A SURVEY OF RICHMOND MUNICIPALITY
RELATIVE TO THE ESTABLISHMENT OF A
JUNIOR HIGH SCHOOL

by

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INTRODUCTION
INTRODUCTION

A. Definition of the Scope of the Investigation.

The problem approached in this study is the very practical one of analyzing the needs of a typical British Columbia municipality with reference to the establishment of a junior high school.

Since no reputable educationist now opposes the principle of a middle school, and since the British Columbia Department of Education has definitely accepted the junior high school as the most desirable form of organization for Grades VII - IX, no attempt is made to justify the new type of institution. Throughout the thesis, the assumption is made that its adoption in Richmond will be a forward step in education.

While the analysis is applied to a single concrete case, it has general applicability. The junior high school movement is gaining impetus in the rural districts. Many boards of trustees are laying plans for reorganization. As yet, unfortunately, though much able work has been done, there seems little available material to guide them in a scientific approach to the task. This thesis attempts to make some contribution in this direction.

To this end no finer region for the investigation could have been chosen. Richmond presents one of the most
typical cross sections of rural and suburban life in British Columbia. Farming, fishing, canning, aviation, peat-cutting and boat building are only a few of the tasks engaged in by the people. Pupils come from fine homes and from fishermen's and squatter's shacks. Extensive grain acreage and tiny truck farms lie side by side. Since it is in such a district that he has conducted his study, the writer hopes that some of the methods he has employed may be adapted to the solution of the same problem in other districts in British Columbia and elsewhere in Canada.

B. Methods employed in obtaining the data.

Most of the statistical material required for this project was obtained from the Public Schools Reports of the Department of Education. Since, however, at the time, information for 1935-7 was not available from this source, the data for these years were obtained directly from Mr. B.D. Boden, Secretary of the Board of School Trustees and from the teachers of the Municipality. The forms employed for this purpose are dealt with in Chapter IV.

To secure opinions from competent authorities the interview-questionnaire was employed. In each case, prior to the interview, a sheet of typewritten questions was prepared. These questions were framed so as to obtain information on those aspects of the major problem upon which it was believed
the persons concerned were best qualified to express their views. Details of these interviews appear in Chapters I - III.

In connection with this portion of the study, and indeed throughout his investigation, the writer has been given generous assistance by all those approached. He would like to express his thanks to Dr. H.B. King, Technical Adviser to the Department of Education, Inspectors A. Sullivan and V.Z. Manning of the Department of Education and Mr H.N. MacCorkindale, Superintendent of Schools of Vancouver for their kindness in granting interviews. To the Richmond Board of School Trustees, the principals and staffs of all its schools without whose wholehearted cooperation this project could not have been carried out, to those in charge of transportation for assistance in that aspect of the analysis, and to all those others, pupils and friends who have aided his work in so many ways, he desires to pay tribute. Finally, he would acknowledge his indebtedness to Mr C.B. Wood and other members of the Department of Education of the University of British Columbia for constant guidance during this investigation.

It is a matter of considerable pleasure to the writer that a junior high school will shortly be established in Richmond. What began as a theoretical study has thus become a matter of vital practicality. It has pleased him too, to be able to supply some items of information to those concerned
with the planning of the new institution, and he takes the liberty of hoping that some of his suggestions may be implemented when it is opened.
Chapter 1

THE THEORY OF THE JUNIOR HIGH SCHOOL
Chapter 1

THE THEORY OF THE JUNIOR HIGH SCHOOL

A. History.

Towards the end of the nineteenth century it became evident to leading educators in various parts of the world that the traditional division of the school into elementary and secondary units failed to give adequate consideration to the changes taking place in the child during the early years of adolescence.

This conviction of the need for a new middle school grew constantly stronger, until now every civilized country of the world has adopted some such organization. Canada lags considerably behind the United States, most European countries and even Japan in modifying the traditional system.

Much of value may be learned from a comparative study of the middle schools of various lands. Such a study appears in a master's thesis submitted by Mr. J.F.K. English in 1933. In view of the excellence of his summary and of the need for limiting the field of the present investigation, this aspect is not dealt with here.

It is important, however, that in dismissing thus briefly the historical background of the junior high school, we do not fail to see the institution in its proper perspective. It is well to remember that the idea of such a school, having been propounded by Dr. Eliot of Harvard in 1893, is scarcely to be considered new. Further, since the records of junior high schools in actual operation extend back to 1910, ample proof has been given of the success of the new institution in achieving many of the results for which it was designed.

B. Objectives of the Junior High School.

It will be well to examine some of the claims made for the junior high school in order to determine what it can be expected to accomplish in Richmond. The summary which follows is taken chiefly from Koos, with certain additions from Briggs, and from the aims set out by the North Central Association of Colleges and Secondary Schools.

The Junior High School will assist in:

1. Realizing a democratic school system through
   (a) Retention of pupils.
   (b) Economy of time.

---

2Ibid. Chap. 1.
(c) Recognition of individual differences.
(d) Exploration and guidance.
(e) Beginnings of vocational education.

II. Recognizing the nature of the child at adolescence.

III. Providing the conditions for better teaching by means of:
   (a) Better qualified teachers.
   (b) Better equipment.

IV. Securing better scholarship.
V. Improving the disciplinary situation and opportunities for socialization.

VI. Effecting financial economies.
VII. Relieving the building situation.

Numerous other "peculiar functions" are claimed for the Junior High School, but the above are most frequently mentioned. If it achieves these purposes in the cities, we cannot but agree with Ferris¹ that "it should have even more to offer the children of rural and village communities than it does to the children of urban centres."

Through which of these functions can it chiefly serve Richmond?

Plate 1. illustrates the need for improvement in retention.

Plate I  Average Enrolment in Grades I to XII, 1931-7

<table>
<thead>
<tr>
<th>GRADE</th>
<th>NUMBER OF PUPILS</th>
<th>PERCENTAGE OF GRADE XII</th>
<th>PERCENTAGE CHANGE FROM PREVIOUS GRADE ENROLMENT</th>
<th>ENROLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>191.3</td>
<td>97.5</td>
<td>-2.8</td>
<td>-2.8</td>
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<tr>
<td>II</td>
<td>181.5</td>
<td>72.5</td>
<td>-6</td>
<td>-4.75</td>
</tr>
<tr>
<td>III</td>
<td>177</td>
<td>91.5</td>
<td>-1.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>IV</td>
<td>154.3</td>
<td>73.15</td>
<td>+1.5</td>
<td>+1.5</td>
</tr>
<tr>
<td>V</td>
<td>175</td>
<td>91</td>
<td>-2.4</td>
<td>-2.4</td>
</tr>
<tr>
<td>VI</td>
<td>173.7</td>
<td>87.9</td>
<td>-2.1</td>
<td>-2.1</td>
</tr>
<tr>
<td>VII</td>
<td>152.5</td>
<td>66.45</td>
<td>-22.2</td>
<td>-22.2</td>
</tr>
<tr>
<td>VIII</td>
<td>132.3</td>
<td>58.5</td>
<td>-31</td>
<td>-31.15</td>
</tr>
<tr>
<td>IX</td>
<td>93</td>
<td>48.5</td>
<td>-31</td>
<td>-15.25</td>
</tr>
<tr>
<td>X</td>
<td>56.3</td>
<td>30.2</td>
<td>-31.4</td>
<td>-31.4</td>
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<tr>
<td>XI</td>
<td>34.5</td>
<td>20.1</td>
<td>-15.4</td>
<td>-9.75</td>
</tr>
<tr>
<td>XII</td>
<td>19.2</td>
<td>10.9</td>
<td>-17.4</td>
<td>-8.65</td>
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</table>
The six year average\textsuperscript{1} shows that a comparatively low mortality from grades I to VII increases to a startling drop in enrolment for each grade from VIII to XII. It is a disquieting discovery that for every 200 pupils who enter grade I, only 20 reach matriculation. There is food for thought, also, in the fact that less than 100 reach even grade IX, and that 90 of the remaining hundred have dropped out in the junior high school grades. This mortality concerns the junior high school in two ways. First, it must endeavour to retain a larger number of the pupils; second, recognizing that some will inevitably drop out, it must provide these latter children with the best possible education both from the point of view of immediate interests and from that of life needs. Conclusive evidence of the success of existing junior high schools in carrying out these tasks is, unfortunately, lacking.\textsuperscript{2} Some have accomplished much in the way of improved retention; most, by their very nature, are better fitted than the traditional schools to care for the immediate and future needs of the younger adolescents.

In the past some attempts have been made to deal with individual differences and to guide youthful activities to desirable ends, but no school system organized along traditional academic lines can provide the necessary courses

\footnotesize{\textsuperscript{1}Richmond did not adopt the 4-year high school until 1931. \textsuperscript{2}L.V. Koos, op. cit. pp. 113-125}
for exploration or pre-vocational training. Every year, pupils leave Richmond schools to attend technical or business schools in Vancouver. Others drop out because of the narrowness of a curriculum designed to prepare the 4 or 5 out of the 200 who eventually enter the university.

Of the remaining claims perhaps the most vital is that the middle school permits recognition of, and adaptation of the educational environment to, the nature of younger adolescents. The traditional break at the end of Grade VIII has long been realized to be undesirable. Most pupils in Grades VII and VIII have reached a point in their physiological and psychological development which renders the continuation of elementary methods and spirit unsuitable. Those in Grade IX have been introduced to a new environment in which they are regarded chiefly as possible, or impossible, matriculation material. It is the privilege of the junior high school to provide children of this age with an education based not so much on what they were or what they may become as on what they are and need now.

Claim III is axiomatic. Better teaching may reasonably be expected to follow better qualification of teachers and the provision of better teaching materials. Both of these are required by regulations of the Department of Education.

Claims in regard to improvements in scholarship,
discipline and socialization are open to debate. Scholarship in the narrow sense is not the fundamental objective of the modern school. Discipline and socialization depend not so much on the plan of organization as on the way it is administered. Without doubt, however, the new organization has greater possibilities along all these lines.

Whatever be the ideas of the educationists concerned, it is undoubtedly true that all of the foregoing claims rank second, in the minds of many administrative authorities and tax papers, to arguments concerning the most economical means of relieving overcrowding and of giving a satisfactory education. These final two "functions" of the school have thus become, in many districts, the chief reasons for establishing a junior high school. The policy of the British Columbia Department of Education of providing larger grants for buildings for schools of the new type is significant evidence of the importance of these last two arguments to the general public.

Sometimes, perhaps, they are given too great an emphasis. Certainly there are opportunities for quite wholesome economies in the junior high school. The danger, however, is not that too much will be spent, but that an overstress will be placed on economy to the detriment of the other "peculiar functions".
A final word of caution must be said in regard to the possible gains. Not all middle schools accomplish all of them. The appellation "Junior High School" has no talismanic power to reform. A new organization merely provides a new opportunity. Improvements can come only as the result of carefully planned endeavour.
Chapter II

SEPARATE JUNIOR HIGH SCHOOLS AND COMBINED SCHOOLS
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The achievement of the aims of the junior high school must, to a large extent, depend on the type of organization employed for the purpose. It is essential, therefore, that attention be given early to a decision as to the external arrangements which will contribute most to the ends in view.

The unanimity of prominent educationists in their favourable attitude towards the junior high school is in startling contrast to the diversity of opinion among them as to the most desirable scheme of practical application. Some favour a Junior unit completely free from either Elementary or Senior groups, some a combination of the two higher divisions, and some a combination of the two lower divisions of the school. It will be necessary to analyse the claims advanced and to determine which arrangement will best suit the needs of Richmond Municipality.

In dealing with this aspect of the general problem, reference must again be made to Mr. English's analysis\(^1\) of the possibilities of the combined school in the small centres of British Columbia. Basing his opinion on his own questionnaires, the recent United States Survey of Secondary Education, and views of certain educational authorities, this writer expresses himself as wholeheartedly in favour of the

\(^{1}\)J.F.K. English, op.cit. Chap. IV, p. 45.
combined junior – senior high school and as convinced that the separate junior high school has nothing to recommend it for the smaller communities of this province.

While it is not his wish to discredit in any way the work done by Mr. English, the writer feels that, having come to a somewhat different conclusion, he should give grounds for his disagreement.

First, it might be well to examine the foundations upon which Mr. English's conclusions are built. In his questionnaires there seems to be an unfortunate, though presumably, unconscious, bias towards the combined school. For example the question, "Have you noticed that practices, habits, etc., characteristic of junior high school pupils generally, are being copied by the senior high school pupils who are housed in the same building with them?", was unlikely to get a condemnatory response, whereas its converse, which was not asked though it certainly should have been, might have brought forth a variety of criticisms. There seems to be, moreover, a certain lack of impartiality evidenced by the fact that the persons to whom the chief questionnaire was sent were, without exception, principals of combined schools. Surely it is not to be wondered at that they saw fit to support the type of organization in which they were personally interested. Since even these, however, expressed dissatisfaction with some features of the combination, disagreement
with Mr. English's claim that, "none of the disadvantages were serious and could in all cases be overcome",¹ may be justifiable.

With Mr. English's deductions from the United States Survey, and statements by educational authorities, the writer finds himself slightly more in accord, as will appear in the summaries of claims and counter-claims which follow.

A. The Junior High - Elementary Combination.

Nowhere in the literature on the subject is there any substantial support for the Junior - Elementary combination. Most writers agree that it is characterized by all of the disadvantages and none of the advantages of the six year secondary school. Most serious of all, it fosters in the middle school a continuation of "l'esprit primaire" which definitely handicaps the junior high section of the school in carrying out its "peculiar functions". Save where it is the only alternative to the traditional plan of organization, this combination has little to recommend it.

B. The Separate Junior High School.

While the arguments in favour of the Separate Junior High School are usually brought forward as criticism of the combined schools, some few may be stated positively. Koos'² observations, in this connection cannot be improved upon.

¹Ibid, p. 52
²L.V. Koos, op. cit. p. 468-9.
"Experience", he says, "seems to recommend that, wherever possible, the junior high school be housed in buildings of its own and not co-occupant with a senior high school or an elementary school. . . . . . . . Separation assists in freeing the new institution from the restricting traditions of these other schools and thus gives latitude for a better recognition of the child's nature during the years of early adolescence. It permits a shift to a disciplinary regime more suitable for children of these years and, through the greater approach to homogeneity of the group included, better opportunity for other efforts at socialization."

Even though it is evident that such claims as these do not lend themselves to objective demonstration, they cannot be easily set aside. In making them Koos is stating the opinions of many authorities. Perhaps the most definite evidence of agreement with his statements is to be found in the fact that in California, the leading state in these matters, the large majority of junior high schools are separate three-year institutions.¹

The present tendency in California seems to be towards a four-year junior high school, ending with Grade X, followed by a four-year senior high school including what are

now considered the Junior College years. This 6 - 4 - 4 movement seems likely to result in a greater preponderance of separate Junior institutions.

C. The Combined Junior-Senior High School.

The basic arguments in favour of the six year secondary school are on the financial and administrative sides. They are:

1. It reduces cost through:
   (a) Elimination of duplication of special equipment.
   (b) Fuller use of existing equipment.
   (c) Coordination of administration.

2. It facilitates vertical coordination through:
   (a) Promotion by subject.
   (b) Articulation of courses offered.

In addition, the following more purely educational values are urged in its favour:

3. It serves to stimulate reorganization of both units.
4. It facilitates greater diversity of offering through combination of staffs.
5. It provides greater extra-curricular possibilities.
6. It gives greater opportunity for systematic guidance of pupils through continuous oversight during the six-year period.

Such are the chief clearly substantiated arguments advanced by the proponents of each type of school. It remains for us to examine, first, those claims which are equally valid.
for both types, and second, the criticisms of each type which have been advanced by those who favour the other.

D. The Combined Junior-Senior High School vs. The Separate Junior High School.

Professor Spaulding, as a result of his study of a group of small junior high schools in Massachusetts has discerned certain common qualities in the two types.\(^1\) We shall accept his assurance that there is nothing to choose between them with respect to the carrying out of such procedures as:

1. Reorganization of subject matter.
2. Introduction of general courses.
3. Supervision of study.
5. The conduct of extra-curricular activities.

Those who favour the six-year school find the separate junior high school wanting in the following respects:

1. It increases articulation problems.
2. A small school cannot provide adequate departmentalization.\(^2\)
3. Except in very large schools, the expense is out of proportion to any slight gain which may obtain.
4. There is no tangible evidence of its superiority in any respect.

\(^{1}\)F.T. Spaulding, *The Small Junior High School* pp. 173-5, 177-8, 182-3. Professor Spaulding's findings indicate the desirability of combination where there are less than 50 pupils per grade.
With the last of these claims there can be little argument. Perhaps, however, it is time that educationists advanced beyond the naïve conception that everything of value can be supported by statistical results.

In considering the third argument, we must be aware that the thought behind it is that there is duplication of equipment in the separate school. To a certain extent this is true. The fuller employment of all facilities must, as in the Platoon system, lead to definite economies. Possibly though, we are not justified in assuming that the equipment used for the senior pupils is invariably, or even usually, suitable for junior pupils. To make such an assumption is to some extent to deny the unique nature of the new unit. One example may suffice. The high school experimental laboratories in science subjects are of little value to the junior classes where most of the instruction is done by the lecture-demonstration method. Similarly much of the junior high school equipment is useless in the senior high school. The economy argument is not as strong as it appears.

A similar weakness may be shown in the second claim, regarding inadequate departmentalization. Let us assume a district, such as Richmond, in which a satisfactory eight-room senior high school is in operation. Such a school will find little difficulty in departmentalization. Is it reasonable, then, to assume that a junior high school, in the
same district, whose enrolment will be at least fifty per cent greater, will have such difficulty? Furthermore, are not leading educationists swinging more and more to the view that "If you wish to teach subjects, you will departmentalize; if you wish to teach children you will not."? Perhaps then, even if true, this argument has lost much of its force since, as is shown in Chapter VIII, departmentalization is being called into question. There is, however, one viewpoint from which this argument has some force. It may be that the small senior high school, decreased by one-third of its former enrolment may be unable to carry on as efficiently in this respect, as before. This matter is dealt with in Chapter X.

The first argument, relative to difficulty of articulation is not so much one against the separate junior high school as against lack of cooperation between the different levels of the school system. As shown in Chapter IX, vertical coordination requires only a little cooperative planned endeavour.

Since the supporters of the separate school have been forced to the defensive by weighty evidence in favour of combination it is natural that they have concentrated on discovering flaws in the six-year school. Some "dangers" which they point out are:

1. One unit may dominate the other.

(a) Grades VII and VIII may be "tacked on" to the
high school without modification of curricula or methods.

(b) The smaller senior unit may be unduly subordinated to the larger junior unit.

2. Insufficient differentiation may be made in the social and other activities of the two schools.

3. Undesirable mental and emotional results may follow the throwing together of older and younger pupils.

4. Teachers may be unable to adapt themselves to the wide range of ages.

With the exception of the third, these are not theoretical but rather very practical administrative problems. As such it is conceivable that, under the guidance of a principal and staff of great breadth of vision, they might be overcome. Concerning the third, authorities differ. Dr. King\(^1\) considers it a case of pure "rationalization". Others deem it a very vital criticism.

An impartial summing up of both sides of the argument would seem to indicate that from most points of view, the separate junior high school may be considered as the ideal. The attempt to accomplish the ideal in smaller communities, however, seems to present grave difficulties, and to introduce certain less ideal features. To overcome these, combination is resorted to and it, in turn, presents certain definite advantages and certain possible dangers. The solution of the problem, then, would seem to be:

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\(^1\) Dr. H.B. King, Technical Adviser to The Department of Education of B.C.
1. Where feasible establish a separate junior high school.

2. Elsewhere, establish a combined junior-senior high school with definite safeguards against the suggested dangers.

There remains to be discussed the possibilities of these two as far as Richmond Municipality is concerned. However, as conclusions in this matter depend to a considerable extent on the analysis of population distribution and suitable locations, as recorded in Chapter IV, it is necessary to leave the treatment of the local situation until Chapter V.
Chapter III

THE PRESENT EDUCATIONAL SITUATION IN RICHMOND
Chapter III

THE PRESENT EDUCATIONAL SITUATION IN RICHMOND

The obvious first step in the planning of any educational institution is to conduct a comprehensive survey of the system of which it is to form a part. No new unit, no matter how radical are the changes which it is to introduce, should be conceived with the idea that the existing facilities will automatically conform to it. True, it may demand and achieve certain modifications, but it is essential that it be planned for assimilation into an integrated educational system.

The initial task of the present investigation, therefore, was that of collecting and summarizing pertinent data on Richmond Schools. In it, the writer's general knowledge of the situation was supplemented by specific information obtained from the educational authorities of the Municipality. This latter material was secured chiefly by means of the first part of a questionnaire used in formal interviews with the principals of the larger schools.¹

In all cases the following questions were asked:
1. When was the main building built? Other buildings?
2. How many classrooms does the school contain?
3. What special rooms does the school contain?
4. How many classrooms are outside the main building?

¹The second part of this questionnaire is dealt with in Chapter IX.
5. How many rooms are in use at present?

6. What rooms are in use which are not entirely suitable? Why are they not?

7. Can you give an estimate of the number of additional rooms you will require to house grades I to VIII during the next five years? How many will you need to house grades I to VI only?

8. In general terms what additional equipment will you require to carry out the new grade VII and VIII curricula?

A school by school summary of the answers to these questions, and other pertinent data, might fail to give a clear picture of the whole educational system. It would tend to emphasize too much the individual institution. The following arrangement of the material has been chosen as one more likely to present a composite view.

I. Locations of Schools. (See Plate II)

(1) Bridgeport: - In a fairly well populated, small farming and industrial area.

(2) Lord Byng: - In one of the municipality's most populous districts. Residents engage chiefly in farming and fishing.

(3) Mitchell: - Similar to Bridgeport with some larger farms.

(4) Sea Island: - Located on wharf property of the Vancouver and Acme Canneries. Buildings are supplied and maintained by them for children of employees.

(5) Richmond East: - In a sparsely populated farming and fishing region.
(6) English: - In an area of large farms.
(7) Hamilton: - Similar to Richmond East.
(8) General Currie: - In a well populated region near the Municipal Centre at Brighouse.
(9) High School: - The same as Bridgeport.

II. Age and Condition of Buildings.

(1) Bridgeport: - Main building erected about 1910. Flooring relaid this year. Other buildings are of more recent construction. The basement rooms are not suitable for regular classes.

(2) Lord Byng: - Main building constructed in 1930, smaller building about 1925. All in good condition.

(3) Mitchell: - Original building not now used. One room of present structure built about 1917, another in 1922, the final two about 1928. Quite satisfactory.

(4) Sea Island: - Date of construction not available. Since the building was not originally designed for school purposes the rooms are not entirely suitable.

(5), (6), (7), (8). English, Hamilton, Richmond East and General Currie, one-room schools which vary in age but are all in reasonably good condition.

(9) The High School: - Erected in 1927 is in quite satisfactory condition.

III. Number, Type, etc., of Rooms.

(1) Bridgeport: - Main building contains 11 regular classrooms and 1 manual arts room, the latter and one classroom are in the basement and are, therefore not entirely suitable. The 3 outbuildings contain 2 classrooms and a manual training room. Cambie Gymnasium (on High School grounds) is used for physical education.

(2) Lord Byng: - Main building contains 12 regular classrooms, an auditorium (convertible into 2 classrooms), and a small library room. The
older building contains 4 classrooms. The use of Cambie Gymnasium has been found impracticable.

(3) Mitchell:— Building contains 4 classrooms and a basement room used for science and manual arts.

(4) Sea Island:— One building has 1 classroom, the other, 1 classroom and a small room employed for manual arts.

(5), (6), (7), (8). The rest are one-room schools.

(9) High School:— Contains 8 classrooms, 1 home economics laboratory (equipped for 24 pupils), and 1 general science laboratory. The latter two are in the basement. Cambie Gymnasium is used for physical education, assemblies, etc.

IV. Grades Enrolled.

(1), (2), (3), (4). Bridgeport, Lord Byng, Mitchell and Sea Island schools give instruction in Grades I to VIII.

(5) English enrolls only grades I - IV.

(6), (7). Hamilton and Richmond East give instruction in such of the grades I - VIII as are required.

(8) General Currie has the receiving class only. This school is considered as a division of Bridgeport school.

V. Adequacy of Facilities.

(1) Bridgeport:— All rooms in use. Two classes consist of more than 50 pupils, seven of more than 40 each. No apparent expansion in recent years. Grades VII - VIII occupy 5 rooms.

(2) Lord Byng:— One room not in use at present. No likelihood of space shortage within the next five years. Few classes over 40 pupils. Grades VII - VIII occupy 5 rooms.

(3) Mitchell:— All rooms in use. Increase in school population of 40% in last two years. Immediate addition of one room necessary. If influx continues 3 more classrooms will be required in next 5 years. Only one class has over 40 pupils. Grades VII - VIII occupy one room.
Both rooms in use. (Formerly 3 rooms, but remodelled.) Slight decrease in enrolment in recent years and no increase expected. There are 15 pupils in Grades VII and VIII.

All one-room schools, having total populations of less than 30 pupils each. Hamilton has 2 pupils in VII and VIII, East Richmond 1.

High School: - All rooms are in use. Likelihood of need for an additional classroom in the coming year as in each of the past two years.

VI. Nationalities of Pupils.

Bridgeport: - Most of the pupils are of European extraction but many other racial groups are represented.

Lord Byng: - Most (over 70% of the present enrolment) are of Oriental parentage.

Mitchell: - Similar to Bridgeport.

Sea Island: - All pupils are of Japanese extraction.

English: - Similar to Bridgeport.

Hamilton: - Most pupils are of Japanese parentage.

East Richmond: - Most pupils are of mid-European parentage. Some other nationalities, including Eskimo, are represented.

General Currie: - All pupils are of European extraction.

High School: - Most of the pupils are from families of European extraction, but the number of oriental pupils seems to be increasing.

VII. Adequacy of Equipment for New Curriculum.

Each of the principals consulted expressed the opinion that the new grade VII - VIII curricula would call for considerable expenditure for library books and supplies, and for equipment and materials for manual arts and general science. Some intimated that they have delayed ordering much that was necessary until the junior high school
question was settled.

A few generalizations might be made from the facts given above.

First, Richmond Schools have been distributed at the call of necessity. Therefore, as more clearly shown in Chapter IV, their locations leave much to be desired.

Second, some of the buildings have seen many years of service and must in the near future be replaced or brought up to date.

Third, a considerable variety obtains in the size and grade offering of the schools. There is an evident need for consideration of consolidating and zoning possibilities.

Fourth, at least three schools show need for increased accommodation. Bridgeport, with its capacity population and oversize classes, Mitchell, with its rapidly increasing enrolment, and the High School, all must receive additions under the present arrangements.

Fifth, the large number of Japanese pupils presents a very definite racial problem. Training of these pupils in self-expression in English, at present a gradual process throughout the eight grades, as at Lord Byng, will have to be accomplished chiefly in Grades I to VI should a junior high school be established. It will be exceedingly difficult to divide classes on a racial basis in Grades VII and VIII.
Care will have to be taken, therefore, to prevent the new institution's being characterized by a high mortality of Orientals.

Sixth, whether it be for a junior high school or for the present elementary schools, Richmond is faced with the necessity of purchasing much new equipment. It need hardly be pointed out that it would be much more economical to provide one set of the best quality of equipment than seven mediocre sets.

Such matters as these demand consideration in the planning of the new institution. They will be factors in its success or failure. For the first time in its history, perhaps, the municipality has the opportunity of eliminating many of its educational deficiencies by one carefully planned step. It is to be hoped that the chance will not be neglected.
Chapter IV

ANALYSIS OF POPULATION DISTRIBUTION
Chapter IV

ANALYSIS OF POPULATION DISTRIBUTION

A. Difficulties Encountered.

An analysis of the school population of an urban area is a comparatively simple matter. Statisticians have devised ways and means of reducing such a task to a definite series of procedures. To a rural area few of these methods are applicable. The following analysis of the scattering of school population of Richmond was possible only through the overcoming of numerous obstacles by somewhat original modes of approach.

First, it was impossible to secure from school records any useful information as to the location of pupils' homes. The majority of residences are listed simply as on one of the two rural mail routes. Numbers are, for the most part, non-existent. Second, the distribution of population is very far from uniform, varying, as we shall see, from almost urban in Steveston to almost negligible settlement at the eastern end of Lulu Island. Third, many homes are not situated on any of the main roads, but on side tracks not shown on even the latest maps. Fourth, proximity to transportation facilities is a more vital consideration than mere geographical position.

1See C.C. Crawford, The Technique of Research in Education, Los Angeles: University of Southern California Press, 1928, Chapters VI, XIV.
Finally, no zoning scheme has ever been put into effect in the Islands. One school in particular draws pupils from end to end of the Municipality.\(^1\) It was therefore, out of the question to estimate distribution from any consideration of the population of individual schools.

B. Means Employed.

For the foregoing reasons it seemed necessary to call upon each teacher of the various schools to furnish definite information as to the location of the home of each pupil. The only possible method of securing such data seemed to be the distribution of maps so that actual locations might be determined. To have each home indicated by a mark on such a map would have been a hopelessly involved task and one likely to bring forth a great deal of erroneous information. It was decided, therefore, to divide the Municipality into districts which could be used to give sufficiently significant details.

A preliminary survey of the whole region by automobile furnished much useful material for this purpose. On the fifty mile trip, which covered practically every road on the Islands, careful notes were made on such matters as, (1) Relative density of settlement; (2) Location of schools; and (3) Locations of churches, stores, and other important buildings. This, and other knowledge of local factors, was

\(^1\)See Plate V.
then employed in dividing a large map of the Municipality into twenty-three districts, lettered from A to W as shown in Plate II.

It would be difficult, and of little value, to give a detailed account of the reasons behind the choice of individual boundaries. The following general criteria governed the selection in most cases:

1. The boundaries should be well known thoroughfares running through sparsely settled areas.
2. They should not subdivide any natural unit of population.
3. They should regulate the size of the districts inversely to the density of population.
4. They should mark off areas naturally contiguous to any school building.
5. They should be placed so as to divide the Municipality as simply as possible.

This preliminary work having been completed, the map was reduced to such a size as would make maximum use of the mimeograph stencil (a rectangle 14 inches by 8.5 inches) to which it was to be transferred. In addition to the map three other stencils were prepared and copies of the four sheets of material were stapled to form a booklet and distributed to all the teachers of the Municipality.
Plate II  Districts for Population Analysis

BOUNDARY LINES ARE INDICATED THUS ———
OTHER IMPORTANT ROADS THUS ———
RAILROAD LINES THUS ———
SCHOOLS THUS ■
Page 1 bore the following explanatory letter:

4735 Osler St.
Vancouver, B.C.
Nov. 30, 1936

Dear Fellow Teacher:

May I request your assistance in securing several items of information regarding each of your pupils? I fully realize the amount of work I am asking you to do, and regret that I am unable to obtain the necessary facts elsewhere. I am sure, however, that I can count on your cooperation when I point out that the data I am compiling is likely to prove of definite value to all of us who have any part in education in Richmond Municipality.

The study which I am conducting, with the kind permission and assistance of the Richmond Board of School Trustees, concerns itself with questions relative to a hypothetical Junior High School in this municipality. The details called for on the accompanying sheets will be used in arriving at certain conclusions as to likely pupil population, suitable locations, and similar matters. I have no doubt that these facts when gathered together will have a considerable value from many other points of view. I will, of course, make them available to anyone who wishes to employ them for any legitimate educational purpose.

Will you please adhere closely to the directions given on the attached sheets, in order that no errors in interpretation may result. If, as is quite possible, I have failed to make the instructions sufficiently clear, I will appreciate any comments or suggestions.

Trusting that the value of the results will prove a sufficient excuse for the inconvenience I am causing you, I remain,

Yours truly

(Signed) J. Innes Macdougall
Page 2 gave the following:

A. Brief Instructions.

The accompanying map of the municipality has been divided up into a number of small districts, designated by letters running from A to W. Will you please record under the heading "District", on the provided form, the location of each pupil's home. Please note carefully the following:

1. If a boundary line lies along a road which runs north and south, please list all pupils living on either side of that road as resident in the district on its western side.
2. If a boundary line lies along a road which runs east and west, please list all pupils living on either side of that road as resident in the district on its northern side.
3. If the home of any pupil does not definitely lie within one of the indicated areas, or if for any other reason you have any comment to make, please do so in the "Remarks" column.

Rule 3 is self explanatory. Rules 1 and 2 were fixed upon arbitrarily in order that no distinction would be made between pupils living across the street from one another even though that street happened to be a boundary.

B. Detailed description of districts:

The following are the districts and their boundaries. The latter are given in clockwise order, beginning from the north west corner in each case.

District A. East along the river to 12, south on 12 to 13, west on 13 to the dyke and north along the dyke to the north channel.

District B. East and south along the dyke to 13, west on 13 to 12, north on 12 to the dyke.

District C. East on 13 to Ross, south on Ross to the dyke and east and north along the dyke to 13.

District D. East on 13 to the dyke, south and west along the dyke to Ross and north on Ross to 13.

District E. Along the river east to 4, south on 4 to Gauden, west on Gauden to Railway Ave., south on Railway Ave. to Landsdowne Park Rd., west on Landsdowne Park Road to 3, north on 3 to 20, west on 20 to river, north along river.

District F. East along the river to a point due north of the C.R. line, south on C.R. line to 20, west on 20 to 4 and north on 4 to the river.
District G. East along the river to 5, south on 5 to 20, west on 20 to C.N. tracks, and due north to the river.
District H. East along the river to 7, south on 7 to 20, west on 20 to 5 and north on 5 to the river.
District I. West along the river to the R.R. bridge, west and south along the tracks to 19, west on 19 to 7, and north on 7 to the river.
District J. East along the river to Lynas Lane, south on Lynas Lane to Railway Ave., west and south along Railway Ave. to 18, west on 18 to the river and north on the river to Terra Nova.
District K. East and north along the river to 20, east on 20 to 3, south on 3 to 18, west on 18 to Railway Ave., north and east on Railway Ave. to Lynas Lane and north on Lynas Lane to the River.
District L. East on Landsdowne Park Rd. to Railway Ave., south on Railway Ave. to Ferndale, east on Ferndale to 4, south on 4 to 18, west on 18 to 3 and north on 3 to Landsdowne Park Road.
District M. East on 20 to 5, south on 5 to 18, west on 18 to 4, north on 4 to Ferndale, west on Ferndale to Railway Ave., north on Railway Ave. to Gauden, east on Gauden to 4 and north on 4 to 20.
District N. East on 20 to 17, south on 17 to 19, west on 19 to 5 and north on 5 to 20.
District O. East along the river to the boundary line, south on boundary line to the river, along the river to Nelson, north on Nelson to 19, east on 19 to C.N. tracks and north and east along tracks to the river.
District P. East on 18 to 2, south on 2 to Francis, east on Francis to proposed Gilbert Rd., south on Gilbert to Williams, west on Williams to the dyke and north on the dyke to 18.
District Q. East on 18 to 4, south on 4 to 9, west on 9 to 2, north on 2 to Williams, east on Williams to Gilbert, north on Gilbert to Francis to 2 and north on 2 to 18.
District R. East on 18 to 5, south on 5 to 9, west on 9 to 4, north on 4 to 18.
District S. East on 19 to 6, south on 6 to 9, west on 9 to 5 and north on 5 to 19.
District T. East on 19 to Nelson, south on Nelson to the river, west along the river to 6 and north on 6 to 19.
District U. East on Williams to 2, south on 2 to the river, west and north along the river to Williams.
District V. East on 9 to 4, south on 4 to the river, west along river to 2, north on 2 to 9.
District W. East on 9 to 6, south on 6 to the river, south west along the river to 4 and north on 4 to 9.

As will be observed, the foregoing details were made as brief as was consistent with the necessary clarity.
of expression. Numbers refer, of course, to the main roads which mark off the sections. Numbers 1 to 8 run north and south; numbers 9 to 20 run east and west.

Page 3 was the aforementioned map.

Page 4, the record sheet, was in the following form:

Please insert the desired information in the following table. The use of columns IV and VI is explained on page 2. In column V please state the way in which the pupil usually comes to school by one word such as "bus", "bicycle", "walking", "automobile", or "tram".

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<th>Name</th>
<th>Age</th>
<th>Grade</th>
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As soon as the sheets were prepared they were tried out in the high school to determine if any changes should be made. In most cases the pupils themselves were able to fill in the necessary details without any assistance. It was felt, therefore, that the information from the elementary schools, since it would be furnished by the teachers, would be even more trustworthy.
To insure a clear understanding of what was desired permission was obtained to give a verbal explanation at a meeting of the Richmond association of The British Columbia Teachers' Federation. As a tribute to this group and to unaffiliated teachers of the Municipality, it should be stated that a one hundred per cent response was given.

C. Results and Conclusions.

Some of the items of information obtained have been referred to previously.¹ Others will be dealt with later.² For the present, attention will be given chiefly to a statement of the methods of treatment of data and the conclusions arrived at regarding the scattering of population.

Plate III shows the master sheet which was prepared in order that the data from the individual sheets might be brought into a single comprehensive record.

The pin method was selected as a simple but accurate way of handling the material. A copy of the district map was mounted on heavy cardboard. As each record sheet was obtained, the location of each individual home was indicated by the insertion of a pin in the proper area. Rechecking and recounting guaranteed trustworthy results. Totals were inserted in the appropriate columns on

¹See Chapter II.
²See Chapters V, VIII.
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<th>H. BRITISH BRIDGE</th>
<th>L. SHARPS</th>
<th>MITCHELL</th>
<th>HAMILTON</th>
<th>EAST</th>
<th>S. E. I.</th>
<th>G. C</th>
<th>TOTALS</th>
<th>I - XII</th>
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**Mitchell Island**

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**Vancouver**

- 2 2

**Duck Island**

- 1 1 1 2

- 1 1
on the master sheet. Finally a series of maps was prepared giving a graphic picture of the present situation.

Plate IV gives a clear view of the scattering of total school population. The greatest density is evidently in the Steveston (U), Bridgeport (E) and Brighouse (L) districts. The ratio of densities of these areas is as 106:45:33. Another interesting comparison is obtained by grouping naturally contiguous areas with these. Districts \((J+P-U+V) : (A+B+C+D+E+F+G) : (K+L+M+Q)\) :: 147:83:74. The total of the remaining eight districts is less than half of the smallest of these three groups and is so scattered over a large area of eastern Lulu Island as to have little material effect on our conclusions.

Plate V adds very little to the facts demonstrated in the dot map but provides some details which the other does not, and to some extent explains the grouping of areas in the previous paragraph. For example districts J-P-V are grouped with Steveston because pupils from them go chiefly to Lord Byng School.

Plate VI was prepared on the assumption that the present year was a reasonably typical one as regards the distribution of homes of pupils of the two secondary school age groups. Using the same groupings of districts as before

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1Knowledge of local factors, such as that the majority of the population of district J is concentrated at Terra Nova cannery, would be necessary to an understanding of these groupings.
Plate IV  Distribution of Population

Each dot (*) represents five pupils residing in the district.
Plate V Distribution of Population by Schools
we find that for grades VII - IX -

(J+F+U+V) : (A+B+C+D+E+F+G) : (K+L+M+Q) :: 27:21:21

and for grades X - XII -

(J+F+U+V) : (A+B+C+D+E+F+G) : (K+L+M+Q) :: 12:6:8.

The latter ratio, with its 2:1 dominance of the Steveston group over the Bridgeport group indicates definitely that the present senior high school is not in the most desirable situation. Even the 27:21 junior high school figure causes doubt as to the advisability of locating the junior unit at the present senior site.

Plate VII deals with the final factor in the population analysis, transportation. It will be noticed that all routes converge on the Bridgeport area. In the case of the buses this convergence is explained to some extent by the wide scattering of the population of Bridgeport elementary school and by the fact of earlier settlement of this region and closer connection with the mainland.

The present chapter has provided the factual material necessary to a final decision on the combined vs. separate school question which was discussed from a theoretical standpoint in Chapter II. The Chapter which follows renders such a decision.

1Reduced to 1/5 of total to correspond to dot map.
2The writer is indebted to the bus drivers for information regarding their routes and particularly to Mr. Dick who brought the facts together.
Chapter V

RECOMMENDATIONS REGARDING THE BEST TYPE OF SCHOOL FOR RICHMOND
Chapter V

RECOMMENDATIONS REGARDING THE BEST TYPE OF SCHOOL
FOR RICHMOND

At the conclusion of Chapter II, it was observed that the ideal type of junior high school is the separate institution, but that where it is not feasible, a combined school may, if wisely conducted, function very satisfactorily. At the outset, it should be stated that the majority of the authorities whose opinions were sought believed the second of the two alternatives to be the better for Richmond. The writer feels, however, that the local factors brought out in Chapter IV, of which of course these gentlemen were ignorant, bring the claims for the separate school to a parity with those for the combined school. In the following discussion he endeavours to show his reasons for this view.

One of the strongest arguments for a separate school in Richmond is the poor location of the present senior high school. As has been shown, a much more suitable location from the point of view of population distribution would be somewhere in the Brighouse area. It has been claimed in the past that the easy access by tram to the present site is a compensating feature. Even this justification, however, is doubtful, as the British Columbia Electric Railway has indicated that, as it is carrying the present students at a loss, it must seek an upward revision of rates if more pupils
are travelling.

The choice of a site in the centre of the municipality would simplify this problem. First, a larger number of pupils would be able to travel on foot or by bicycle. Second, the bus lines could easily be redirected. Third, for those pupils who still must travel by tram the distances would be shorter, and the cars would be used in both directions rather than one only. Consequently, a lower rate might be expected of the Company.

A more advantageously located separate school may be justified from still another aspect. It might be considered as the first step towards the reorganization of a section of the educational facilities of the Municipality. The following plan might be gradually worked out over a period of years:

1. Construction of a separate junior high school at Brighouse as the first wing of a future combined secondary school.
2. Construction of the senior wing and removal of senior pupils to the new secondary school.
3. Removal of elementary pupils from Bridgeport School to the present High School building and abandonment of Bridgeport building.

Lest the suggestion of future combination of the two secondary units be deemed inconsistent with the writer's previously expressed views, it should be pointed out that
many of the objections to combination are overcome if the junior school is given a chance to establish itself prior to its union with the senior school.

Regarding the final proposal of removal of Bridgeport Elementary School, certain explanations should be made. As shown in Chapter X, only eight of the present thirteen rooms of this school will be required after the junior high school is established. The high school building with eight rooms and two laboratories would therefore provide ample accommodation. If an unforeseen increase in population should occur a number of pupils who live in the Mitchell area and attend Bridgeport School\(^1\) could be transferred to the former school. Finally, the buildings at Bridgeport are old and must within a few years be abandoned or renovated.

Two other reasons may be advanced for building a more advantageously located secondary school:

1. Regardless of location the new junior high school will have to be practically a separate building as the present senior high school is so constructed that it cannot readily be added to.

2. The present grounds are very inadequate for a combined school.\(^2\) A much larger tract elsewhere

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\(^1\)See Plate V.
\(^2\)"To carry out the program of the junior high school, no site of less than 10-12 acres will suffice." N.L. Engelhardt Standards for Junior High School Buildings, New York: Bureau of Publications Teachers' College, p. 21.
could probably be secured more reasonably than an acre or two adjacent to the present site.

It would appear, therefore, that the needs of Richmond would be more satisfactorily met by a separate junior high school located somewhere near the Municipal Centre. Since, however, immediate costs weigh heavily in the minds of the tax-payers the combined school is probably the most practicable. Without doubt it would be a distinct improvement over the traditional system. Indeed, with the provision of adequate grounds, and with such administrative safeguards as those suggested in the plan of organization outlined in Chapter VIII, there is no reason to anticipate undue limitation of the possibilities of the junior high school as a result of close association with the senior high school.

In the remaining chapters of this thesis, therefore, each of the two possibilities will be given full consideration.
Chapter VI

SUITABLE CURRICULA FOR RICHMOND JUNIOR HIGH SCHOOL
Chapter VI

SUITABLE CURRICULA FOR RICHMOND JUNIOR HIGH SCHOOL

A. Subjects.

The key to the desirable educational offering for any school is to be found in the philosophic basis of the school system of which it is to form a part. Fortunately, British Columbia has now a clearly formulated set of objectives to guide those who plan school curricula.

"It is the function of the school, through carefully selected experiences, to stimulate, modify, and direct the growth of each pupil physically, mentally, morally, and socially, so that the continual enrichment of the individual's life and an improved society may result". The purpose of the junior high school in our system is, obviously, to carry out such of these functions as pertain particularly to younger adolescents. These have been dealt with in some detail in Chapter II.

Briefly, the school has two chief tasks. It is essential that it shall provide a background of common knowledge and habits necessary for socialized living; it is equally essential that it shall provide exploratory courses to determine individual aptitudes. The Junior High School Programme of Studies for the Junior High Schools of British Columbia, 1936, p. 15.
Course of Studies has constants for the first of these needs and variables for the second.

Four subjects only are compulsory throughout Grades VII - IX. These are: - Physical Education and Health, English, Social Studies, and Library. Four others are required of all pupils in Grades VII and VIII, namely: - General Science, General Mathematics, Practical Arts, and Music. One subject, Art, may be omitted in Grade VIII by only such pupils as the principal considers "will not profit by the study of it".

These nine subjects will, then, of necessity, be offered in Richmond Junior High School. In the variables, however, there is considerable opportunity for attention to local and individual needs.

Without doubt many pupils, particularly those of superior academic ability, should be given try-out courses in languages. It seems desirable, therefore, that French should be offered in Grade VII and French and Latin in Grades VIII and IX.

The tendency of pupils to leave Richmond schools in order to attend technical and business schools in Vancouver is ample proof of the necessity of offering as many courses in practical arts and commercial subjects as is possible.
The considerable percentage of foreign pupils in the municipality will be a serious problem but also a very great opportunity. Particularly will this be so in the field of written and oral English. No district could gain more from a well conducted course in Remedial English. The fact that the courses under this heading do not carry any credit should be of negligible weight against the great need which would be filled.

It would seem reasonable to assume that in a rural community there will be a considerable demand for courses in agriculture. Such, indeed, has proved to be the case in the present high school. There can be no doubt, therefore, of the advisability of including Agriculture la and lb in the list of Grade VIII and IX variables.

Finally, the inauguration of a worthwhile guidance programme is essential. Just how it should be organized is a problem. The prevailing practice of having one or two guidance officers conduct one period per week with each class is open to criticism from a number of points of view. In the first place, it is a physical impossibility for the counsellor to obtain an intimate knowledge of the individual pupil from such brief and infrequent contacts. In the second place, the isolation of those aspects of human behaviour usually classed under the heading of "Guidance" is not entirely wholesome. Training a pupil to live as a member of
society cannot be separated from the effective teaching of social studies. Discovering his potentialities is the task of every teacher who comes in contact with him.

On the other hand, this important function of the junior high school will soon be neglected if left to haphazard incidental treatment. Then too, not all who are capable teachers are capable counsellors, and few who have the ability have any specialized training. There must, therefore, be a measure of specialization. The solution would seem to lie in developing in each teacher an appreciation of his responsibility as a guidance official and in supplementing his incidental work by a regularly organized course under the Boys' and Girls' counsellors.

One final improvement might be suggested in this subject. The value of Guidance as a curricular offering might be increased by a change of name. Some such designation as "Social Living" might remove from it the suggestion of moralizing and directing which are somewhat distasteful to adolescent pupils. Making these very necessary functions seem but the logical concomitants of the study of group and individual problems would undoubtedly increase their effectiveness.

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1This is the name applied to a somewhat more comprehensive course at various schools in California. See State of California, Department of Education Bulletin No 6, 1936. Recent Developments in Secondary Education in California, p. 17-39.
These weaknesses in the Guidance programme do not condemn it. They are but the flaws which will inevitably be found in the developing stages of anything of real value. With all the imperfections in the various guidance schemes, the mere recognition of the need for this type of direction and the attempt to fill that need is one of the greatest contributions of the pioneers of the junior high school movement.

It would appear, therefore, that there is no subject proposed in the provincial programme of studies which is not vital to the effective application of our educational philosophy to Richmond Junior High School.

B. Organization.

Several methods might be employed for the organization of the school with regard to this proposed curriculum.

I Individual time-tables for all pupils.

II Straight class-group curricula.

III Class grouping with minor variations.

I Individual Time-tables.

Three arguments may be advanced against this plan:

1. In grade VII, and to a considerable extent in grades VIII and IX, groups of pupils will automatically take similar courses.

2. Strict individualization breaks down the group spirit and severely handicaps the guidance
programme by eliminating the possibility of an effective home room organization.

3. The administrative difficulties involved far outweigh any possible gain.

II Straight Class Grouping.

This, the other extreme, is also open to criticism from several points of view:

1. It operates against a basic principle of the junior high school, a sufficient attention to individual differences.

2. It makes transfer from one group to another exceedingly difficult, thereby hampering the redirection of misplaced pupils.

3. It prohibits promotion by subject.

The objections to the first two possibilities are, therefore, due chiefly to their being the extremes. The third possibility, that of several parallel courses with possible minor variations in each, seems to partake of most of the advantages and few of the disadvantages of each of the others.

III Modified Class Grouping.

The acceptance of such a plan of organization leads naturally to the question of the bases for arranging individuals in groups. Three schemes are employed:
1. Grouping according to Intelligence Quotient.
2. Grouping according to general level of achievement.

In his interviews with prominent educationists of the province, the writer found a wide divergence of opinion on the relative desirability of these different schemes.

Dr. H.B. King definitely favours I.Q. grouping on a thoroughgoing basis as it is carried out at Kitsilano High School. Mr. H.N. MacGorkindale favours the I.Q. method "as far as homogeneous groups can be achieved". Inspector A. Sullivan also believes it to be desirable.

Inspector V.Z. Manning doubts the wisdom of strict homogeneous grouping. He feels, however, that in a large school there might be some advantage in separating the very bright pupils from the rest.

Mr. P. Whitley of Point Grey Junior High School divides his Grade VII classes on the basis of general achievement from a consideration of the three factors of I.Q., letter grade standing, and age. In the upper grades he employs no fixed system but finds that the choice of variables produces much the same results.

The same disagreement is to be found in educational
literature. It would seem worthwhile, therefore, to attempt to summarize the arguments for and against each of the possibilities in order to suggest a desirable plan for Richmond.

1. I.Q. Grouping.

Following the phenomenal discovery that school progress was to a considerable extent governed by innate ability and that a wide range of such abilities existed, there came a vogue, particularly in the newly organized middle schools, for segregating according to scores on intelligence tests. In many institutions only high, medium and low groups were arranged; in others, particularly where there was a large enrolment, classes were carefully graded from very bright through all the intervening shades to very dull.

From the point of view of efficient administration, even this latter policy can be readily justified. Its proponents claim that:

(a) It facilitates adapting methods and materials to the different levels of intelligence.

(b) It permits selection of courses to suit the nature of the pupils.

(c) It renders possible the acceleration of bright pupils (more lately, "enriching" for bright pupils) and drilling on core subjects with dull pupils.
During the last few years, however, considerable criticism has been leveled at this scheme, particularly by the psychologists. Among the reasons for their opposition appear the following:

(a) The intelligence test, especially when applied as a group examination is very far from infallible.

(b) Other personality factors may be equally important.

(c) Undesirable effects may be produced in both dull and bright pupils if teachers are not sufficiently discreet to treat the class status as confidential. The most recent discussion of this objection is by Pringle, who points out that, as far as he is aware, "There have been few, if any, extensive studies based on the psychological effects of homogeneous grouping on the pupils." Such studies, he feels, might bring light upon such questions as "What does homogeneous grouping do in the realm of the emotions to the more socially conscious adolescents? Does separation from long-time friends and relegation to "dumb-bell" classes make for wholesome personality integration?".

(d) Homogeneous grouping is an unnatural arrangement, if "life situations" are demanded such a purely

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artificial division must be abandoned.

Some educational writers are so convinced that homogeneous grouping according to intelligence is undesirable that they predict its abandonment in the very near future.

2. Achievement Level Grouping.

The use of some composite scheme of organization taking in various factors seems to partake of all of the advantages and avoid most of the pitfalls of the I.Q. system. Such a plan, if carefully applied, will undoubtedly give a more valid rating than the single criterion. It can, however, be criticised on the same psychological grounds as far as the desirability of homogeneous grouping is concerned.


Grouping according to alphabetical order of names, or some similar criterion, cannot be supported by many scientific arguments. A few years ago it was considered unprogressive. Now it seems to be again receiving consideration as a means of escape from the dangers of homogeneous grouping. At best, however, the adoption of this principle is merely a begging of the question; an acceptance of the idea that since we do not know what is best to do it is best to do nothing.

The question of grouping, therefore, being one upon which no final decision can be made at present, calls for the pursuing of a middle course until more definite information
is available. It would seem desirable in Grades VII and VIII to divide the pupils into three broad classifications of bright, average, and dull in order to simplify teaching and administration. It is essential, however, that the basis of division be not divulged to the pupils or to any one who might adopt an attitude in any way detrimental to any of the groups. In Grade IX a much more flexible organization will be required. Indeed, there should be ample opportunity in all grades for any pupil who shows particular aptitude for any subject to have it included in his course. For example, while the study of Latin and French is generally deemed unprofitable for duller pupils, it sometimes happens that some backward pupil shows a surprising special ability in the languages. Similarly, many bright students are skilled in technical work. To regiment these students into channels determined solely on their general intelligence would be to rob the junior high school of its "peculiar function" of catering to the specific needs of the individual.

If any pupils show maladjustment either from the point of view of studies or behaviour they can best be dealt with individually. Should a number of such problem cases develop, those of a similar type might be grouped in remedial classes.

C. Typical Programmes

It may be of value to outline suitable programmes for each of the groups suggested in the previous section for
Grades VII and VIII and for the major options in Grade IX.

Grade VII. Thirty-five out of forty periods are allocated to constants in this grade. The remaining five might be distributed as follows:

Group A. (brighter pupils).
- French 3 periods
- English (for gifted students) 2 periods
  or
- Try-out course in any authorized subject. 3 periods

Group B. (average pupils).
- French 3 periods
- Additional Practical Arts 2 periods
  or
- Try-out course in any authorized subject. 3 periods

Group C. (duller pupils).
- French 3 periods
- Additional practical Arts. 2 periods

The inclusion of French as a subject for all classes is with a view to determining language ability. In the case of pupils showing definite backwardness this could be considered as a try-out course and, therefore, dropped at the end of the first quarter in favour of some other subject.

\[1\text{Where the variables chosen total more than five periods, one or more of the study periods counted in the 35 periods of constants must be dropped.}\]
This will correct the apparent deficiency in exploration in the course for group C.

In addition to the above, provision should be made for classes in remedial English. Since foreign pupils are likely to be found in every level of ability, these classes should be held at such times that they will be available to all groups.

Grade VIII. The choice of five periods of work from the list of variables for this grade presents some difficulty and will necessitate considerable variation within the groups. Grade VII work will, of course, guide in the selection from the following:

Group A.

French

or

3 periods

Practical Arts (additional)

or

Latin

or

Typewriting

or

Junior Business

or

English (for gifted pupils)

or

Other try-out courses
Group B.

As group A. but omitting the special course in English.

Group G.

French

or

3 periods

Practical Arts (additional)

Agriculture 1a

or

3 periods

Special try-out courses

As in Grade VII ample provision should be made for remedial English. In this field as much individualization of instruction as possible should be attempted.

Grade IX. Adequate provision for individual differences in this grade practically demands individual time-tables. It should be possible, however, to arrange certain broad groupings relative to ultimate objectives. Four likely interest sections are:

(a) High School Graduation

(b) Normal and University Entrance.

(c) Technical and Home Economics.

(d) Commercial.

Since, as is shown in Chapter VII, there are likely to be but three classes in Grade IX, the constants will be taught in three sections.
Suitable courses for these objectives, in addition to the constants, would be:

Group (a) High School Graduation.

Practically any selection of twenty-one credits provided these include such prerequisites as are necessary to enable the student to proceed to the necessary one hundred and twelve credits in the senior years.

Group (b) University or Normal Entrance.

French I

and/or

5-10 credits

Latin I

General Science

5 periods

General Mathematics

5 periods

English (for gifted pupils)

and/or

Practical Arts

2-10 periods

Art

Group (c) Practical Arts.

General Science

5 periods

General Mathematics

5 periods

Practical Arts

up to 10 periods

Shop Arithmetic

3 periods

or

Art

2-10 periods
Art or Agriculture 1b or a language might be substituted for General Mathematics.

Group (d) Commercial

Business Arithmetic 3 periods
Junior Business 2 periods
Book-keeping 2-5 periods
Typewriting 2-5 periods
Shorthand 5 periods
French I
  or
Latin I
  or
General Science 5 periods
  or
Art
  or
General Mathematics

The degree of freedom of selection, the diversity of offering and the numbers of groups will, of course, be governed by such factors as available equipment, qualifications and numbers of staff members, and space and time limitations. Some of these are discussed in succeeding chapters; others obviously, could be dealt with only in the practical situation. On the whole, however, it would seem that the school will be of sufficient size to offer all of the proposed options, particularly since other smaller schools
are already doing so.¹

¹West Vancouver Junior Senior High School offers all the subjects referred to except Agriculture.
Chapter VII

BUILDING REQUIREMENTS
Chapter VII

BUILDING REQUIREMENTS

The major question of the necessary size and nature of the junior high school building may be analyzed into the following sub-questions:

1. How many pupils must it accommodate under present conditions?
2. What fluctuation of population is to be expected?
3. How many regular classrooms must be provided for the estimated enrolment?
4. What special rooms must be provided?
5. Which of these special rooms may be employed also as regular classrooms?
6. In the case of a combined school, what accommodation will be available for junior classes in the present high school building?

These questions may be most easily dealt with in two groups, those relative to pupil population and those relative to curricular and other factors.

A. Pupil Population

The number of pupils in Grades VII, VIII, and IX during the current year was readily obtained from Plate III in Chapter IV. That for the last nine years was obtained from the annual reports of the Department of Education.
Plate VIII - Population of Grades VII, VIII and IX
1927-37
Plate VIII summarizes this data. From the 1927-8 figure of approximately 260 the number of pupils in these grades rose to almost 450 for 1933-4 and 1934-5, but has again declined to about 380 in 1936-7.

These figures are somewhat misleading unless studied in connection with those for the whole school population. Plate IX shows four graphs, total enrolment, enrolment in Grades I - VI, enrolment in Grades VII - IX, and enrolment in Grades X - XII.

A very serious drop in the elementary school figure for 1933-4 is reflected in the total enrolment for the same year and, it would seem, in the present Grade VII - IX enrolment. Substantiation of this latter conjecture may be found in the graphs of the three levels several years before. A slight drop in the elementary enrolment in 1928-9 followed by a significant rise in 1929-30, is apparently connected with the 1931-2 slump and 1932-3 rise in the junior, and the 1933-5 slump and the 1935-7 rise in the senior high school grades. As would be expected, the fluctuations are less sharp at the higher levels. It would seem, therefore, that the junior high school lags some four years, and the senior high some six years behind the elementary school in the matter of population change.

If this line of reasoning is sound, and the writer feels that it is, a considerable increase must be expected
Plate IX  Total Enrolment, 1927-37
in the junior high population in the coming years. Certainly the present figure of 380 junior and 130 senior high pupils must be considered as a minimum likely enrolment even under the present scheme of organization.

What effect will reorganization have upon these figures? As has been noted in Chapter II the claim of better retention in the junior high school is not definitely substantiated. A decreased mortality has resulted, however, in some systems after its introduction. Certainly, the junior high school in Richmond will have an exceptional opportunity in view of the present annual loss of pupils. In any case, accommodation must be provided in anticipation of a possible improvement in retention.

In view of the foregoing conclusions and of the present enrolment of nearly 400 pupils in Grades VII - IX, it would seem the part of wisdom to build for a population of about 500. It would be wise, also, to design a building to which additions could readily be made. The standard maximum number of teachers set by Section 142 of the Public Schools Act for this number of pupils is sixteen. Since, however, few school boards employ sufficient teachers for an average of thirty pupils per class, a tentative figure for the necessary number of classrooms might better be set at fourteen. Certain factors dealt with in the next section will modify this conclusion.
B. Curricular and Other Factors.

The number and nature of special rooms in the new institution depends, obviously, on the questions of curricula discussed in Chapter VI.¹ In Plate X an attempt is made to estimate what rooms will be required to carry out those parts of the curriculum which require more than the regular classroom accommodation and equipment.

A number of the conclusions arrived at must rest on somewhat arbitrary assumptions. It was necessary to augment the estimates of total population by estimates for each grade in order that the number of sections in various subjects might be determined. This was done by using the six year average of the enrolment in each grade as a basis. For Grade VII, the figure is 173.8; for Grade VIII, 133.3; for Grade IX, 93. Assuming thirty-six pupils per section and adding one extra section in each of the two lower grades to take care of future increases, the building should have accommodation for six sections in Grade VII, five sections in Grade VIII, and three sections in Grade IX. Since 14 \times 36 = 504, these assumptions are consistent with the previously estimated total school population.

Estimates of the necessary number of sections in the core subjects are derived from these assumptions in

¹See pp. 51-55.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade VII</th>
<th>Grade VIII</th>
<th>Grade IX</th>
<th>T.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Science</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>37</td>
<td>Assuming that all sections in IX. take this subject. One room barely sufficient. See agriculture.</td>
</tr>
<tr>
<td></td>
<td>2 6 12</td>
<td>2 5 10</td>
<td>5 3 15</td>
<td></td>
<td>Assuming in IX one 8 period and one 4 period class and one omitting Even with no extra sections this will require two rooms for each of the practical arts.</td>
</tr>
<tr>
<td>Practical Arts</td>
<td>4 6 24</td>
<td>4 5 20</td>
<td>8 1 8</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>2 6 12</td>
<td>2 5 10</td>
<td>2 2 4</td>
<td>26</td>
<td>One room quite sufficient assuming 2 sections in IX. One room sufficient assuming four art sections in VIII and one six period section in IX.</td>
</tr>
<tr>
<td>Art</td>
<td>2 6 12</td>
<td>2 4 18</td>
<td>6 1 6</td>
<td>26</td>
<td>Assuming four sections taking five month three period courses in VIII and two sections taking five month three period courses in IX. One room ample.</td>
</tr>
<tr>
<td>Typing</td>
<td>none</td>
<td>3 2 6</td>
<td>3 1 3</td>
<td>9</td>
<td>Assuming three sections in VIII and IX. Combined with General Science this would call for two rooms.</td>
</tr>
<tr>
<td>Agriculture</td>
<td>none</td>
<td>3 3 9</td>
<td>3 2 6</td>
<td>15</td>
<td>One room i.e. accommodation for forty pupils sufficient for curricular work. Additional accommodation is desirable for extra curricular use.</td>
</tr>
<tr>
<td>Library</td>
<td>1 6 6</td>
<td>1 5 5</td>
<td>1 3 3</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Column 1 - periods per week per section. Column 2 - number of sections.
Column 3 - total periods per week per grade. T - Total periods per week for the school.
accordance with the requirements of the new course of studies. The estimates for accommodation for sections in the electives were based on the opinions of authorities and on local indications such as the choice of electives in the present high school.

An examination of the table will show that only very broad deductions have been made. No very fine decisions were necessary. For example, the accommodation would be equally necessary for a forty or a thirty-five period week. One room is suggested where thirty or less periods per week are required, but in no case are two rooms recommended where it does not seem likely that at least fifty periods per week are to be expected. Thus, though from somewhat arbitrary bases, the conclusions are reasonably trustworthy.

The following special rooms, then, would seem necessary:

2 science demonstration rooms.
2 industrial arts laboratories.
2 home economics laboratories.
1 music room.
1 art room.
1 typing room.
1 library room.
Englehardt's standards for school libraries call for:

1. For 500-700 pupils,
   1 work room; 1 conference room; 1 reading room.

2. For 300-500 pupils,
   1 combined work and conference room; 1 reading room.

The School Library Yearbook advises provision of a reading room large enough to accommodate 10 - 25% of the total school population. In the case of a separate junior school this would mean between 50 and 150 pupils.

All these rooms need not, of course, be provided in addition to the fourteen regular classrooms. The science, music, art, and typing rooms could be used for other purposes. This would leave a total of nine ordinary classrooms required.

In addition to these the school should contain:

A study hall. Based on the departmental requirement of about one study period in every seven, this room should accommodate one seventh of the school population or about seventy pupils.

A cafeteria. The provision of hot lunches is an even more vital need in a country community, where pupils have long distances to travel, than it is in the cities.

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1 Englehardt, op. cit. p 21.
2 American Library Association, School Library Yearbook No II. Chicago: p. 54.
An auditorium. This should be at least sufficiently large to seat the whole school. It should be provided with a stage suitable for dramatic and musical presentations.

A gymnasium. Preferably, this room should be provided with sliding doors which will divide it into two so that boys and girls classes may be taken at the same time. On a basis of three periods per section it will have to accommodate forty-two sections per week.

Administrative Offices.

1. A general office.
2. The principal's office.
3. Vice-principal and boys' counsellor's office.
4. Girls' counsellor's office.

The latter two are essential to effective attention to individual guidance.

Health room. This should be provided with an outer waiting room.

Staff rooms. Adequate provision should be made not only for lunch rooms but for suitable rooms for marking, preparation and study.

The foregoing statement has assumed a separate junior unit. It must be modified in some respects if the new building is to be built adjacent to the present senior school.
No reduction could be made in the number of rooms for science, music, art, typing, library and industrial arts as the high school has barely enough provision for the first and no provision for the others. The free periods in these latter rooms might well be used by the senior pupils. For example, on a 40 period week the music room would be available about 14 periods, the art room the same, the typing room 31, the library 26 and the industrial arts laboratory 24.

In some ways economies could be effected. At present the home economics laboratory for the elementary schools is located at the high school. The provision of one additional home economics room in the new building would, therefore, be sufficient. A further saving could be made through the use of two or three of the high school rooms which formerly housed Grade IX classes and which will then be unoccupied. It should be possible, too, under a combined administration to reduce the required offices by one or two. However, as the high school has only one administrative office, at least two, one for each of the counsellors, would be required.

On the other hand, it is doubtful if the present Cambie Gymnasium will provide sufficient accommodation for both schools. This difficulty might be overcome by making arrangements for combining classes. Similarly, some provision would have to be made for a larger study hall and auditorium to accommodate the twenty-five per cent greater enrolment.
It would be well, of course, to provide for one more complete class or a total enrolment of 105 pupils. Apart from these differences the previous outline would apply equally well to the combined school.

Reference has already been made to the necessary size of school grounds.\(^1\) Size, however, is not the only consideration. A school might have the requisite ten to twelve acres and yet lack suitable surroundings. "The ideals of every person are influenced by trees, lawns, and beautiful buildings. The school is the people's investment. It should, therefore, be made an example for home improvement. It can be so developed that it will aid in the development of the artistic and the aesthetic."\(^2\)

Many other details of accommodation could be mentioned. No reference has been made to sanitary facilities, provision for indoor recreation in inclement weather, ample corridor space, lockers, bicycle racks, garages, etc. All these things are assumed in the planning of a modern school. The practical situation will, doubtless, bring to light other omissions in this analysis.

It is to be hoped that, when Richmond builds its junior high school, no slightest detail will be considered unimportant if it contributes to the general aim that, "the building in its

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\(^1\)Chapter V, p. 43, footnote 2.
environment, should represent a healthful, normal place for human beings to live, mature and work."¹

Chapter VIII

ORGANIZATION
Chapter VIII

ORGANIZATION

While the details of such an organization as is required in the effective carrying on of a junior high school can be worked out only in the practical situation, certain generalizations will be attempted in this chapter. The following general aspects are dealt with:

A. Organization relative to the curriculum.
B. Organization for administration.
C. Organization for extra-curricular activities.

A. Curricular Organization.

One of the signs that the science of education is still in a healthy state of youth is the regularity with which procedures are questioned even after they have become generally accepted. One of the most recent to come under criticism, as far as the junior high school is concerned, is the practice of thoroughgoing departmentalization.

Having found disagreement on the value of this procedure, the writer sought the opinions of a number of British Columbia educationists concerning it. Typical of the replies he received were those of the two provincial inspectors of his district. Mr Sullivan stated, "In so far as possible, I would have the teacher give instruction in all

grades in the subject or subjects which he teaches." Mr. Manning, on the other hand, favoured the allocation to each home room teacher of a core curriculum. It seems necessary, therefore, that an analysis be made of the values and dangers of specialization in teaching.

It is a truism that the narrower a teacher's field, the more opportunity he has to become proficient in it. Thus, since its inception, the new middle school has tended to favour highly specialized teachers each devoting all his time to one subject. Country children who received all their education from one teacher, and rural teachers who were required to teach all the subjects of the curriculum, have been pitied by the efficiency experts.

Thoughtful critics, however, have come to suspect that certain values exist in the undepartmentalized schools which do not appear in examination results. Similarly they have described some serious dangers in over-specialization. Briefly, departmentalization has been challenged on the following grounds:

1. It prevents the teacher's getting an intimate knowledge of many of his pupils.
2. It interferes with the correlation of subjects.
3. It tends to make the teacher's work a series of deadening repetitions.
In a day when Guidance has become recognized as one of the chief functions of the junior high school, the cogency of the first argument must be apparent. If no one knows the individual pupil, who is to guide him?

The many schemes that have been suggested to overcome the tendency of departmentalization to result in fragmentation of the curriculum, indicate the seriousness of the second criticism. In the elementary schools attempts have been made to organize all subjects into unifying "projects". In the high schools there has been the emergence of Social Studies, General Language, General Mathematics and General Science. Neither these, nor other approaches which have been tried, have proved entirely satisfactory.

Regarding the undesirable effects on the teacher of instructing a large number of identical sections, it may be pointed out that it is impossible for the teacher to transform himself into an automaton which will grind out the same lesson over and over again. Efficiency will be impaired by monotony. The writer recalls a period of substituting during which he was required to repeat a drill lesson in arithmetic seven times a day. Here, obviously, is the "reductio ad absurdum" of departmentalization.

From the point of view of both pupil and teacher, therefore, it would seem that departmentalization is not without its faults. It would be foolish, however, to throw
it aside because of its weaknesses when it has shown considerable advantages in other respects. We must seek some effective compromise.

"The Coöperative Group Plan" suggested by J.F. Hosic appears to have considerable merit. This scheme provides for organization of the pupils into a number of small groups of classes in the care of a corresponding number of teachers. Thus six teachers might divide among them the curricula of their six classes. Each teacher would be particularly responsible for the welfare of his home room group, but all would meet together frequently under one "master-teacher" to discuss common problems and plan the work of the section. Hosic considers the division of the curriculum into more than six parts undesirable. He recommends five divisions with the following five types of properly equipped rooms:


Like all other such plans this one would have to be considerably modified before it could be applied to such an institution as Richmond Junior High School. The scheme which is outlined below is derived from several which attempt similarly to escape the dangers in having teachers who are either "general practitioners" or too narrow "specialists".

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1 A brief outline of this plan is to be found in - W.H. Burton, Introduction to Education, New York: D. Appleton-Century Co. pp 275-6.
2 The plan followed at Eagle Rock High School, Los Angeles, should be mentioned in particular. See W.B. Featherstone, op. cit. p. 70-73.
In Richmond, as in other districts in which reorganization is to take place, a considerable number of elementary teachers must be absorbed into the junior high school. Few of these will have any specialized training beyond that required for the First Class Certificate. On the other hand, most, or all, will have considerable experience in working with pupils of the junior high school age. It is desirable that their deficiencies be guarded against and their special abilities put to good use. In other words, they must be regarded as specialists in dealing with children rather than as specialists in dealing with subjects.

With this as a point of departure, we may develop a plan based on class rather than subject divisions. To do this, it will be necessary to allocate to each teacher, in addition to his preferred subjects, certain secondary ones so that he may be in charge of his own class a considerable portion of the day. Such a plan has the additional advantage of enabling him, in line with modern pedagogical theory, to correlate the subject matter of several different fields.

The organization of subject committees will aid the non-specialists in planning and preparation. All teachers covering similar work will be members of such a committee. The chairmen will be specialists in the fields. In the case of a combined school vertical coordination will be secured by including the head of the high school department concerned as
an advisory member of the committee.

In accord with Hosie's plan, the student body will be divided into groups of six classes. Each such division will have a committee consisting of a "master teacher" and the five other home room teachers. This group will meet to deal with matters relative to the welfare of the pupils of the section. If not the whole group of teachers, the master teacher, at least, should remain with the section through as many years as it remains practically intact.

A further major committee, headed by the principal and consisting of all staff members, would secure horizontal coordination by directing the work of the school as a whole.

The proposal will be made more clear by the following example. Let us assume for the sake of simplicity a school in which there are three classes of boys and three classes of girls in Grade VII. Let us further assume the following allocation of subjects to the home room teachers:

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Primary Specialities</th>
<th>Secondary Specialities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Health and Physical Education, English</td>
<td>Social Studies</td>
</tr>
<tr>
<td>B</td>
<td>Social Studies, English</td>
<td>Music</td>
</tr>
<tr>
<td>C</td>
<td>Health and P.E., Mathematics</td>
<td>Science</td>
</tr>
<tr>
<td>D</td>
<td>Practical Arts, Art</td>
<td>Science</td>
</tr>
<tr>
<td>E</td>
<td>Mathematics, Practical Arts</td>
<td>...</td>
</tr>
<tr>
<td>F</td>
<td>Music, Library</td>
<td>English</td>
</tr>
</tbody>
</table>
Let us make a final assumption that only the constants, including supervised study, are to be handled by these teachers, and the variables by staff members outside this particular section.

For a school run on a forty period week, the following time allotments might be made:

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Subject</th>
<th>Class</th>
<th>Periods per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>English</td>
<td>1, 3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
<td>1, 4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Health and P.E.</td>
<td>1, 2, 4</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>3, 40</td>
</tr>
<tr>
<td>B.</td>
<td>English</td>
<td>2, 4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
<td>2, 3, 5, 6</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Music</td>
<td>1, 2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>1, 40</td>
</tr>
<tr>
<td>C.</td>
<td>General Science</td>
<td>2, 3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Health and P.E.</td>
<td>3, 5, 6</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Gen. Mathematics</td>
<td>3, 6</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>9, 40</td>
</tr>
<tr>
<td>D.</td>
<td>Art</td>
<td>1, 2, 3, 4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Practical Arts</td>
<td>1, 2, 4</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>General Science</td>
<td>1, 4, 5, 6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>7, 40</td>
</tr>
<tr>
<td>E.</td>
<td>Gen. Mathematics</td>
<td>1, 2, 4, 5</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Practical Arts</td>
<td>3, 5, 6</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>3, 40</td>
</tr>
<tr>
<td>F.</td>
<td>Music</td>
<td>3, 4, 5, 6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Library</td>
<td>1, 2, 3, 4, 5, 6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Art</td>
<td>5, 6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>5, 6</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Periods outside section</td>
<td></td>
<td>7, 40</td>
</tr>
</tbody>
</table>
It will be observed that provision is made for all teachers of the section to give some instruction to classes outside of it. This enables specialists from other sections to take classes in subjects for which no member of this group is qualified. Altogether, teachers of the section under discussion are free, as far as it is concerned, for thirty periods per week. This figure corresponds to the five periods per class per week allotted to variables by the Course of Studies.

A typical day's time-table appears in Plate XI. In each case the subjects taught by the home room teacher are shown in black, those taught by other teachers of the section in red, and those taught by specialists from outside the section, in green. In most cases the ratio would be constant for each class at $4:3:1$. That is, the class would be with its home room teacher one half of the school day, with other teachers of the section three-eighths of the day, and with other specialists, one eighth.

Plate XII demonstrates the administrative organization required. The members of Sections II and III would be connected with the various subject committees in the same way as the members of Section I with whom we have been dealing.

Certain aspects of this scheme suggest others which are in use at present. There is a resemblance, first of all
<table>
<thead>
<tr>
<th>Class</th>
<th>Subject</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>English</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>Health</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>Social Studies</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Physical Education</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>General Science</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Mathematics</td>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Subject</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>French</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>Art</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>General Mathematics</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Music</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>Practical Arts</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Social Studies</td>
<td>F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Subject</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>Library</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>Additional Practical Arts</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Remedial English</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>French</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Health</td>
<td>F</td>
</tr>
</tbody>
</table>

Plate XI: Table Typical Day's Schedule
Plate XII  Administrative Organization

PRINCIPAL

GENERAL STAFF COMMITTEE

MASTER TEACHER I
SECTION I COMMITTEE
A B C D E F

MASTER TEACHER II
SECTION II COMMITTEE
G H I J K L

MASTER TEACHER III
SECTION III COMMITTEE
M N O P Q R

TEACHER

COMMITTEE
ENGLISH  SOCIAL STUDIES  HEALTH AND PH. ED.  MUSIC  GENERAL SCIENCE  GENERAL MATHEMATICS  ART  PRACTICAL ARTS  LIBRARY  FRENCH  REM. ENGLISH  LITRED. ENGLISH  OTHER OPTIONS
to Platooning and other forms of departmentalization in the elementary schools. There is, however, one important point of difference. Here, no teacher is solely a specialist or a non-specialist. Each has his responsibilities as the guide of a definite group with the members of which he has an excellent opportunity to become acquainted.

There is a resemblance, too, to a prevalent vogue in the schools of the United States wherein a certain core-curriculum is developed as a common cultural background for the pupils. Those who favour this latter plan are usually much exercised over the choice of subjects for this core. In the opinion of the writer, the basic subjects need not be the same for any two classes. Why cannot the Mathematics and Science teacher do as much character education as the English and Social Studies teacher? The general response will be that his materials are less suitable. What a gross misconception that is! The wonders revealed by science can be made as soul-stirring as a selection of epic poetry. The mathematical interpretation of the order and unity of the universe is as profound philosophy as any oration by the heroes of history. Provided the right teacher is at work, any subject or group of subjects may be used as an effective tool in the development of the whole personality of the individual pupils. Those who disagree with this statement will find little support save in some offshoot of the exploded doctrine of formal discipline.
The plan makes possible a further objective attempted in several others, that of combining subjects into broad courses. It is, however, more flexible in that such combination can be effected whenever the teacher desires, and abandoned when the traditional divisions seem preferable. For example, teacher A may decide to develop, during one part of the term, a comprehensive unit dealing with both the history and literature of Canada, and at another part of the term to direct his pupils in widely divergent channels in Social Studies and English. Extreme departmentalization would make the former impossible. The more recent plan of subject combination would make the latter difficult. The scheme proposed avoids the rigidity of the others.

While the plan has been outlined for a very simple case there is nothing to prevent its adaptation to the average school situation. In Richmond, the sections would have to include more than one grade, separate sex groups would probably be undesirable, and the subject combinations would probably have to be modified. These changes, however, would not interfere with the basic ideas outlined above.

In the case of a combined school, it would probably be unnecessary to carry the general scheme beyond Grade IX. The accumulated pupil - teacher contacts of the three previous

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years would probably be an adequate basis for guidance. Then too, the greater maturity of the Grade X - XII pupils would render them more adaptable to complete departmentalization.

B. Administrative Organization.

There seems little difficulty in outlining the administrative organization for a separate junior high school. The following officers are generally found:

1. Principal
2. Vice-Principal
3. Boys' Counsellor
4. Girls' Counsellor

If the vice-principal is a man he usually acts also as boys' counsellor.

In addition to these some schools have a visiting teacher and other minor officials.

In view of the prevalent feeling that the administration of combined schools may not always be so readily arranged, the writer asked the following question of all the authorities who granted him interviews. "In a combined school of about 500 pupils what would be a desirable set-up for administration?"

All the gentlemen questioned were of the opinion that a unified administration was to be preferred. Several, however, felt with Dr. H.B. King that all the officials must
be "junior high school minded". These latter educationists felt that, if this condition could not be met, a possible alternative would be the appointment of one vice-principal over each unit, or of a single vice-principal over the junior division.

It would seem that the matter depends on the "quality of educational leadership of the district". It can hardly, therefore, be treated conclusively from a theoretical standpoint but must be left to solution in the practical situation.

C. Extra-Curricular Organization.

In view of the very fine summary of the three common plans for student participation in school government, which is contained in the new Programme of Studies for Junior High Schools in British Columbia, it is unnecessary to devote much attention here to the types of organization which might be employed. Indeed, as far as a separate school is concerned, the question of student government has been amply dealt with in educational literature. It is necessary, however, to discuss certain aspects of student organization in a combined junior-senior high school.

The whole question of separate vs. combined junior high schools rises again with reference to separate vs. combined student organizations within the combined school. Dangers of undesirable influences of older pupils on younger
ones, or vice-versa, of lack of differentiation of activities and of domination of younger pupils by older ones, argue against a combined organization. In the minds of most educators, however, the need for unification with the school seems to dwarf all these arguments for a dual scheme of student organization.

The ideal towards which most combined schools strive is a single comprehensive organization in which the younger members are gradually trained up to take their places in positions of responsibility. The effect of this on both older and younger pupils is salutary. The younger are trained to respect capable leadership and, therefore, in their turn to become good leaders; the older pupils are impressed with an added sense of responsibility as guides of their juniors.

Within the single student association certain differentiation is both inevitable and desirable. The age range of the secondary school is too great to be characterized by entirely common interests among all pupils. Thus, few of the junior pupils will be interested in the types of social activities favoured by Grade XII. Similarly, many school clubs will have no appeal to the older pupils but will attract large numbers of younger ones. From the point of view of reduction of the number of behaviour problems this is very fortunate.

To a certain extent, also, large clubs might be divided into junior and senior sections so that the younger
pupils might have more possibilities for application of their energies. In any such division, however, care must be taken that no stigma is attached to the younger group.

In this field, to a greater extent than in any other, success or failure will depend on the work of the teachers concerned. Each sponsor has it in his hands to make or mar that portion of the association with which he is entrusted. Especially is this so in the case of the Counsellors or such others as are concerned in advising the executive officers elected by the student body.

The wisest policy in inaugurating student government is to make haste slowly. It is very easy to grant authority, but very hard to take it away. For the first year, it seems wise to employ a provisional plan giving the students only a measure of freedom. During this period, a considerable portion of the Guidance programme should be devoted to a thorough study by the pupils of various types of organization. Then, towards the end of the year, when all have had an ample opportunity to understand the implications of each possible scheme, one should be adopted on ballot of the student body. Even then, however, its introduction should be gradual, more and more authority being given as the pupils show the ability to make proper use of it. Under no circumstances should pupil government be permitted to interfere with the authority of principal and teachers.
Chapter IX

COST
Chapter IX

COST

The question of the cost of such a junior high school as has been described in the previous chapters is one of those minor matters which frequently obscure major issues. Expense should not be reckoned on an absolute basis but rather relative to the value obtained. As Briggs points out - "It can easily be shown that if no increased educational opportunities are offered and if the salaries of teachers are not increased, the cost per pupil will be reduced rather than increased." If, however, increased educational opportunities are given (which involves, of course, salary changes), higher costs must be expected, for, "there is seldom in education or elsewhere a possibility of getting something for nothing."¹

Richmond's Junior High School will cost, within very broad limits, just exactly the amount that the Board of School Trustees or the ratepayers are willing to pay. The major initial expense, the new plant, may be a makeshift or a model. It may be poorly or excellently equipped. It may have adequate or inadequate grounds. It may have all or none of those features so essential, not to the name, but to the spirit of a junior high school. Obviously, no estimate of its cost could be more than an unsubstantiated guess.

¹Briggs, op. cit. p. 84.
In a general way, however, it may be possible to draw certain conclusions as to the likely per pupil cost of the new school. Two types of information may be employed for this purpose.

1. Per pupil costs in districts where junior high schools are in operation, and

2. Per pupil cost of Richmond Elementary and Senior High Schools.

A survey of twenty-two American cities made in 1920 by Briggs shows:

- Average per capita costs in elementary grades - $31.38
- Average per capita costs in jr. high schools - 50.04
- Average per capita costs in sr. high schools - 63.48

The 1928 Biennial Survey by the United States Bureau of Education gives the following figures for all cities of over 10,000 population:

- Average per capita cost in elementary grades - $67.66
- Average per capita cost in jr high schools - 89.58
- Average per capita cost in sr. high schools - 21.29

The ratio in this case is 7:9:12

If the towns selected by Briggs may be considered representative, and they were apparently a random selection, these two tables demonstrate two facts.

1. That educational costs in general have increased.

2. That costs in the elementary schools and senior high schools have increased more rapidly than those for junior high schools.

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1 United States Bureau of Education Biennial Survey 1926-3, p. 498. These averages are based on average attendance.
The explanation of this latter phenomenon is not hard to find. In its early days the junior high school was the focus of attention and therefore of expenditure. Now, application of the science of education to the other two levels of the school has caused a shift of emphasis, and consequently of expenditure, to them. Probably, therefore, the latter ratio is more significant than the former. The actual per capita costs, however, have probably declined during the depression years.

The following table shows per capita costs in Richmond schools for the last five years.¹

<table>
<thead>
<tr>
<th>Year</th>
<th>Elementary School Cost</th>
<th>High School Cost</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931-2</td>
<td>54.97</td>
<td>99.20</td>
<td>5.5:10</td>
</tr>
<tr>
<td>1932-3</td>
<td>51.58</td>
<td>88.88</td>
<td>5:9</td>
</tr>
<tr>
<td>1933-4</td>
<td>49.54</td>
<td>67.38</td>
<td>5:7</td>
</tr>
<tr>
<td>1934-5</td>
<td>45.39</td>
<td>73.71</td>
<td>4.5:7</td>
</tr>
<tr>
<td>1935-6</td>
<td>45.27</td>
<td>71.17</td>
<td>4.5:7</td>
</tr>
</tbody>
</table>

Assuming that Richmond expenditure for junior high school education will be proportionate to that at other levels, we may derive an approximate figure for per capita costs in the new institution. In view of the steady decrease it will be wiser to take the ratio for 1934-5 and 35-6 rather than an average of the five years.

Reduced to a common denominator, Richmond's elementary schools' per capita cost is 54/84 of her high

¹These are based on total enrolment.
school's per capita cost, whereas the United States' average shows a ratio of 49/84. This may be partly due to the inclusion of Grades VII - VIII in the former figure and not in the latter. It will be necessary, however, to assume a likely error of 5/84 of 5.8% in using this United States junior high school figure as a basis of calculation.

The average United States junior high school has a per capita cost 9/7 as great as its elementary schools. On this reckoning Richmond may anticipate a junior high school figure of 9/7 x $45, or $64. Since it is impossible to say whether the new school will follow the trend of the elementary in being 5.8% above the United States ratio, or of the senior high school in being 5.8% below it, this figure must be quoted as $64 ± $3.90. Richmond may, therefore, anticipate a per capita cost for the junior high school lying somewhere between $60.10 and $67.90, or roughly between $60 and $68.

It should be remembered that the increase in cost in Grades VII and VIII is likely to be to some extent compensated for by a decrease in cost in Grade IX which is included in the junior high school estimate.

The foregoing analysis has referred only to annual expenses. Initial costs are another matter. Two important factors enter here; one, the need for immediate provision of additional accommodation in the Richmond system, and the other, the Department of Education's avowed policy of giving
very much larger grants for buildings designed to house junior high schools. When these factors are considered it may be found that the slightly increased annual cost is more than balanced by the decreased initial outlay for construction.

In any case, if the junior high school is justifiable on educational grounds, it cannot reasonably be dismissed merely because of a slightly increased cost. Education is too vital a part of national and community life and receives relatively too insignificant a part of national and community expenditure to permit of any justification for refusing to devote to it the slight additional sums necessary for improvements of the sort.
Chapter X

THE LIKELY EFFECTS OF THE PROPOSED REORGANIZATION ON THE EXISTING EDUCATIONAL FACILITIES
Chapter X

THE LIKELY EFFECTS OF THE PROPOSED REORGANIZATION ON THE EXISTING EDUCATIONAL FACILITIES

Any concentration of attention on one phase of any educational system brings with it the danger of neglect of others. That which is new may gain at the expense of that which is older. On the other hand, one improvement may bring others with it. It is the purpose of the present chapter to endeavour to evaluate the proposed reorganization in terms of its likely effects on the present schools of Richmond.

The following improvements seem probable:
1. Improved elementary education through the greater homogeneity of the elementary school population.
2. Institution of a zoning system for the elementary schools. (A time of general reorganization is a suitable one for the accomplishment of this long overdue reform).
3. Retention of pupils in the Richmond system through the provision of more diversified opportunities.
4. An increased educational consciousness in the community.
5. A gradual modification of the philosophy, curricula and organization of the senior high school.
In addition to these somewhat general developments certain definite practical changes may be foreseen. None are better qualified to speak on this point than the principals of the elementary schools. For this reason, the writer asked these authorities the following questions:

1. What will be the necessary decrease in your staff if Grades VII and VIII are removed?
2. How many rooms will be left vacant under the present enrolment?
3. What readjustments would be necessary as regards the Practical Arts courses?
4. For how many periods would the Cambie Gymnasium be required after the reorganization?
5. How would a junior high school operating on a basis of accepting practically all pupils from Grade VI affect your promotions?
6. Have you any general comments to make as regards the probable effects of the establishment of a junior high school?

The information obtained may be best summarized by considering together the answers of each of the four principals to each question.
1. What will be the necessary decrease in your staff if Grades VII and VIII are removed?

   Bridgeport        4 teachers
   Lord Byng         3, possibly 4 teachers
   Mitchell          possibly 1 teacher
   Sea Island        No decrease

Apparently, then, a total elementary staff decrease of eight teachers is to be anticipated. This, however, does not represent a serious problem as in the normal course of events one or two teachers will resign and the remainder will likely be absorbed into the staff of the new school.

2. How many rooms will be left vacant under the present enrolment?

   Bridgeport        5 rooms
   Lord Byng         3 rooms
   Mitchell          1 room
   Sea Island        none

The answers to these questions reveal the extent to which the junior high school will relieve congestion in the elementary schools. In no other way could nine class rooms at such distances apart be made available without the construction of a number of additions.

3. What readjustments would be necessary as regards the Practical Arts?
The responses of the principals of Bridgeport, Lord Byng and Mitchell schools revealed the fact that at present, not only the pupils in Grades VII and VIII but also those in Grade VI were receiving instruction in home economics and manual training. It was anticipated that the provision of this work in Grade IX will prevent its continuance with the Grade VI classes. It should be noted, however, that the provision of Practical Arts for all elementary grades, as required by the new curriculum, will necessitate the establishment of centres for this work in each school. The Grade VI pupils will, thus, be provided for in work more definitely designed for their age level.

4. For how many periods would the Cambie Gymnasium be required after the reorganization?

This question was found to concern only Bridgeport school. This school would still require at least one afternoon per week at present allotted to it unless some other provision were made. There is a strong possibility, however, that a very serviceable gymnasium will be made available through the conversion of two classrooms in one of the outbuildings into one large hall after the classes are removed to the junior high school.
5. Would a junior high school, operating on a basis of accepting practically all pupils from Grade VI, materially affect your promotions?

Miss McNeely, Bridgeport  
Very little.

Mr. Thomas, Lord Byng  
Probably increase them slightly, almost unnoticeable.

Mr. Aberdeen, Mitchell  
Possibly a slight increase in view of the difficult transition from Grade VI to Gd. VII

Mr. Fitchett, Sea Island  
Not much

Supplementing these answers, the writer obtained from several principals a list of pupils who had dropped out of school during the year. The fact that a considerable percentage of the mortality in Grades VII - IX was among repeaters seems to indicate that a considerable improvement is to be expected when a new, more interesting, and better adapted environment is provided and a more liberal policy of promotion is made possible.

There will remain, of course, the danger of retardation prior to the sixth grade. Indeed, particularly among the foreign children who lack facility in English, some may be necessary. Gradually, however, the junior high school should be able to show its ability to care for the needs of even this group and thereby remove the cause of all retardation.
6. Have you any general comments to make as regards the probable effects of the establishment of a junior high school?

Mr. Thomas - The junior high school would likely tend to quicken interest. It would be a progressive step which would possibly result in better control, procedure and discipline in all three schools, elementary, junior high and senior high.

Mr. Aberdeen While it is hard to make a definite statement on all possible effects it is evident that the building of a new junior high school is the only alternative to adding to Mitchell School.

Mr. Fitchett Since the highest mortality is at Grade VII, the junior high school might improve retention.

From the answers to this and the previous questions, it would seem that certain improvements and no ill-effects are anticipated by the principals of the elementary schools. There is evident, too, a willing desire to assist in any step which is likely to improve the system as a whole. Such a cooperative attitude will be of immeasurable value in the difficult stages of the establishment of the junior high school.

The present senior high school would not be subject to very serious change in the event of the establishment of a separate junior school. Some modifications, however, would have to be anticipated. In order that vertical coordination might render valuable the exploratory courses of the junior
high school, it would be wise to broaden the Grade X - XII curricula. This would involve the provision of Commercial and Practical Arts courses. Unfortunately, the reduction in staff necessitated by the reduction in pupil population might make such expansion somewhat difficult.

In the case of a combined junior-senior high school, the need for extensive change would be to some extent balanced by the more flexible staff organization and more varied accommodation of a larger school. Certain senior specialists might reasonably be expected to teach a few periods in the junior unit without change of status. Similarly, a compensating amount of instruction in the senior high school might be expected of junior high school teachers.

Should any considerable degree of interchange be attempted, it would seem only fair to provide salary adjustments for the junior teachers concerned. The writer has been unable to discover any British Columbia school system in which this is done. The general attitude of the principals he has questioned on this point seems to be that their only consideration is the employment of all members of their staffs to maximum advantage. The feeling of higher administrative officials seems to be that as such overlapping provides the first step between the junior and senior levels for their teachers, the latter should consider such work as a privilege. It is to be hoped that the situation will soon be remedied by
the elimination of the anomalous $100 difference between the minimum salaries of the two schools.

Other problems likely to arise in a combined school are discussed elsewhere in this thesis. On the whole, it may be safely prophesied that for every loss suffered by the senior school there would be a compensating gain.

There seems, then, little danger of serious disadvantage to any of the existing schools in the proposed reorganization. Indeed, those who are most likely to be affected anticipate a considerable improvement throughout the system as a direct or indirect result of the establishment of a junior high school.
Chapter XI

SUMMARY
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SUMMARY

Since it has been impossible to present the record of this investigation in a perfectly logical order due to the necessity for explanatory digressions, it seems desirable to give a brief chapter-by-chapter summary supplemented by a few general recommendations not included elsewhere.

I. This chapter discusses the history of the junior high school movement with especial reference to claims made for the new institution. It concludes that reorganization will provide an opportunity for significant reform in Richmond's educational system.

II. The separate vs. combined school question is discussed here from the theoretical standpoint. The conclusions reached are, that while the separate junior high school is the ideal, a combined junior-senior high school may be the more practicable provided it is wisely conducted.

III. The present educational situation in Richmond is dealt with in some detail. Data and opinions furnished by the elementary school principals are made the basis of the following six generalizations:

1. Richmond schools are not, on the whole, advantageously located.

2. Replacement or repair of a number of buildings is required.
3. Size and grade variations of schools indicate the need for zoning.


5. The Japanese will present a racial problem in the junior high school.

6. The new curriculum is demanding new equipment.

IV. This chapter outlines the study made of population distribution and contains a number of maps illustrative of matters relative to desirable locations for the proposed school.

V. The theoretical discussion of Chapter II and the analysis of population distribution of Chapter IV are brought together to show:

1. A scheme for the establishment of a separate junior high school in the Brighouse area as the first wing of a future combined school.

2. The alternative possibility, a less far-sighted plan, the establishment of a combined school at the present high school site.

VI. This chapter consists of three parts which discuss problems of curricula and means of arranging for groups for different subject combinations. It recommends that:

1. All subjects of the junior high school courses be offered.

2. (a) A plan of modified class groups be adopted.

   (b) These groups be arranged on a broad basis of bright, average and dull until research has removed the existing disagreement on homogeneous grouping.
3. (a) Broad courses with minor variations as authorized in detail be adopted for each of the general levels of ability in grades VII and VIII.

(b) Four general channels be recognized from Grade IX up, determined by the pupil's post-graduate aims.

VII. Figures for pupil population for the last six years are analyzed graphically to provide estimates for the necessary accommodation in the new school. These conclusions are supplemented by a discussion of questions relative to curricula so that the requirements in special rooms may be indicated. The necessary modifications in case of a combined school are pointed out.

VIII. The conclusion that overdepartmentalization is undesirable is used as the justification of a plan for curricular organization of the school in groups of six classes and teachers in line with certain progressive tendencies. The curriculum is divided into specialized and non-specialized subjects. A plan is outlined for the inauguration and development of student participation in school government.

IX. Proceeding from the statement that cost is a relatively less important factor but one which must be considered, this chapter attempts to estimate per pupil cost relative to the past costs in the elementary and high schools.
of Richmond. Notice is taken of the larger building grants provided by the Provincial Department of Education for junior high schools.

X. This chapter records the answers of the principals of Richmond’s elementary schools to questions concerning the likely effect of reorganization on their schools. Certain generalizations are made. The effect on the present high school of the addition of a junior unit is discussed in detail.
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