY: GRADE X ENGLISH LANGUAGE

School		Course of Study	% of grade involved
LARGER SCHOOLS	A	Provincial University Preparatory	100
	B	Provincial University-Preparatory plus additional text in fundamentals of English grammar	100
	C	Provincial University-Preparatory	86
		Selected topics from provincial text	14
	D	Provincial University-Preparatory	100
	E	Provincial University-Preparatory	93
		Provincial General Course	7
	F	Provincial University-Preparatory	92
		Selected topics from provincial text	8
	G	Provincial University-Preparatory	100
SMALLER SCHOOLS	T	Provincial University-Preparatory	100
	U	Provincial University-Preparatory	100
	V	Provincial University-Preparatory	100
	W	Provincial University-Preparatory	98
		Provincial General Course	2
	X	Provincial University-Preparatory	100
	Y	Provincial University-Preparatory	100
	Z	Provincial University-Preparatory	100

The New Using Our Language. One larger school had supplemented this with a text of grammar fundamentals; and two other larger schools had shortened the provincial program for classes of weaker students.

The supplementary data presented previously for English Literature are identical for the English Language. For example, one student only in the smaller schools was on the General Course.

Teacher Qualifications Data on the teaching grades of Grade X English teachers, on the university courses completed in English, and on courses in English methods, are summarized in Table VIII.

Teaching grades were generally higher in the larger schools, and subject depth (as represented by university courses) much higher in these schools. Seven of the thirty-six English teachers in the larger schools had completed a methods course or courses, in English. None of the twelve English teachers in smaller schools had done so.

When median tests were applied to this data, the larger Regional High School averages were significantly higher on all three factors, (teacher grades, university courses, and methods courses) than the averages of the smaller Regional High Schools.

Evaluative Criteria Items. In Table IX a significant difference between evaluations for larger and smaller schools is shown for nine of the sixteen criteria items. The larger schools were rated higher for the following reasons: In most of these schools some provision was made for the more advanced and for the weaker students. These schools were equipped with more extensive library facilities, with a greater variety and

TABLE VIII

QUALIFICATIONS: GRADE X ENGLISH TEACHERS

	Larger Schools							Smaller Schools							Joint	Signif.
	A	bB	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	3	5	4	5	6	7	6	1	2	2	2	2	1	2		
Average Teaching Grade	4.7	4.6	5.0	4.4	4.7	3.6	6.3	3.0	4.0	3.5	4.0	1.5	1.0	5.5	4.0	S
Average number of University courses in English	3.0	6.0	11	3.2	5.0	4.7	9.0	3.0	2.5	2.5	2.5	1.5	1.0	4.5	3.0	S
Average number of Method courses in English	0.0	0.2	0.5	0.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0.12	S

TABLE IX

EVALUATIONS-ENGLISH

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
1.	How adequate are the English courses to meet the needs of all students?	2	3	3	2	3	3	3	2.9	2	2	2	2	2	2	2	2	2.3	S
2.	How extensive is the variety in literature to meet the needs of all students?	2	2	3	2	2	3	3	2	2	2	2	2	2	2	2	2	2.1	N/S
3.	How adequate is the content in literature to meet the needs of all students?	2	3	3	3	3	3	3	3	2	2	2	3	2	2	2	2.3	2.5	S
4.	How well do the offerings provide for the development of the language process?	2	3	3	3	3	3	3	3	2	2	2	3	2	2	2	2.3	2.5	S
5.	How extensive is the variety of experiences in speech?	1	3	3	3	3	3	2	2.9	2	2	1	2	2	1	1	1.8	2.1	S
6.	How extensive is the variety of writing activities?	3	3	3	3	3	4	3	3.2	3	3	2	3	2	3	2	2.8	2.9	N/S
7.	To what extent do the offerings provide for the development of listening skills and appreciation?	2	2	2	3	3	2	2	2.2	2	2	1	2	1	3	2	2	2.1	N/S

TABLE IX (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
8.	How adequate are the physical facilities to meet the instructional needs in English?	3	3	4	3	3	4	4	3	3	3	2	3	3	3	3	3	3.1	N/S
9.	How adequate is the provision for storage facilities?	3	3	4	3	3	4	4	3	2	2	2	3	3	2	2	1.9	2.8	S
10.	How well is the equipment maintained for efficient use?	3	3	4	3	3	4	4	3	3	3	3	3	3	3	3	3	3.1	N/S
11.	How adequate is the staff's preparation in English?	3	4	4	3	3	3	4	3	2	2	2	2	2	2	3	2.2	2.7	S
12.	To what degree is instruction adapted to the needs of individual students?	3	3	3	3	3	3	3	3	2	3	1	3	2	3	3	2.8	2.9	N/S
13.	To what extent are materials from the library used in English instruction?	2	3	3	2	1	4	3	2.8	1	2	1	2	1	1	1	1.3	1.8	N/S
14.	How adequate is the variety of instructional materials?	3	4	4	3	2	4	4	3	2	2	2	2	2	2	2	2	2.4	S
15.	How adequate is the quantity of instructional materials?	3	3	4	3	2	4	3	3.3	2	2	1	2	2	2	2	2	2.4	S
16.	How adequate is the planning and preparation for instruction?	3	4	4	3	3	4	4	3.8	3	3	2	3	3	3	3	3	3.2	S

quantity of instructional materials, and provided course options--University-Preparatory, Provincial General Course, and local adaptations of each of these programs. The larger schools also provided a greater variety of experiences in speech.

The most significant difference noted was in the teaching qualifications of English teachers. Purely from a statistical point of view, the teachers of the larger schools showed superiority. Item 11 of the criteria, on the staff's preparation in English, supports what has already been shown in Table VIII. In fact, the teachers of the larger schools had, on the average, taken 6.0 university courses in English, while their counterparts in the smaller schools had taken but an average of 2.5 courses. In four of the larger schools a teacher or teachers had taken courses in the teaching of English, but in the smaller schools none had.

Close inspection of Table IX will reveal that most of the evaluations show the English program has been rated as only good or fair in most schools. Larger schools medians, however, were higher on thirteen of the sixteen criteria items, than the medians for the smaller schools.

11. MATHEMATICS

The study indicated that the program offered in mathematics in the larger Regional High Schools was somewhat broader in scope than in the smaller schools. In the comparison of staff qualifications, and scores on the evaluative criteria, however, little difference was apparent in the data for the larger and for the smaller schools.

Programs Offered. Table X presents information on the Course of Study (Grade X mathematics) for each school, with the percentage of the grade involved in any program. All fourteen schools investigated offered the provincial University-Preparatory program, which consisted of two distinct subjects, Algebra and Geometry, using one basic text, Functional Mathematics IV. The provincial General Course was the Geometry section only of the aforementioned program. One large school and two small schools had students on the General Course.

Four of the larger schools provided local school programs for some of their non-matriculants, with 15 per cent of the total grade enrolment of any one school being the highest number involved. Two of the four used selected topics from the provincial text, a third school augmented this material with arithmetic from a 1919 high school arithmetic text, while the fourth provided a locally devised program of general arithmetic.

None of the small schools had attempted any departure from the provincially prescribed courses of study. Indeed, in these schools, all but two students were on the University-Preparatory program.

Teacher Qualifications. Data on the teaching grades of Grade X mathematics teachers, and on their preparation in mathematics are shown in Table XI. This table reveals that teaching grades of the mathematics teachers in the larger schools were generally higher than the grades of teachers in the smaller schools. This difference, however, is not statistically significant. On the other hand, teachers in the smaller Regional High Schools had completed a higher average number of university

TABLE X

COURSES OF STUDY: GRADE X MATHEMATICS

School		Course of Study	% of grade involved
LARGER SCHOOLS	A	Provincial University-Preparatory	100
	B	Provincial University-Preparatory	91
		Selected topics from provincial text plus topics from former high-school arithmetic text.	9
	C	Provincial University-Preparatory	86
		Selected topics from provincial text	14
	D	Provincial University-Preparatory	100
	E	Provincial University-Preparatory	93
		Provincial General Course	7
	F	Provincial University-Preparatory	92
		School Program...Arithmetic	8
	G	Provincial University-Preparatory	85
		Selected topics from provincial text	15
SMALLER SCHOOLS	T	Provincial University-Preparatory	100
	U	Provincial University-Preparatory	100
	V	Provincial University-Preparatory	100
	W	Provincial University-Preparatory	98
		Provincial General Course	2
	X	Provincial University-Preparatory	100
	Y	Provincial University-Preparatory	97
		Provincial General Course	3
	Z	Provincial University-Preparatory	100

TABLE XI

QUALIFICATIONS: GRADE X MATHEMATICS TEACHERS

	Larger Schools							Smaller Schools							Joint	Signif.
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	2	4	4	2	6	7	6	1	1	2	1	2	1	2		
Average Teaching Grade	4.5	5	5	4	5.3	3.7	5.8	4	3	5.5	4	1.5	2	2.5	4.2	N/S
Average number of University courses in mathematics	4.5	3.3	2.8	1.5	1.3	2.9	2.1	4	2	3.5	3	1	3	1	2.8	N/S
Average number of Method courses in mathematics	0	0.5	0.5	0	0	0	0.5	0	0	0	0	0	0	0	.09	N/S

mathematics courses than the mathematics teachers of the larger schools. This difference also was not statistically significant. Of thirty-one mathematics teachers in the larger schools, only seven had completed any methods course. None of the mathematics teachers in the smaller schools had taken a methods course in mathematics.

Evaluative Criteria Items. Criteria items and evaluations for the Grade X mathematics program are depicted in Table XII.

It will be immediately apparent that the larger schools did not receive significantly higher evaluations than the smaller schools. Indeed, statistical significance appeared in but five of the twenty-two items evaluated, and three of these items describe factors which might be classed as merely auxiliary to the main program, equipment, supplies, and storage facilities. One might conclude that there was no significant difference in the mathematics programs offered by small and by large schools. This view may be tempered somewhat by a study of large-school and small-school medians, where the reader will note that on fifteen of the twenty-two items the larger schools received higher evaluations.

Items, 2, 3, 7, 8, 18, and 21 received very low evaluations in all schools, and warrant comment. There were no advanced or specialized courses available in any of the schools for students with special aptitude or special needs in mathematics; hence, students could not elect courses beyond those required, for none were offered. No school investigated had a special classroom for mathematics, nor any provision of a work area where practical applications of mathematics could be made.

TABLE XII

EVALUATIONS-MATHEMATICS

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
1.	To what extent are mathematics courses available and suited to the needs and abilities of all students in Grade 10?	2	3	3	2	2	3	3	2.8	2	2	2	2	2	2	2	2	2.2	S
2.	To what extent are courses available for students with special aptitude in mathematics?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	N/S
3.	To what extent are students electing mathematics courses beyond those required?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	N/S
4.	How adequate is the variety of offerings in mathematics to meet the needs of all students?	2	3	2	2	2	3	2	2.3	2	2	2	2	2	2	2	2	2.1	N/S
5.	How adequate is the content of offerings to develop mathematical knowledge and skills needed by all students?	2	3	2	2	2	3	2	2.3	2	2	2	2	2	2	2	2	2.1	N/S
6.	How adequate is the content of offerings to develop mathematical understanding and appreciation needed by all students?	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	N/S

TABLE XII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
7.	To what extent do offerings provide for the application of mathematics in practical situations?	1	2	1	1	1	2	1	1.3	1	1	1	1	1	1	1	1	1.1	N/S
8.	How adequate are the offerings to meet needs of students having specialized occupational, and technical interests?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	N/S
9.	To what extent do offerings prepare students for further study of mathematics?	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.0	N/S
10.	How adequate are the space provisions for existing class sizes?	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.0	N/S
11.	How adequate are the storage facilities for equipment and supplies?	2	3	3	2	1	3	3	2.8	1	1	1	1	2	1	1	1.2	1.5	S
12.	How adequate is the equipment to meet enrolment and curricular needs?	2	4	3	3	3	3	3	3.1	2	2	2	2	2	2	2	2	2.4	S
13.	How adequate are the supplies to meet enrolment and curricular needs?	2	3	3	2	3	3	3	2.9	2	2	2	2	2	2	2	2	2.3	S
14.	How adequate is the preparation of the staff in mathematics?	3	3	3	2	2	3	2	2.8	3	2	3	3	2	3	2	2.8	2.6	N/S

TABLE XII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
15.	To what extent is the staff prepared to teach new topics in mathematics?	3	3	2	2	2	2	2	2.3	3	2	2	2	1	2	1	2	2.1	N/S
16.	How adequate is the planning and preparation for instruction?	3	3	4	3	3	3	3	3.2	3	2	3	4	2	3	2	2.8	2.9	N/S
17.	How adequately are the instructional activities adapted to the needs of individual students?	3	3	4	3	3	3	2	3.1	3	2	3	4	2	2	2	2.5	2.8	N/S
18.	How adequately is provision made for practical applications of mathematics?	1	2	1	1	1	2	1	1.3	1	1	1	1	1	1	1	1	1.1	N/S
19.	How adequately are provisions made for rapid learners in mathematics?	2	3	3	2	3	3	3	2.9	1	1	2	3	2	2	1	1.8	2.5	N/S
20.	How adequately are provisions made for slow learners in mathematics?	2	3	3	2	2	3	3	2.8	2	1	2	3	2	2	1	2	2.2	N/S
21.	How adequate is the variety of instructional materials?	1	2	3	2	1	2	3	2.2	2	1	1	1	1	1	1	1.2	1.4	N/S
22.	How adequate is the content of instructional materials?	2	3	3	3	2	3	2	2.8	2	2	2	2	2	2	2	2	2.2	S

Instructional materials consisted almost entirely of the recommended texts. One large school was using overhead projectors and transparencies in the teaching of mathematics.

111. SCIENCE

In this subject area the larger Regional High Schools had significantly different programs than the smaller schools. While teacher qualifications (teaching grades and teacher preparation in science teaching) showed little difference, the programs offered and the teaching facilities of the larger schools were scored much higher on the evaluative criteria than were similar items for the smaller schools.

Programs Offered. Information on the Course of Study (Grade X Science) is presented in Table X111. Here will be seen the science subjects offered by each school, and the percentage of the grade involved for each subject.

The table has three main divisions: Provincial University-Preparatory, Provincial General Course, and School Programs. A striking feature of the table is the high percentage of pupils involved in University-Preparatory programs. Especially is this to be noted in the smaller schools where no student was enrolled in a general course, provincial or local.

Two only of the schools provided locally designed programs, and these involved a small percentage of the grade enrolment--the weakest students (academically). Three of the larger schools offered the provincial Physical-Science course for non-matriculants.

TABLE XIII

SCIENCE COURSES OFFERED BY NEWFOUNDLAND REGIONAL HIGH SCHOOLS
AND THE PERCENTAGE OF THE GRADE X ENROLMENT
INVOLVED IN EACH SCIENCE SUBJECT

	LARGER SCHOOLS							SMALLER SCHOOLS						
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z
Provincial University-Preparatory														
Biology	0	43	60	0	0	93	34	0	0	0	0	0	0	0
Chemistry	0	30	53	50	32	38	36	0	0	0	6	0	0	0
Earth Science	69	13	0	0	43	0	18	100	0	100	50	52	100	100
Physics	31	32	30	90	33	0	28	0	100	0	50	48	0	0
Provincial General Course														
Physical Science	0	22	13	0	13	0	0	0	0	0	0	0	0	0
School Program														
Botany	0	0	0	0	0	8	0	0	0	0	0	0	0	0
Elementary Physics	0	0	0	0	0	0	16	0	0	0	0	0	0	0

Two large schools each offered five science options. Two others provided four options. One large school and one small school offered three science options. Two large and one small school provided two options; and the remaining five schools (all small) provided but one science course, usually Earth Science. In fact, Earth Science appeared to be the most popular of the sciences in the small schools, being the only science taught in four schools, and having the majority of Grade X science enrolments in two others. Earth Science had also the largest enrolments in two of the larger schools.

Teacher Qualifications. Preparation in the teaching of science, and teaching grades of Grade X science teachers is presented in Table XIV.

In the schools investigated thirty-two of the thirty-eight science teachers held degrees...90 per cent in the large schools, and 63 per cent in smaller. There was no statistical significance in the difference in qualifications for these two groups of teachers. Neither was there any statistically significant difference in the average number of university science courses completed by each group. No teacher in the smaller schools, and but five in the larger schools, had taken a course in the teaching of science. This difference was statistically significant.

Evaluative Criteria Items. Table XV presents the evaluations of the Science program in Grade X in Newfoundland Regional High Schools. Statistically significant differences appeared on eighteen of the

TABLE XIV

QUALIFICATIONS: GRADE X SCIENCE TEACHERS

	Larger Schools							Smaller Schools							Joint	Signif.
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	2	5	4	2	5	7	5	1	1	1	1	2	1	1		
Average Teaching Grade	4.5	4.2	5.5	3	5.2	4.9	5.2	3	5	5	5	2.5	2	5	4.9	N/S
Average number of University courses in science	2	2.3	3.4	1	2.6	1.9	3.7	1	1	6	1.5	3	0	11	2	N/S
Average number of Method courses in science	0	0.2	0.5	0	0.2	0	0.2	0	0	0	0	0	0	0	.12	S

TABLE XV

EVALUATIONS-SCIENCE

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
1.	To what extent are science courses provided for all students in Grade X?	3	5	4	3	4	4	5	4.2	2	2	2	4	3	2	2	2.3	3.2	N/S
2.	To what extent do the time allotments for science courses satisfactorily meet instructional needs?	2	3	3	4	3	4	3	3.3	2	2	3	3	3	2	2	2	2.8	N/S
3.	To what extent does the schedule provide teachers with time to prepare classroom demonstrations, laboratory work, and special projects?	1	2	4	4	2	2	2	2.3	1	1	3	2	2	2	1	1.8	1.9	N/S
4.	To what extent does the variety of offerings meet the science needs of students?	3	4	4	3	4	3	4	3.8	2	2	2	3	2	1	2	2.1	2.8	S
5.	To what extent does the content of offerings meet the science needs of students?	3	4	4	3	3	3	4	3	2	2	2	3	2	1	2	2.1	2.7	S
6.	To what extent do the offerings provide for study and discussion of recent scientific developments?	3	4	4	3	4	3	4	3.8	1	1	1	2	2	1	1	1.3	2.5	S

TABLE XV (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
7.	How adequate are the space provisions for science instruction?	3	4	4	3	3	2	4	3	2	2	2	3	2	2	2	2.2	2.8	S
8.	How adequately are the classrooms and laboratories furnished for science instruction?	3	3	4	2	2	3	4	3.2	1	2	1	2	2	1	1	1	2.3	S
9.	How adequate are storage facilities for equipment and supplies?	3	3	4	3	3	3	4	3.4	1	2	1	2	2	1	1	1	2.1	S
10.	How adequate are the provisions for the safe storage of hazardous materials?	3	4	4	4	4	4	4	4	1	1	1	2	3	4	1	1	3.5	S
11.	How adequate are the provisions for student safety?	3	3	3	3	4	4	4	3	2	3	2	2	2	2	2	2.2	2.7	S
12.	How adequate is the laboratory maintenance?	3	4	4	3	3	4	4	3.8	3	2	2	3	3	3	2	2.8	3.1	S
13.	How satisfactory is laboratory housekeeping?	3	4	4	3	3	4	4	3.8	3	2	2	3	3	3	2	2.8	3.1	S
14.	How adequate is the preparation of the staff in science subject matter?	2	3	3	2	3	2	4	2.8	2	2	2	2	2	1	3	2.1	2.3	N/S

TABLE XV (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
15.	To what extent does instruction promote the goals of science education?	2	3	3	3	3	3	4	3.1	2	2	1	2	3	1	2	2	2.5	S
16.	How adequately does instruction provide for the various needs and abilities of students?	3	3	3	3	3	3	4	3.2	2	2	2	3	3	1	3	2	2.8	S
17.	To what extent does instruction promote the use of methods of science in problem-solving situations?	2	3	3	3	3	3	4	3.1	1	2	1	1	2	1	3	1	2.5	S
18.	How adequate is the quality of instructional materials?	3	3	3	2	3	3	3	3	2	2	2	2	2	2	2	2	2.5	S
19.	How adequate is the quantity of instructional materials?	3	3	3	3	3	3	3	3	2	2	1	2	2	2	2	2	2.0	S
20.	How adequate is the variety of instructional materials?	3	3	3	3	3	3	3	3	2	2	1	2	2	2	2	2	2.0	S
21.	How well are instructional materials organized and kept in good condition?	4	4	4	3	3	4	4	4	1	3	2	3	3	3	3	2.9	3.2	S
22.	How satisfactory is the provision for storage of instructional materials?	4	4	4	3	3	3	4	3.8	2	3	2	3	3	3	2	2.8	3.1	S

twenty-one criteria items. Of the remaining four items, though no statistically significant difference was shown, the larger schools' median exceeded the smaller schools' median on each item.

All large schools were equipped with at least two laboratories, and one school had four. Though the larger schools' laboratories were better equipped than those of the smaller schools, ratings were generally low. Many basic items of equipment were not provided in physics, for example, and others were available only in sufficient quantity for demonstrations.

IV. SUMMARY

The program offerings in Grade X English and mathematics differed very little from the larger to the smaller schools. Rarely was there any modification, or replacement, of the two programs, University-Preparatory and Provincial General Course.

Most of the larger schools investigated were providing sufficient science options for a balanced program; and science program offerings of the larger schools were generally rated higher than the programs of the smaller schools.

Qualifications of English teachers were significantly higher in the larger schools. The difference in qualifications for mathematics and science teachers in the smaller and the larger schools was not significant.

Larger schools received significantly higher ratings on nine of sixteen criteria items in English, and on five of twenty-two in

mathematics. In science, however, eighteen of the twenty-two items tested were rated significantly higher for the larger schools.

CHAPTER V

ANALYSIS OF FINDINGS: ART, MUSIC

In this chapter the findings for art and music are presented and analysed. Information is presented first on the courses of study offered in each subject. Then follows some statistical data on teacher qualifications (level of teaching certificate, the number of university courses in the subject area, and the number of methods courses completed). Finally, all criteria items for each subject are listed in one table with accompanying description and summary of findings. Each item of the table shows the individual school evaluations, the small-school and large-school medians, the joint median, and a statement of significance (S) or non-significance (N/S) at the .05 level, based on the Fisher Exact Probability Test.

For each criteria item examined in Tables XVIII and XXII, the hypothesis was that, with respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

1. ART

A higher percentage of students in smaller schools were taking art courses than was the case for the larger schools. There was no significant difference between the qualifications of art teachers in the large and small schools. Indeed the preparation in the teaching of art was minimal in both types of schools.

Programs Offered. Table XVI indicates the type of program offered, and the percentage of students in Grades X and XI studying art, in each school investigated.

Three of the larger schools and one of the smaller schools offered no program in art. One large school and four smaller schools provided an art program based on recommendations in a provincial curriculum guide for the teaching of art. Three larger schools and two of the smaller schools had local programs in art.

Only one of the larger schools provided art programs for a major percentage of its students. Three of these schools offered an art program to non-matriculants. All small schools but one provided periods for art in the weekly time-table. In three of these schools all, or a majority of, the students in Grades X and XI could study art. In the other three small schools art was offered to non-matriculants only.

Teacher Qualifications. But two teachers, both in larger schools had any formal training in art. Each of these teachers was a university graduate in Fine Arts, each had completed methods courses in the teaching of art, and each had had their own work displayed in art galleries. One art teacher, in one of the smaller schools, had taken a non-credit course in art at Memorial University of Newfoundland. No teacher in any of the remaining schools offering an art program, had any formal training in art. Table XVII illustrates these facts graphically.

TABLE XVI

ART PROGRAMS IN SELECTED REGIONAL HIGH SCHOOLS OF NEWFOUNDLAND

School		Course of Study (Grades X and XI)	% of students involved
LARGER SCHOOLS	A	Nil	0
	B	School Program	30
	C	Nil	0
	D	School Program	10
	E	Nil	0
	F	Program recommended by Dept. of Education	23
	G	School Program	75
SMALLER SCHOOLS	T	Program recommended by Dept. of Education	20
	U	Program recommended by Dept. of Education	30
	V	School Program	75
	W	Program recommended by Dept. of Education	75
	X	Program recommended by Dept. of Education	100
	Y	Nil	0
	Z	School Program	50

TABLE XVII

QUALIFICATIONS: GRADES X AND XI ART TEACHERS

	Larger Schools							Smaller Schools						Joint	Signif.
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	0	1	0	1	0	1	1	1	1	1	1	1	0	1		
Teaching Grade		4		6		1	6	1	5	1	1	2		1	1	N/S
University courses in art		10		0		0	15	0	0	0	0	0		0		N/S
Methods courses in art		5		0		0	10	0	0	0	1*	0		0		N/S

*Non-credit course in art offered by Memorial University of Newfoundland

In none of the three factors tested (teaching grade, university courses, methods courses) was there any statistically significant difference between the qualifications of teachers in the smaller and the larger schools.

Evaluative Criteria Items. Of the eighteen criteria items examined in Table XVlll not one shows any statistically significant difference. In all cases the hypothesis that larger schools will be rated higher than the smaller schools was rejected. Larger school medians do exceed smaller school medians on ten items, but smaller school medians exceed larger school medians on six items of the criteria.

Two larger schools provided a room for art. In all other schools where art was taken, the students used their school desks.

Three of the larger schools and one smaller school made provision in the school budget for purchase of art materials. In the remaining schools teachers and pupils supplied their own.

Three larger schools and one of the smaller provided no time in the time-table for the subject; and, in the remainder, one period per pupil per week was the norm, and that usually for non-matriculants only.

11. MUSIC

The larger Regional High Schools of the study generally offered a better program in music than did the smaller schools; but for most of the schools there were no formal music offerings. Musical activities were, for the greater part, extra-curricular only.

TABLE XVIII

EVALUATIONS-ART

No.	ITEM	Larger Schools A B C D E F G Med.	Smaller Schools T U V W X Y Z Med.	Joint med.	Signif. .05 level
1.	To what extent are general art courses available to all students?	1 4 1 2 1 2 4 2	2 2 2 2 3 1 2 2.1	2.0	N/S
2.	To what extent are elective art courses available to meet the needs of individual students?	1 2 1 1 1 1 2 1.3	1 1 1 1 2 1 1 1	1.1	N/S
3.	To what extent does the school schedule make it possible for students with art interests and abilities to elect art courses?	1 3 1 1 1 2 3 1	2 2 2 1 3 1 2 2	1.7	N/S
4.	To what extent does the art program encourage students to discover, explore, express, and appraise?	1 3 1 3 1 2 4 2	2 2 1 2 2 1 2 1.9	1.8	N/S
5.	To what extent is instruction provided in the use of a variety of art media?	1 3 1 3 1 2 4 2	2 2 2 2 2 1 2 2	1.9	N/S

TABLE XVIII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
6.	To what extent is the space adequate for a diversified art program?	1	4	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
7.	To what extent do the facilities of the art room make provisions for a diversified art program?	1	3	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
8.	To what extent is equipment kept in good repair?	1	4	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
9.	To what extent is storage for supplies adequate?	1	4	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
10.	To what extent is storage for students' work in progress ample?	1	4	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
11.	How adequate are the lighting facilities?	1	4	1	1	1	1	3	1.3	1	1	1	1	1	1	1	1	1.1	N/S
12.	How satisfactory is the preparation of the staff members to teach art?	1	4	1	3	1	2	5	2	2	2	1	1	2	1	1	1	1.0	N/S

TABLE XVIII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
13.	To what extent is the art program adapted to individual interests and abilities of students?	1	4	1	3	1	2	4	2	2	2	2	2	2	1	2	2	1.9	N/S
14.	To what degree is the development of art appreciation emphasized?	1	3	1	3	1	2	4	2	1	1	1	2	1	1	1	1.2	1.4	N/S
15.	How adequate is the variety of tools and materials for instruction?	1	3	1	3	1	1	3	1	1	1	1	2	1	1	1	1.2	1.2	N/S
16.	How adequate is the quality of materials for instruction?	1	3	1	3	1	1	3	1	1	1	1	2	1	1	1	1.2	1.2	N/S
17.	How effectively are materials organized for use?	1	4	1	2	1	1	4	1	1	1	1	2	1	1	1	1.2	1.2	N/S
18.	To what extent are equipment and tools kept in good working order?	1	3	1	3	1	1	3	1	1	1	1	2	1	1	1	1.2	1.2	N/S

Programs Offered. Table XIX indicates that but three of the fourteen schools investigated offered a course in music; these were all larger schools. One other large school provided twenty pupils with the opportunity to study instrumental music during the regular class periods. None of the smaller schools provided a formal program in music.

Since this data does not present the full picture for music in the schools, the investigator compiled a supplementary table, XX, showing the voluntary musical activities of some schools...activities which take place during periods set aside for special activities, or during out-of class time. The reader will note here that all but one of the larger schools had choral and/or instrumental groups; as also did four of the smaller schools.

Teacher Qualifications. Since but four of the schools investigated employed music teachers, and these all larger schools, no meaningful comparison can be drawn between the qualifications of teachers in small and large schools. Table XXI illustrates very graphically the picture for the Regional High Schools, large and small. No further commentary should be necessary.

Evaluative Criteria Items. Six of the twenty-two criteria items examined in Table XXII indicate that a statistically significant difference exists between the ratings for the smaller and larger Regional High Schools. Each of these differences favours the larger schools. A comparison of large school and small school median ratings will show that twenty of the twenty-two medians are higher for the larger schools.

TABLE XIX

MUSIC PROGRAMS IN SELECTED REGIONAL

HIGH SCHOOLS IN NEWFOUNDLAND

School		Courses of Study (Grades X & XI)	% of students involved
LARGER SCHOOLS	A	Nil	0
	B	School Program	100
	C	Nil	0
	D	Nil	0
	E	Instrumental music for special pupils	3
	F	School Program	100
	G	School Program	80
SMALLER SCHOOLS	T	Nil	0
	U	Nil	0
	V	Nil	0
	W	Nil	0
	X	Nil	0
	Y	Nil	0
	Z	Nil	0

TABLE XX

VOLUNTARY MUSIC GROUPS IN THE SCHOOLS OF THE STUDY

School	Musical Activity	Numbers Involved
B	Glee Club	40
C	Choir for religious services	70
	Glee Club	90
	Brass and Woodwind Band	35
D	Girls Choir	32
E	Glee Club	20
F	Class Glee Club	950
	School Glee Club	100
	String and Woodwind Orchestra	35
G	Glee Club	80
T	Girls Glee Club	17
	Instrumental Group	8
W	School Choir	52
	Music Appreciation Club	25
X	Girls Glee Club	65
Y	Glee Club	20
	Instrumental Group	5

TABLE XXI

QUALIFICATIONS: GRADES X AND XI MUSIC TEACHERS

	Larger Schools							Smaller Schools							Joint med.	Signif. .05 level
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z		
No. of Teachers	0	1	0	0	1	4	1	0	0	0	0	0	0	0		
Average Teaching Grade		7			6	4	5								5.5	*
Average number of University courses in music		40			22	22	15								22	*
Average number of Method courses in music		10			5	5	3								5	*

* unable to be determined

TABLE XXII

EVALUATIONS-MUSIC

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
1.	To what extent are music courses available to meet the general music needs of all students?	1	3	1	1	1	3	4	2	1	1	1	1	1	1	1	1	1.1	N/S
2.	To what extent are music courses available to meet the specialized music needs of individual students?	1	2	1	1	2	2	2	1.8	1	1	1	1	1	1	1	1	1.2	S
3.	To what extent do time allotments for music courses meet music instructional needs?	1	2	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1.1	N/S
4.	How adequate is the number of music teachers in relation to the needs of students?	1	2	1	1	2	3	2	1.8	1	1	1	1	1	1	1	1	1.2	S
5.	How well does the variety of general music offerings meet the music needs of all students?	1	3	2	1	1	3	3	2	2	1	1	2	2	2	1	1.8	1.7	N/S
6.	How well does the quality of general music offerings meet the music needs of all students?	1	3	2	1	1	4	3	2	2	1	1	2	2	2	1	1.8	1.7	N/S

TABLE XXII (continued)

No.	ITEM	Larger Schools A B C D E F G Med.	Smaller Schools T U V W X Y Z Med.	Joint med.	Signif. .05 level
7.	How adequate is the offering in vocal music?	2 3 2 2 2 3 3 2	2 1 1 2 2 2 1 1.8	2.0	N/S
8.	How adequate is the offering in instrumental music?	1 1 2 1 2 3 1 1	1 1 1 1 1 1 1 1	1.1	N/S
9.	How well are music courses adapted to individual aptitudes and abilities of participating students?	1 2 1 1 3 3 2 2	1 1 1 1 1 1 1 1	1.2	S
10.	How well are music courses correlated with other school activities?	1 2 1 1 1 4 3 1	1 1 1 1 1 1 1 1	1.1	N/S
11.	To what extent are opportunities provided for talented students to realize their optimum potential in music performance, understanding, and creativity?	1 2 2 2 3 3 2 2.3	1 1 1 2 2 1 1 1.3	1.7	N/S
12.	How adequate are space provisions for music instruction?	2 2 2 3 4 4 3 3	2 1 2 1 2 2 1 1.8	2.1	S
13.	How well does the music equipment meet enrolment and curriculum requirements?	2 2 2 2 3 4 3 2	2 1 1 3 2 2 1 1.8	2.1	N/S

TABLE XXII (continued)

No.	ITEM	Larger Schools A B C D E F G Med.	Smaller Schools T U V W X Y Z Med.	Joint med.	Signif. .05 level
14.	How adequately are provisions made for care and replacement of music equipment?	1 2 2 3 4 4 4 3	2 1 1 3 2 1 1 1	2.0	N/S
15.	How satisfactory is the general liberal education of the staff?	1 4 4 1 3 3 4 3	1 1 1 1 1 3 1 1.2	1.4	N/S
16.	How satisfactory is the preparation of the staff in vocal music?	1 4 3 1 3 3 4 3.2	1 1 1 1 1 1 1 1	1.3	S
17.	How satisfactory is the preparation of the staff in instrumental music?	1 4 3 1 4 4 4 3.8	1 1 1 2 2 1 1 1.3	1.5	N/S
18.	How satisfactory is the preparation of the staff in the teaching of music?	1 4 3 1 2 4 4 3	1 1 1 1 1 1 1 1	1.3	S
19.	How adequate is the planning and preparation for instruction?	1 4 2 2 3 4 4 3	1 1 1 2 2 1 1 1.3	1.8	N/S
20.	How well is instruction adapted to needs of individual students?	1 2 1 1 3 3 2 2	1 1 1 1 2 1 1 1.4	1.3	N/S
21.	How adequate is the variety of instructional materials?	1 2 3 2 3 4 4 3	1 1 1 3 1 2 1 1.3	1.8	N/S
22.	How adequate is the quality of instructional materials?	1 2 3 3 3 4 4 3.2	1 1 1 2 1 2 1 1.3	1.8	N/S

111. SUMMARY

The directional hypothesis that, with respect to program offerings, the larger Regional High Schools will be rated higher on the evaluative instrument than the smaller Regional High Schools had to be rejected for all items of the criteria for art, and for all but six of the criteria items for music.

Qualifications of art teachers were minimal in most schools of the study. Two only of the fourteen schools employed a full-time art teacher. No music programs were offered in the smaller schools. Four of the larger schools employed full-time music teachers.

CHAPTER VI

ANALYSIS OF FINDINGS: PHYSICAL EDUCATION

The findings for physical education are presented and analysed in this chapter, with the programs for boys and for girls being dealt with separately.

No table is presented for the courses of study in physical education, because in all schools where physical education was taught the teacher involved had developed his own program. Tables showing teacher qualifications (level of teaching certificate, the number of university courses in the subject area, and the number of methods courses completed) are presented. Criteria items for physical education are listed in two tables with accompanying description and summary of findings. Each item of the tables shows the individual school evaluations, the small-school and large-school medians, the joint median, and a statement of significance (S) or non-significance (N/S) at the .05 level, based on the Fisher Exact Probability Test.

For each criteria item examined in Tables XXIV and XXVI, the hypothesis was that, with respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

I. PHYSICAL EDUCATION - BOYS

In physical education, more so than in any other area of the investigation, the larger schools were rated significantly higher than

the smaller schools.

Programs Offered. All the larger schools provided a physical education program for boys. Three of these schools assigned one eighty minute period per week for the subject, the other three assigned one forty minute period per week. Only those boys excused by a medical doctor did not participate in any form of organized physical activity at school. Each of the larger schools carried out an intra-mural program of basketball, volleyball, badminton and table tennis. All the larger schools had hockey teams participating in inter-school competition; and all schools but one played inter-school soccer.

Two of the smaller schools provided a forty minute period of Physical Education for boys. All boys not excused for medical reasons were required to participate. Five of these schools were organized for intra-mural competition in basketball, volleyball, badminton and table tennis. One school provided table tennis and badminton, and another only table-tennis. (This latter school had no gymnasium). None of the smaller schools had any organized outdoor program of physical education. Four of the schools had a hockey team which competed with a team from some near-by school whenever a game could be arranged.

Teacher Qualifications. The instructional staff of the larger schools had, in all cases but one, been trained to teach physical education. Only one instructor of boys was employed by each school. Four of these held degrees in physical education, another had completed

summer school programs in physical education at Dalhousie University. The remaining teacher, had no formal training in teaching the subject, but had participated extensively in a variety of sports.

None of the smaller schools employed a physical education teacher. In two schools, however, an academic teacher with an interest in the subject, had organized a program of games and exercises in which each boy participated for one forty-minute period per week. Each of these teachers had taken a non-credit course in physical education at Memorial University of Newfoundland.

On all of the items of qualification shown in Table XXIII (teaching grades, university courses in physical education, and in methods courses completed) there was no statistically significant difference between the large and the small schools.

Evaluative Criteria Items. On every item of Table XXIV the large schools' median exceeded that of the small schools; and for eighteen of the twenty-three items evaluated a statistically significant higher rating was assigned.

As already noted all the larger schools provided a formal program of physical education; only two of the smaller schools did so. All the larger schools employed a full time physical education instructor; none of the smaller schools did so.

All but one of the larger schools had regulation size, or larger gymnasiums, which were designed primarily for physical education.

TABLE XXIII

QUALIFICATIONS: GRADES X AND XI (BOYS)
PHYSICAL EDUCATION TEACHERS

	Larger Schools							Smaller Schools							Joint	Signif.
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	1	1	1	1	1	0	1	0	0	0	0	1	1	0		
Teaching Grade	5	6	5	4	4		4					4	4		4	N/S
University courses in physical education	8	8	8	3	0		8					0	0		5.5	N/S
Methods courses in physical education	5	5	5	3	0		5					1*	1*		4	N/S

*A non-credit course taken at Memorial University of Newfoundland.

TABLE XXIV

EVALUATIONS-PHYSICAL EDUCATION (Boys)

No.	ITEM	Larger Schools A B C D E F G Med.	Smaller Schools T U V W X Y Z Med.	Joint med.	Signif. .05 level
1.	To what degree are physical education activities provided for all boys?	3 3 3 4 3 4 3.3	2 2 2 2 2 2 2 2	2.0	S
2.	Do time allotments of the program meet instructional needs satisfactorily?	2 2 2 3 3 3 2.5	1 1 1 1 2 2 1 1.3	1.9	S
3.	How satisfactory are the controls and safeguards for all athletic activities?	3 4 4 3 3 4 3.5	3 3 3 3 3 3 3 3	3.2	N/S
4.	How adequate is the variety of experiences to meet the physical education needs of all boys?	3 4 3 4 4 4 3.8	2 2 1 2 2 2 2 2	2.0	S
5.	How adequate is the content of experiences to meet the physical education needs of all boys?	3 3 3 4 3 4 3.3	2 2 1 2 2 2 2 2	2.0	S
6.	How satisfactorily do experiences provide for present and future leisure-time needs?	3 3 3 3 3 4 3.1	2 2 1 2 2 2 2 2	2.0	S
7.	How adequately does the program provide for desirable activities in terms of individual physical education needs?	3 3 3 3 2 3 2.9	1 1 1 1 1 2 1 1	2.0	S

TABLE XXIV (continued)

No.	ITEM	Larger Schools A B C D E F G	Med.	Smaller Schools T U V W X Y Z	Med.	Joint med.	Signif. .05 level
8.	How adequate is the space provided for indoor physical education?	3 5 5 5 5	5	4 3 1 3 3 2 3	2.9	3.0	S
9.	How adequate are the facilities for outdoor physical education?	1 2 3 2 3	4	2 1 2 2 2 1 1	1.8	2.0	N/S
10.	How adequate is the quantity of permanent equipment for physical education?	3 4 3 3 3	4	3 2 2 1 2 2 2	2	2.0	S
11.	How adequate is the quality of permanent equipment for physical education?	4 4 3 5 3	4	3 3 2 1 2 2 2	2.3	3.0	S
12.	How adequate are the provisions for health, safety and sanitation?	3 4 4 3 3	4	3 2 2 1 2 2 1	1.9	2.0	S
13.	How adequate is the preparation of the staff for teaching physical education?	4 5 5 3 2	4	4 1 1 1 1 2 1	1.3	2.0	S
14.	How adequate is the preparation of the staff to conduct a balanced intramural and extramural program?	4 5 5 3 2	4	4 1 1 1 2 2 1	2	2.0	S
15.	How adequate is the preparation of the staff to conduct recreational activities in the school?	4 5 5 3 3	4	4 1 1 1 2 2 1	2	2.0	S

TABLE XXIV (continued)

No.	ITEM	Larger Schools A B C D E F G	Med.	Smaller Schools T U V W X Y Z	Med.	Joint med.	Signif. .05 level
16.	How adequate is the planning and preparation for instructional activities?	4 4 5 4 3	5 4.2	1 1 1 1 2 1 1	1.3	2.0	S
17.	To what extent are data from health appraisals used in making instruction effective?	2 3 4 2 1	3 2.5	1 1 1 1 1 1 1	1	1.4	S
18.	To what degree are instructional activities adapted to the needs of individual boys?	3 3 3 3 2	3 2.9	1 1 1 1 1 1 1	1	1.0	S
19.	To what degree are activities conducted with regard for boys health and safety?	3 4 4 3 3	4 3.5	3 3 3 3 3 3 3	3	3.3	N/S
20.	How adequate are the reading and reference materials?	2 3 3 2 1	3 2.5	2 2 1 2 2 1 1	1.8	2.2	N/S
21.	How adequate is the quantity of instructional materials and equipment?	3 4 2 3 4	4 3.5	2 3 1 2 2 2 2	2.1	2.0	S
22.	How adequate is the quality of instructional materials and equipment?	3 4 3 3 4	4 3.5	3 3 1 2 2 2 3	2	3.0	N/S
23.	To what extent are materials and equipment conveniently accessible to boys and teachers?	4 4 4 4 4	4 4	3 3 1 3 3 2 3	2.9	3.0	S

School A's gymnasium, though near regulation size, was not properly designed for use in physical education, being too narrow, and having easily damaged construction materials on the walls. Not one of the smaller schools had a regulation size gymnasium. School V, having operated three years (at the time of the study), was still without a gymnasium, or any large multi-purpose room suitable for a physical education program. Where space was provided in six of the smaller schools it was best suited to use as an auditorium, and could nor support an adequate physical education program. All large schools provided shower and dressing room facilities; not one of the smaller schools did so.

Instructional materials and equipment were well below minimum requirements in the smaller schools, and not in satisfactory supply in most of the larger schools.

With better facilities, more equipment, and trained teachers, the larger schools offered a better program. This was most evident in the quality and variety of the instructional activities; and also in the number of intra-mural and extra-mural activities.

II. PHYSICAL EDUCATION-GIRLS

As for the boys, the larger schools provided a program of physical education for girls that could be rated much higher than the program of the smaller schools.

Programs Offered. Four of the larger schools assigned each girl an eighty minute period every week. School F provided each girl

with a ninety minute period every second week; and girls in the remaining school had one forty minute period per week. Two of the smaller schools scheduled one forty minute period per week for girls physical education; the five remaining schools provided no time at all. Large schools operated a fairly broad program of intra-mural activities, and three of these schools participated in inter-school competition. Girls in the smaller schools had but limited opportunity to participate in organized physical education activities.

Teacher Qualifications. Not one of the small schools employed a physical education teacher; but in one school a male academic teacher, and in another a female academic teacher carried out a formal program of physical education for girls. Of the six larger schools studied, three employed a female staff member possessing a university degree with a specialist certificate in physical education; a fourth school employed two women teachers, each of whom had completed two years of a physical education degree program; the fifth school used an academic teacher with no formal training in physical education, but who was supervised by a male graduate teacher of the subject. In school D both boys and girls were taught by the same teacher, a male university graduate, with a specialist certificate in physical education.

Table XXV indicates the difference in qualifications of staff in larger and smaller schools, this difference being statistically significant on all three of the items tested, teaching grades, univeristy courses, and methods courses completed.

TABLE XXV

QUALIFICATIONS: GRADES X AND XI (GIRLS)
PHYSICAL EDUCATION TEACHERS

	Larger Schools							Smaller Schools							Joint	Signif.
	A	B	C	D	E	F	G	T	U	V	W	X	Y	Z	med.	.05 level
No. of Teachers	1	1	0	1	1	2	1	0	0	0	0	1	1	0		
Average Teaching Grade	3	4		4	4	2	4					4	4		3.8	N/S
Average number of University courses in physical education	0	8		3	3	4	3					0	0		2.8	N/S
Average number of Method courses in physical education	1*	5		3	3	2	3					1*	1*		2	N/S

*A non-credit course taken at Memorial University of Newfoundland

Evaluative Criteria Items. Table XXVI gives further evidence of the difference in small-school and large-school programs for girls. On every criteria item tested the larger schools' median exceeded the small schools' median; and on nineteen of the twenty-three items the smaller schools were assigned statistically significant lower ratings.

The difference in program offerings and qualifications of staff has already been noted. In addition, all the larger schools were provided with gymnasiums of regulation (or larger) size for girls. In all co-educational schools, (except school V as previously noted) boys and girls used the same gymnasium. Schools B and G, moreover, provided movable partitions so that boys and girls classes could operate simultaneously in the partitioned sections of the main gymnasium floors. The larger schools provided showers and dressing room space adjoining the gymnasium. Not one of the smaller schools furnished either of these facilities. Girls from School F were assigned the use of an indoor swimming pool on Saturdays.

Instructional materials and equipment were most inadequate in the smaller schools, and below optimum quantities in all schools.

IV. SUMMARY

None of the smaller schools employed a physical education teacher, or was equipped with a regulation gymnasium, or with adequate materials for instruction. Limited intra-mural games programs were provided, and in all cases were supervised by academic teachers.

Each of the larger schools employed physical education teachers,

TABLE XXVI

EVALUATIONS-PHYSICAL EDUCATION (Girls)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
1.	To what degree are physical education offerings provided for all girls?	3	3	4	3	3	4	3	3.3	2	1	1	2	2	2	1	1.8	2.0	S
2.	Do time allotments of the program meet instructional needs satisfactorily?	2	2	3	3	2	3	2	2.5	1	1	1	1	2	2	1	1.3	1.9	S
3.	How satisfactory are the controls and safeguards for all athletic activities?	3	4	3	3	4	4	3	3.5	3	3	1	3	3	2	3	2.9	3.1	N/S
4.	How adequate is the variety of experiences to meet the physical education needs of all girls?	3	3	3	4	3	4	3	3.3	2	1	1	2	2	2	2	1.9	2.0	S
5.	How adequate is the content of experiences to meet the physical education needs of all girls?	3	3	3	4	3	4	3	3.3	2	1	1	2	2	2	2	1.9	2.0	S
6.	How satisfactorily do experiences provide for present and future leisure-time needs?	3	3	3	4	3	4	3	3.3	2	1	1	2	2	2	1	1.8	2.0	S
7.	How adequately does the program provide for desirable activities in terms of individual physical education needs?	3	3	3	3	3	3	3	3	1	1	1	1	1	2	1	1.2	2.0	S

TABLE XXVI (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
8.	How adequate are the facilities for outdoor physical education activities?	1	2		2	3	3	4	2.5	1	2	1	2	2	2	1	1.8	2.0	N/S
9.	How adequate are the facilities for indoor physical education activities?	4	5		5	5	5	5	4.9	3	3	1	3	3	2	3	2.9	3.0	S
10.	How adequate is the quantity of permanent equipment for physical education?	3	4		3	3	4	4	3.5	2	2	1	2	2	2	2	2	2.0	S
11.	How adequate is the quality of permanent equipment for physical education?	4	4		5	3	4	4	4	3	2	1	2	2	2	3	2.3	3.2	S
12.	How adequate are the provisions for health, sanitation, and safety?	3	4		3	3	4	4	3.5	2	2	1	2	2	1	2	1.9	2.0	S
13.	How adequate is the preparation of the staff for teaching physical education?	2	3		3	3	3	3	2.9	1	1	1	1	2	1	1	1.2	2.0	S
14.	How adequate is the preparation of the staff to conduct a balanced intramural and extramural program?	2	3		3	3	3	3	2.9	1	1	1	2	2	1	2	1.0	2.3	S
15.	How adequate is the preparation of the staff to conduct recreational activities in the school?	3	3		3	3	3	3	3	1	1	1	2	2	1	2	1	2.0	S

TABLE XXVI (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
16.	How adequately have the instructional activities been planned?	4	4		4	3	4	4	3.9	1	1	1	1	2	1	1	1.2	2.0	S
17.	To what extent are data from health appraisals used in making instruction effective?	2	3		2	1	2	3	2.3	1	1	1	1	1	1	1	1	1.4	S
18.	To what degree are instructional activities adapted to the needs of individual girls?	3	3		3	3	3	3	3	1	1	1	1	1	1	1	1	1.0	S
19.	To what degree are activities conducted with regard for girls' health and safety?	3	4		3	3	4	4	3.5	3	3	1	3	3	3	3	3	3.2	N/S
20.	How adequate are the reading and reference materials?	2	3		2	1	2	3	2.3	2	2	1	2	2	1	1	1.8	1.9	N/S
21.	How adequate is the quantity of instructional materials and equipment?	3	4		3	4	4	4	3.8	2	3	1	2	2	2	2	2.1	2.8	S
22.	How adequate is the quality of instructional materials and equipment?	3	4		3	4	4	4	3.8	3	3	1	2	2	2	3	2	3.1	S
23.	To what extent are materials and equipment conveniently accessible to students and teachers?	4	4		4	4	4	4	4	3	3	1	3	3	2	3	2.9	3.0	S

and was equipped with a large gymnasium. These schools provided time during the regular school day for physical education, the time varying from forty to eighty minutes per pupil per week. All the larger schools offered a varied program of intra-mural and extra-mural activities in physical education.

On eighteen of twenty-three criteria items, (physical education - boys), the larger schools were assigned statistically significant higher ratings. Significant difference occurred on nineteen of the twenty-three items for physical education - girls.

CHAPTER Vll

ANALYSIS OF FINDINGS: STUDENT ACTIVITIES

This chapter provides an analysis of the findings relating to Student Activities in the high schools studied.

Criteria items for student activities are listed in a table with accompanying description and summary of findings. Each item of the table shows the individual school evaluations, the small school and large school medians, the joint median, and a statement of significance (S) or non-significance (N/S) at the .05 level, based on the Fisher Exact Probability Test.

For each criteria item examined in Table XXVII the hypothesis was that, with respect to program offerings, the larger Regional High Schools in Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

I. CRITERIA ITEMS EVALUATED

Larger schools were rated significantly higher than smaller schools on seven of the twenty-three items evaluated. Though this information would tend to indicate no significant difference in the student activity offerings of the small and large schools, a count of the number of items in Table XXVII in which the large schools' median exceeded the small schools' median might indicate the opposite to be true. Twenty-one of the large school medians are higher than the matching medians for the small schools; and in no case did the small schools'

TABLE XXVII

EVALUATIONS-STUDENT ACTIVITIES

No.	ITEM	Larger Schools A B C D E F G Med.	Smaller Schools T U V W X Y Z Med.	Joint med.	Signif. .05 level
1.	How well does the student activity program complement and enrich the class room activities?	2 4 3 4 4 4 4 3.9	2 2 2 2 2 2 1 2	2.3	S
2.	To what extent is the student activity program based upon a study and analysis of student interests and needs?	2 3 2 3 2 4 3 2.8	2 1 2 1 2 1 1 1	2.0	S
3.	To what extent does the staff provide cooperative guidance and supervision of the activities?	3 3 4 4 3 5 4 3.8	3 2 2 3 3 3 1 2.8	3.2	S
4.	To what extent does the student activity program provide opportunity for students to help in the management of activities?	3 2 4 4 3 4 3 3	2 2 2 2 3 3 2 2.3	2.7	N/S
5.	To what extent does the school assume responsibility for encouraging or limiting individual student participation in activities?	2 2 3 2 3 5 3 2.8	2 1 2 2 2 2 1 1.9	2.1	S
6.	How adequate are provisions for student participation in school government?	3 2 3 4 4 4 4 3.8	2 2 3 3 2 3 2 2	2.7	N/S

TABLE XXVII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
7.	To what extent can the student council be considered a functioning example of a democratic group?	3	2	4	3	3	4	4	3	1	2	3	3	1	3	2	2	2.8	N/S
8.	How actively and extensively do students participate in the presentation of assembly programs?	2	2	3	4	2	4	3	3	1	1	1	3	3	2	1	1	2.3	N/S
9.	How adequate is the planning and integration of religious activities?	3	3	5	2	2	5	2	3	3	2	2	2	2	2	2	2.2	2.3	N/S
10.	How wide is student participation in voluntary service activities?	2	2	3	3	3	3	3	2.9	1	3	1	1	3	2	2	2	2.5	N/S
11.	How adequate is the number of school publications?	2	4	5	2	4	2	4	3.8	2	2	4	2	2	2	1	2.1	2.3	N/S
12.	How adequate is the frequency of issuance of school publications?	1	4	5	2	4	1	4	3.8	1	1	4	1	1	1	1	1.2	1.4	N/S
13.	How extensively do students participate in the planning and preparation of each publication?	2	4	4	3	4	2	4	3.8	2	2	4	2	2	2	1	2.1	2.4	N/S
14.	How adequate are dramatic activities?	1	2	2	3	3	3	2	2	2	1	2	2	2	1	2	1.9	2.0	N/S
15.	How adequate are speech activities?	2	3	4	3	2	4	3	3.2	2	2	2	2	2	1	2	2	2.3	S

TABLE XXVII (continued)

No.	ITEM	Larger Schools A	B	C	D	E	F	G	Med.	Smaller Schools T	U	V	W	X	Y	Z	Med.	Joint med.	Signif. .05 level
16.	To what extent do students participate in the planning of social activities?	3	3	3	3	3	4	4	3.3	3	3	3	3	4	3	2	3.1	3.1	N/S
17.	How extensively do students participate in such activities?	3	3	3	3	3	3	4	3.2	3	3	3	4	3	3	3	3.2	3.1	N/S
18.	How adequate are provisions to assist students who have particular need for participation in social activities?	1	1	1	2	1	1	1	1.2	1	1	1	2	1	1	1	1.2	1.1	N/S
19.	How adequate is the variety of school club offerings in terms of student needs?	2	3	4	4	3	4	3	3	2	2	2	2	2	1	1	1.9	2.3	S
20.	How extensively do students participate in school clubs?	2	2	3	3	3	3	3	2.9	3	2	2	2	3	1	1	2.2	2.5	N/S
21.	How adequate is the organization for proper handling and accounting of student activity finances?	3	3	3	4	4	3	3	3.3	2	3	3	3	2	3	2	2.8	3.1	N/S
22.	How extensively do students participate in the handling of and accounting for activity finances?	2	4	3	3	4	4	4	3.8	1	2	2	3	2	2	1	2	2.5	S
23.	To what degree is student participation in the activity finances planned as a learning experience?	1	3	1	2	4	3	3	2.8	1	1	1	2	1	1	1	1.2	1.4	N/S

median on any item exceed that of the larger schools. The overall higher rating of the student activity programs of the larger schools is indicated by the first criteria item evaluated. This item indicates the significant contribution of the activity program to the activities of the classroom in larger schools; but a limited contribution only in the smaller schools.

Six of the larger schools, and five of the smaller schools had some form of student government elected by the student body. All of these larger schools, but only two of the smaller schools, had formulated a constitution for their elected council. A variety of school-prefect organizations operated in these schools, in all but one of which the prefects were appointed by the principal or some other staff member.

Student Assemblies were held fairly frequently in almost all schools. The larger schools appeared to make greater provision for student planning of, and participation in, these programs.

Exactly half of the schools studied provided instruction in religion (four of the larger schools and three of the smaller). All schools but one of the smaller indicated some involvement in service activities such as Red Cross Volunteens, charitable collections or Christmas cheer programs. Some schools, both large and small, have adopted children or a member school in other lands. The larger schools indicated the greater involvement in these service activities.

All the larger schools and six of the smaller published year-books in 1967. These publications were mainly pictorial and held little

literary content. Five of the larger schools and one smaller school also published newspapers. One of the larger schools, school C, with its own printing press, published a regular student council bulletin as well.

One school only, the largest investigated, was making any serious attempt to develop a speech program. In most of the others speech activities were limited to preparing selected students for special speaking events, such as local or provincial public-speaking contests.

The higher rating of the larger schools (item 15, Table XXVII) occurred mainly by default. Most of these schools had limited speech activities. Most of the smaller schools had none at all. Student involvement in dramatic productions was also limited in most schools to a few students making presentations for Speech Night, or some such event. One large school, in 1967, produced Gilbert and Sullivan's "Pirates of Penzance"; while yet another large school's drama club presented a festival of one-act plays.

The survey revealed wide acceptance of the place of social activities in the school life of the pupil. These activities, however, consisted almost entirely of school dances. Item 18 of the table indicates that the schools were doing almost nothing to assist those students who had particular need for participation in social activities.

The data tabulated for item 19 of Table XXVII points out the greater provision of club offerings in the larger schools. The survey

revealed that the number of organized clubs in larger schools ranged from a minimum of six to a maximum of seventeen. One large school also made provision for "many classroom clubs".[1] Club offerings in the smaller schools ranged from nil to a maximum of eight. Smaller schools, however, reported a higher percentage of student participation in student clubs than did the larger schools (25-80 percent for the smaller as compared to 20-60 for the larger schools).

Of the fourteen schools studied, only two of the larger made any provision in the school budget for financial assistance to school clubs or activities. In all others the students raised their own funds. A pronounced difference appeared in the student management of these funds in large versus small schools. In none of the small schools were students themselves solely responsible for club, or student council monies. All cash was the responsibility of a staff person, usually the vice-principal. In four of the larger schools, the student clubs and councils had their own bank accounts and complete student control of student funds, with staff exercising only the right to audit accounts. Students of the larger schools appeared to have much greater responsibility for the handling of student finances than did their counterparts in the smaller schools. This statement is supported by the statistics of item 22 of the table.

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[1] Statement from a list of student clubs provided by the Student-Activity Advisor of school F.

II. SUMMARY

While Table XXVII would indicate some recognition on the part of all schools of the place of student activities in the total school program, the small school medians suggest that for eighteen of the twenty-three items evaluated only limited provision was made. The larger schools fared much better in that for twenty-one of the twenty-three items provisions were moderately extensive and functioning well.

The larger schools provided a greater variety of student activities, and greater opportunities for student management of school activities; but the smaller schools appeared to involve a higher percentage of their students in any student activity program.

CHAPTER VIII

SUMMARY, FINDINGS AND RECOMMENDATIONS

I. SUMMARY OF PROCEDURE

The Problem. The purpose of this study was to make a comparative analysis of the program offerings of the larger and the smaller Regional High Schools of Newfoundland. This presented two basic problems for the study:

1. To make an analysis of the program offerings in Newfoundland Regional High Schools.

2. To compare the findings for the smaller schools with those of the larger schools.

Hypothesis. From these problems one major hypothesis was constructed:

> That with respect to program offerings, the larger Regional High Schools of Newfoundland will be rated higher on the evaluative instrument than the smaller Regional High Schools.

In order to test this hypothesis an extensive check-list and evaluative criteria was set up. The evaluation items, 169 in all, were in themselves sub-hypothesis.

Instrumentation and methodology. The instrument was constructed, in large measure, from the Evaluative Criteria, 1960 edition, of the National Study of Secondary School Evaluation. With the assistance of university professors, high school principals, and teachers, the "Criteria" was modified for use in the schools of the study. It was

made up of eight sections: (1) English, (2) mathematics, (3) science, (4) art, (5) music, (6) physical education (boys), (7) physical education (girls), and (8) student activity program.

Each of these sections comprised an extensive checklist, and some evaluative items. The checklists were covered during a personal visit to each school by the investigator. In all cases the interview method was used, with the principal or a designated teacher supplying answers, and additional information when so requested. Each checklist item was assigned one of three letters:

E...if the provision or condition was made extensively.

S...if the provision or condition was made to a moderate extent.

L...if the provision or condition was limited or missing, but needed.

The evaluation then took place, and for comparative purposes items were assigned positions on a five point scale ranging through 'poor', 'fair', 'good', 'very good', and 'excellent', and having weightings of 1, 2, 3, 4, and 5 respectively.

In testing each sub-hypothesis the joint median was calculated for the evaluations assigned all schools on a single item. A "median" test was then applied to determine the significance, or non-significance of the sub-hypothesis.

The sample. Sixteen of the twenty-seven Regional High Schools of Newfoundland were used for purposes of the study. One large school and

one small school served for pilot studies to test and refine the instrument, and to help familiarize the investigator with its use. The fourteen schools of the main study were the seven largest and the seven smallest Newfoundland Regional High Schools.

II. FINDINGS AND CONCLUSIONS

The findings of the study are summarized for each subject separately.

English. Nine of the sixteen sub-hypotheses were accepted, the larger schools being rated significantly higher on these items. Larger school medians exceeded smaller school medians on thirteen of the sixteen items evaluated.

Mathematics. Five of the twenty-two sub-hypotheses were accepted, indicating significantly higher ratings for the larger schools on these five items only. Larger school medians, however, were in excess of smaller school medians on fifteen of the twenty-two items tested.

Science. Eighteen of the twenty-two sub-hypotheses were accepted, showing that the ratings of science programs were significantly higher for the larger schools than for the smaller schools. On all criteria items for science larger school medians were higher than the respective medians for the smaller schools.

Art. All the sub-hypotheses were rejected for this section of the study, and no significant difference between the larger and the

smaller schools was indicated on any criteria item. Larger school medians exceeded their smaller school counterparts on ten of the eighteen items tested, while the reverse was true in six instances.

Music. Six only of the sub-hypotheses were accepted for music, even though twenty of the twenty-two larger school medians exceeded the respective medians for the smaller schools.

Physical Education (boys). Larger school medians exceeded smaller school medians on all twenty-three of the items evaluated for physical education (boys). Eighteen of the sub-hypotheses were accepted, a further evidence of the higher rating of the larger schools in this area of the study.

Physical Education (girls). Results were even more heavily weighted in favour of the larger schools on this section, as nineteen of the twenty-three sub-hypotheses were accepted. All larger school medians were higher than the smaller school medians for the criteria items tested.

Student Activity Program. Of the twenty-three sub-hypotheses tested, seven only were accepted. However, larger school medians were higher than smaller school medians on twenty-one of these items.

The findings in these program areas lead to one general conclusion; to the extent that higher ratings (on the evaluative criteria used for the study) may indicate superiority of one program over another,

the larger Regional High Schools of Newfoundland offer a better program than do the smaller Regional High Schools, especially in the areas of science and physical education.

111. RECOMMENDATIONS

1. Since the findings of this study, relative to the relationship between school size and school program, appear to agree with the majority of similar research, it is recommended that, in the future, high schools be built with a minimum enrolment sufficient to guarantee a differentiated and balanced program of studies. It is further recommended that consolidation take place, wherever possible, of the Regional and Central High Schools now existing in the province, where these schools are too small to offer the desired programs.

2. In view of the generally low ratings accorded the basic subjects, English and mathematics, in both large and small Regional High Schools; it is recommended that these programs be further examined to determine the extent to which the needs of the pupils are being met.

3. It is recommended that intensive efforts be put forth by the Department of Education to recruit specialist teachers in art and in music; and further that Memorial University of Newfoundland establish degree programs in both these areas.

4. Because of geographical and other factors, some small high schools will inevitably continue to exist in Newfoundland. It is,

therefore, recommended that the existing resources of these schools be supplemented by: educational television, telephone teaching such as VERB (Visual Electronic Remote Blackboard), more extensive use of standard audio-visual equipment, expanded library resources, part-time mobile specialists.

5. Since ratings on the criteria items of this study were generally fairly low, the investigator recommends that research be carried out by a team of curriculum experts to determine the extent to which Newfoundland high schools are meeting the educational requirements of the province.

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APPENDICES

APPENDIX A

EVALUATIVE CRITERIA FOR AN ANALYSIS OF PROGRAM OFFERINGS IN NEWFOUNDLAND HIGH SCHOOLS

I. INTERVIEW CHECKLIST

The use of the checklist involves three letters:

E..Provision or condition is made extensively.

S..Provision or condition is made to a moderate extent.

L..Provision or condition is very limited, or missing but needed.

II. EVALUATIONS

Evaluations are made on a five-point scale.

5. Excellent: the provisions or conditions are extensive and are functioning excellently.

4. Very Good: (a) the provisions or conditions are extensive and are functioning well, or
(b) the provisions or conditions are moderately extensive and are functioning excellently.

3. Good: the provisions or conditions are moderately extensive and are functioning well.

2. Fair: (a) the provisions or conditions are moderately extensive but are functioning poorly, or
(b) the provisions or conditions are limited in extent but are functioning well.

1. Poor: The provisions or conditions are limited in extent and functioning poorly; or they are entirely missing, but needed.

III. INTERVIEW METHOD

Before the interview begins, the interviewee should be given a copy of the list of checklist items on which he is to provide information.

The interviewer will begin the interview as follows:

"This checklist consists of provisions, conditions, or characteristics found in a high school (name the subject) program. Each checklist item is a positive statement which I will read orally. You will then comment on the statement as it applies to you and your class or classes in this subject. In certain places you will note that supplementary information is requested. Please provide this for me, or direct me to the best source for the information required."

As each checklist item is discussed, the interviewer will mark it with an E, an S, or an L, as indicated in Part I. If sufficient information is not immediately available, the item should not be checked until later, when the necessary information has been provided and assessed.

The evaluation items should be completed only after the interview has terminated, and all checklist items have been rated. Under no circumstances should any evaluations be carried out while the interview is in progress.

INTERVIEW CHECKLIST

ENGLISH

I. Organization

( ) 1. Elective courses in English are provided.
( ) 2. Remedial reading activities are available.
( ) 3. Instruction in developmental reading is provided.
( ) 4. Remedial, or clinical, speech activities are available in addition to instruction in speech in regular courses.
( ) 5. Individuals within a single class are grouped or identified for differentiation of teaching.
( ) 6. English courses are organized to provide for sequential development.
( ) 7. Advanced placement and honors courses are organized for the rapid learners.
( ) 8. Each English teacher has a conference period each day.
( ) 9. Teacher load is such that necessary attention to criticism of work of individual students can be given.

II. Nature of Offerings

A. Literature

( )10. Students are taught skills essential to reading both as a study procedure and as a literary experience.
( )11. Opportunities are provided in reading to develop the habit of reading for meaning at rates appropriate to the readers' abilities and the particular type of reading material.
( )12. Opportunities are provided to develop an understanding of factors important in the selection and criticism of reading materials.
( )13. Students are encouraged (and provision is made for them) to read a number of books written for and about adolescents.
( )14. Literature selected for study contains examples of a variety of types of writing.
( )15. Both extensive reading and intensive reading are encouraged.
( )16. Selections provide content which has meaning for the student now and in the future.
( )17. The reading materials include a wide variety of subjects to meet various interests of students.
( )18. School booklists are available to help the student make a wise choice of reading materials.
( )19. Some literary selections are chosen for their emphasis upon moral and spiritual values.
( )20. Literature is selected in relation to present reading levels of students, as well as to stimulate improvement.
( )21. Opportunity is provided for reading of (check) _____ classic literature, _____modern literature, _____newspapers, _____magazines.
( )22. Reading activities provide specific training in reading different types of literature (e.g.,fiction, nonfiction, drama, and poetry).

( )23. Although Canadian and English literatures are emphasized, opportunity is offered for the study of appropriate selections from other literatures.
( )24. Students are encouraged to do free or voluntary reading.
( )25. Literature beyond the silent reading comprehension of students, but at their emotional and intellectual levels, is presented by oral methods, such as dramatizations, teacher's oral reading, choral reading, recordings, and sound films.
( )26. Discussions of stage, screen, radio, and television productions are designed to develop discriminating tastes and standards.
( )27. Students memorize appropriate sections of prose and poetry.
( )28. Use of the library and reference sources is taught in relation to needs.

B. Language Arts

( )29. Grammatical concepts are taught when pupils need them to facilitate correct and effective expression.
( )30. Such language arts activities as writing, speaking, and listening are organized into a coordinated program.
( )31. Students are encouraged to do self-initiated or creative writing.
( )32. Writing and speaking activities use content material from other subject areas.
( )33. Writing and speaking are constantly related to real needs in communications.
( )34. Emphasis is given to the underlying processes of gathering, organizing, and presenting ideas.
( )35. Listening activities are selected to improve the ability of students to express accurately what they have heard.
( )36. Spelling is stressed in group and individual instruction.
( )37. Students are taught to build their writing, speaking, and reading vocabularies.
( )38. Writing skills are developed through a variety of activities (check):

_____ Announcements and invitations.
_____ Applications and requests.
_____ Autobiographies and diaries.
_____ News items, reports, editorials.
_____ Outlines and summaries.
_____ Personal and business letters.
_____ Plays.
_____ Poems.
_____ Research papers.
_____ Reviews of books, plays, movies, radio and television programs.
_____ Short stories and essays.

_____ Town or school history.
_____ Writings for classroom anthologies.
_____ Others. _____

( )39. Speech skills are developed through a variety of activities (check):

_____ Choral speaking.
_____ Debates and panel discussions.
_____ Dramatic activities.
_____ Extemporaneous speeches.
_____ Interviews and conferences.
_____ Parliamentary procedures.
_____ Questions, directions, and explanations.
_____ Radio and television.
_____ Reports and announcements.
_____ Social and telephone conversations.
_____ Others.

( )40. Listening skills are developed through a variety of activities (check):

_____ Drama.
_____ Informal discussions.
_____ Oral reading.
_____ Radio and recordings.
_____ Speeches.
_____ Teacher lectures.
_____ Others. _____

( )41. Individual speech needs are determined for use as a basis for individualized instruction.
( )42. Careful attention is given to articulation and pronunciation.
( )43. Attention is given to the development of poise in effective speech before an audience.
( )44. Critical thinking is emphasized in relation to both speaking and listening.
( )45. Speech development experiences emphasize group planning and group thinking.
( )46. Attention is given to handwriting according to individual needs.

111. Physical Facilities

( )47. Classrooms are equipped with movable furniture which can be adapted to group activities.
( )48. Bookshelves are provided in all English classrooms.
( )49. Magazine storage facilities are provided in all English classrooms.
( )50. Filing equipment is provided in all English classrooms.
( )51. English classrooms are equipped for efficient use of audio-visual aids.
( )52. Equipment, such as record players _____, sound projectors_____, opaque projectors _____, tape recorders _____, radio

_____, and television sets _____, is available.

( )53. A stage, equipped with a curtain, is available for use by English classes.

( )54. Testing equipment for diagnosis of reading problems is available.

( )55. Testing equipment for diagnosis of reading problems is available.

( )56. Public address equipment is available for student use.

( )57. Tackboards and chalkboards are available.

( )58. A teacher-pupil conference room is available.

IV. Direction of Learning

A. Instructional Staff

All members of the English staff:

( )59. Have preparation in literature for adolescents, in Canadian and English literature, and in other literatures.

( )60. Have preparation in teaching reading in high school.

( )61. Have preparation in writing beyond college course in freshman composition.

( )62. Have preparation in speech.

( )63. Have preparation in mass communication media.

( )64. Have additional preparation in the area of English in which they are offering specialized instruction such as remedial reading, speech, play production, journalism.

( )65. Have preparation in methods of teaching English.

( )66. Are acquainted with diagnostic techniques and remedial instruction methods.

( )67. Assist the librarian in the selection of English reading materials and with the problem of distribution of these materials.

( )68. Have training in the use of audio-visual equipment and materials.

( )69. Maintain acquaintance with recent developments in the teaching of English.

( )70. Study their own voices by means of recordings.

( )71. Read literature and criticism beyond that taught in the classroom.

( )72. Write for publication and personal enjoyment.

( )73. Are active in professional organizations of English teachers.

( )74. Maintain active participation in in-service education through formal study and other professional activity.

B. Instructional Activities

( )75. There is evidence of careful planning and preparation for instruction.

( )76. Instruction is readily adapted to new or changing classroom conditions.

( )77. Student needs, interests, and experiences are used in the selection and conduct of instruction.

( )78. Instruction and practice in language arts skills are provided.
( )79. Instruction is individualized through such techniques as grouping of students with particular needs and through differentiated assignments.
( )80. Instruction provides for extensive use of the library.
( )81. Recordings are used to analyze each student's speech.
( )82. Provision is made to extend the classroom experiences in English to such activities as writing club, school paper, debating society, dramatic club, and broadcasting.
( )83. Teachers encourage students to do free reading.
( )84. Teachers work with members of other departments to improve reading, writing, and speech skills.

C. Instructional Materials

( )85. The following instructional materials are provided and accessible:

_____ Variety of textbooks.
_____ Variety of library books.
_____ Periodicals.
_____ Pamphlets.
_____ Newspapers.
_____ Dictionaries.
_____ Usage handbooks.
_____ Indexes to fiction and essays.
_____ Reader's Guide.
_____ Book of quotations.
_____ Teacher-prepared guides.
_____ Class sets of good literature.
_____ Class sets of language arts texts.
_____ High school spellers.
_____ Vocabulary study texts.
_____ Radio.
_____ Television.
_____ Films.
_____ Filmstrips.
_____ Recordings.
_____ Maps.
_____ Charts.
_____ Pictures.
_____ Models.
_____ Up-to-date reading lists.
_____ Other. _____

School

Subject area

Course of Study

% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided is there provision for supplementing of the outline of studies?

If yes, please provide details.

	Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1				
2				
3				
4				
5				

EVALUATIONS ENGLISH

( ) 1. How adequate are English courses to meet the needs of all students?
( ) 2. How extensive is the variety in literature to meet needs of all students?
( ) 3. How adequate is the content in literature to meet needs of all students?
( ) 4. How well do the offerings provide for the development of the language process?
( ) 5. How extensive is the variety of experience in speech?
( ) 6. How extensive is the variety of writing activities?
( ) 7. To what extent do the offerings provide for the development of listening skills and appreciation?
( ) 8. How adequate are the physical facilities to meet instructional needs in English?
( ) 9. How adequate is the provision for storage facilities?
( )10. How well is equipment maintained for efficient use?
( )11. How adequate is the staff's preparation in English?
( )12. How adequate is the planning and preparation for instruction?
( )13. To what degree is instruction adapted to needs of individual students?
( )14. To what extent are materials from the library used in English instruction?
( )15. How adequate is the variety of instructional materials?
( )16. How adequate is the quantity of instructional materials?

INTERVIEW CHECKLIST

MATHEMATICS

I. Organization

( ) 1. Courses in mathematics are provided for all students in grade 10.
( ) 2. Courses are available to suit the student's ability and to meet his academic and vocational needs.
( ) 3. The mathematics teacher advises students about mathematics and assists them in the selection of the proper courses.
( ) 4. Each mathematics course is based upon instruction which has preceded it and is preparation for courses that follow.
( ) 5. Provision is made for students to prepare for advanced standing in mathematics.
( ) 6. Provision is made for the transfer of students from one mathematics sequence to another.

II. Nature of Offerings

Criteria for selection of the content of courses include:

( ) 7. Student needs, interests, and readiness to use mathematical processes.
( ) 8. The role of mathematics in our culture.
( ) 9. Probable needs and occupational plans of students.
( )10. Applications of mathematics to the solution of everyday problems.
( )11. The logical structure of mathematics.
( )12. Importance of the development of such attitudes as respect for knowledge, open-mindedness, orderliness, accuracy, creativeness, and imagination.

The mathematics curriculum in the area of number and operation includes study of:

( )13. The fundamental processes of computation.
( )14. Computation with approximate data.
( )15. The associative, commutative, and distributive laws.
( )16. Computation in the solution of everyday problems.
( )17. Estimation and verification of answers.

The mathematics curriculum in the area of functional and relational thinking includes the study of:

( )18. Functional dependence among variables.
( )19. Determining and expressing relationships among variables.
( )20. Ratios and proportions in the solution of problems.

The mathematics curriculum in the area of measurement and geometry includes the study of:

( )21. A variety of geometric figures, both plane and solid.
( )22. Mathematical instruments, such as the protractor, caliper, micrometer, and compass.
( )23. Scale drawings.
( )24. The basic vocabulary of elementary geometry.

( )25. The basic formulas of measurement of plane and solid figures.
( )26. Such practical applications of geometrical principles and relationships as are found in elementary surveying.
( )27. Estimation and verification of lengths, areas, and sizes of angles.
( )28. The approximate nature of all measurements and its effect on subsequent results.

The mathematics curriculum in the area of logical thinking includes the study of:

( )29. Applications of such terms as assumption, proposition, converse, and conclusion.
( )30. Basic principles and assumptions on which the structure of mathematics rests.
( )31. The organization of statements into a logical sequence.
( )32. The basic principles and techniques involved in establishing a valid proof or argument.
( )33. The difference between direct and indirect reasoning.
( )34. The meaning of necessary and sufficient conditions in an argument.
( )35. The significance of definitions and undefined terms in a logical development.
( )36. The difference between logical and illogical thinking in mathematics.

111. Physical Facilities

The following instruments and supplies are available:

( ) 37. Chalkboards.
( ) 38. Bookcases.
( ) 39. Storage space.
( ) 40. Tackboards.
( ) 41. Showcase or display facilities.
( ) 42. Graph or cross-section chalkboards.
( ) 43. Flannel board.
( ) 44. Chalkboard instruments.
( ) 45. Compasses.
( ) 46. Protractors.
( ) 47. Slide rules.
( ) 48. Workbench and hand tools.
( ) 49. Facilities for use of films and other visual aids, including an opaque projector.
( ) 50. A demonstration slide rule.
( ) 51. An abacus.
( ) 52. Models such as prisms, pyramids, cones, spheres, and polyhedrons.
( ) 53. A spherical chalkboard.
( ) 54. A vernier caliper.
( ) 55. A micrometer caliper.
( ) 56. Surveying instruments suitable for school use, including a plane table, clinometer, pantograph, and transit.
( ) 57. Calculating machines.
( ) 58. Flexible figure models.
( ) 59. Duplicating equipment.

IV. Direction of Learning

A. Instructional Staff

The members of the mathematics staff have preparation in:

( )60. Algebra (elementary and advanced).
( )61. Elementary plane geometry (synthetic and analytic).
( )62. Trigonometry.
( )63. Solid geometry.
( )64. Analysis (at least calculus).
( )65. Mathematics of finance.
( )66. Statistics.
( )67. Theory of equations, including determinants and matrices.
( )68. Advanced geometry, such as foundations, non-Euclidean, or projective.
( )69. History of mathematics.
( )70. Methods of teaching mathematics.
( )71. Applications of mathematics.
( )72. At least one course involving a mathematical structure, such as number theory, set theory, complex variable, real variable, or abstract algebra.
( )73. Participate in activities of professional organizations.
( )74. Are familiar with current professional literature.
( )75. Are familiar with recent developments in the teaching of mathematics.
( )76. Participate in mathematics workshops, institutes, and professional meetings.
( )77. Are prepared to advise students regarding careers in fields requiring the use of mathematics.

B. Instructional Activities

( )78. Instruction is directed toward clearly formulated, comprehensive objectives in mathematics.
( )79. Specific instructional activities contribute to the comprehensive objectives of the mathematics program.
( )80. There is evidence of careful planning and preparation for instruction.
( )81. Instruction is adapted to new or changing conditions.
( )82. Provisions are made for individual differences.
( )83. Laboratory methods and other techniques of investigation are used when appropriate.
( )84. Cultural and scientific uses of mathematics are emphasized.
( )85. The mathematics instruction is coordinated with other subjects.
( )86. Use is made of models, charts, and other instructional aids.
( )87. Motion pictures, filmstrips, and slides are used.
( )88. Provision is made for both individual and group instruction.
( )89. Provision is made for students to demonstrate proofs and solutions.
( )90. Students are informed about professional and vocational opportunities in mathematics.

( )91. Participation is encouraged in extraclass activities involving mathematics.
( )92. Provision is made for remedial work.
( )93. Instruction is given in contributions of mathematics to use of leisure time.

C. Instructional Materials

( )94. A variety of modern mathematics textbooks is provided.
( )95. A variety of general and technical reference materials is provided.
( )96. Supplementary reference materials are provided emphasizing applications of mathematics to industrial, business, or home situations.
( )97. Instructional guides include unit outlines, suggested activities, resource materials, and evaluation aids.
( )98. Graphs and diagrams are available.
( )99. Motion pictures, filmstrips, and slides are available.
( )100. Files of materials illustrating applications of mathematics are provided.
( )101. Selction of textbooks by teachers and administrative personnel is based upon the results of objective study.
( )102. Supplementary texts and instructional materials are available.
( )103. Professional periodicals are available.
( )104. Information is available on current professional opportunities in mathematics.
( )105. Materials are available for the construction of models and other instructional aids.
( )106. Supplies, such as colored chalk and various types of graph paper are available.

School—

Subject Area

Course of Study

% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided, is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			

EVALUATIONS

MATHEMATICS

( ) 1. To what extent are mathematics courses available and suited to the abilities and needs of all students in grade 10?
( ) 2. To what extent are courses available for students with special aptitude in mathematics?
( ) 3. To what extent are students electing mathematics courses beyond those required?
( ) 4. How adequate is the variety of offerings in mathematics to meet needs of all students?
( ) 5. How adequate is the content of offerings to develop mathematical knowledge and skills needed by all students?
( ) 6. How adequate is the content of offerings to develop mathematical understanding and appreciation needed by all students?
( ) 7. To what extent do offerings provide for the application of mathematics in practical situations?
( ) 8. How adequate are offerings to meet needs of students having specialized, occupational, and technical interests?
( ) 9. To what extent do offerings prepare students for further study of mathematics?
( )10. How adequate are the space provisions for existing class sizes?
( )11. How adequate is the equipment to meet enrollment and curricular needs?
( )12. How adequate are the supplies to meet enrollment and curricular needs?
( )13. How adequate are the storage facilities for equipment and supplies?
( )14. How adequate is the preparation of the staff in mathematics?
( )15. To what extent is the staff prepared to teach new topics in mathematics?
( )16. How adequate is the planning and preparation for instruction?
( )17. How adequately are the instructional activities adapted to the needs of individual students?
( )18. How adequately is provision made for practical applications of mathematics?
( )19. How adequately are provisions made for rapid learners in mathematics?
( )20. How adequate are provisions made for slow learners in mathematics?
( )21. How adequate is the variety of instructional materials?
( )22. How adequate is the content of instructional materials?

INTERVIEW CHECKLIST

SCIENCE

I. Organization

( ) 1. A full year science course is required of all students during the tenth grade.
( ) 2. Provision is made for students to use the science facilities beyond regularly scheduled class periods.
( ) 3. Time is provided in the teacher's daily schedule for the preparation of classroom demonstrations and laboratory and field activities.
( ) 4. Provisions are made for teachers to help special science groups and students working on science projects.
( ) 5. Class size is determined by factors such as type of instruction and available work areas.
( ) 6. Advanced work is provided for students of exceptional ability.

II. Nature of Offerings

The instruction in science is designed to:
( ) 7. Lead to discovery, understanding, appreciation, and application of important principles of science.
( ) 8. Aid students in the development and use of scientific attitudes.
( ) 9. Provide practice in applying methods of science in laboratory situations.
( )10. Encourage the interrelating of facts, principles, and concepts from the several science fields.
( )11. Develop skill in using equipment and instruments of science.
( )12. Provide opportunity for students to design and construct apparatus and equipment.
( )13. Develop skill in reading and interpreting science literature.
( )14. Encourage the development of a variety of interests in science.
( )15. Develop an understanding of contributions of science to the conservation of natural and human resources.
( )16. Acquaint students with recent developments in science (e.g., nuclear energy, solar energy, rocket propulsion, automation, radioisotopes, chemotherapy, space vehicles, electronic computers)

III. Physical Facilities

The physical facilities for general science (G), biology (B), chemistry (C), and physics (P) include:

G	B	C	P	
( )	( )	( )	( )	1. Classroom space for discussions and experimentation.
( )	( )	( )	( )	2. A demonstration table visible to all members of the class.
( )	( )	( )	( )	3. Water and other necessary utilities.
( )	( )	( )	( )	4. Tools, materials, and space for building and maintenance equipment.
( )	( )	( )	( )	5. Space and equipment for maintaining living plants and animals.
( )	( )	( )	( )	6. Bookshelves and magazine racks.

( ) ( ) ( ) ( ) 7. Display cases and tackboards.
( ) ( ) ( ) ( ) 8. Storage space for equipment and materials.
( ) ( ) ( ) ( ) 9. Provisions for the safe storage and handling of hazardous materials.
( ) ( ) ( ) ( ) 10. Provisions for the use of audio-visual equipment.
( ) ( ) ( ) ( ) 11. Exhaust fans to remove obnoxious and toxic gases.
( ) ( ) ( ) ( ) 12. Readily accessible first-aid and safety equipment.
( ) ( ) ( ) ( ) 13. Files for inventory accounting.

IV. Direction of Learning

A. Instructional Staff

All members of the science staff:
( ) 17. Have a general liberal education.
( ) 18. Have preparation in the biological sciences.
( ) 19. Have preparation in the physical sciences.
( ) 20. Have preparation in mathematics.
( ) 21. Have preparation in each science area in which they are teaching.
( ) 22. Maintain active participation in in-service education through formal study and other professional activity.
( ) 23. Maintain an active interest in professional advancement, including participation in educational organizations.

B. Instructional Activities

( ) 24. There is evidence of careful planning and preparation.
( ) 25. The learning activities of each science course build on the previous science training of the students.
( ) 26. Instruction is different for the slow, the average, and the able student.
( ) 27. Science resources of the community and environment are used.
( ) 28. Emphasis is placed upon the development of problem-solving techniques.
( ) 29. Some students develop science projects beyond normal class requirements.
( ) 30. Instruction is concerned with developing inter-relationships of the sciences and other fields of learning.
( ) 31. Use is made of audio-visual aids.
( ) 32. Students are informed about professional and vocational opportunities in science.
( ) 33. Students with aptitude are encouraged to continue postsecondary science study.
( ) 34. Use is made of field trips.
( ) 35. Use is made of exhibits.

C. Instructional Materials

The instructional materials for general science (G), biology, (B), chemistry (C), and physics (P) include:

G	B	C	P	
( )	( )	( )	( )	1. Equipment and materials for classroom demonstrations.
( )	( )	( )	( )	2. Equipment and materials for indivudual and group laboratory work and projects.
( )	( )	( )	( )	3. Well-selected and easily accessible books, periodicals, pamphlets, and reference materials.
( )	( )	( )	( )	4. Reading materials appropriate for students of differing abilities and interests.
( )	( )	( )	( )	5. Resource units, teaching guides, and other aids.
( )	( )	( )	( )	6. Study guides, laboratory manuals, and project materials.
( )	( )	( )	( )	7. Appropriate types of audio-visual aids.
( )	( )	( )	( )	8. Projects, made by students, for use in instruction.
( )	( )	( )	( )	9. Catalogues for the selection of equipment, supplies, and services.

School

Subject area

Course of Study

% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided, is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			

EVALUATIONS SCIENCE

( ) 1. To what extent are science courses provided for all students in grade ten?
( ) 2. To what extent do the time allotments for science courses satisfactorily meet instructional needs?
( ) 3. To what extent does the schedule provide teachers with time to prepare for classroom demonstrations, laboratory work, and special projects?
( ) 4. To what extent does the variety of offerings meet the science needs of students?
( ) 5. To what extent does the content offerings meet the science needs of students?
( ) 6. To what extent do the offerings provide for study and discussion of recent scientific developments?
( ) 7. How adequate are the space provisions for science instruction?
( ) 8. How adequately are the classrooms and laboratories furnished for science instruction?
( ) 9. How adequate are storage facilities for equipment and supplies?
( )10. How adequate are the provisions for the safe storage of hazardous materials?
( )11. How adequate are the provisions for student safety?
( )12. How adequate is laboratory maintenance?
( )13. How satisfactory is laboratory housekeeping?
( )14. How adequate is the preparation of the staff in science subject matter?
( )15. To what extent are members of the science staff keeping abreast of recent developments in the knowledge of science and in methods of teaching science?
( )16. To what extent does instruction promote the goals of science education?
( )17. How adequately does instruction provide for the various needs and abilities of students?
( )18. To what extent does instruction promote the use of the methods of science in problem-solving situations?
( )19. How adequate is the quality of instructional materials?
( )20. How adequate is the quantity of instructional materials?
( )21. How adequate is the variety of instructional materials?
( )22. How well are instructional materials organized and kept in good condition?
( )23. How satisfactory is the provision for storage of instructional materials?

INTERVIEW CHECKLIST

ART (INCLUDING CRAFTS)

I. Organization

( ) 1. General art courses are available to all students.
( ) 2. Flexibility in organization provides opportunity for extensively exploring a variety of art media.
( ) 3. Provisions are made for students with particular art interests and ability to work intensively in art media.
( ) 4. Class sizes are consistent with the nature of the course.
( ) 5. Art classes are assigned only to qualified art teachers.
( ) 6. Sufficient funds are allocated to provide supplies, tools, and equipment for art.
( ) 7. Provision is made for common planning by teachers of courses in the arts, such as music, home economics, industrial art, drama, and dance.
( ) 8. The school schedule makes it possible for students with art interests and abilities to elect art courses.

II. Nature of Offerings

( ) 9. The program provides for instruction in basic techniques of manipulation of materials, media, and tools.
( )10. Instruction is provided for work with (check):

_____ Cardboard.
_____ Chalk.
_____ Clay.
_____ Fabrics.
_____ Fibers.
_____ Metal.
_____ Paints.
_____ Paper.
_____ Plastics.
_____ Stone.
_____ Wire.
_____ Wood.
_____ Yarn.

( )11. Opportunities are provided for work in two and in three dimensions.
( )12. Opportunity is provided for the development of art quality in design.
( )13. Each student does his own work which is clearly different from that of other students.
( )14. Opportunity is given for the student to discover the emotional significance art has in his life.
( )15. Experiences are provided in (check):

_____ Drawing and painting.
_____ Modeling and carving.
_____ Weaving and constructing.
_____ Printing and arranging.

( )16. Students study contemporary design and significant design of other times and places in (check):

_____ Architecture.
_____ Costume and fashion.
_____ Furniture.
_____ Home appliances.
_____ Jewelry.

_____ Painting.
_____ Sculpture.
_____ Theater.

( )17. Provision is made for students to relate their activities to those of local and regional designers and painters for esthetic and vocational purposes.

( )18. The program provides for esthetic self-expression in terms of services for other people, the school, the home, and the community.

( )19. Opportunities are provided for the students to talk about art and to make judgements about their own art expressions and the art in their environment.

( )20. Opportunity is given for study of the spiritual significance of art.

111. Physical Facilities

( )21. The art room is located so that students may see art in process.

( )22. The room has been planned to encourage individual and group work.

( )23. The room has been planned to facilitate a diversified arts program.

( )24. Provision has been made for storage and work space for (check):

_____ Drawing and painting.
_____ Modeling and carving.
_____ Weaving and constructing.
_____ Printing and arranging.

( )25. Walk-in storage closet for materials and supplies adjoins the workroom.

( )26. Storage space for student work in progress is easily accessible.

( )27. Appropriate motorized tools are provided.

( )28. Workbenches are provided.

( )29. Electrical and gas outlets are provided for (check):

_____ Pottery kiln.
_____ Enameling oven.
_____ Electrical tools.
_____ Gas tanks and torches.
_____ Audio-visual equipment.

( )30. The wall surfaces permit use for display.

( )31. Sinks are equipped with sediment traps.

( )32. Installation and equipment are provided for use of audio-visual materials.

( )33. Tables are provided so that students may have 6 to 9 square feet of work surface.

( )34. Storage for tools and materials currently in use is organized so students can get and return them quickly.

IV. Direction of Learning

A. Instructional Staff

Members of the instructional staff:

( )35. Have earned a degree from an accredited institution with a major in art education or the equivalent, including:
_____ Preparation in drawing and painting.
_____ Preparation in modeling and carving.
_____ Preparation in creative crafts.
_____ Preparation in the graphic arts.
_____ Preparation in art history.
_____ Preparation in use of design and color.
_____ Supervised teaching on elementary and junior and senior high school levels.

( )36. Keep abreast of current practices and developments in teaching art.

( )37. Demonstrate an understanding of contemporary developments in the arts.

( )38. Display a keen awareness of student art needs and interests.

( )39. Show ability to motivate, guide, and help students make their best effort.

( )40. Show skill in use of audio-visual equipment and materials.

( )41. Belong to art education associations on local, provincial, and national levels.

( )42. Engage in reasearch pertinent to their particular needs and problems.

( )43. Indicate a growing desire to expand the program through constant evaluation and revision.

( )44. Have demonstrated creative ability in art.

( )45. Maintain active participation in in-service education through formal study and other professional activity.

( )46. Maintain an active interest in professional advancement, including participation in educational organizations.

B. Instructional Activities

( )47. Instruction is directed toward clearly stated objectives in art education.

( )48. There is evidence of careful planning and preparation for instructional activities.

( )49. Students assist in planning, conducting, and evaluating their art experiences.

( )50. Work is adapted to individual and group needs, interests, and abilities.

( )51. Opportunities are provided to develop appreciation of contemporary machine and handmade objects, sculpture, and painting.

( )52. Opportunity is provided for study of our art heritage.

( )53. Drawing and painting activities involve use of (check):

_____ Chalk.
_____ Charcoal.
_____ Crayon.
_____ Pencil.
_____ Poster paint.
_____ Water color.

_____ Ink. _____ Mixed media.

( )54. Three-dimensional design involves use of (check):
_____ Cement. _____ Paste.
_____ Clay. _____ Salt blocks.
_____ Firebrick. _____ Stone.
_____ Foam glass. _____ Wire.
_____ Metal. _____ Wood.
_____ Paper.

( )55. Crafts involve use of (check):
_____ Cardboard. _____ Reed.
_____ Clay. _____ Textiles.
_____ Cloth. _____ Wire.
_____ Metal. _____ Wood.
_____ Paper. _____ Yarns.
_____ Plastics.

( )56. Graphic arts activities include opportunities for (check):
_____ Bulletin board arrangements.
_____ Etching.
_____ Linoleum block cutting and printing.
_____ Photography.
_____ Silk screen printing.
_____ Simple lithography.
_____ Stenciling.
_____ Woodcut carving and printing.

( )57. Use is made of films, filmstrips, slides, and reproductions.

( )58. Arrangements are made for students to go to school shops, onto the stage, or out of doors to work on art projects.

( )59. Planned field trips to places of significant art interest are made.

( )60. Needs of the school to which art can contribute are studied and planned for cooperatively.

( )61. Art clubs are encouraged.

C. Instructional Materials

( )62. Materials and tools are provided for students (check):
_____ To paint with tempera, oil, watercolors.
_____ To sketch with chalk, Conte crayon, charcoal.
_____ To model with clay, papier-mache.
_____ To carve in wood, plastic, salt block, stone.
_____ To construct arrangements and objects with cardboard, fabrics, fibers, metal, paper, wire, wood.
_____ To print with linoleum, wood, silk screen.
_____ To weave with a variety of fibers.
_____ To arrange displays of student art work and other two- and three-dimensional art.

( )63. A variety of reference books is provided.

( )64. Art magazines are available for use.

( )65. Provision is made to have readily available such materials as:
_____ Films.
_____ Filmstrips.
_____ Slides.
_____ Loan exhibitions.

School

Subject area

Course of Study

% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			
6			

EVALUATIONS

ART (INCLUDING CRAFTS)

( ) 1. To what extent are general art courses available for all students?
( ) 2. To what extent are elective art courses available to meet art needs of individual students?
( ) 3. To what extent does the school schedule make it possible for students with art interests and abilities to elect art courses?
( ) 4. To what extent does the art program encourage students to discover, explore, express, and appraise?
( ) 5. To what extent is instruction provided in the use of a variety of art media?
( ) 6. To what extent is the space adequate for a diversified arts program?
( ) 7. To what extent do the facilities of the art room make provisions for a diversified arts program?
( ) 8. To what extent is equipment kept in good repair?
( ) 9. To what extent is storage for supplies adequate?
( )10. To what extent is storage for students' work in progress ample?
( )11. How adequate are the lighting facilities?
( )12. How satisfactory is the preparation of staff members to teach art?
( )13. To what extent is the art program adapted to individual interests and abilities of students?
( )14. To what degree is the development of art appreciation emphasized?
( )15. How adequate is the variety of materials and tools for instruction?
( )16. How adequate is the quality of materials for instruction?
( )17. How effectively are materials organized for use?
( )18. To what extent are tools and equipment kept in good working order?

INTERVIEW CHECKLIST

MUSIC

1. Organization

( ) 1. All students are required to participate in at least one general music course.
( ) 2. Elective music courses are available to all students.
( ) 3. Elective music activities are available to all students.
( ) 4. Elective music courses are offered during the regular school day.
( ) 5. Students are assisted through counseling by qualified counselors or music teachers to determine the type and extent of their participation in music activities.
( ) 6. Cooperation with community music organizations is encouraged.
( ) 7. Teachers encourage selected students to study privately.
( ) 8. The contributions of private teachers to the school music program are recognized and encouraged.
( ) 9. Elective courses and extraclass activities prepare students for performing in music assemblies.
( )10. General music classes are of appropriate size.
( )11. Elective courses and extraclass activities provide for cooperation with community music activities.
( )12. Variation in the time allotments of music activities is provided to meet different student needs.
( )13. The scheduling practices of the school are such that students with special training and ability are assured of an opportunity to participate in large performing groups.

Supply information as follows:
1. Percent of all students who participate in general music courses ____
2. Percent of all students who participate in elective music courses ____
3. Number of full-time teachers of music (or equivalent) _____
4. Total enrollment in the school ____

11. Nature of Offerings

A. General Music Courses

The general music courses:
( )14. Are built upon and extend the knowledge, skills, understanding, and appreciation developed in previous years.
( )15. Involve activities appropriate to the various individual needs and abilities of students.
( )16. Provide an opportunity for recognition and encouragement of individual achievement.
( )17. Provide information about community radio and television music activities.
( )18. Provide opportunities to develop skill and ability in reading music.
( )19. Provide, in unison and part singing, for the particular needs of the changing voice.
( )20. Provide for vocal groups such as duets, quartets, octets, and other small ensembles.

( )21. Provide exploratory experiences with a variety of musical instruments.
( )22. Provide opportunities to listen to recordings of many types of music.
( )23. Provide opportunities to listen to other students perform.
( )24. Provide opportunities to study various musical forms (sonata, symphony).
( )25. Provide opportunities to study important composers and their works.
( )26. Emphasize the development of discrimination in musical tastes and listening ability.
( )27. Emphasize the development of understanding and appreciation of the contribution of music and of musical expression of religious faith.
( )28. Provide opportunities to relate the study of music to other subjects.

B. Elective Courses

Elective courses:
( )29. Are built upon the knowledge, skills, appreciation, and understanding developed in the general courses.
( )30. Provide an opportunity for talented students to do creative work.
( )31. Emphasize the development of music skills in keeping with individual aptitudes and abilities.
( )32. Provide separate or duplicate organizations for students with different degrees of ability.
( )33. Provide opportunity to cooperate with other departments in presentation of school performances and programs.
( )34. Provide for the development of student leadership in music classes.
( )35. Provide for a balanced vocal and instrumental program.
( )36. Provide opportunity for students with broad musical interests to study both instrumental and vocal music.

III. Physical Facilities

( )37. Music rooms are properly designed, lighted, ventilated, and acoustically treated.
( )38. Rehearsal rooms are adjacent to the auditorium stage.
( )39. Music rooms are located to provide a minimum of interference with other classes.
( )40. Suitable chairs are provided for instructional use.
( )41. Needs of music department are recognized in the auditorium schedule.
( )42. Provision is made for individual and small ensemble practice.
( )43. Storage facilities for equipment are provided.
( )44. Provision is made in the budget to replace materials and equipment as necessary.
( )45. A pit or similar space is provided in the auditorium.
( )46. Pianos are located in appropriate places.
( )47. Provision is made for the care and maintenance of musical instruments.

( )48. Provision is made for accessible storage of the music library.
( )49. The following equipment is provided:

_____ Piano.
_____ Organ.
_____ Instruments for student use.
_____ Radio.
_____ Television.
_____ Phonograph.
_____ Recording equipment.
_____ Public address equipment.
_____ Music stands and lights.
_____ A music library.
_____ Robes and uniforms.
_____ Portable risers.
_____ Podium.
_____ Listening posts.
_____ Stroboscope.
_____ Other. _____

IV. Direction of Learning

A. Instructional Staff

The education of all members of the music department includes:

( )50. General liberal education.
( )51. Preparation in vocal music.
( )52. Preparation in instrumental music.
( )53. Preparation in music theory.
( )54. Preparation in methods of teaching music.
( )55. Preparation in functional piano.
( )56. Development of ability to adit and adapt printed meterials to meet specific abilities of individual classes.
( )57. Experience in nonschool (e.g., community, professional) music activities.
( )58. Knowledge of new materials and current developments in music education.
( )59. Active participation in in-service education through formal study and other professional activity.
( )60. Active interest in professional advancement, including participation in educational organizations.

B. Instructional Activities

( )61. Instruction is directed toward clearly formulated, comprehensive objectives in music.
( )62. Instruction is constantly concerned with the improvement of the quality of the musical experiences involved.
( )63. There is evidence of careful planning and preparing for instructional activities.
( )64. Instructional activities are related to music interests and needs of students.

( )65. Differences in emotional development are recognized in determining the type and degree of participation by individual students.
( )66. Appropriate drill is used.
( )67. Opportunity is provided for students to plan, conduct, and evaluate music activities.
( )68. Instruction in music is coordinated with courses in other subject fields.
( )69. Efforts are made to create and maintain an attractive appearance of the classroom.

C. Instructional Materials

( )70. Textbooks and reference and supplementary materials which provide for a variety of music interests are available.
( )71. A variety of appropriate sheet music is available.
( )72. Songbooks are provided for general music classes.
( )73. Octavo music and songbooks are provided for choral groups.
( )74. Music scores are provided for instrumental groups.
( )75. A basic library of recordings covering a broad scope of music literature is available.
( )76. Teacher-prepared materials are provided.
( )77. A variety of visual aids, such as charts and pictures, is provided.
( )78. Slides, filmstrips, and sound films are available.
( )79. Materials, such as music, magazines, concert news, and radio and television program information, are available.

School

Subject area

Course of Study	% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			
6			

MUSIC

EVALUATIONS

( ) 1. To what extent are music courses available to meet general music needs of all students?
( ) 2. To what extent are music courses available to meet specialized music needs of individual students?
( ) 3. To what extent do time allotments for music courses meet music instruction needs?
( ) 4. How adequate is the number of music teachers in relation to the needs of students?
( ) 5. How well does the variety of general music offerings meet music needs of all students?
( ) 6. How well does the quality of general music offerings meet music needs of all students?
( ) 7. How adequate is the offering in vocal music?
( ) 8. How adequate is the offering in instrumental music?
( ) 9. How well are music courses adapted to individual aptitudes and abilities of participating students?
( )10. How well are music courses correlated with other school activities?
( )11. To what extent are opportunities provided for talented students to realize their optimum potential in musical performance, understanding, and creativity?
( )12. How adequate are space provisions for music instruction?
( )13. How well does the music equipment meet enrollment and curriculum requirements?
( )14. How adequately are provisions made for care and replacement of music equipment?
( )15. How satisfactory is the general liberal education of the staff?
( )16. How satisfactory is the preparation of the staff in vocal music?
( )17. How satisfactory is the preparation of the staff in instrumental music?
( )18. How satisfactory is the preparation of the staff in the teaching of music?
( )19. How adequate is the planning and preparation for instruction?
( )20. How well is instruction adapted to needs of individual students?
( )21. To what degree are student interests considered in planning and conducting music courses?
( )22. How adequate is the variety of instructional materials?
( )23. How adequate is the quality of instructional materials?

INTERVIEW CHECKLIST PHYSICAL EDUCATION FOR BOYS

I. Organization

( ) 1. Physical education courses are required of all boys.
( ) 2. Physical education classes meet _____periods per week.
( ) 3. Physical education periods are _____minutes in length.
( ) 4. Time provided for showers and dressing is _____minutes.
( ) 5. Consideration is given to grade level and needs of students in assigning them to physical education classes. (Discuss class assignment procedures under "Comments.")
( ) 6. Class size is such as to permit effective teaching, taking into account personnel, facilities, and nature of activities.
( ) 7. The physical education program, including interschool athletics, is adequately financed through the regular school budget.
( ) 8. The interschool athletic program is under the control and administration of school authorities.
( ) 9. Medical examinations are required before participation in strenuous athletics.
( )10. Medical assistance is available immediately in case of injury.
( )11. Consideration is given in teacher schedules for planning, organizing, and supervising intramural and interschool athletics.
( )12. Men and women physical education teachers cooperatively plan coeducational instruction and activities.
( )13. Provisions are made for insurance coverage of all boys engaging in sports and competitive activities.
( )14. Proper protective equipment is provided for all boys engaging in sports and competitive activities.
( )15. Parental permission is required for participants in strenuous competitive sports or other activities that require travel.
( )16. Interschool, extramural, and intramural schedules are reasonable in terms of the demand upon students' time and distance traveled.
( )17. The physical education program, including interschool athletics, is under the direction of a professionally trained specialist in physical education.

II. Nature of Offerings

( )18. Experiences are provided that promote the normal physical growth and development of boys.
( )19. Vigorous activities are provided that contribute to total fitness.
( )20. Experiences are provided that create interest and skill in recreational activities having carry-over value for leisure and for adult living.
( )21. Activities are selected and taught in terms of individual needs, interests, and abilities of boys.
( )22. A variety of indoor games, sports, and other athletic activities is provided.

( )23. A variety of outdoor games, sports, and other athletic activities is provided.
( )24. Sports activities provide opportunity for competition between groups in similar weight ranges.
( )25. Aquatic activities are provided.
( )26. Individual activities such as apparatus work, and tumbling are provided.
( )27. Combative activities such as wrestling and boxing are provided.
( )28. Under proper supervision and when recommended by qualified specialists, corrective and adapted activities are provided for boys with special needs.
( )29. Opportunities in a variety of intramural sports are provided.
( )30. Provision is made to apply, in intramural activities, skills learned in the instructional program.
( )31. Interscholastic sports experiences are provided for boys who can benefit by these activities.
( )32. Opportunities are provided for students to participate in co-recreational activities (e.g., dancing, volleyball, badminton).
( )33. The curriculum in physical education is carefully planned to provide for sequential development.
( )34. Every boy, including members of school teams, is assured a well-balanced physical education program.
( )35. Experiences are provided to develop leadership (leadership clubs, recreation groups, athletic associations, and the like).

III. Physical Facilities

( )36. The outdoor play area provides adequate space for conducting a modern program of outdoor physical education activities.
( )37. Gymnasium space has sufficient area to accommodate existing class sizes.
( )38. The height from the floor of the gymnasium to the nearest overhead obstruction is at least 20 feet.
( )39. Provision is made for spectator seating in gymnasiums.
( )40. Lights and window areas are covered with protective devices.
( )41. The entire indoor area is equipped with:

_____ Appropriate flooring with satisfactory finish.
_____ Adequate lighting.
_____ Adequate heating.
_____ Adequate acoustical treatment.
_____ Adequate safety measures.
_____ Adequate sanitary toilets and lavatory facilities.
_____ Sanitary drinking facilities.
_____ Sanitary wall-type or built-in cuspidors.
_____ Other. _____

( )42. A swimming pool is available.
( )43. Adequate provision is made for the sanitation of the pool.
( )44. Provisions are made for proper entrance and exit facilities to all physical education areas.
( )45. Properly equipped offices are provided.
( )46. The gymnasium is equipped with:

_____ Ropes.

( )47. _____ Rings.
_____ Bars.
_____ Mats.
_____ Horses.
_____ Ladders.
_____ Springboards.
_____ Trampoline.
_____ Storage space.
_____ Tackboards.
_____ Chalkboards.
_____ First-aid equipment and supplies.
_____ Other. _____

( )48. The outdoor play area is:
_____ Readily accessible.
_____ Suitably surfaced, graded, and drained.
_____ Enclosed.
_____ Free from obstructions.
_____ Free from safety hazards.
_____ Laid out for a variety of activities.
_____ Marked for a variety of activities.

( )49. Well-equipped locker, shower, and drying areas with adequate space for peak load are provided (check):
_____ Lockers in sufficient quantity to meet enrollment needs.
_____ Drying rooms for clothing.
_____ At least one shower head for every five boys in the largest class section.
_____ Hot and cold water with temperature controls.
_____ Floors constructed to facilitate maintenance of sanitary conditions.
_____ Locker and shower facilities for visiting teams.
_____ Soap and towels.
_____ Benches in locker-room aisles.
_____ Mirrors.

( )50. Public address system is provided.
( )51. Score boards are provided.
( )52. Scoring tables are provided.

IV. Direction of Learning

A. Instructional Staff

( )53. General liberal education.
( )54. Biological science (anatomy, physiology, kinesiology).
( )55. Social science (anthropology, sociology).
( )56. Psychology (educational psychology, mental health).
( )57. Physical science (chemistry, nutrition, and physics).
( )58. Professional courses.
( )59. Keep informed of current developments in the professional field and their educational implications.
( )60. Maintain active participation in in-service education through formal study and other professional activity.

( )61. Maintain an active interest in professional advancement, including participation in educational organizations.

B. Instructional Activities

( )62. Instruction is directed toward clearly formulated, comprehensive objectives in physical education.
( )63. There is evidence of careful planning of instructional activities.
( )64. Boys receive instruction in a wide variety of activities which are presented sequentially.
( )65. Boys' needs, interests, and experiences are considered in planning learning activities.
( )66. Boys are helped to choose activities appropriate for their needs and interests.
( )67. Instructional activities are integrated with the health instruction program.
( )68. Health appraisal data are used in classifying boys for physical education activities.
( )69. Opportunities are provided for boys to develop leadership abilities through such activities as directing game and exercise programs, coaching small groups and teams, and demonstrating skills and techniques to others.
( )70. Teaching through demonstration is used effectively.
( )71. Visual aids are used.
( )72. Suitable clothing is required for participation.
( )73. Attention is given to showering and drying properly.

C. Instructional Materials and Equipment

( )74. Reference materials provide information concerning a variety of games, sports, and recreational activities.
( )75. Reference materials provide information concerning health.
( )76. Reference materials provide information concerning safety.
( )77. Official rule books for a variety of sports are provided.
( )78. Reference materials are selected in terms of reading and interest levels of boys.
( )79. Attention is given to the recency of reading and reference materials.
( )80. Adequate equipment, for class and extraclass activities, is provided for a variety of group games.
( )81. Equipment, for class and extraclass activities, is provided for a variety of individual or small-group activities.
( )82. Appropriate instructional films are available.
( )83. Charts, diagrams, and similar visual materials are available.
( )84. Models and exhibit materials are available.
( )85. Equipment for effective use of the public address system is available.

School

Subject area

Course of Study

% of class involved

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			

EVALUATIONS

PHYSICAL EDUCATION FOR BOYS

( ) 1. To what degree are physical education activities provided for all boys?
( ) 2. Do time allotments of the program meet instructional needs satisfactorily?
( ) 3. How satisfactory are the controls and safeguards for all athletic activities?
( ) 4. How adequate is the variety of experiences to meet the physical education needs of all boys?
( ) 5. How adequate is the content of experiences to meet the physical education needs of all boys?
( ) 6. How satisfactorily do experiences provide for present and future leisure-time needs?
( ) 7. How adequately does the program provide for desirable activities in terms of individual physical education needs?
( ) 8. How adequate is the space provided for indoor physical education?
( ) 9. How adequate are the facilities for outdoor physical education?
( ) 10. How adequate is the quantity of permanent equipment for physical education?
( ) 11. How adequate is the quality of permanent equipment for physical education?
( ) 12. How adequate are the provisions for health, safety, and sanitation?
( ) 13. How adequate is the planning and preparation for instructional activities?
( ) 14. To what extent are data from health appraisals used in making instruction effective?
( ) 15. To what degree are instructional activities adapted to the needs of individual boys?
( ) 16. To what degree are activities conducted with regard for boys' health and safety?
( ) 17. How adequate is the preparation of the staff for teaching physical education?
( ) 18. How adequate is the preparation of the staff to conduct a balanced intramural and interscholastic program?
( ) 19. How adequate is the preparation of the staff to conduct school and community recreational activities?
( ) 20. How adequate are the reading and reference materials?
( ) 21. How adequate is the quantity of instructional materials and equipment?
( ) 22. How adequate is the quality of instructional materials and equipment?
( ) 23. To what extent are materials and equipment conveniently accessible to boys and teachers?

INTERVIEW CHECKLIST

PHYSICAL EDUCATION FOR GIRLS

I. Organization

( ) 1. Physical education courses are required of all girls.
( ) 2. Physical education classes meet _____periods per week.
( ) 3. Physical education periods are _____minutes in length.
( ) 4. The time provided in the period for showers and dressing is _____minutes.
( ) 5. Consideration is given to grade level and the needs of girls in assigning them to physical education classes. (Discuss class assignment procedures under "Comments.")
( ) 6. Class size is such as to permit effective teaching, taking into account personnel, facilities, and the nature of activities.
( ) 7. The physical education and athletics program is adequately financed through the regular school budget.
( ) 8. Provision is made for girls who are low in skills or have inadequate background of experiences in physical education to be assigned extra periods for remedial instruction.
( ) 9. Men and women physical education teachers cooperatively plan coeducational instruction and activities.
( )10. Consideration is given in teachers' schedules for planning, administering, and supervising intramural, extramural, and interschool activities.
( )11. Interschool physical activities for girls are under the control and administration of women physical education teachers and the school authorities.
( )12. Parental permission is required for participants in strenuous competitive sports or other activities which require travel.
( )13. Provision is made for accident insurance for all girls engaged in strenuous sports or competitive activities.
( )14. Girls engaged in strenuous physical activities are required to present a physician's certificate with recommendations for participation.
( )15. Medical assistance is available immediately in case of injury.
( )16. Interschool, extramural, and intramural athletic schedules are reasonable in demands upon students' time and distances traveled.
( )17. The physical education program, including interschool athletics is under the direction of women professionally trained in physical education.

II. Nature of Offerings

( )18. Experiences are provided which promote the normal physical growth and development of girls.
( )19. Vigorous activities that contribute to total fitness are provided.
( )20. Experiences are provided that create interest and skills in recreational activities having carry-over value.

( )21. Activities are selected and taught in terms of individual needs, interests, and abilities of girls.
( )22. A variety of indoor games, sports, and athletic activities is provided.
( )23. A variety of outdoor games, sports, and athletic activities is provided.
( )24. Sports activities provide opportunity for competition between groups of similar skill level.
( )25. Aquatic activities are provided.
( )26. Dance and rhythmic activities are provided.
( )27. Individual activities, such as gymnastics, and tumbling, are provided.
( )28. Under proper authorization and supervision and when recommended by qualified specialists, activities are provided for girls with special needs.
( )29. Provision is made in intramural activities for the application of the skills learned in the instructional program.
( )30. Extramural experiences, such as Sports Days are provided in a variety of activities for girls who can benefit by these experiences.
( )31. Co-recreational activities are provided for students, such as dancing, badminton, volleyball.
( )32. Activities are carefully planned and scheduled to provide sequential development of skills.
( )33. Every girl, including members of school teams, is assured a well-balanced physical education program.
( )34. Provision is made to develop leaders_squad leaders, recreation leaders, and the like.

111. Physical Facilities

( )35. The outdoor play area provides adequate space for conducting a modern program of outdoor physical education activities.
( )36. Gymnasium space has sufficient teaching areas to accommodate peak-load class size.
( )37. The height from the floor of the gymnasium to the nearest overhead obstruction is at least 20 feet.
( )38. Additional spaces with properly finished floors and equipment for groups in modern dance and corrective and adapted physical education are available.
( )39. Lights and window areas are covered with protective devices.
( )40. The entire indoor area is equipped with:

_____ Appropriate flooring with satisfactory finish.
_____ Adequate lighting.
_____ Adequate heating.
_____ Adequate acoustical treatment.
_____ Adequate safety measures.
_____ Adequate sanitary toilets and lavatory facilities.
_____ Sanitary drinking facilities.
_____ Sanitary wall-type or built-in cuspidors.
_____ Other. _____

( )41. A swimming pool is available.
( )42. Adequate provision is made for the sanitation of the pool.
( )43. Provisions are made for proper entrance and exit facilities to all physical education areas.
( )44. Properly equipped instructors' offices are provided.
( )45. The gymnasium is equipped with:

_____ Rope.
_____ Rings.
_____ Bars.
_____ Mats.
_____ Horses.
_____ Ladders.
_____ Springboards.
_____ Trampoline.
_____ Storage space.
_____ Tackboards.
_____ Chalkboards.
_____ First-aid equipment and supplies.
_____ Other. _____

( )46. The outdoor play area is:

_____ Readily accessible.
_____ Suitably surfaced, graded, and drained.
_____ Enclosed.
_____ Free from obstructions.
_____ Free from safety hazards.
_____ Laid out for a variety of activities.
_____ Marked for a variety of activities.

( )47. A well-equipped locker room and shower and drying area with adequate space for peak load are provided (check):

_____ Lockers in sufficient quantity to meet enrollment needs.
_____ At least one shower head for every four girls in the largest section.
_____ Hot and cold water with temperature controls.
_____ Floors constructed to facilitate maintenance of sanitary and safety conditions.
_____ Soap and towels.
_____ Hair dryers.
_____ Secured benches in locker-room aisles.
_____ Mirrors.

( )48. Public address system is provided.
( )49. Record players are provided.

IV. Direction of Learning

A. Instructional Staff

( )50. General liberal education.
( )51. Biological science, (anatomy, physiology, kinesiology)
( )52. Social science (anthropology, sociology).
( )53. Psychology (educational psychology, adolescent growth and development, and mental health).

( )54. Physical science (chemistry, nutrition, and physics).
( )55. Professional courses.
( )56. Keep informed of current developments in the professional field and their educational implications.
( )57. Maintain active participation in in-service education through formal study and other professional activity.
( )58. Maintain an active interest in professional advancement, including participation in educational organizations.

B. Instructional Activities

( )59. Instruction is directed toward clearly formulated, comprehensive objectives in physical education.
( )60. There is evidence of careful planning of instructional activities.
( )61. Girls' needs, interests, and experiences are considered in planning learning activities.
( )62. Girls receive instruction in a wide variety of activities which are presented sequentially.
( )63. Girls are helped to choose activities appropriate to their needs and interests.
( )64. Instructional activities in physical education are integrated with the health education program.
( )65. Health appraisal data are used in classifying girls for physical education activities.
( )66. Opportunities are provided for girls to develop leadership abilities through such activities as directing games and exercise programs, coaching small groups and teams, and demonstrating skills and techniques to other pupils.
( )67. Opportunities are provided for girls to assist in planning, conducting, and evaluating the activities.
( )68. Teaching through demonstration is used effectively.
( )69. Visual aids are used.
( )70. Suitable clothing is required for participation.
( )71. Attention is given to showering and drying properly.

C. Instructional Materials and Equipment

( )72. Reference materials are provided on:
_____ Games, sports, and recreational activities.
_____ Health.
_____ Safety.
( )73. Official rule books for a variety of sports are provided.
( )74. Reference materials are selected in terms of reading and interest levels of girls.
( )75. Attention is given to the recency of reading and reference materials.
( )76. Equipment for class and extraclass activities is provided for a variety of group games.
( )77. Equipment for class and extraclass use is provided for a variety of individual or small-group activities.

( )78. Appropriate instructional films are available.
( )79. Charts, diagrams, and similar audio-visual materials are available.
( )80. Models and exhibit materials are available.
( )81. Equipment for effective use of the public address system is available.

School _____ Subject area _____

Course of Study _____ % of class involved _____

If any course listed above is of different content from that provided in the provincial outline, please provide a course outline.

If no local electives are provided is there provision for supplementing of the provincial outline of studies?

If yes, please provide details.

Teacher	Teaching Grade	University courses in subject area	Methods courses in subject area
No. 1			
2			
3			
4			
5			
6			

EVALUATIONS

PHYSICAL EDUCATION FOR GIRLS

( ) 1. To what degree are physical education offerings provided for all girls?
( ) 2. Do time allotments of the program meet instructional needs satisfactorily?
( ) 3. How satisfactory are the controls and safeguards for all atheltic activities?
( ) 4. How adequate is the variety of experiences to meet the physical education needs of all girls?
( ) 5. How adequate is the content of experiences to meet the physical education needs of all girls?
( ) 6. How satisfactorily do experiences provide for present and future leisure-time needs?
( ) 7. How adequately does the program provide for desirable activities in terms of individual physical education needs?
( ) 8. How adequate are the facilities for outdoor physical education activities?
( ) 9. How adequate are the facilities for indoor physical education activities?
( )10. How adequate is the quantity of permanent equipment for physical education?
( )11. How adequate is the quality of permanent equipment for physical education?
( )12. How adequate are the provisions for health, sanitation, and safety?
( )13. How adequately have the instructional activities been planned?
( )14. To what extent are data from health appraisals used in making instruction effective?
( )15. To what degree are the instructional activities adapted to the needs of individual girls?
( )16. To what degree are activities conducted with regard for girls' health and safety?
( )17. How adequate are the reading and reference materials?
( )18. How adequate is the quantity of instructional materials and equipment?
( )19. How adequate is the quality of instructional materials and equipment?
( )20. To what extent are materials and equipment conveniently accessible to students and teachers?

INTERVIEW CHECKLIST

STUDENT ACTIVITY PROGRAM

1. General Nature and Organization

A. General Nature of the Program

The student activity program:

( ) 1. Is integrated with and supplementary to the program of studies.
( ) 2. Provides opportunities for leadership and followership experiences.
( ) 3. Provides opportunities for students to use their own initiative.
( ) 4. Gives students opportunities to assume responsibilities.
( ) 5. Provides opportunities for students to assist in handling school issues and problems.
( ) 6. Seeks to develop desirable traits and attitudes necessary for citizenship.
( ) 7. Fosters the development and perpetuation of desirable school traditions, such as codes of conduct, school festivals, and historical observances.
( ) 8. Seeks to make every student and teacher feel himself a part of the total school life.
( ) 9. Seeks to make each member feel a responsibility for the welfare of the school.
( )10. Provides membership opportunities to all students on a democratic basis.
( )11. Receives active support and encouragement from members of the school staff.
( )12. Provides activities for the variety of interests which individual students have.
( )13. Provides for new activities to be organized as student interests and needs change.
( )14. Provides for the discontinuance or reorganization of activities which are found to be meeting student needs ineffectively.
( )15. Provides for the orientation of entering and new students to the program.
( )16. Provides an opportunity for observation of the functioning of any organization, under normal circumstances, by any observer with a legitimate interest.
( )17. Avoids exploitation of students for the benefit of school or community prestige.
( )18. Is geared to the general economic level of the school population.

B. General Organization of the Program

( )18. The general objectives of the student activity program are formulated by the proper school authorities, with due consideration for the interests and desires of students.
( )19. Provision is made for unity in the total activity program through some coordinating council with no loss of identity and responsibility of separate activities.
( )20. A regular time and place of meeting are available for each organization.

( )21. A calendar of activities is prominently displayed or otherwise available to students.
( )22. Each activity has at least one staff sponsor who has ability and interest in that activity.
( )23. Staff sponsors provide guidance and cooperative supervision to students participating in the activities.
( )24. Students are assisted through counseling and other guidance services to adjust the amount of their participation in the activity program.
( )25. Provision is made to prevent monopoly of offices by a small proportion of students.
( )26. Under proper guidance, students are encouraged to put democratic principles into practice in the planning of activities.
( )27. Attention is given to the training of student leaders in the performance of the offices to which they are elected.
( )28. Students help in the evaluation of the activities.
( )29. Extent of each student's participation in the activity program is recorded on his permanent record.
( )30. Records of activity meetings and programs are kept.
( )31. Records are used in the evaluation and improvement of the activities.

Comments (Describe any eligibility regulations for all activities and offices. Attach copies of constitution and bylaws of general organizations and any sets of rules which are in force.)

11. Student Participation in School Government

The student council (or similar body):
( )32. Provides opportunity for all students to participate in a representative form of government.
( )33. Is an example of a democratically functioning body.
( )34. Functions within limits clearly defined by constitution and by-laws and with authority delegated by the administration.
( )35. Is provided with staff sponsorship and guidance for accomplishing its clearly defined functions.
( )36. Is participated in by students who realize their responsibilities for the proper functioning of the organization.
( )37. Is participated in by staff members who realize their responsibilities for the proper functioning of the organization.
( )38. Is assisted by an administration which realizes its responsibilities for the proper functioning of the organization.
( )39. Provides opportunity for any student to run for office who possesses the qualifications stated in the constitution and bylaws.
( )40. Provides that all nominees for office will be chosen in accordance with the constitution and bylaws.
( )41. Has officers who are elected by the entire student body or representatives of the entire student body.
( )42. Has elections which are supervided.
( )43. Assists the staff and administration in developing school policies with reference to student conduct.
( )44. Is concerned about the protection and care of property.

( ) 45. Is concerned with other student organizations and activities.
( ) 46. Is concerned with student publications.
( ) 47. Has a part in the awarding of nonacademic honors.
( ) 48. Assumes responsibility for the introduction of new students to school life and activities.
( ) 49. Assumes some responsibility for the operation of the intramural program.
( ) 50. Takes an active part in all-school activities.
( ) 51. Conducts its meetings at an appropriate time.

111. The School Assembly

( ) 52. A school assembly committee is in charge of the general development and organization of school assemblies.
( ) 53. Both staff and students are represented on the assembly committee.
( ) 54. A staff member is responsible for the coordination of assembly programs to ensure continuity, appropriateness, and quality.
( ) 55. Assembly programs are planned to meet a wide variety of needs and interests.
( ) 56. School assembly programs are in large part presented by students and by student organizations.
( ) 57. Students are provided opportunities to preside at assembly programs.
( ) 58. Assembly programs provide for audience participation through such means as open discussion and group singing.
( ) 59. Records are kept of assembly programs.
( ) 60. Care is taken that all programs are appropriately rehearsed.

The assembly programs include such activities as the following:
( ) 61. Lectures on various subjects by qualified speakers.
( ) 62. Musical programs emphasizing student participation.
( ) 63. Performances by musical artists and community groups.
( ) 64. Motion pictures.
( ) 65. Debates, panel discussions, and forums.
( ) 66. Formal ceremonies for such purposes as patriotic commemorations and recognition of student achievement.
( ) 67. Student council activities.
( ) 68. Student demonstrations and exhibits.
( ) 69. Rallies and "pep" meetings.
( ) 70. Discussion of school and community policies and problems, including law enforcement, vandalism, accidents, and fires.

Supplementary Data
1. Number of school assemblies per year ....._____
2. Length of assembly period ....._____
3. Submit copies of the last four assembly programs.

1V. Worship and Service Activities

( ) 71. Corporate worship is planned and individual worship is encouraged.
( ) 72. Students and teachers have roles in worship services.

( ) 73. Music is incorporated into worship.
( ) 74. Students are excused from participating in worship at the request of their parents.
( ) 75. A school committee organizes service activities appropriate to community needs, such as volunteer work in hospitals.
( ) 76. A school service committee conducts charity fund drives.
( ) 77. Students take part in interschool religious conferences and retreats.
( ) 78. Visits to local churches and institutions stimulate student interest in religious affairs.
( ) 79. Acts of devotion, such as class prayers, grace at common meals, and reading of Scripture in homeroom or assembly, reflect the religious position of the school.

Supplementary Data
1. Frequency and kind of worship services. Attendance.
2. Organizations, active members, and activities.
3. Works of charity or service.

V. School Publications

( ) 80. All work incident to the publication activities of students is supervised by staff sponsors.
( ) 81. Attention is given to developing a sense of responsibility on the part of students for the content and presentation of publications.
( ) 82. Untrue or offensive statements are avoided in all publications.
( ) 83. Publications encourage self-expression and creative work on the part of students.
( ) 84. Publication activities are integrated with work in various curricular areas.
( ) 85. Publications report outstanding student achievement.
( ) 86. Publications aid in coordinating the various aspects of the student activity program.
( ) 87. Publication staff members are selected after careful consideration of such factors as ability, interests, and desirable attitudes.
( ) 88. Publication staffs are organized efficiently.
( ) 89. Publication activities are sufficiently diversified to enlist the interest and participation of a large number of students.
( ) 90. Publications assist in providing cooperative relationships with other schools.
( ) 91. Publications assist in the development of desirable home and school relations.
( ) 92. Publications assist in the development of desirable school and community relations.
( ) 93. Publications have a wide circulation in the school.
( ) 94. Publications have a wide circulation in the community.
( ) 95. Emphasis is on inexpensive publications.
( ) 96. Equipment and materials are provided by the school for the publication activities.

( ) 97. A suitable place is provided for students to work on publications.
( ) 98. Provision is made for students to work on publications during school time.

Supplementary Data
1. List publications, indicating general purpose of each and number of students engaged in preparing and issuing each.
2. Submit issues of each publication.

VII. Dramatics and Speech Activities

( ) 99. Opportunity is provided for students to write and produce their own dramatic productions.
( )100. Dramatic activities provide opportunity for practice in a variety of stagecraft activities.
( )101. Student dramatic activities are presented to the community.
( )102. Students are encouraged to participate in and attend community dramatic activities.
( )103. Provision is made for participation in formal or prepared presentations, such as addresses, debates, and radio and TV programs.
( )104. Provision is made for student participation in informal and extemporaneous speech activities.
( )105. Students markedly lacking in ability or confidence to express themselves are provided speech activities to meet their particular needs.
( )106. Dramatic and speech activities provide for participation by many students as well as the more talented.
( )107. The dramatic and speech activities are coordinated with curricular experiences in English.
( )108. Equipment (including public address facilities) and materials are provided for dramatic and speech activities.
( )109. Financial returns from dramatic activities are subordinate to the educational values.

Supplementary Data
1. List organizations and number of members in each.
2. Percent of total number of students participating in one or more dramatic or speech activities ....._____
3. Submit copies of programs of dramatic and speech activities conducted during the year.

VIII. Social Life and Activities

( )110. Space is available for informal or small-group social activities.
( )111. Space is available for such activities as school dances, banquets, and sports rallies.
( )112. The general aims of the social program are carefully planned in accordance with the school's concept of its obligation in this area.

( )113. Students and staff cooperatively plan the social program.
( )114. In the over-all social program participation of students is encouraged.
( )115. Informal games and recreation are included in the social program.
( )116. Social affairs appropriate to the type of school are a definite part of school life.
( )117. Students are instructed regarding appropriate dress and conduct at various social activities.
( )118. Instruction in social dancing is provided when conditions warrant it.
( )119. Opportunity is provided for desirable association of the two sexes.
( )120. Attention is given to the development of desirable social interests and attitudes.
( )121. All school social activities are sponsored by teachers or parents and teachers jointly.

Supplementary Data
1. List social activities held during the school year.

XI. School Clubs

This section is designed to evaluate primarily those clubs and activities not already evaluated under previous sections. These might include such clubs as those concerned with photography, radio, art, hobbies, crafts, shop, costume design, stagecraft, hospitality, and similar activities.

( )122. School clubs are organized whenever there is sufficient student interest or need.
( )123. School clubs which are not meeting student needs effectively are reorganized ar discontinued.
( )124. Students are acquainted through all available means with the purposes and activities of each club.
( )125. Membership in clubs is voluntary and open to students who are qualified to participate.
( )126. Staff sponsorship and guidance are provided for all clubs.
( )127. Clubs are so conducted as to assist in revealing additional interests and abilities of students.
( )128. Club activities are related with curricular activities whenever desirable.
( )129. School club activities are related to community club activities when appropriate.
( )130. Provision is made for different levels of ability by having separate clubs for beginning and advanced students.
( )131. Clubs provide opportunity for students to develop hobby and leisure interests.
( )132. Club activities are evaluated periodically by students and staff.
( )133. Clubs practice the elements of parliamentary procedure.

Supplementary Data
1. List clubs and number of active members in each.
2. Percent of students holding membership in one or more clubs .....____

XII. Finances of Student Activities

( )134. A centralized plan for controlling all student activity finances is provided and adhered to.
( )135. A general account is kept showing the itemized day-by-day receipts and expenditures and the monthly bank balance.
( )136. The treasurer for student activity funds is a staff member.
( )137. The treasurer for school activity funds is adequately bonded.
( )138. Both students and teachers participate in the management of the student activity finances.
( )139. Officially approved forms and accounting procedures are used for the accounting of all funds.
( )140. The expenditure of student activity funds provides for an equitable distribution of the funds among various activities.
( )141. Reports are made periodically to students of the financial status of each organization.
( )142. Auditing reports are posted or published periodically.
( )143. Provisions are made for the auditing of all funds at the expiration of the term of office of each treasurer.
( )144. Printing of tickets is under authorization and control of the treasurer of the student activity funds or some other recognized authority.
( )145. Means used for raising money through student activities are justifiable educationally.
( )146. Numerous, unrelated drives for funds are avoided.
( )147. Organization treasurers receive the proper financial instructions to discharge their duties.

Financial support for student activities is secured from:

( )148. Special student activity fee.
( )149. Funds from general taxation.
( )150. Admission charge for each game or public performance.
( )151. Others (describe): _____

_____

Supplementary Data

1. Submit copies of all forms used.
2. Give brief descriptions of the organization, management, and supervision of student activity finances.

EVALUATIONS STUDENT ACTIVITY PROGRAM

( ) 1. How well does the student activity program complement and enrich the classroom activities?
( ) 2. To what extent is the student activity program based upon study and analysis of student interests and needs?
( ) 3. To what extent does the faculty provide cooperative guidance and supervision of the activities?
( ) 4. To what extent does the student activity program provide opportunity for students to help in the management of activities?
( ) 5. To what extent does the school assume responsibility for encouraging or limiting individual student participation in activities?
( ) 6. How adequate are provisions for student participation in school government?
( ) 7. To what extent can the student council be considered a functioning example of a democratic group?
( ) 8. How actively and extensively do students participate in the presentation of assembly programs?
( ) 9. How adequate is the planning and integration of religious activities?
( )10. How wide is student participation in voluntary service activities?
( )11. How adequate is the number of school publications?
( )12. How adequate is the frequency of issuance of school publications?
( )13. How extensively do students participate in the planning and preparation of each publication?
( )14. How adequate are the dramatic activities?
( )15. How adequate are the speech activities?
( )16. To what extent do students participate in the planning of the social activities?
( )17. How extensively do students participate in such activities?
( )18. How adequate are the provisions to assist students who have particular need for participation in social activities?
( )19. How adequate is the variety of club offerings in terms of student needs?
( )20. How extensively do students participate in school clubs?
( )21. How adequate is the organization for proper handling and accounting of student activity finances?
( )22. How extensively do students participate in the handling of and accounting for activity finances?
( )23. To what degree is student participation in the activity finances planned as a learning experience?

APPENDIX C[1]

PRELIMINARY LETTER TO PRINCIPALS

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland

April 6, 1967

Dear

I am about to begin a research study as part of the M.Ed. degree program at Memorial, and I need your help.

To carry out my project I must visit fourteen selected Regional High Schools. Yours is one I have chosen. During the visit (of about two days duration) I wish to interview you and certain of your teachers.

The study I propose is an analysis of the program offered by our high schools. For obvious reasons of time, expense, and other factors, I must be selective in my choice of areas to study. Therefore, I have chosen only Regional Schools. In these schools I will study only the academic program in Grade X English, Mathematics and Science, and the school program in Art, Music, Physical Education, and Student Activities.

I hope to get at the work through May and early June. Therefore, I would appreciate an early answer from you to my request that I be permitted to visit your school and conduct this study.

For your convenience I have enclosed a card and a self-addressed envelope.

I might add that my study has the approval of the Superintendents of Education, and that of the Director of Amalgamated Schools. It may be necessary to contact Boards of Education as well; but as a principal I know I should have your approval first.

Yours sincerely,

Hudson Davis

Encl. 2

APPENDIX B

UNIVERSITY AND SCHOOL ADVISORS

The following persons assisted the investigator in modifying the Evaluative Criteria for use in this study.

ENGLISH...O. K. Crocker, B.A., Ed. M., Ed. D.
Professor of Education, Memorial University of Newfoundland.

MATHEMATICS...C. J. Goodyear, B.Sc, A.M.T., Professional Diploma.
Associate Professor of Education, Memorial University of Newfoundland.

SCIENCE...D. H. Rendell, M.Sc., PhD.
Associate Professor of Physics, Memorial University of Newfoundland.

ART...Mrs. E. R. Seary,
Sessional Lecturer in Art Education, Memorial University of Newfoundland.

MUSIC...I. Rumboldt, Esq.
Specialist in Music, Memorial University of Newfoundland.

PHYSICAL EDUCATION...J. B. Drinkwater, Dip. Phy. Ed., B.P.E., M.Sc.
Assistant Professor of Physical Education,
Memorial University of Newfoundland.

STUDENT ACTIVITIES: Rev. J. Kevin McKenna, S.J., B.A., S.T.L., M.Ed.
Principal, Gonzaga Regional High School,
St. John's, Newfoundland.

H. V. French, B.Sc., B.Ed.
Principal, James Moore Regional High,
Carbonear, Newfoundland.

APPENDIX C^2

LETTER OF SUPPORT FROM DEPARTMENTAL OFFICIALS

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

Department of Education

St. John's

April 11, 1967

To School Board Officers and Principals

Mr. Hudson Davis, a graduate student in Educational Administration at Memorial University, has undertaken a study of the educational program in selected Regional High Schools in Newfoundland. Mr. Davis is interested in visiting your school in this connection.

We at the Department feel that this is an extremely valuable study and that Mr. Davis' findings will be of benefit to all of us who are interested in improving the school program. We would suggest, therefore, that you give Mr. Davis all the assistance and co-operation you possibly can, when he contacts you.

Yours truly,

F. Kennedy

C. Roebothan

J. Acreman

W. Woodland

D. Evely

APPENDIX C[3]

LETTER TO BOARD CHAIRMAN

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland

April 18, 1967

The Chairman
Board of Education

Dear Sir:

As part of my work in the M.Ed. programme at Memorial, I propose doing an analysis of programmes in selected Regional High Schools in Newfoundland. , which is administered by your Board has been chosen as one of these schools. The Principal, , has kindly consented to help me in this study.

I now seek approval to visit the high school and interview the principal and any teachers involved with my study.

Enclosed please find a letter of approval from Departmental officials, and a return card and envelope for your reply to my request.

Yours sincerely,

Hudson Davis

Encl. 3

APPENDIX C[4]

LETTER TO SCHOOL PRINCIPALS CONFIRMING

DATES AND PROCEDURES

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland

28 April 1967

Dear

Thank you for your early reply to the request for help with my study. I have now heard from all schools and can make up my itinerary.

I will be visiting your school on

So that I may involve the minimum number of your teachers, I would be pleased if you could schedule interviews for me as follows:

ONE teacher for each subject area: Art, Music, Physical-Education, English, Mathematics, Sciences.

As indicated in my initial letter, I am concerned only with the Grade X programme; so that the teacher best qualified to speak for each of these Grade X subject areas would be sufficient for me.

Yours sincerely,

Hudson Davis