THE DEVELOPMENT OF THE TWO-YEAR COLLEGE IN BRITISH COLUMBIA

by

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B.A., University of British Columbia, 1951

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF EDUCATION

in the Department of

EDUCATIONAL ADMINISTRATION

We accept this thesis as conforming to the

required standard

THE UNIVERSITY OF BRITISH COLUMBIA

January, 1968

Department of Education,

The University of British Columbia,
Vancouver 8, Canada.

Date March 27, 1968.

ABSTRACT

The thesis examines several important aspects of the development and growth of the two-year college in the United States and Canada and compares these with the developments presently underway in British Columbia. Its design, therefore, is essentially historical and descriptive.

The study begins with an examination of a number of significant principles which emerged during the early colonial periods in the United States and Canada and which have given shape and purpose to the systems of education now followed in both countries. Included among these principles is the concept of universal education, free and state controlled but still allowing for some measure of local autonomy and guaranteeing equal opportunity for all.

The thesis then moves to a consideration of the growth patterns of two-year colleges in the two countries, delineating the forces which gave impetus to this growth and comparing the forms which have evolved and the conditions which have shaped them with those presently in evidence in this province.

Next to be identified and discussed are the purposes and the goals which American and Canadian educators have set for the colleges which have developed or are being developed in their respective countries. The relevance and worth of these to the movement in British Columbia is examined and additional purposes and goals are suggested.

Another area which is explored in the thesis is that of curriculum development. Here attention is focused upon the emergence of four types of junior college programmes - liberal arts and science,

technical, vocational trades training and general education. Again the developments in the United States and Canada are compared with those taking place in British Columbia.

Yet another area examined is that of the administrative organizations which have evolved and the personnel who must direct or serve under them. The roles and characteristics of the board of governors, the senior and junior administrators, the faculty and the students are discussed in some detail. The problems confronting each of these groups, and the expectations which each holds or must meet are examined.

Finally an attempt is made to measure the dimensions of the task facing those who are charged with the responsibility of developing district and regional colleges in British Columbia. A list of thirty-five questions which help to point up some of the problem areas, has been compiled. Of these five have been selected for special attention:

1. Can district and regional colleges achieve comprehensiveness?
2. Will the colleges be able to recruit and retain faculty who possess those special qualities or that particular philosophy which can best serve college students?
3. How can the colleges best achieve the articulation of their courses with those in the secondary schools and with those in the university or other institutions or agencies of higher education?
4. Can the colleges achieve curricular articulation and still remain autonomous?
5. What is the place of the district and regional colleges in the total educational system of British Columbia?

The thesis sets out an approach which might be followed in solving the problems which these important questions reveal in the hope of making some contribution to the healthy and orderly development of the two-year college in British Columbia.

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CHAPTER I

THE DEVELOPMENT AND GROWTH OF THE JUNIOR COLLEGE IN THE UNITED STATES

THE STORY OF AN IDEA

The community junior college is frequently called "L'enfant terrible" of higher education. In terms of the character that the institution has sometimes assumed, the sobriquet is deserved. Certainly the junior college in America, with its "open door policy" and its enormous variety of curricular offerings, has challenged and defied many of the cherished traditions rooted so long in the "groves of academe". But to draw from this term the inference that the development of the institution was either spurious or accidental is entirely fallacious. The junior college as it exists in 1968 is the logical culmination of social and economic forces which found their impetus as early as 1635 with the founding of the Boston Latin Grammar School and, a year later, of Harvard University.

Indeed from the very beginning, the early American settlers manifested their faith in education as an essential part of a programme of living. Although attitudes towards formal schooling differed rather markedly throughout the colonies, it was always given a place of importance in the lives of the people. That such an attitude could exist in a land where precedents were lacking and where men and women had to carve a civilization out of a wilderness is surely one of the more noteworthy facts of history.

EDUCATION IN THE NEW ENGLAND COLONIES

That it did exist can be attributed to the fact that the people of the colonies recognized the state as a servant of the Church. In order that their children might understand and participate in religious ceremonies at home and at church, the people of the New England Colonies began in their homes to teach the children at the elementary level. Apparently, however, not all parents adequately fulfilled their "moral" obligations and in 1642 the Massachusett's Bay Colony passed a law which demanded of all parents and masters that they:

> teach their children and apprentices to read and understand the principles of religion ... and to give them training in some honest calling, labour or employment, that they may be profitable for themselves or the country.[1]

It should be noted that the law of 1642 did not make it compulsory for children to attend a school, but it did require each community to see that parents provided for instruction in the home. Enforcement of course proved very difficult because of different interpretations of the meaning and effect of the law, but one significant result was that, although the law did not require instruction other than by parents and masters, there was an increase in the amount of teaching done by masters of apprentices, by private tutors, and by town school masters. In the larger towns Latin grammar schools developed to prepare boys for colleges.

In 1647 the famous "Deluder Satan Act" required all communities of the Colony to erect and maintain schools for the children who would not otherwise be educated.

1 William Brigham, ed., The Compact With the Charter and Laws of the Colony of New Plymouth, Boston, Dutton and Wentworth, 1836, pp.270-271.

The Act provided that:

1. every town having fifty householders should at once appoint a teacher of reading and writing, and provide for wages in such manner as the town might determine; and

2. that every town having one hundred householders must provide a grammar school to fit youths for the university, under a penalty of five pounds (afterwards increased to twenty pounds) for failure to do so.[2]

Thus the New England educational pattern began as part of the programme of the religious state. The civic body simply became the legislative and enforcement agency of the Church - a pattern much like that of England. Here was the precedent for universal education, state enforced and financed by the imposition of taxes. The common school concept had come to America.

EDUCATION IN THE MIDDLE COLONIES

In the middle colonies, particularly New York, Pennsylvania and Maryland, the concept of the parochial school developed. In these colonies sects such as the Baptists, Roman Catholics, German Lutherans, German Reformed, Menonites, Moravians, Presbyterians, Quakers and others insisted on teaching the children of their particular denomination according to their own beliefs and doctrines. Instruction was carried on in the homes but was under the direction of clergymen. Private schools which were established in the larger centres of population were church schools supported by church funds and by the tuition paid by families who could afford the cost of this kind of education.

Obviously the private church school favoured families of means, but the churches stubbornly resisted any move toward the establishment

2 Ellwood P. Cubberley, The History of Education, Boston, Houghton Mifflin Co., 1920, p. 363.

of a state system of education. At all costs they fought to preserve the right of each church to educate its children and youth. Indeed they supported each other in this position and thus established the private school. Today these schools are recognized as essential elements of the total educational programme and attempts to deny right to attend them have never been successful.[3]

The problem of making adequate provision for orphans and children of the poor continued, however, to plague the consciences of the people of the middle colonies where great numbers of the poorer classes had immigrated. The problem was also acute in the southern colonies. The church and state did make some provision for schooling the paupers but at best these were temporary measures. Although the people of means appear to have resisted proposals to extend such provisions into a permanent remedy, it is believed that the need to extend education to the many who were being denied the opportunity during colonial days was a powerful force in promoting legislation leading to the tax-supported educational programme now existing in all of the states.

Thus it was that by the time the colonies were ready to declare their independence, two patterns of education had emerged - a public school system which had begun in Massachusetts and the other New England colonies and the private school under the direction of various church groups. In the laws which they have subsequently enacted, the people of the United States have reserved the right to educate their children in either system, but they have conceded to the state the

3 The Oregon Case is a good example. See Clark Spurlock, Education and the Supreme Court, Urbana, Ill., The University of Illinois Press, 1955, p. 169.

right to enforce minimum academic standards in both private and public schools.[4] Most important of all they have continued to accept the responsibility they recognized when they established the pauper schools that all children, no matter into what circumstances they are born,must be given educational opportunity. Whether or not they have achieved equality of opportunity is a matter of debate, but at least Americans dreamed of it very early in their history.

THE EARLY NATIONAL PERIOD

Certainly it was a concept which caught the imaginations of the great political leaders of the early national period. It can be easily documented, for example, that George Washington felt keenly the need for educational expansion and we can see the same desire expressed in these words of Thomas Jefferson:

> ... the ultimate result of the whole scheme of education would be teaching of all the children of the state, reading, writing and common arithmetic.[5]

Brave words in Jefferson's day!

Closely associated with the ideal of equal opportunity was the concept of using education to achieve social mobility. Thus we have Abraham Lincoln in his first message to Congress declaring that:

> ... the leading object of the Government for whose existence we contend, is to elevate the conditions of men; to lift artificial weights from all shoulders, to clear the paths of laudable pursuits for all: to afford all an unfettered start and a fair chance in the race of life.[6]

It would seem that quite early in their history, the American people learned from the older cultures that the schools are the social

4 Loc. cit.

5 John Dewey, The Living Thoughts of Thomas Jefferson, London Cassell and Co., 1941, pp. 115-116.

6 Frederick Jackson Turner, The Frontier of American History, New York, Henry Holt and Co., 1920, p. 266.

elevators in a hardening social structure. It is a lesson they have never forgotten. Implicit in almost every major treatise written by American scholars on educational thought or practice, is the doctrine that the individual must be free to rise under conditions of social mobility.

Despite the optimism expressed by the early leaders, however, the time between the Declaration of Independence and the War of 1812 is generally regarded as a period in which American education deteriorated. This was a period of national impoverishment and the schools and colleges did suffer severe setbacks. People could neither afford the advantages of private education nor to increase their tax burdens to support the public schools. Nevertheless this was an important period in the development of American education, because it was at this time that the first state constitutions were written.

By 1800, seven of the sixteen states which had joined the new union had included in their state constitutions certain provisions concerning the state's responsibility for education. Since they had gone through a long colonial period during which state responsibility for education was being developed, the New England States incorporated in their constitutions the most comprehensive provisions for public education.

The middle states with their parochial-school bias were less definite in establishing state responsibility. The southern colonies together with the new states of Kentucky and Tennessee made no provision for public education.

By 1787, however, the theory of education as a state function

had been quite generally accepted and the ordinance for the organization of the Northwest Territory, adopted in that year, shows clearly that the federal government had accepted state control. Article 3 of the ordinance provides that:

> Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged (in the states to be formed in this territory).[7]

Later on, as additional states were admitted to the Union, Congress made land available to establish and maintain state systems of schools and state school laws began to be adopted by the older states in the Union.

Yet no provision was made in the Constitution of the United States for federal support or control of education, and Article X of the Bill of Rights passed in 1789 emphatically stated the principle that:

> the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.[8]

This clause would seem to indicate that the growth of state control of education was entirely acceptable to the founders of the federal government.

The early state laws on education gave the people the right to establish schools in their own districts if they desired to do so and to tax themselves for school purposes. This type of permissive legislation left the poorer communities without adequate provision and as time went on mandatory provisions had to be adopted. Thus there came

7 Ellwood P. Cubberley, Public Education in the United States, Boston, Houghton Mifflin, 1934, p. 92.

8 Loc. cit.

into being the school code which provided a framework by which the school districts of the state were regulated.

Much power, however, was delegated by the state to the local district. In the early years such a practice was necessary to get the schools started. The states differed in the degree of delegation of powers and in the size and number of school districts. In recent years the states have tended to provide a greater amount of aid, to increase the size of school districts and to insist more rigidly on minimum standards.

THE EMERGENCE OF BASIC EDUCATIONAL PRINCIPLES

As we review the evolution of the American school system we can see emerging a number of basic principles which have continued to give shape and purpose to the educational patterns which have developed. The first of these is the concept of the universality of education. From the outset the early American settlers had demonstrated their faith in education - first as an instrument to create understanding of religious doctrine and then as a means to "elevate the conditions of men".[9]

The establishment of the pauper schools is a clear indication of their belief that all children had a right to receive some education. Yet admirable as their intentions were in establishing free schools for the poor, it soon became obvious that the continuance of such a system would militate against the establishment of free schools for all, and would, moreover, have the effect of separating the population into upper and lower classes - a condition they had hoped to escape in

9 Frederick Jackson Turner, op. cit., p. 266.

settling in the new world. Significantly enough it was the two states which had pioneered the idea of the pauper school - Pennsylvania and New York - which led the way in eliminating them with the approval of a new plan for free schools, on the principle that "all men are created equal". The Pennsylvania Free School Act of 1834, together with subsequent legislation in that state and in New Jersey, eliminated the pauper school from the northern states. The middle and southern states moved more slowly but it was almost entirely eliminated in the reorganization which took place in these states following the Civil War.

With the decision that schools are the responsibility of the state and that class distinction should have no place in an educational system, much of the battle for universal education had been won. But it was not until 1852 that the first compulsory school-attendance law was passed. Here was eloquent testimony to the growing realization that education could no longer be considered a privilege but was indeed an obligation. Again it was the State of Massachusetts that led the way.

Current compulsory education laws differ markedly in the various states. The most common practice is to require all children to attend schools between the ages of seven and sixteen years. In some states the age ranges between eight and seventeen years. But at least by 1918 all forty-eight states had enacted some form of compulsory education law.

As we have already seen, compulsory education could not become a reality without accepting the second great principle that education should be free. To accept the principle was easy; to implement it was another matter. Throughout the first half of the nineteenth century,

many states were unable to raise sufficient funds to support the system. Thus there had to be continued the undesirable practice which had developed during colonial days of adjusting costs above those paid by taxation on a pro rata basis according to the number of children per family. The effect of this so-called rate-bill was that wealthy districts voted local taxes which when added to state funds were sufficient to provide free schools for their children. Poor districts, unable to do so, had to resort to shorter school terms and to inferior programmes. This was the pauper-school all over again.

By the middle of the century the fight for free schools was in full swing. The larger cities led in the battle and secured legislation to form school districts operated apart from city governments, and administered by local boards of education. Boards of education won the power to levy taxes at the local level for educational purposes. In 1834 Pennsylvania led the way in eliminating the rate-bill. In 1849 after a stormy debate, the New York State Legislature passed a bill which made the property of the state educate the children of the state. Indiana, Ohio and Illinois passed similar legislation in the years immediately following. Within five years the other northern states had won the battle for free schools. In the southern states free education was provided following the Civil War.

The struggle to provide free schools for the children of the United States went on over a long period of time and in truth continues today. The problem which remains, revolves around the extent to which education can be made free. For example, should free education be extended beyond the high school - to include the first two years of college?

Should all education be free? For the most part there seems to be agreement that elementary and secondary schooling should be free and it is significant to note that in many states junior college education is at nominal cost - a hint, perhaps, of things to come.

A third principle which logically has had to follow the concepts that education should be universal and free is that the state has the responsibility for it. In some ways this principle has been the most difficult of all to implement and it has required that the issue of state versus local control be settled over and over again throughout the entire nation.

When the Constitution was written, authority for education was left to the people of the several states. The people, facing insurmountable problems, found the state to be the logical agency for the final resolution of issues. But with this recognition of the authority of the state came its obligation to control the educational programme. Undoubtedly in these early days, state control received only grudging acceptance. Today, however, there seems to be little controversy over the states' right to set minimum standards for the schools. In 1812 the first state officer to supervise schools was appointed in New York. There followed the formation of state boards of education with secretaries who performed the same functions as state superintendents of schools. Today all states have chief state school officers and nearly all have state boards of education. The states now clearly recognize their obligation to enforce state-wide school regulations and have established departments of public instruction with extensive staffs who carry out specialized regulatory research or

leadership functions to improve instruction.

Despite the fact that the people of the United States have recognized the necessity of some state control of education, they have consistently affirmed the principle that local operation is desirable. A strong feeling continues to exist that the state is not the appropriate agency to administer the schools. The people hold very zealously to their local schools and to their right as citizens to participate in decisions about what the schools shall do. In short, the development of the school system has never been from the top down and it seems probable that the people will never permit the regulatory function of the state to reach such proportions that local initiative is eliminated.

For purposes of operation the state delegates the greater part of its power to the local districts through the districts' elected boards of education. In this way the local schools, in effect, remain the people's schools - a situation in which obtains both strengths and weaknesses.

Another principle which has emerged in the evolution of the American system of education is that public funds should not be used for private education. The emergence of this principle is not without ironic implication given the historical fact that in the beginning the schools were instituted and controlled by the church. As a matter of fact, history supports the conclusion that this change of attitude was not easily developed. Gradually, however, the people came to recognize the wisdom of the principle of separation of church and state. Religious instruction, while a right protected by the state, is nevertheless a private concern and should not be supported by public funds.

Cubberley explains that two factors operated to bring about the secularization of the public schools:

1. the conviction that the life of the Republic demanded an educated and intelligent citizenship, and hence the general education of all in common schools controlled by the state; and

2. the great diversity of religious beliefs among the people, which forced tolerance and religious freedom through a consideration of the rights minorities.[10]

But shifting the control from the church to the state and eliminating the practice of using state funds to support church and other private schools was not accomplished without bitter strife, particularly in the eastern states. That it was accomplished can be attributed in part at least to the work of Horace Mann who was a leader in the struggle in Massachusetts. New Hampshire was the first state to settle the issue by a constitutional amendment in 1792, and by 1900 the principle of separation of church and state was almost completely accepted through the United States.[11] Recent cases before the courts debating the use of the school for religious instruction suggest, however, that not all aspects of the problem have been solved.

PRESENT TRENDS

Today two further principles or attitudes which will guide the future of American education seem to be coming in to focus. The first of these can be seen in the recent trend toward continuing education beyond the high school and in the implementation of publicly financed kindergarten programmes. The question now being asked is

10 Ellwood P. Cubberley, The History of Education, Boston, Houghton Mifflin Co., 1920, p. 692.

11 R. Freeman Butts, The American Tradition in Religion and Education, Boston, The Beacon Press, 1950.

whether the state should make some provision for education at all age levels. It is a question that has really always been implicit in the development of the American educational system.

The common school which was the first division of publicly supported education provided the rudiments of the three R's. The extension of this school into the primary age brackets allowed for extensions of the curriculum. Next came the establishment of the Latin Grammar School which provided what we would now call high school education. It prescribed courses which were primarily designed to prepare students for college. Later the Academy developed. This was a school open to both boys and girls and offering in its curriculum a number of different courses and programmes, not all of which were college preparatory in nature. In this sense the Academy was the real forerunner of the modern secondary school. As it grew in popularity, particularly in the eastern half of the country, the Academy replaced the Latin Grammar School, but by 1850 the Academy itself reached its peak of popularity. Thereafter it declined markedly. Its decline probably can be attributed to developments in Massachusetts and New York where legislation was passed permitting districts to tax themselves for the purpose of extending the common school system. After the settlement of the famous Kalamazoo Case, in which the Supreme Court of the State of Michigan upheld the right of the state to enact legislation to extend public education to include the secondary school, a number of states quickly incorporated the high school as part of their common school system.

Another development in the story of the upward extension of the school system was the growth of the state university. The first

colleges and universities were private institutions supported by student fees, the church and endowment funds. By 1800 there were some twenty-five such institutions with not over one hundred professors and about two thousand students. Sixty years later the number of colleges and universities had reached 246, of which 17 were state universities. Great efforts were made to change church-dominated colleges into state schools and although the idea did not at first work out in practice, the movement persisted.

The second attitude, which is of more recent development, seems to centre in a growing conviction that federal participation in education may in fact be desirable. In the last few decades it has become increasingly obvious that there is a great need for equalization of educational opportunity among the states. It is also obvious that since approximately seventy-five cents of every tax dollar now goes to the federal government, there is little hope that education will ever receive an appropriate part of the nation's total wealth unless this source of revenue is used.

Despite the expressions of fear that one hears on all sides to the effect that federal aid means federal control, the American people have, for many years, used all of the levels of government for the support of their schools. Indeed the participation of the federal government began immediately after the ratification of the Tenth Amendment when the government granted land to aid the states in the establishment of public schools and universities. Subsequently grants have been made to aid the states in special programmes of education, particularly in the area of vocational training, but including also the support of military

colleges, the education of World War II veterans and of the Indians. If one is searching for precedent in order to argue for federal support, there is plenty to be found.

EARLY DEVELOPMENT OF JUNIOR COLLEGES

Cursory as the preceding review has been of the evolution of the American educational system, it will nevertheless serve to underscore the point that basic to the development of the important principles which have emerged, has been a deep-rooted belief on the part of the American people that all men and women must be given equal educational opportunity. This concept was unmistakably reaffirmed in the report of the President's Commission on Higher Education published in 1947 which reads in part:

> American colleges and universities must envision a much larger role for higher education in the national life. They can no longer consider themselves merely the instrument for producing an intellectual elite: they must become the means by which every citizen, youth and adult is enabled and encouraged to carry his education, formal and informal, as far as his native capacities permit.[12]

Clearly this statement represents more than tacit acknowledgment of the fact that education through the twelfth year had become by 1947, almost universal in the United States, and in fulfillment of the American dream of equal opportunity for each individual to rise above his "station in life", the provision of the junior college years followed as the next logical step.

The path that American education would follow had indeed been pointed out as early as 1934 by Robert M. Hutchins of the University of Chicago who predicted that "it would become the 'usual thing' for

12 The President's Commission on Higher Education, Higher Education for American Democracy, New York, Harper and Brothers, 1947, p. 101.

high school graduates to attend a junior college near home".[13] Hutchins was not alone in his prediction. In a valedictory address upon the occasion of his retirement from the faculty of Teachers' College, Columbia University, W.H. Kilpatrick prophesied that "the junior college bids fair to become well nigh universal".[14] His prediction was a reasonable one. When viewed within the philosophic framework which had been gradually assembled during the developmental period of American education, the public junior college appeared as a natural and logical extension of the public school system and at least a partial realization of the democratic ideal that secondary school and college education should be available to everyone.

Yet no matter how rich or fertile the soil of idealism in which dreams are rooted, they will not become realities unless conditions are right.

In the United States the condition was "right" and it can best be expressed in President Calvin Coolidge's famous dictum that "The business of America is business".[15] Undoubtedly a most significant factor in the remarkable success of the junior college movement was that the fields of endeavour, which were everywhere expanding, required for initial entry an educational background comparable to that provided by junior colleges. With the completion of a national railway network, business expansion and industrialism had gained, by the twentieth century,

13 Michael Brick, Forum and Focus for the Junior College Movement, New York, Bureau of Publications, Teachers' College, Columbia University, 1964, p. 5.

14 Loc.cit.

15 Richard Hofstadt and C. DeWith Hardy, The Development and Scope of Higher Education in the United States, New York, Columbia University Press, 1952, p.32.

a dominant role in American life. With this expansion came a great outpouring of material goods and new demands for training at both professional and technical levels. The Rockefeller Report, published in 1958, showed that as early as 1910, 32.8 per cent of the labour force required training at the post-secondary school level. By 1957 that figure had increased to 47.6 per cent, and the report predicted that the trend would accelerate in the years to come.[16]

All this, of course, had a pronounced effect upon education. The ever increasing demands of industry that education become more practical, is reflected in the remarkable proliferation of courses in college curricula to prepare students for entry into scores of mid-level and semi-professional occupations. We see, during this period, a turning away from the classical offerings so long a tradition of the college, and a heightening of the "practical versus classical" controversy that has been debated so earnestly in higher education over the years.

Today at least four other forces are rapidly accelerating the development of junior colleges. The first of these is the great attention now being given to the conquest of space, the exploration of the vast resources of the seas, and the search for "breakthroughs" in the field of medicine. The second is the so-called "population explosion". The third is the emergence of the United States as a world power and the concomitant assumption of the mantle of world leadership. The fourth is the fact that the American people have finally come to understand that their national security and welfare depend fully as much on their human

16 Rockefellers Brothers Fund, The Pursuit of Excellence: Education and the Future of America, Garden City, N.Y., Doubleday and Co., 1958, p. 6.

resources as upon existing productive capacity and national resources. In the words of one writer, "... they have come to understand that men and women increase in value both to themselves and society"[17] as they engage themselves in continuing education and thus education ceases to be only an individual matter. It is indeed "the producer of social capital".[18]

THE INFLUENCE OF THE GERMAN SCHOOL SYSTEM

New world idealism then, in interaction with the technological needs of a nation rapidly growing to world leadership, broke the tradition which had for long years in older lands, reserved higher education for the social élite. But breaking tradition is one thing, implementing a new system is another. Interestingly enough, it was to an "old land" that American educators first looked for guidance.

It is well known that in Germany a student enters the university not at the end of the twelfth grade as in the United States, but after completion of work in a Gymnasium at the end of the fourteenth year. With some variations we see comparable systems operating in the public schools of England, the Lycee in France and the Larouerk or Hogskola in the Scandinavian countries.

During the last half of the nineteenth century, American education fell under the very strong influence of the German School System. Understandably, the people of a rapidly developing industrial nation would admire and choose to emulate a system which had transformed

17 Michael Brick, op. cit., p. 8.

18 Loc. cit.

its country into a leading industrial power. Undoubtedly the German school system had done just that, and the United States felt no compunction in copying a large part of it. The kindergarten and normal school, the modern American graduate school and the technical institutes, all introduced in the nineteenth century, are patterned after their German counterparts.[19] And the junior college, which in the beginning was not thought of as a separate institution, was simply an attempt to copy the German pattern by extending secondary education to the fourteenth year. The movement in this direction was led by a succession of university presidents and deans. As early as 1852, Henry W. Tappan, former president at the University of Michigan, had advocated that the lower division work of colleges and universities should be done in the high schools. His great desire seems to have been for the establishment of institutions which were "purely universities without any admixture of collegial tuition".[20]

Tappan's idea was reiterated a few years later by William Watts Folwell at his inauguration in 1869 as President of the University of Minnesota.

> How immense the gain ... if a youth could remain at the high school or academy, residing in his home, until he had reached a point, say, somewhere near the end of the sophomore year, there to go over all of those studies which as a boy he ought to study under tutors and governors. Then let the boy, grown up to be a man, emigrate to the University, there to enter upon the work of a man.[21]

Both Tappan and Folwell felt keenly that high school graduates were too immature to do college work, yet neither succeeded in eliminating

19 Tyrus Hillway, The American Two Year College, New York, Harper and Brothers, 1958, p. 34.

20 James W. Thornton, Jr., The Community Junior College, New York, John Wiley and Sons, Inc., 1964, p. 46.

21 Loc. cit.

from his own universities what he considered to be the secondary years.

It remained for the first president of the University of Chicago, William Rainey Harper, to separate the first and last two years of university work. In 1892 he organized within the university an "Academic College" comprising the freshmen and sophomore years and a "University College" for juniors and seniors.[22]

Four years later these names were changed to "junior" college and "senior" college. President Harper is thus credited with coining the term "junior college".

In the same year (1896), he helped to establish Lewis Institute in Chicago and in 1897, Bradley Polytechnic Institute in Peioria, Illinois.[23] But as far as the junior college movement is concerned, President Harper's most significant and lasting service was his encouragement of the school board at Joliet, Illinois, to open a junior college in connection with its public school system. This was accomplished in 1902 and the Joliet Junior College is generally considered to be the oldest public junior college in the United States.[24]

Actually, the practice of "stretching" the secondary school years to include work at the college level had begun in the year 1880 when the public high school at Greeley, Colorado, added the thirteenth year. In 1890, Michigan adopted a similar scheme and secured agreement from its university to accept, as sophomores, the Grade 13 graduates from the state's strongest high school.

22 Jesse P. Bogue, ed., American Junior Colleges, Washington, American Council on Education, 1956, p. 11.

23 The Lewis Institute is now called the Illinois Institute of Technology. The Bradley Polytechnic is now Bradley University.

24 An earlier attempt to establish a public junior college at Goshen, Indiana, was blocked by the Attorney General of that state.

In 1904, J. Stanley Brown, the Superintendent of Joliet, reported "that Philadelphia, Muskegon, Saginaw, St. Joseph's Goshen, Joliet and eighteen semi-public institutions in different sections of the country were working out the 'six year plan' giving collegiate work in connection with the high school".[25]

DEVELOPMENTS IN THE PRIVATE SECTOR

In the private sector, this "process of elongation" can be seen as early as 1677 when the Roman Catholic High School in Newton, Maryland, added post-graduate work to its curriculum and thus established the first Catholic college in what is now the United States. Walter Eells calls this the first junior college.[26] Saul Sack, however, writing in the September, 1959, issue of the Junior College Journal, argues that the first private junior college was Susquehanna University, in Selingsgrove Snyder County, Pennsylvania, which as a Missionary Institute of the Evangelical Lutheran Church opened its doors for instruction on June 14, 1858, thus ante-dating the Lewis Institute by almost forty years.[27]

Yet, if one wishes to become embroiled in the "which came first" controversy, strong cases can also be made for Bucknell University, established in 1850, Lehigh University in 1866, Mucklenberg and Lincoln Colleges in 1867, Swathmore and Ursinus Colleges in 1869, and Thiel College which opened in 1875.[28]

In 1897, the Baptists in Texas converted three of their small senior colleges into junior colleges. Today, one of these is extinct;

25 Michael Brick, op. cit., p. 12.

26 Loc. cit.

27 Saul Sack, "The First Junior College", Junior College Journal, vol. xxx, September, 1959, No. 1, p. 13.

28 Loc. cit.

one has again become a senior college, and the third remains as a junior college. This is Decatur Baptist College, which today is recognized as the oldest independently organized junior college still in existence. From this one institution in 1897, independent and church related junior colleges have grown in numbers until there are now well over two hundred and fifty of them in the United States.[29] Few of these institutions, however, have survived as junior colleges in the full meaning of that term. Joliet Junior College has; and today is acknowledged to be the oldest public junior college in the United States.[30]

THE WORK OF DR. R.H. JESSE

Another important name in the early movement to establish junior colleges is that of Dr. R.H. Jesse, President of the University of Missouri, who argued strongly that the first two years of college are really secondary in character.

> I always think of the high school and academy as covering the lower secondary period and the freshman and sophomore years at college as covering the upper secondary period. Until so much at least of academic training has been received, higher education, in my opinion, does not really begin. In the secondary period and in, at least, the freshman and sophomore years of the college, not only are the studies almost identical but the character of the teaching is the same. The chief function of the instructor is to teach well

29 Bogue, op. cit., p. 11.

30 According to Bogue, more recent research has shown that Lasell Junior College, Auburndale, Massachusetts, offered two years of standing and collegiate instruction as early as 1852. See The Development of Junior Colleges, Washington, American Council of Education, 1957, p. 2.

what has been discovered and arranged and thereby to form mind and character.[31]

DEVELOPMENTS IN CALIFORNIA

But in the whole history of the junior college movement in America, the greatest impetus undoubtedly came from the State of California. Again it was a university president who gave the first leadership. David Starr Jordan, President of Stanford University, in studying the developments at Chicago ventured the following prophecy and recommendation:

> It is safe to prophesy that before many years the American University will abandon its junior college, relegating its work to the college on the one hand and to the graduate courses of the secondary school on the other.
>
> I ask your Board to consider the project of the immediate separation of the junior college from the university or the university college, and to consider the possibility of requiring the work of the junior college as a requisite for admission to the university on and after the year 1913, or as soon as a number of the best equipped high schools of the state are prepared to undertake this work.[32]

President Jordan's point of view, however, does not seem to have been shared by his faculty. A Committee studying his proposals expressed the concern that:

> ... upper-classmen coming from six year high schools and small colleges with limited equipment and endowment would not be as well trained or as far advanced as those who begin their college work here.[33]

It is not uncommon to hear similar points of view expressed today. But Jordan had a strong ally in the person of Alex F. Lange, a graduate

31 W.W. Carpenter, "Early Interest of the University of Missouri in the Junior College", Junior College Journal, vol. XXXII, No. 8, April 1962, p. 476.

32 H.A. Spindt, "Establishment of the Junior College in California, 1907-1921", California Journal of Secondary Education, vol. XXXII, November 1957, pp. 391-396.

33 Loc. cit.

student of the University of Michigan and Academic Dean at the University of California. During the early years of this century, Lange went up and down California advocating the junior college as the institution which should properly round out preparation for real university work and for the further completion of education for effective citizenship. The following passage suggests that Dean Lange did not hesitate to speak his mind:

> The frank recognition of the fact - it is a fact - that the difference between the first two years of college and the high school is one of degree only and has never been anything else, implies the remedy. The first step would be for the university to reduce its "swollen fortune" in freshmen and sophomores by actively promoting their distribution among federated colleges, normal schools, and the six-year high schools that are to be and will be. The second would be to give these grades in and without the university, by teachers specially prepared and experienced in secondary education, and to make the position of such teachers a worthy goal inclusive of salary, of legitimate and worthy ambition, initiative ... As for the university a number of its most vexing problems would pass out of existence.[34]

To the Dean must go much of the credit for the successful passage of a bill in 1907 which established the legislation whereby state high schools could offer the first two years of university work. This legislative pattern has since been followed in California. The law reads as follows:

> The board of trustees of any city, district union, joint union or county high school may prescribe post graduate courses of study for the graduates of such high schools or other high schools, which courses of study shall approximate the studies prescribed in the first two years of university courses.[35]

It is of interest to observe that the term "junior college" is not used in this enactment, but only "post graduate" high school education. As a matter of record, Joliet Junior College did not use

34 H.A. Spindt, op. cit., p. 393.

35 Bogue, op. cit., p. 12.

the name until about the year 1917, but called its programme "post graduate high school programmes". Also of interest is the use of the word "approximate" which had the effect of freeing the high schools from offering curricula which were identical with those offered by the universities.

In 1910 the City of Fresno opened the first junior college in California with an initial enrolment of twenty-eight students. From the beginning, it used the name "Junior College" even though the term was not prescribed in state enactment. Since the development in Fresno some fifty years ago, junior colleges have multiplied in the state at an astonishing rate. Today, there are seventy-four of them and a number of these are now moving to a multi-campus scheme of organization.[36]

We might well wonder why it is that the junior college movement has thrived so remarkably in California. Walter Crosby Eells, himself an influential leader in their development, suggests the following reasons:

1. The leadership of the University of California and Stanford University.
2. The leadership of the State Superintendents of Schools.
3. Favourable and constructive legislation.
4. The size of the state.
5. The climate of the state.
6. The high admission requirements of the universities of California and Stanford.
7. The small number of small colleges.
8. The large number and proportion of high school students in the state.
9. The "holding power" of Californian high schools.
10. The high minimum age of employment for minors.
11. Compulsory school attendance until age sixteen.
12. The ability of the state to support education.
13. The royalties from mineral lands earmarked for junior colleges.

36 San Mateo Junior College, Foothills Junior College and San Jose City College have expanded in this direction within the last year. A multi-campus situation also exists in one of the junior colleges in Pennsylvania.

14. The lack of educational conservatism.
15. The "Chamber of Commerce Spirit".
16. A sufficient number of capable instructors in the high schools.
17. Reasonable minimum standards. (Eells points out that none of the junior colleges established in the state has failed).[37]

The work of Eells in the development of junior colleges deserves special mention. As the author of the classic work on the subject, The Junior College, published in 1931, and as the founder and for many years the editor of the Junior College Journal, and indeed as the first full-time executive secretary of the American Association of Junior Colleges, Walter Eells had many opportunities to further the movement to which he had become dedicated while a member of the faculty of Stanford University. He was helped considerably by his colleague Ellwood P. Cubberley, who in 1899, as president of Vincennes University, Indiana, had also seen great merit in the system. In the 1899 catalogue of that institution Cubberley had written:

> The Vincennes University occupies a unique position in the educational field. It is halfway between the commissioned high school and the full-fledged college; it is, in fact, a junior college. Its graduates are admitted to junior standing in all the best universities. During the past year, Leland Stanford University of California, Cornell University of Illinois, and the University of Indiana have accepted our graduates with junior rank.[38]

To summarize briefly then, we can see that the junior college area has really been "carved out of various adjacent territories and has developed mainly from three sources - from above, from below, and from within".[39] Both the movements from "above" and those from "below"

37 Walter Crosby Eells, The Junior College, Boston, Houghton Mifflin Co., 1931, p. 117 ff.

38 Jesse P. Bogue, "The Development of Junior Colleges", E.J. Gleazer, Jr., ed., American Junior Colleges, 5th ed., Washington, D.C., American Council on Education, 1960, p. 10.

39 Carl E. Seashore, The Junior College Movement, New York, Henry Holt and Company, 1946, p. 41.

arose naturally from acquaintance with the European system in which the secondary school is continuous up to the equivalent of the end of the American sophomore year and university work begins with the equivalent of the American junior year. The developments from "within" came about through the influences of the social and economic forces which were at work in the growing America.

THE GROWTH OF JUNIOR COLLEGES

During the first two decades of the twentieth century, the growth in the number of public and private junior colleges and in their enrolments was little short of phenomenal. By the year 1901, there were in existence eight private junior colleges enrolling approximately one hundred students. Fifteen years later, the number of private junior colleges had increased to fifty-five with a total enrolment of 1,771 students, and nineteen public junior colleges had developed, enrolling some five hundred and ninety-two students. By the year 1922, a total of two hundred and seven junior colleges were in operation in the United States, seventy public and one hundred and thirty-seven private, and the total enrolment had jumped to 16,031 students.[40]

With some variation, the growth pattern in both the public and private sectors has continued to accelerate. For the period 1925-1926 Gleazer lists a total of three hundred and twenty-six junior colleges with an overall registration of 35,630 students. By the year 1960 these figures had increased to six hundred and sixty-three colleges, enrolling some 816,071 students.[41]

40 See Appendices (i) and (ii).

41 Loc. cit.

A simple linear graph[42] based on Gleazer's tables shows other interesting developments and trends. For example, it was not until the 1947-48 period had been reached that the number of public junior colleges in operation (328) exceeded the number of private colleges (323). In the immediate post-war period (1947-1953), the number of private junior colleges declined appreciably. During the same period, the growth in the number of public junior colleges remained relatively stable although the rate of growth showed some decline over previous years. Up to 1956, both private and public junior colleges increased in number, but the rate of growth has continued to be considerably higher in the public sector. While the graph shows some overall reduction in the numbers of junior colleges since 1956, part of this decline can be accounted for by the fact that a number of them have become four-year institutions.[43]

GROWTH PATTERN BY STATE

An analysis of the growth pattern by state of the number of junior colleges in America over a twenty-five year period, (1929-1954) [44] shows one state (Wisconsin) with a five hundred per cent increase in the number of its colleges; three states (Florida, Pennsylvania and South Carolina) with over a two hundred per cent increase; six states (Alabama, Connecticut, Indiana, Maryland, New York and North Dakota) with an increase of one hundred per cent or better; ten states (Colorado, Georgia, Massachusetts, Michigan, Mississippi, Montana, New Jersey, North Carolina,

42 See Appendix (iii).

43 See Appendix (iv).

44 See Appendix (v).

Oregon and Washington) with an increase of fifty per cent or better; and nine states (California, Illinois, Kansas, Maine, Minnesota, Ohio, Oklahoma, Texas and Virginia) with up to a fifty per cent increase. In the case of four states (Arizona, Idaho, New Hampshire and New Mexico), either no increase in percentage has taken place or none has been maintained, and in eleven states (Arkansas, District of Columbia, Iowa, Kentucky, Louisiana, Missouri, Nebraska, South Dakota, Tennessee, Utah, and West Virginia) there has been a reduction in the total number of junior colleges during the twenty-five year period. Again in some cases the colleges have become four-year institutions.[45]

The chart shows that California with seventy-eight is considerably ahead of the other states in the number of junior colleges it has in operation. Its closest rivals are Texas with forty-five and New York with thirty-one. Only one state, New Mexico, had no junior colleges in 1954.

Since 1954, however, there have been some quite remarkable developments. The State of New York, for example, has increased its number of junior colleges from thirty-one to sixty-nine and is now second to California which added only one college during the same period. Surprisingly enough, Texas has not developed additional junior colleges since 1954, but Florida has added twenty-two. Other states which have gained fifty per cent or more since 1954 in their number of junior colleges are Arizona, Connecticut, New Hampshire, Oregon, Rhode Island and Vermont.[46] An additional fifteen states have added junior colleges.

45 See Appendix (iv).

46 See Appendix (v).

These include Georgia, Idaho, Illinois, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, Ohio, Pennsylvania, Virginia, Washington and Wyoming. Including Texas, nine states have remained unchanged. These are Arkansas, Delaware, Louisiana, Montana, Nebraska, North Dakota, Oklahoma and Wisconsin. Fourteen states have reduced their numbers of junior colleges. These include Alabama, Colorado, District of Columbia, Indiana, Iowa, Kansas, Maine, Missouri, North Carolina, South Carolina, South Dakota, Tennesssee, Utah and West Virgina. Undoubtedly, the increasing inability of independent and private institutions to meet the rising costs of education accounts for some of this attrition, and again some junior colleges have gained university status since 1954.

It is of interest to note that five states or territories not included in the 1954 list have now developed junior colleges of their own. They included Alaska, with seven; the Canal Zone, with one; Hawaii, with one; Puerto Rico, with two; and the Virgin Islands with one. Of these new institutions, three (one in Alaska, one in Puerto Rico, and the one in Hawaii), are private.[47]

Brief though the foregoing analysis has been, it shows one fact unmistakably - "l'enfant terrible" is one of education's hardiest and most prolific institutions. From eight private institutions registering some one hundred students in 1901, the junior college movement had grown in 1963 to include seven hundred and nineteen private, independent and public two-year colleges with a total enrolment of 1,043,963 students

47 See Appendices (vii) and (viii).

and a total faculty of 44,405. Truly an astonishing record![48] The latest available information from the 1966 Directory shows that there are now 771 junior colleges, with about 1,300,000 students.[49]

PROJECTED SCHOOL ENROLMENTS

An examination of projected school enrolments shows clearly that there will be need for a great many more junior colleges over the next decade. Total fall enrolment in American schools increased from 36.4 million in 1954 to 53.1 million in 1964 and is expected to be 63.3 million in 1974.[50] This includes enrolment in all regular public and non-public elementary and secondary schools and enrolment in all degree credit courses in institutions of higher education. It excludes enrolment in private sub-collegiate vocational schools and enrolment in non-degree credit courses in institutions of higher education.

Total opening fall enrolment in courses creditable toward a bachelor's or higher degree grew from 2.5 million in 1954 to 5.0 million in 1964 and is expected to reach 8.7 million by 1974. These figures include all full-time and part-time resident and extension, graduate and undergraduate enrolment in degree-credit courses in four-year institutions and in junior colleges. They exclude college enrolment in non-degree credit courses.

Total degree-credit opening fall enrolments in four-year institutions increased from 2.2 million in 1954 to 4.2 million in 1964. It is expected to reach 7.3 million in 1974. Total degree-credit opening

48 See Appendix (vi).

49 The Junior College Directory, Washington, 1966.

50 U.S. Department of Health, Education and Welfare, Projections of Educational Statistics to 1974-75, 1965 edition, U.S. Government Printing Office, Washington, 1965, p. 1.

fall enrolment in junior colleges rose even more rapidly than in four-year institutions. It increased from 0.3 million in 1954 to 0.7 million in 1964 and is expected to be 1.4 million in 1974.[51]

With enrolments in four-year institutions expected to nearly double in the next decade, we can predict the development of large numbers of additional two-year colleges to relieve the tremendous burden that such numbers will impose. Moreover, additional colleges will have to be built to accommodate those who in the normal course of events would in the first instance elect to attend a junior college. It is obvious that the two-year college is here to stay.

51 See Appendices (xi) and (xii).

CHAPTER II

THE DEVELOPMENT OF THE TWO-YEAR COLLEGE MOVEMENT IN CANADA

We turn now to a consideration of the development of the two-year college movement in Canada. To gain some insight into the forces and concepts which have conditioned its development, we must first review, albeit very briefly, the evolution of the Canadian system of education.

Apart from some very fundamental differences in philosophic concept, the development of education in our country has, in many ways, paralleled that of the United States.

EARLY BEGINNINGS

In pioneer days common schools were established by the people of the local community. Although they were assisted by central governments from early in the 19th century and received firm direction from provincial authorities from the middle of the century, they remained essentially as schools of the people in their separate districts or areas. This characteristic was further strengthened when the common schools became free public schools supported by local taxation. The establishment of free, tax-supported schools was certainly an important and noteworthy achievement of the third quarter of the 19th century. It was not accomplished without bitter struggle on the part of those who objected to paying for the education of other men's children. To

provincial superintendents like Egerton Ryerson in Ontario, Jean Baptiste Meilleur in Quebec, and Theodore Ran in Nova Scotia, must go the credit for establishing this important principle.[52]

THE FIRST SCHOOLS

The first schools in Canada were founded by priests and missionaries of the Roman Catholic Church. In Quebec the "little school" established by the Jesuits began the instruction of French and Indian children in 1635. Few schools existed in Canada during the French regime, but teaching orders of nuns did provide education for girls. In the British colony of Newfoundland, there were virtually no schools at this time. When the British arrived in what are now known as the Maritime Provinces, schools were established as a religious charity by the "Society for the Propagation of the Gospel in Foreign Parts". This paternalistic system extended through Newfoundland, Lower Canada, and to an extent to Upper Canada. Sunday schools were established for secular and religious instruction. Monitorial and infant schools were also established. All of these schools were patterned after institutions which existed in England in the early part of the 19th century. When western Canada opened up later, the first schools were also set up under religious patronage.

By 1820 the most common school in Canada was the one-room log school house built and administered by pioneer settlers of the community with some help from the government. The schools were poorly equipped even to give a meagre knowledge of reading, spelling, writing and arithmetic. The teachers were often old or disabled soldiers who were

52 "Education", Encyclopedia Canadiana, 1965, vol. 3, p. 372.

unfit for any other occupation. Sometimes young girls were simply asked to keep order. The teachers were kept alive by "boarding around" among the different parents. The pupils were instructed individually, not in classes. Their attendance was generally haphazard and after four or five years they completed their formal education with very meagre accomplishments. Perhaps a third of the population could read, write and "figure" with some facility; another third could only read, and that with great difficulty. The remaining third of the population was illiterate.

Inadequate as the educational system was, however, it did bear testimony to the fact that the early settlers of Canada, despite the difficulties they must have encountered in a new and not so gentle land, also recognized the ultimate value of formal schooling.

When the provincial school systems were organized under strong central authorities in the third quarter of the 19th century, the schools improved markedly. At least a few of the teachers were formally trained in Pestalozzian methods and nearly all the children of the communities attended for at least five or six school years of ten or more months. By regulation and inspection, central authorities made sure that adequate equipment was available. For the first time teachers were required to hold a license and to demonstrate some competence in the three R's, some knowledge of grammar and geography, and the ability to give oral instruction.

EDUCATIONAL METHODOLOGY

Educational methodology changed significantly about the turn of the century under the influence of Fredrich Froebel, a German educator

who had died about fifty years earlier. When we recall the fact that early American educators seemed to have had a penchant for German theory and practice, it seems safe to conclude that Froebelianism reached Canada via the United States.

In essence the theory holds that the response of the child is the primary fact to be considered and that more can be achieved educationally by encouraging and directing the child's activity than by forcing knowledge on a reluctant learner or by regimenting his every move in the practice of skills. This early interest in the theory of educational motivation has had a healthy influence on Canadian education. The fact that there was early recognition of the desirability of developing individual talents and abilities augured well for the diversification and expansion of higher educational facilities in the years that were to follow. Although as a group Canadian educators seem to have been slower than their colleagues to the south in grasping the full implications of such a philosophy, there has been evidence in the last few years of a growing body of opinion that individual strengths and interests should be provided for at all educational levels. Hence the increasing interest in the junior college movement.

Undoubtedly this concept of a new education for a democratic society received further impetus from the writings of John Dewey and from the so-called "progressive" movement in the United States. In the 1920's Canadian educators acquired from the same country a knowledge of the new scientific techniques in education. During the "depression" years provincial authorities adopted a number of new programmes of study for the elementary schools.

Between 1850 and 1875 universal elementary education was achieved in Canada. The older provincial systems were fully organized before 1900. In the prairie provinces the school systems were developed early in the present century.

THE DEVELOPMENT OF SEPARATE SCHOOLS

In the meantime a system of "separate" schools had been developing in Canada. In four provinces, Roman Catholics or Protestants constituting a local minority won the right to request the establishment of elementary, and in two of the provinces, secondary schools of their own, and to withdraw their support from the existing public or "majority" school. The separate school so established, could be supported provincially by government grants and locally by taxation of the dissentient ratepayers. In Ontario, Saskatchewan and Alberta both separate and public schools are under the provincial control of the department of education. In Quebec, on the other hand, there are really two departments of education represented by Roman Catholic and Protestant committees who exercise separate provincial control over the schools of their particular denominations. In Ontario the individual ratepayer may decide whether he will pay taxes as a public or separate school supporter and he has the right to change his mind in any given year. In the other three provinces mentioned, however, the right of discretion does not exist.

Public opinion in Ontario, Saskatchewan and Alberta has been sharply divided on the question of separate schools which are based on a denominational concept of education primarily inherent in the philosophy of the Roman Catholic church. The North American public school has always

been a common school of all people in the community who have been able to submerge all religious, social and economic differences in school affairs. Those who value the concept of giving a common educative experience to all young people support the universality of the common school. But in the eyes of the Roman Catholic church the public school has always appeared as Godless if secular, or Protestant if it introduces religious teachings which seem at variance with Roman Catholic doctrine. In the provinces where support for the universal school has the approval of the majority, the controversy regarding public support for denominational schools has often been acrimonious. In Quebec, however, where the denominational concept is accepted by most of the people, and where anything resembling a universal school would almost certainly be Roman Catholic, relative harmony exists. The dissentients are quite prepared to avail themselves of the privilege of denominational separation.

In Saskatchewan and Alberta, separate schools are relatively few in number, partly because the Roman Catholic population is scattered, and partly because old world traditions are not strong in the face of new world attitudes. In Ontario, with a greater density of population and stronger traditions, and where the period of separate school development has been longer, ninety per cent or more of the Roman Catholic children, particularly in the urban areas, are enrolled in separate schools and over sixty per cent of such children in the province as a whole. Indeed, the proportion of Ontario pupils enrolled in Roman Catholic separate schools has increased steadily from the time of Confederation from less than five per cent of the number enrolled in public schools to almost twenty per cent after the second world war.

Newfoundland has retained a denominational school system similar to that which prevailed in England prior to the Forster Act of 1870. Schools are operated by religious denominations including the Anglican, Roman Catholic, United, Salvation Army and Seventh Day Adventists churches. They are supported not by local taxation, but by grants from the provincial government. Separate schools were avoided by the Maritime Provinces, and all schools are at least nominally public. The whole of the North West Territory was legally committed to the separate school from the beginning. In Manitoba, a steadily increasing non-catholic majority renounced by legislation in 1890 the commitment to the separate school system. British Columbia, immediately before and after entering Confederation in 1871, passed legislation which prevented religious teaching or denominational control in publicly supported schools.

Section 93 of the British North America Act guarantees the right of religious minorities to maintain separate schools. In retrospect it would seem that no other satisfactory arrangement was possible under conditions created in the Province of Quebec by the British conquest. Had the British Government from an early date simply assisted the people locally to establish schools without regard to religious affiliations, a different set of circumstances might have obtained and it would not have been necessary to enact the first separate-school law in 1841 which limited provincial prerogative in education and in fact guaranteed separate school rights in 1867. Canadian education has not been improved by the bad feeling, strife, litigation and waste resulting from these enactments, and needed developments in higher education by way of

provincial master plans have undoubtedly been retarded.[53]

THE DEVELOPMENT OF SECONDARY EDUCATION

Let us now turn to the development of secondary education in Canada. We encounter immediately some baffling problems which have been created by the conflict between traditional concepts of secondary education (largely British in origin) and "progressive" concepts which have emerged from a rapidly changing society and which had their origins in the United States.

The traditional view is that true secondary education must consist of academic or intellectual studies considered to be of superior educational value and required for entrance to university. This type of curriculum had its origins, of course, in Ancient Greece and Rome where it was considered appropriate for young men of leisure and means. It was retained in the Middle Ages and after by clerics and some lay scholars, and in England during the 17th and 18th centuries by the upper classes. In the early part of the 19th century in Canada, the same social distinction in education was manifest. Latin grammar schools in which the classics and mathematics were taught as well as some elementary subjects, were reserved for the sons of gentlemen. The common schools teaching only elementary subjects were for the children of the people.

From about 1850, secondary education was made a second stage in the educational ladder and pupils from the common school were admitted. But it offered a programme designed only for an intellectual élite.

53 "Education," Encyclopedia Canadiana, 1965, vol.3, pp. 371 ff.

Linked as it was to the university, it was suited to the needs of only a few who could survive the intellectual rigours of the entrance examinations.

After 1900, however, an increasing number of ordinary people began to demand more than a bare elementary education for their sons and daughters and this pressure gradually changed some of the fundamental concepts of secondary education which had traditionally linked the high schools to the universities. The people now began to see the high schools as logical extensions of the elementary schools, with the primary functions of providing for young people of ordinary ability, an education related to the needs of ordinary life.

Prior to 1850, only a few hundred pupils in the whole of English-speaking Canada received any instruction at the secondary level. By 1900, however, high schools were attended by a good number of young people preparing themselves to be teachers or to enter a university. Subsequently a spectacular expansion of secondary enrolment has taken place. In British Columbia, for example, where elementary school enrolment quadrupled in thirty years, secondary school enrolment was less than five per cent of elementary in 1900, but more than twenty-one per cent in 1949. Between 1911 and 1941, the average length of the school life of Canadian children increased from eight to ten years. By 1950 it was commonly accepted that the normal boy or girl would attend high school. This condition came about, of course, by the introduction of compulsory attendance laws requiring the child to be at school until fifteen or sixteen years of age, but it reflects also a growing awareness of the Canadian people that all children should be educated to the maximum of their potential.

THE DEVELOPMENT OF PROVINCIAL EXAMINATIONS

That "potentials" might vary considerably among individuals, has been a concept less readily acknowledged. Between 1870 and 1900 high school entrance examinations, uniform within each of the provinces, had been introduced as a safeguard for maintaining high academic standards. In some provinces it took fifty years after 1900 to eliminate them in order that pupils of average and less than average ability might get some benefit from high school education. With few exceptions, the only external examinations which remained after that time were those by which admission was secured to universities and normal schools. Today there is strong evidence that these too are being eliminated.

Once it had become clear that the academic programme was obviously far removed from the needs and interests of most high school students, other courses and programmes had to be introduced. For the most part these have remained as terminal programmes and will remain so until the junior college becomes fully accepted as a logical and essential extension of the secondary school.

THE GROWTH OF TWO-YEAR COLLEGES IN CANADA

Against this historical background, then, let us consider in more detail the developments which have taken place towards the establishment of the two-year college in Canada. In doing so, we see at once a rather striking contrast with the developmental pattern which had emerged in the United States. As has been suggested, for reasons which are essentially historical, Canadian education has remained predominantly under the influence of the British school system with its

sharp cleavage first between the elementary and secondary schools, and even more sharply between the secondary schools and the universities. Over the years Canadian educators have tended to reject the German concept of the Gymnasium, as an intermediate step between the high school and the university, and for the most part they have been downright contemptuous of any ideas of "open door colleges". Implicit in the pedagogical thinking of Canadians has been an almost total acceptance of the assumption that subject matter content is distributed along an hierarchical scale of values. Thus certain studies, English literature or mathematics, for example, are acceptable and appropriate to college curricula, others, such as cosmetology or gunsmithing, are not. The fact that it is extremely difficult on a rational basis to distinguish between two areas of study in terms of the intrinsic worth of either, has never troubled the thinking of Canadian academicians. By tradition, certain subjects belong in the college; others do not. Therefore entry to higher education can be open only to those students who have demonstrated at least basic competence, in acceptable subject matter fields. The notion of permitting automatic entry (after high school graduation on any programme) to institutions of higher learning where students may study either the so-called academic or the non-academic subjects, has largely been foreign to Canadian thinking at least up to the last decade.

The overall result of this philosophy has been the retardation of the junior college movement in this country. Indeed, it may be true to say that no junior college in the full and proper meaning of the term yet exists in Canada! It is a fact, of course, that over the years a number of two-year post high school institutions have been developed.

But for the most part, these have been either technical institutes, agricultural or military colleges, or colleges in affiliation with universities and with curricular offerings which are parallel to those of the universities. Moreover, most of these institutions have developed more as a result of financial or other exigencies which have dictated the lengths of their courses, than by deliberate design, based upon an inclusive master plan.

Unlike the development in the United States, where the junior college finally gained acceptance as an entity in its own right, the movement in Canada has been uneven and sporadic. If the Americans called the junior colleges "l'enfant terrible", the term at least implied a grudging respect. In Canada the "child" has been sickly, largely unwanted, and almost always regarded with some suspicion.

EARLY DEVELOPMENTS

Interestingly enough, Canada's first two-year college was founded in her smallest province. In 1860 the Prince of Wales College was established by provincial charter in the Province of Prince Edward Island. It is still in operation today offering a four-year academic programme, which includes two years of secondary school work and two years of university level work. The development then seems to have moved to the west coast where Whetham College, a private institution offering the first two years of Arts and Science, was founded in Vancouver in 1890. Its history, however, was short-lived. Whetham College closed in 1893, but its short existence may have at least had the effect of arousing some interest in higher education in Canada's most westerly province. In any event, a year later the Public Schools Act of British Columbia was amended

to empower the four existing provincial high schools to affiliate with any of five specified eastern Canadian universities.[54] The amendment to the act resulted in the establishment in British Columbia of two institutions of higher learning. The first of these was located in one of the Vancouver high schools, where junior college work in Arts and Science and Engineering in affiliation with McGill University began in 1899. In 1915 the Vancouver institution became the degree-granting University of British Columbia. The second of these institutions developed in Victoria where Victoria College began in one of the local high schools. From 1903 to 1907 the college gave one year of Arts and Science. By 1908 it had added the second year of university studies. Like the Vancouver college, Victoria College was affiliated with McGill University. During the years of the first world war, the college in Victoria closed and remained so for five years. When it reopened its doors in 1920, it dropped its McGill affiliation and became an affiliate of the University of British Columbia with a curriculum that was parallel in nearly every respect.

Meanwhile across the continent another institution of higher learning had been founded. This was the provincially controlled Nova Scotia Agricultural College which received its charter in 1899 but does not appear to have started offering courses until 1905. It then gave the first two years of college level work in agriculture and it continues in operation today.

DEVELOPMENTS FROM 1920 to 1950

In the 1920's, discussion and activity began in some of the

54 R.D. Mitchener, "Junior Colleges in Canada", Junior College Journal, vol. XXX, March 1960, p. 407.

provinces regarding the reorganization of secondary education into junior and senior high schools and in the Province of Ontario, the idea of public junior colleges was discussed in relation to this reorganization.[55]

In 1924, the Senate of the University of Saskatchewan gave authority for the establishment of junior colleges in the province to the extent of not more than the first two years of the Arts course. The 1926-27 Calendar of the university notes that four of these so-called "junior colleges" were in existence and had been given recognition. All were upward extensions of provincial high schools. By 1929, seven such institutions were in operation and with the exception of one of them - a private, church related school - all were recognized.

The 1925 proceedings of the Tenth National Conference of Canadian Universities included the following statement relevant to the junior college movement:

> It became clear that this subject was regarded as of vital and immediate pressing importance to the universities and it was agreed that the Committee on Nominations be requested to name a standing committee to study the subject of junior colleges.[56]

Development, however, continued to be slow. The 1934 meeting of the national conference of Canadian universities reported that there were eleven "junior colleges" in existence, nine of which were situated in western Canada.[57] The report did not include the Nova Scotia Agricultural College, nor the one or two classical colleges which had developed by 1934.

55 Peter Sandiford, "Junior High Schools and Junior Colleges", Queens Quarterly, vol. XXXIV, April 1927, pp. 367-383.

56 From Proceedings, Tenth National Conference of Canadian Universities, 1925, p. 14.

57 From Proceedings, Sixteenth National Conference of Canadian Universities, 1934, p. 67.

DEVELOPMENTS AFTER 1950

A study of the growth of the two-year college movement in the various provinces shows haphazard and sporadic development up to the 1950's. From this time on, however, there is evidence that the movement has gained some acceptance at the provincial levels. In 1931, in Alberta, Mount Royal College was founded at Calgary as an affiliate of the University of Alberta. Since that date, the university has also established a campus at Calgary which has now become a full undergraduate division. In 1957 the Lethbridge Junior College opened its doors. This college, modelled to some extent on the California junior college system, offers both transfer and terminal programmes and - with Vancouver City College - is probably the closest approximation of the true junior college concept in existence in Canada today. In 1958 the Province of Alberta passed legislation for the establishment of public junior colleges by one or a group of local school boards:

> ... for the purpose of teaching subjects of university level not higher than ... the first year beyond University of Alberta matriculation ... or for the purpose of teaching other subjects of a general or vocational nature not provided in the high school curriculum of the province.[58]

It is worth noting that the Act specifies that these institutions must have the words "Junior College" in their names. The Act also allows for such colleges to give only terminal work rather than university transfer courses, but it also provides that the Board of Governors of the University of Alberta must approve the affiliation of any public junior colleges to the university before they may be established.

58 Statutes of the Province of Alberta, of Elizabeth II, 1958, Chapter 64, p. 325.

In neither Saskatchewan nor Manitoba has development proceeded as rapidly or as deliberately as in Alberta. In Saskatchewan, in 1959, four "junior colleges" were functioning. These were Campion and Lutha Colleges in Regina, St. Joseph's in Yorkton, and St. Peter's in Muenster. This was the same number as in 1926, but not the same institutions. They offered only the first year of Arts. Of the four, three were small church-related colleges and one, Regina College (which had been church-related) had become public. In Manitoba there were no real "junior colleges" in operation in 1960, but a junior division of the University of Manitoba had been developed in downtown Winnipeg, six miles from the University of Manitoba.

In Ontario, apart from the discussions which had taken place in the 1920's, it was not until 1950 that any forceful, province-wide demand was made for the establishment of junior colleges. Prior to 1950, several small church-related colleges had developed and the Royal Military College at Kingston had been giving work up to and including the third year of a four-year degree course, but no other significant moves had been made.

In 1950 the Province of Ontario appointed a Royal Commission to study its system of education. Included among the recommendations of the commissioners were the following:

(a) That local education authorities be required to establish and operate junior colleges or junior college departments in conjunction with secondary schools, providing two-year university preparatory and vocational courses, and where the need is demonstrated and it is physically and economically possible to do so, three-year university preparatory courses, preferably in a junior college operated as a distinct unit for all students resident in their areas who have qualified for entrance and desire to attend.

(b) that attendance at junior colleges be voluntary and on a full-time day basis.

(c) that general legislative grants be paid on the approved costs of operating such junior colleges and junior college departments.[59]

It would seem, however, from his annual report for the 1951-52 academic year, that the former President of the University of Toronto, Dr. Sidney L. Smith, viewed these developments with some misgivings. In his report he offered four principles for the planning of junior colleges in Ontario:

(1) Junior colleges should be clearly differentiated from degree-granting institutions of higher learning and should be located in areas remote from universities.

(2) Courses should be unpretentious in scope and thorough in execution with standards high enough to command the genuine respect and recognition of their students, their teachers, the universities and the public.

(3) The programmes of general education should be so planned that their courses could be terminal for some of their students, thus providing a larger proportion of young people with general education beyond the secondary school. For other students the programmes should embrace basic courses required for university entrance of advanced standing.

(4) It should always be possible for students to proceed to universities directly from secondary schools without attending junior colleges.[60]

By 1960 at least one junior college had been developed in Ontario. This was the Lakehead College of Arts and Science and Technology. In addition, some post-high school technical institutes have been expanded and a large number of colleges of Applied Arts and Technology are now under development.

59 Report of the Royal Commission on Education in Ontario, 1950, pp. 56-58.

60 University of Toronto, President's Report for the year ended June, 1952, Toronto, University Press, 1952, pp. 3-4.

In September, 1965, the Ontario Minister of Education introduced in the legislative assembly a Bill to provide the necessary legislation for the establishment and operation of a system of colleges of Applied Arts and Technology. In doing so he outlined the programmes which these institutions would offer:

> ... We have in mind composite or comprehensive institutions, preferably with several buildings on the same campus, providing a wide variety of programs of varying length, including work experience programs, by day and in the evening for adults as well as for youth, and for probably more part-time than full-time students.
>
> Nevertheless, some features will be common to all programs: they will be occupation-oriented for the most part; they will be designed to meet the needs of the local community; and they will be "commuter" colleges. Residence or dormitory facilities will not be provided, except possibly in some areas of northern Ontario.
>
> ... one may recognize three major responsibilities of every such college:
>
> (1) to provide courses of types and levels beyond, or not suited to, the secondary school setting;
>
> (2) to meet the needs of graduates from any secondary school program, apart from those wishing to attend university; and
>
> (3) to meet the educational needs of adults and out-of-school youth, whether or not they are secondary school graduates.
>
> I would hope to see the following range of offerings in most if not all colleges of Applied Arts and Technology, the choice to be determined by local circumstances:
>
> (a) Engineering technician and technologist programs below university level.
>
> (b) Semi-professional non-engineering type programs (e.g., in the paramedical field).
>
> (c) High level programs in office and distributive occupations, specifically junior and middle management level ...
>
> (d) Agricultural and agricultural-related programs ...
>
> (e) General adult education programs, including cultural and leisure time activities.

(f) Programs of recreation, including physical education.

(g) General or liberal education courses including remedial courses in basic subjects ...

(h) Retraining, upgrading and updating courses.

(i) Trades, skills, pre-apprenticeship, and apprenticeship training.

(j) Service industry courses (e.g., for tourist industry).

(k) Commercial courses (e.g., cost accounting, junior accounting, data processing, computer programming).

(l) Other courses to meet local needs.

With respect to general or liberal education courses ... I would point out that these are not thought of as university level courses. Nevertheless, no able and qualified student should be prevented from going on from a college of Applied Arts and Technology to a university ...

You will note that I have not included in the list of courses what the Americans call the "transfer" or "college parallel" courses leading to advanced placement in universities, because there is no need for such courses in Ontario at the present time at least. In Ontario we have the Grade 13 course in our secondary schools now, and will probably long have its successor, the proposed matriculation year, specifically designed as a university-preparatory program for our academically able students.[61]

The Province of Quebec has not been quick to develop public junior colleges. At present the federal military college, College Militaire Royal de Saint-Jean, is in operation together with a number of church-related and French classical colleges. However, The Royal Commission on Education for the Province of Quebec, published in 1964, recommends the establishment of what it designates as "institutes" which would teach Grades XII and XIII and thus form a separate stage between secondary education ending in Grade XI and higher education beginning

61 Ontario Minister of Education, "Statement to the Legislative Assembly on Colleges of Applied Arts and Technology". May 21, 1965.

in Grade XIV.[62]

Developments in the Atlantic provinces have also been slow. In addition to the Agricultural College in Nova Scotia and the Prince of Wales College on Prince Edward Island, two other institutions give high school and junior college work. These are the co-educational Xavier Junior College which is affiliated with the St. Francis Xavier University and is located at Sydney, Nova Scotia, and the Convent of the Sacred Heart affiliated with Dalhousie University and located in Halifax. There is also in operation at Moncton, New Brunswick, the College de l'Assumption, which gives two years of Arts to men only and is in affiliation with the Universite Saint-Joseph. In Newfoundland the present Memorial University began as a junior college in 1925 but is now a full degree granting university.

According to the Dominion Bureau of Statistics publication, Canadian Institutions of Higher Education, 1958-59, there were a total of forty-nine "junior colleges" in Canada at the beginning of the 1958 academic term.[63] Over half of these were French language institutions in the Province of Quebec and included several schools offering one or two years of college-level work to persons intending to be clergymen, as well as several young institutions (primarily classical colleges) in process of becoming full undergraduate universities. The remaining institutions, both English and French language, comprised three military colleges and colleges offering work mainly in arts and science with, in some cases, the five years of professional courses. The full-time

62 Report on the Royal Commission on Education, Province of Quebec, 1964, vols. 1 and 2.

63 R.D. Mitchener, op.cit., p. 400.

university grade enrolment in all the "junior colleges" was less than three per cent of the Canadian total. Of the forty-nine colleges, three were under federal control, five were under provincial control, forty were church related, and one was controlled by a group of local school boards.

Interestingly enough, only two of the schools used the name "junior college". The Canadian Union College at College Heights, Alberta, (a Seventh Day Adventist school offering a two-year transfer and Bachelor of Theology programmes) seems to have been the first college to have used the term, as from 1919 to 1946 it called itself the Canadian Junior College. The two colleges so named in 1958 were Lethbridge Junior College and Xavier Junior College at Sydney, Nova Scotia. Subsequent to the report, however, the Camrose Junior College, the Medicine Hat Junior College, and the Grande Prairie Junior College were developed.

THE NEED FOR JUNIOR COLLEGES IN CANADA

The urgent need to develop two-year colleges is underlined when we discover that the enrolment of full-time university students in Canada has doubled in the past six or seven years, rising from 102,000 in 1959-60 to 206,000 in 1965-66. If current trends continue, enrolment is expected to double again in the next six years, and to reach 553,000 in 1976-77.[64]

64 E.F. Sheffield, Enrolment in Canadian Universities and Colleges to 1976-77, Ottawa, Association of Universities and Colleges of Canada, 1966, p. 2.

A number of factors have combined to produce the tremendous surge of enrolment in institutions of higher education. There has, of course, been a veritable explosion in population since the second world war. A projection of the population in the age range which is representative of university students, 18 to 24 years, indicates the likelihood that there will be an increase of about 50 per cent in the next decade: from two million to three million young people.[65] A second factor is the extraordinary increase in the retention rates of secondary school students. For example, in Ontario in 1946 the secondary school enrolment was 37.6 per cent of the population, aged 15 to 19 years. In 1964 it was 74.1 per cent.[66] Nearly all other provinces show similar trends.

Another force which has exerted a powerful influence in increasing registrations in colleges and universities, is the so-called "knowledge explosion," particularly in the field of science, where knowledge is said to double every ten years. One very natural consequence is that a longer period of schooling becomes essential if our people are to be able to manage the new world which is being created. We have today accepted the principle of secondary education for all. We must now recognize the inevitability of some form of post-secondary education for all who are capable of profiting from it. It is obvious that further education must be provided in a variety of courses or programmes which vary in length from a few weeks to six or more years. It is obvious that we must not only build more universities but new types of post-

65 Ibid., p. 9.

66 Ontario Minister of Education, "Statement to the Legislative Assembly on Colleges of Applied Arts and Technology", May 21, 1965.

secondary institutions as well for part-time day and evening students, and for full-time day students for adults and youth, and for the upgrading and updating of workers either on the job or in evening classes. In many ways it is the two-year college which can best fill these requirements.

A final factor which is operating to push us towards an extension of higher educational facilities is the new technological revolution. In recent years we have seen the disappearance of many of the unskilled and a high proportion of the semi-skilled vocations. It is true to say that in the space of twenty-five years the occupational world has altered almost beyond recognition. Today much higher levels of basic educational qualifications and of technical skills are demanded of those who supervise or work in our new automated factories and offices. No employer can afford to trust complex and expensive machines to the inept handling of an unskilled or poorly trained employee. These higher levels of skill and knowledge must be attained by employees either before employment or by way of upgrading courses while in service. What has happened in California, where many employers have become unwilling to accept high school graduation as a minimum qualification for new employees and are demanding graduation from junior colleges, affords us a preview of what may be to come in Canada.

In an address delivered on March 1, 1965, to the Canadian Club in Toronto, Dr. John Deutsch, Chairman of the Economic Council of Canada, very succinctly summed up our present situation:

> The world in which we live and must make our way is one which demands an ever-changing pattern of occupations and rising levels of skills. The occupations which are growing most rapidly are those which involve

> advancing levels of basic education and training. The occupations requiring the lowest levels of formal education are declining ... Much has already been done to meet the educational needs of our times, but there are significant deficiencies and gaps which remain to be overcome, especially in respect of research, the retraining of workers and the development of highly skilled manpower... a considerable number of (Canadian) companies are experiencing a scarcity of managerial, technical and scientific personnel ... There has long been a deficiency in our educational system in regard to the training of technical personnel beyond the high school but short of the university level ... An adequate general education is the best basis on which to build and to rebuild the particular work skills which the future will require ... In addition to adequate general education, the increasing speed of technological change requires greatly expanded efforts in the fields of training, retraining, aids to labour mobility and job placement services ... to achieve our goals ... we must invest not only in buildings and machines; we must also invest rising amounts in research, and in the education and training of our youth. The value of our natural wealth is great, but in the present-day world, there are even greater riches in the knowledge and skills of men.[67]

Statements of this nature from thoughtful and highly trained Canadians signal that in Canada, as was the case many years sooner in the United States[68] the time is "right" for the two-year college movement to begin in earnest.

67 John Deutsch, "Address to the Canadian Club in Toronto", March 1, 1965.

68 V.Supra, p. 17.

CHAPTER III

THE DEVELOPMENT OF THE DISTRICT AND REGIONAL COLLEGE IN BRITISH COLUMBIA

ENABLING LEGISLATION

In 1958 the legislature of British Columbia, responding to the social and economic forces of our times, passed the permissive legislation necessary for the formation of two types of institutions of higher learning - those organized directly by the province, for example, the University of Victoria and Simon Fraser University, and those organized by school districts, for example Vancouver City College. Under the Act, the Council of Public Instruction was given permission to:

> Authorize the establishment, maintenance and operation in affiliation with the University of British Columbia, of school district colleges by a Board, in which may be offered such courses as may be deemed desirable, and authorize the prescription of rules governing the operation of such colleges.[69]

It was also given permission to:

> Authorize the establishment, maintenance and operation in affiliation with the University of British Columbia, of provincial colleges in which may be offered courses for the academic and professional education of students in all faculties, including education.[70]

THE ROYAL COMMISSION ON EDUCATION 1960

The 1960 Report of the Royal Commission on Education for the Province of British Columbia, however, recommended the extension of the Grade XIII programme throughout the British Columbia school system, noting

69 The Province of British Columbia, Manual of School Law and Rules of the Council of Public Instruction, Queen's Printer, 1958, Chapter 42, Section 17, (O).

70 Ibid., section 17 (P).

that:

> fees charged for Grade XIII are considerably lower than those for first year university and particularly for pupils who reside in parts of the province other than Vancouver or Victoria, the cost of living at home is much less than that incurred by either living in university residences or boarding when attending university.[71]

The commissioners felt that this extension might best be accomplished through the establishment of "Collegiate Academies" which would include Grades XI, XII and XIII:

> Two programmes would be available in the collegiate academies - an academic programme and a technical programme. The former would lead to university entrance examinations, and the latter to examinations for admission to an institute for the further education of those preparing for careers in business, industry and technical fields. The two programmes would be of equivalent standard and would differ only in the objectives towards which they were directed. The pupils would choose which programme they would follow on the basis of their interests, aptitudes and future intentions, rather than upon differences of general intelligence. The two programmes would have enough in common so that pupils could transfer from one to the other without serious disadvantage up to the end of Grade XI. It is proposed that these courses would normally be provided in composite collegiate academies.[72]

The 1960 Report of the Royal Commission resulted in the implementation of quite extensive changes to the school system of British Columbia, particularly at the secondary level. It did not, however, lead to the establishment of "collegiate academies" of the kind proposed by the commissioners. The reason it did not is now obvious. In 1962, Dr. John B. Macdonald, the new President of the University of British Columbia, brought down his report on higher education in British Columbia.

THE MACDONALD REPORT 1962

The importance of the "Macdonald Report" (as it is now commonly called) to the future of higher education in British Columbia,

71 Report of the Royal Commission on Education, Province of British Columbia, 1960, p. 129.

72 Ibid., p. 274.

and for that matter to all of Canada, must be acknowledged. Perhaps for the first time in the history of Canadian education, a university president set out "a plan for the future". The report not only analyzes those changing world conditions which affect education generally, it points up the critical problems confronting higher education on this continent and throughout the world, and it acknowledges the weaknesses that have existed and the failures that have occurred.

President Macdonald reaffirms the axiom that "... we seek excellence in education" and that "no lesser goal is worth the effort".[73] He points to two requirements which he considers fundamental to the promotion of this excellence:

> These are first, diversification of opportunity, both in respect to the kinds of educational experience available and the places where it can be obtained. The second requirement is self-government of individual institutions in respect to setting objectives, standards, admissions, selection of staff, curricula, personnel policies, administrative structure, and all the other things that go to make up the operation of a college.[74]

The President goes on to explain why it is that British Columbia needs a number of different kinds of educational opportunities beyond Grade XII, pointing out the great diversity of interests and talents among our citizens and noting that "it is inconceivable that any one educational institution can serve successfully the wide range of educational objectives needed for the modern world".[75] He also gives his

73 John B. Macdonald, Higher Education in British Columbia and a Plan for the Future, Vancouver, The University of British Columbia, 1962, p.19.

74 Loc.cit.

75 Ibid., p.21.

reasons for advocating the geographic dispersion of higher education which he says relates primarily "to the critical need to seek out and attract to higher education all those who can profit by the experience".[76] And he offers a convincing argument in respect to the situation in British Columbia.

> The dearth of educational opportunity in the interior of the Province means that an important stimulus is missing which should be attracting all the ablest students to college or university. Many potential leaders remain unchallenged by the opportunities for higher education simply because they live in communities where the rewards for intellectual endeavour are not made evident by the presence of a college.[77]

An additional reason offered in the report for geographic decentralization relates to the resulting economies. Supporting his findings by reference to the "California Master Plan", Dr. Macdonald points out that "it can be cheaper in both capital and operating costs to provide education in a junior college than in a state college".[78]

Finally, the President makes clear his reasons for advocating that the individual institutions must be self-governing in respect to their academic programmes. Summarizing a study undertaken in Michigan,[79] he concludes that, "an institution can achieve excellence only if it can define its own goals and organize its own programme in such a way as to achieve its goals".[80] To those who favour a unified system as a

76 Ibid., p. 21.

77 Loc.cit.

78 Loc.cit.

79 John Dall Russell, The Final Report of the Survey of Higher Education in Michigan, 1958, p. 111.

80 John B. Macdonald, op.cit., p.22.

guarantee of minimum standards, Dr. Macdonald gives two answers. First he makes the telling observation that standards cannot be legislated. "Simply to say that the same course in chemistry will be offered by the University of British Columbia and a two-year college in the interior does not make it the same course".[81] Secondly, he points out that attempts to guarantee minimum standards have the effect of placing a ceiling on standards which means in fact "that no institution can be better than the next".[82]

Having enunciated these principles, Dr. Macdonald then recommended the development in British Columbia of two basic kinds of institutions of higher learning:

(1) Universities and four-year colleges offering degree programmes and advanced training for those students who have the necessary ability and aptitude.

(2) Two-year colleges ... for those students who plan to continue their education at a degree-granting institution; those who wish to take only one or two years of higher education - technical, academic, or a combination of both; those who are undecided about their educational future; those who by preference or for financial reasons wish to remain in their own locality.[83]

He saw the two-year colleges as a new kind of institution unique in character and ideals, and differing from one another in accordance with local needs. He felt that such institutions could attract very able students and professors by offering courses and facilities that were distinct in character:

> Seminar education, small classes, inter-disciplinary studies, close personal contact between professor and student, promotion based principally on accomplishment in teaching and so forth.[84]

81 Loc.cit.

82 Ibid., p. 23.

83 Ibid., p. 50.

84 Ibid., p. 51.

THE PUBLIC SCHOOLS ACT IS AMENDED

As a direct result of the Macdonald Report, the Public Schools Act was amended in 1963 and again in 1965. It will be recalled that the 1958 amendments had given the Council of Public Instruction permission to authorize the establishment of "School District Colleges" which were to be in affiliation with the University of British Columbia.[85] In the 1963 amendment to the Public Schools Act, the term "regional college" was added and defined as:

> A school with the same authority to offer courses as a school district college has under this Act, but established, maintained and operated by two or more adjoining school districts.[86]

At the same time a new definition of "school district college" was substituted:

> "School district colleges" means a school in which tuition in first and second year university work and such other courses at a post-secondary school level as may be deemed desirable are offered by the authority of a Board of School Trustees.[87]

The Act was further amended to authorize through the Council of Public Instruction:

> the establishment, maintenance, and operation of a school district college by a Board in which may be offered such courses as may be deemed desirable, and authorize the prescription of rules governing the operation of such school district colleges:

and

> authorize the establishment, maintenance and operation of a regional college by two or more adjoining school districts, in which college may be offered such courses as may be deemed desirable, and authorize the prescription of rules governing the operation of such colleges.[88]

85 V.supra., p. 58, Appendix (xiii).

86 Public Schools (Amendment) An Act to Amend the Public Schools Act, Chapter 36, Section 2, Queen's Printer, 1963, p. 139.

87 Loc.cit.

88 The Amendment strikes out the definition of "Provincial College" and makes no further reference to such an institution.

What is significant to note in these amendments, of course, is the absence of any reference to "affiliation with the University of British Columbia".[89] Thus President Macdonald's dream of independent, self-governing institutions was realized.

The 1963 amendment provides for the establishment of "Regional College Councils", sets out the composition of such councils and delineates their powers. It further makes provision for the financing of regional and school district colleges.[90]

In the 1965 amendments to the Public Schools Act, the term "School District College" was dropped and the term "district college" substituted. A "district college" was defined as:

> A college established under this Act by a Board of School Trustees in which tuition in the first and second years of University work and other courses normally requiring completion of secondary school for admission are offered by the authority of the Board.[91]

The definition of a "regional college" was changed to mean:

> A college established under this Act by the Boards of School Trustees of two or more adjoining school districts in which tuition in the first and second years of University work and other courses normally requiring completion of secondary school for admission are offered by the authority of the Regional College Council.[92]

The deletion of the words "such courses as may be deemed desirable",[93] in the 1965 amendment, is indeed interesting. It is quite obvious that the legislators intended to make crystal clear the fact that all high school graduates, whether on the academic, general or

89 Public Schools (Amendment) op.cit., Section 2.

90 See Appendix (xiii).

91 Public Schools (Amendment). An Act to Amend the Public Schools Act, Chapter 41, Section 2, Queen's Printer, 1965, p. 275.

92 Loc.cit.

93 V.supra., p. 63, Appendix (xiii).

vocational programmes, should have the opportunity to enrol in a district or regional college. Thus the American concept of the "open door college" based on the dream of "equality of opportunity" gained to some degree at least, the official stamp of approval from the Government of British Columbia.

THE GROWTH OF COLLEGES IN THE PROVINCE

Well before this legislation was brought down, however, a number of school districts in the province had begun to move towards the development of district and regional colleges.

In 1962, for example, the Vancouver School Board established the King Edward Centre for Continuing Education. Actually adult education programmes had been operating in Vancouver since 1909 when the Board had undertaken the training of stone cutters for the construction of the new post office. In that same year night classes in other subject areas were established and these continued to be offered in the various schools of the city until the organization of the adult centre in 1962. In 1925, the school board developed the Vancouver School of Art, thereby entering the field of daytime adult education. Following World War II, a considerable demand arose for vocational training for returning service men and in 1949 with the help of both the federal and provincial governments, the Vancouver School Board built the Vancouver Vocational Institute which offered extensive vocational training to both men and women. About this time also, the academic programme which had been offered at the night schools began to mushroom with more and more adults seeking to complete junior or senior matriculation. This demand on the part of adults to continue their education led in 1962 to the formation of the

King Edward Centre for Senior Matriculation and Continuing Education.

The Board recognized, however, that there was a need for other levels and types of training beyond those of the secondary school, which were still not being provided in the Vancouver area. Supported by the recommendations of President Macdonald that two-year colleges be developed in a number of provincial areas, and with the enabling legislation passed by the Government of British Columbia in 1963, the Board began the development of a district college.[94] In September, 1965, Vancouver City College began operations. Under the overall direction of the Vancouver School Board, Vancouver City College co-ordinates as an educational complex The Vancouver Vocational Institute, The Vancouver School of Art, and the King Edward Senior Matriculation and Continuing Education Centre.

Meanwhile a good deal of similar activity was underway in the West Kootenay region. Led by the Trail School Board, the West Kootenay Branch of the B.C. School Trustees Association began preliminary discussions relevant to the development of a "regional college" in the West Kootenay area. These discussions led to the presentation, in December, 1963, of a plebiscite to determine the extent of regional interest in developing such an institution. The idea received enthusiastic support from the people of the area and the Branch then moved to set up, in accordance with the Public Schools Act of 1963, a Regional College Council.

94 John H. Wormsbecker, "City College-New Concept in Adult Education", School Administration, vol.2, No.3, May/June, 1965, p. 43 ff.

Representing the contiguous areas of Trail, Castlegar, Slocan, Grand Forks, Nelson and the Arrow Lakes, the newly appointed Regional College Council quickly reached agreement on a site for the new college at Castlegar.[95] The Council then appointed two consultants[96] to undertake research work towards the development of a curriculum and to conduct the necessary surveys to determine probable enrolment, course requirements and the kind of physical facilities needed. Subsequently a competition was conducted among a large number of architects to produce a design which would reflect the philosophy of the proposed college. A winner was declared; his design was accepted, and he was appointed as college architect.[97]

In accordance with the procedure outlined in the Public Schools Act of 1963[98] a referendum in the form of a money by-law was placed before the electors on February 25, 1965. With the exception of one centre[99] the referendum received the required sixty per cent majority. On May 18, 1965, one of the two consultants who had originally been appointed to develop the college was named Principal.[100] On the 18th of November, 1965, ground-breaking ceremonies were held on the new site. In April, 1966, the Regional College received its official name of Selkirk College. Construction of the new campus was halted in the summer of 1966 due to a labour-management dispute. The college carried

95 In his Report, President Macdonald had recommended this location.

96 Dr. L.W. Downey, Director of Secondary Education, University of Alberta, and Mr. Gordon Campbell, Director of Extension, University of Waterloo.

97 Mr. John Kidd of Vancouver.

98 See Appendix (xiii).

99 Nelson voted 58% in favour, but agreed to remain as a member of the Regional College Council.

100 Mr. Gordon Campbell.

out its first term of work in five bunkhouses made available by the Columbia Cellulose Company and located on the Celgar plant property near Castlegar, B.C. Students and faculty moved to the permanent site in January, 1967. Subsequently the first principal of the college resigned and a new one was appointed with duties to commence on June 1, 1967.[101]

It is worthwhile to review some of the steps which were taken by the newly formed West Kootenay Regional College Council in preparation for the money by-law which was placed before the people on February 25, 1965. First of all a restrained but continuous campaign was launched in the local newspapers and over local radio stations, the purpose of which was to give the voters as much relevant information as possible. Secondly, a day-long seminar was held in Nelson, B.C., to which were invited the presidents of all provincial universities who with the possible exception of one[102] enthusiastically endorsed the proposed college. At this seminar, the winner of the architectural competition was announced and the people had the opportunity to see an attractive model of the proposed campus.

Finally, a list of all the major questions which had been asked by local people concerning the nature, purpose and financing of the college was compiled in a booklet and the questions answered. This document was mailed to all voters as an effective means of giving them as complete a picture as possible.[103] The booklet gives many interesting insights into the kind of thinking that was taking place both by interested local citizens and by the College Council.

101 Mr. Andrew Soles.

102 The President of Notre Dame University of Nelson was understandably less enthusiastic than his colleagues.

103 See Appendix (xiv).

At the present time a number of areas in British Columbia are in various stages of progress towards the development of district or regional colleges. Several important surveys have been carried out and reports written. Of these the report of Dr. Leonard Marsh of the Faculty of Education, University of British Columbia, on a regional college for Vancouver Island, is the most exhaustive and is a valuable document in pointing up the need for the development of district and regional colleges not only for the area he was studying, but for the province as a whole.[104] Dr. Marsh incorporated four different surveys in his study which is in two parts:

1. An assessment of all available statistical sources permitting forecasting of higher education dimensions.

2. A survey of the school-leaving population, particularly at Grade XII.

3. An assessment of employment, occupational and technical trends in the region.

4. A review of relevant experience in community colleges in the United States and elsewhere.[105]

In summing up his findings in Part I of his report, Dr. Marsh makes the following observations and reaches the following conclusions:

1. A Regional College is a particularly valuable concept for British Columbia because of (a) mountain topography, (b) low-density settlement patterns, (c) facilitating a coordinated approach to a group of communities, (d) economical use of scarce teaching resources as well as the school dollar.

2. The special purpose of a Regional College is to facilitate higher education for many who might otherwise not obtain it: it

104 Dr. Leonard Marsh, A Regional College for Vancouver Island, Part I, Vancouver, 1965, Faculty of Education, University of British Columbia, pp. 1-97.

105 Ibid., p. i.

aims at appropriate combinations of general and technical education, and should not hesitate to be realistically career-oriented. It is neither only a liberal-arts or university-preparatory college, nor only another kind of technical institute: it must offer comprehensive facilities with scope for threefold interconnection: (a) general education; (b) technical instruction; (c) community service courses.

3. Vancouver Island is geographically determined as a region, but with highly important qualifications: (a) transportation difficulties; (b) markedly uneven population distribution; (c) special factors in forestry exploitation. There are major differences in the concentrated Greater Victoria area, the secondary centres around Nanaimo, the attenuated pattern of the coastal plain, and the great northern area.

4. Population growth has been outstanding in recent years. This is examined in detail, in provincial perspective, and for the specially-delimited "Survey Area". School enrolment has increased much more than population growth. The Survey Area (excluding the Greater Victoria area) is closely comparative with other regions (Okanagan, West Kootenays) which are now proceeding with Regional Colleges.

5. Enrolments in Grades X-XII, the most immediate "college potential", have increased rapidly, not only from (a) demographic (birth-rate and age-group) factors, added to by immigration, but from (b) increased concern with finishing high school and the increasing retention rate of the schools.

6. The college potential is much more complex than the immediate "pool" of high school graduates, because of (a) recruits from previous years; (b) older and younger persons now upgrading their educational standing, and because (c) account must be taken of high school leavers who have come through the non-academic options. Furthermore, net as well as gross computation must be applied, to take account of students already coming to University.

7. When every allowance has been made for these factors, the potential who need and could benefit from a Regional College are more than sufficient in numbers to support one. The need is urgent enough to recommend the projection of a college for 1967-68. The estimated minimum enrolment is 650, with a possible maximum of 1,200; this refers to full-time students only, and assumes no reduction in students going to U.B.C., the University of Victoria, and Simon Fraser. (Cooperative coordination with these institutions is assumed). Part-time students would be additional, and could be very numerous.

8. These assessments pre-suppose one Regional College serving the whole Island. Alternatives to this system are examined, but the weight of advantage is considered to be heavily in favour of a single Regional centre. But to make possible an effective regional service (a) residences are essential, and (b) travelling services are capable of much development. The possibility of (c) a branch campus is not ruled out, particularly for the north, but would be advantageous to develop it after the major centre had established the College and its resources.

9. A Regional College is not justified on quantitative grounds alone (the potential numbers of students), but by the kinds of students it can serve. Similarly, in a region as difficult as that of Vancouver Island, its desirability cannot be judged by the single criterion of commuting distance, but by the services it can offer. Properly constituted counselling facilities are a key-service for an effective College. Adult education also has great potential for assisting the towns and districts of the region and putting their resources to optimum use. The expansion of a Regional College as a local asset will be limited only by public understanding of its possibilities.[106]

Today, work towards the development of a regional college is proceeding in the Nanaimo area. A plebiscite has been placed and six of the nine original districts are planning for a referendum.

Another interesting study which gives insight into the kind of thinking which has been going on in the regional college movement in British Columbia is the North Shore Regional College Study carried out by Tantalus Research Limited, under the direction of Dr. Walter G. Hardwick and Professor Ronald J. Baker.[107] This study was commissioned in December, 1964, by the Boards of School Trustees of School Districts Nos. 44 (North Vancouver) and 45 (West Vancouver). The report is presented in four parts, as follows:

1. The character of the community college with its mixture of academic and vocational training programmes ...

106 Ibid., pp. vi-vii.

107 Walter G. Hardwick and Ronald J. Baker, North Shore Regional College Survey, Vancouver, Tantalus Research Ltd., 1965, pp. 7-43.

2. An argument for the establishment of a regional college on the North Shore.

3. The regional college curriculum.

4. The problem of college location.

The report deals also with the role of the regional college, the implications of the new secondary school curriculum, projected college enrolments and offers a critical review of the Macdonald Report. It makes five recommendations:

1. A regional college will be desirable on the North Shore by September, 1968.

2. The College should offer a comprehensive program including:

   - an expanded academic program (only partially furnished at present in the Grade 13 program);

   - new program packages unique to the regional college; and

   - functions attractive to large segments of the North Shore population so that the College may assume the role of a focal point for the educational and cultural affairs of the community.

3. The College should be centrally located within the region on a site clearly and visually identifiable by North Shore residents.

4. We recommend that the participating School Boards should initiate a program of public education to inform the community of the need for, and the concept of, the Regional College.

5. We recommend that the School Boards should then petition the Council of Public Instruction for permission to hold a plebiscite to determine whether the voters of the North Shore favour a Regional College. A simple majority is required.[108]

The report was made public in November, 1965, at a dinner given by the two boards for the city and district councils in the area. All councils expressed strong support for the project. Subsequent to this meeting each board passed the by-law required by the Act, requesting permission to hold a plebiscite on the question of planning a college.

108 Loc.cit.

In January the by-laws were presented to the Minister of Education and the requests were referred to the Academic Board for consideration and advice. On March 7, 1968 a plebiscite was placed before the people, and with the exception of one area - Sechelt - received a 65 per cent majority.

Yet another study has been carried out by School Districts 41 (Burnaby), 43 (Coquitlam), 42 (Maple Ridge), and 40 (New Westminster). An agreement among these four school boards to participate in a joint survey of the feasibility of establishing a regional college was initiated in December of 1965. The report concerns itself with:

> a description of the proposed college area, general statistics pertaining to population base and projected enrolment; surveys on student placement for graduates in 1965 and planned placement for potential graduates 1966 and 1967; present enrolments in night schools; pupil retention.[109]

The study concludes with the following observations and recommendations:

> On the basis of the statistics summarized in this report compared to the criteria recommended for the establishment of community (junior) colleges in the United States, there appears every justification for the immediate establishment of a regional college to serve the students of Burnaby (41), Coquitlam (43), Maple Ridge (42), and New Westminster (40) School Districts. This is substantiated by the sizeable estimated full-time student potential of 1749 in 1965 to 2258 by 1970 ... an extensive source of part-time student enrolment through the night school programme which, depending upon the location of the college, could be absorbed at least in part into the college programme. In addition, senior matriculation enrolment is projected to grow to 507 students by 1970. Furthermore, it would appear that the projected 1970 tax base of approximately ten times the recommended minimum would mean that the college should not be a financial burden to the local taxpayers.
>
> The question regarding the part a regional college would play with respect to the existing post-secondary institutions of the University of British Columbia, Simon Fraser University, B.C. Institute

109 A.K. Mutter, Secretary, "A Feasibility Study for a Proposed Regional College to Serve the Four School Districts of Burnaby, Coquitlam, Maple Ridge, New Westminster".

of Technology, Vancouver College and B.C. Vocational School requires elaboration. Pennsylvania makes the following suggestion to cover a similar situation in Guidelines for the Establishment of Public Community Colleges in Pennsylvania, April, 1965, p. 7:

"When submitting a community college plan, local sponsors shall assess the existing potential for higher education in the area and shall submit evidence of a clear need for additional higher education opportunity. The presence of an existing institution of higher education in the area is not prima facie evidence that a community college is not needed, but proof of such need must be more clearly established in such cases. Even in areas where a major university exists, or where there is a cluster of liberal arts colleges within a fifty-mile radius, there may be an urgent need for a comprehensive community college and the kinds of education programs which it will provide".

A precedent has been established in B.C. with the formation of Vancouver City College approximately midway between the University of British Columbia and Simon Fraser University and the Castlegar Regional College (sic), some 29 miles from Notre Dame University located at Nelson.

Apart from the B.C. Vocational School and Vancouver City College, entrance requirements for the other institutions are high school graduation, university entrance programme, or equivalent. This automatically excludes at least 44.4% of the high school graduates (based on 1965 graduates), plus the university entrance graduates whose average is less than 60%, and those students with deficiencies. In addition, certain courses offered at B.C. Vocational School require university entrance for admission. Furthermore, Vancouver City College enrolment has grown to a figure approximating the projected figure for the lower Fraser Valley as outlined in Dr. John B. Macdonald's report entitled "Higher Education in British Columbia and a Plan for the Future", 1962. For this reason the Vancouver School Board established a policy whereby the Vancouver City College will accommodate only Vancouver resident students until 3:30 p.m. Students from outside Vancouver are allowed to enrol in courses offered after 3:30 p.m. on an increased fee basis. It would appear, therefore, that there is a large segment of high school graduates or near graduates for whom there is little opportunity for public post-secondary education.

Although it is possibly too early to determine the effect of the new high school programmes, 65% of the potential 1967 graduates have elected the academic-technical programme. This is approximately 10 per cent higher than the actual U.P./G.P. split two years previously. It would appear, therefore, that in order for all the new programmes to gain prestige, public post-secondary education must be available to all graduates.

The regional college, offering a comprehensive programme, including general education, is a logical solution.[110]

It is interesting to note in this study the use made of experience gained in Pennsylvania, since for the most part there seems to be a general reluctance on the part of Canadian educational officials to draw very substantially upon the vast body of experience accumulated in the United States with respect to junior colleges.

Although the Regional College Feasibility Study carried out by these four districts in April, 1966, recommends the immediate establishment of a regional college, no significant steps seem to have been taken since to further the undertaking.

Considerable interest has also been shown by School District No. 36 (Surrey) towards the development of a two-year college for that region of the province. In 1964 a local study was made of the needs for a "district" college.

The report includes:

1. A survey of the population of Surrey and surrounding areas (1921-1986).
2. Present and projected population by age groups for Surrey and White Rock.
3. Enrolment and projected student enrolment for Surrey and White Rock (1956-1986).
4. A survey of the total community college pool - Surrey and surrounding area.
5. An estimation of the student pool for a Surrey community college.[111]

110 Ibid., pp. 20-22.

111 "Report of the College Study Committee", School District No. 36 (Surrey), November, 1964.

The study also discusses educational needs beyond secondary school, the financing of the proposed college and the values to Surrey and White Rock of a two-year college. It also attempts to clarify some of the confusion in terminology which has been evident in the province generally, by defining such terms as "district", "regional", "junior", and "community" college. The suggestion is made that the term "junior college" has come to refer to the strictly academic institution while the "community college" implies an institution which is much more general in its scope with the following general characteristics:

1. ... an "open-door" admission policy, requiring only that applicants be either eighteen years of age or over, or possess high school graduation.

2. ... geographically located near the homes of the students, serving primarily or exclusively a smaller area than the university.

3. It is relatively inexpensive to attend.

4. It offers vocational and technical programmes as well as the equivalent of the first two years of university.

5. It is open from 8:00 a.m. to 10:00 p.m., six days a week, twelve months of the year to accommodate shift workers and students on both part and full-time courses of study.

6. It offers highly developed counselling and guidance services.

7. It has a "salvage and repair" function for students who might otherwise be lost to higher education.

8. It has well qualified teachers; a standard requirement is the Master's Degree or equivalent.

9. It has a close association with other educational institutions such as secondary schools, vocational schools and art schools.

10. It offers a diploma such as the degree "Associate in Arts", or "Associate in Science", upon successful completion of a two-year programme.

11. In general, it is flexible, adaptable, and highly sensitive to the needs of the local community.[112]

Whether or not these characteristics belong exclusively to the "community college" is of course open to debate. The list does, however, provide a useful summary of most of the special services provided or qualities inherent in this relatively new institution of higher learning.

It is interesting to note the suggestions made in the study relevant to curriculum:

A COMMUNITY COLLEGE MIGHT OFFER:

1. Academic courses leading to four-year college work, paralleling, but not necessarily identical with, university curricula.

2. Two-year terminal courses, for example; general education in humanities, natural and social sciences, and communications.

3. Semi-professional programs, including foundation courses in mathematics, music, art, etc.

4. Training and retraining courses for workers in business and industry.

The following outline indicates some of the terminal courses which could be offered by a Community College:

In the Public Service Field

1) Dietician assistant
2) Medical and hospital service (receptionist)
3) Library service
4) Nursing

In the Business Field

1) Accounting
2) Real estate
3) Merchandising and marketing
4) Secretarial service
5) Data processing

In the Cultural Field

1) Photographic arts
2) Drama
3) Music
4) Interior design

In the Communications Field

1) Journalism
2) Television
3) Public Relations

112 Ibid., pp. 3-4.

In the Vocational and Technical Field

1) Auto Mechanics
2) Barbering
3) Beauty culture
4) Machine shop
5) Electronics
6) Drafting
7) Power sewing
8) Shoe repairing
9) Forestry
10) Marine engineering[113]

As we shall observe later on, these suggested offerings differ quite markedly from the curriculum presently in force in the one regional college now operating in the province.[114]

The report concludes with the following recommendation:

> "...that the Board of School Trustees of School District No. 36 take the necessary steps to plan, to secure consent for, and to develop a post-secondary institution for School District No. 36; and that this institution should be of the type designated as a 'Community College' or 'Comprehensive Public Junior College'".[115]

At the same time that Surrey was conducting its independent study a regional committee was established consisting of Richmond, Delta, Surrey and Langley. Included on the committee were representatives from Cloverdale, Whalley, Newton, White Rock and Ladner. This group picked up the work undertaken by Surrey and continued the study from 1964 into 1965 when it was authorized by the Boards of School Trustees of the four districts to employ consultants to make a regional study for a community college.[116] The study was scheduled for completion by March, 1966. No further action appears to have been taken since that time.

In the meantime, interest had been sparked as early as 1962 in the eastern part of the Fraser Valley by the visit of President John Macdonald when he was gathering information for his report. A meeting

113 Ibid., p. 4.

114 V.infra., p. 176 ff.

115 Ibid., p. 14.

116 Delta completed an independent study in January, 1965, see Report of the Regional College Study Committee for Delta, January, 1965, pp. 1-18.

was called in Abbotsford to which representatives of Boards of Trade, School Trustees and District Superintendents of Schools were invited. As a result of this meeting the Chilliwack Board of Trade spearheaded a drive for a junior college. It began by inviting School Trustees and Board of Trade members from Hope, Agassiz, Mission, Abbotsford, and Chilliwack to a meeting at Chilliwack at which time a committee was set up to investigate the possibilities of developing such a college. Almost immediately, however, serious complications arose as to agreement on site and proposed curriculum. Finally, when the Public Schools Act was amended to place the responsibility for the development of two-year colleges in the hands of school trustees, the whole matter was temporarily shelved.

Approximately a year later, and again at the initiation of the Chilliwack Board of Trade, discussions were resumed and a new committee was formed - made up only of school trustees. This committee subsequently met with the Minister of Education in Victoria and although cordially received, was informed that approval to place a plebiscite could not be given until information had been received on the number of enrollees at the Simon Fraser University and after the experience of the regional college in Castlegar had been assessed. Somewhat discouraged, the committee decided that nothing further could be done in that section of the Fraser Valley at that time. Moreover, the Macdonald Report had recommended that a college in the Fraser Valley might not be needed until approximately 1970. The general feeling of the region now seems to be that there will be ample time to further the proposals in the next few years.[117]

117 Information received by letter from Mr. K.F. Alexander, District Superintendent of Schools, School Districts Nos. 75 (Mission) and 76 (Agassiz) dated October 29, 1965.

Recently great strides have been made in the northern interior of the province towards the development of a regional college at Prince George. Here a strong local committee has done excellent work in studying the requirements of the region and in preparing for a plebiscite. With the assistance of an experienced consultant[118] the committee placed a plebiscite before the people of Prince George, Vanderhoof, McBride, Burns Lake, Smithers and Quesnel in June of 1967. With the exception of Quesnel, which rather emphatically voted against it, the plebiscite passed with convincing majorities in the other centres. The North and South Peace River districts have now expressed considerable interest in becoming part of the regional college district and so has Terrace.

The Prince George experience points up rather strikingly the value of having a strong local committee which works, so to speak, at the grass roots. Such a committee also proved invaluable in the West Kootenay region. The Northern Interior group expects to introduce its by-law in about a year's time and is hopeful that its college will be ready to receive its first student body in September of 1970.

Today a strong local committee is working in the Kamloops district and is prepared to appoint a consultant and go to plebiscite. We can expect significant developments from that area of the province.

With the failure of the money by-law in the Okanagan, where a substantial degree of disagreement seems to have arisen over the choice of site, developments are somewhat at a standstill although a professional

118 Dr. L. Downey, who had also been consultant to the West Kootenay Regional College Council.

staff continues the work of preparing a programme for the College.

Reports received from District Superintendents of Schools in such places as Cranbrook, Kimberley, Williams Lake, Powell River and Creston suggest that while interest has been expressed and formal or informal discussions held, the barriers of geographical location and scarcity of population have at least for the present precluded the development of colleges.

At least a tentative step has been taken by the school board in Victoria towards the development of a district college, in the establishment of a school for adult education on part of the old Lansdown campus of the University of Victoria.

DEVELOPMENTS IN THE PRIVATE SECTOR

Over the years some moves have been made in the private sector of higher education in the province. Two private, church-related junior colleges and one private university are presently in existence in British Columbia. In October, 1962 the Prince George College at Prince George opened with an enrolment of sixteen students. Founded by Bishop O'Grady, O.M.I., D.D., Prince George College is governed by a Board of advisers which is composed of men and women of all denominations. The college admits students of any faith who have obtained an average mark of sixty per cent in the B.C. Junior Matriculation University Entrance Programme or its equivalent. High school classes are also accommodated on the campus.

In Langley, B.C., Trinity Junior College opened in 1962 with an enrolment of seventeen students and a faculty of seven members. The college is controlled by a Governing Board of nine, who are members

of the Board of Education of the Evangelical Free Church of America. According to the 1962-63 calendar of this institution, the purpose in its establishment is "to provide particularly for its constituency, the first two years of college education in the Arts and Sciences, with emphasis upon the Christian theistic view of the world and of man as central and furnishing a guiding perspective in all learning". The general academic qualification for admission is high school graduation (University Programme) British Columbia, or its equivalent. The physical facilities include a chapel, library building, and a dormitory which can accommodate sixty students.

At Nelson, British Columbia, in 1950, the Roman Catholic Bishop established Notre Dame University College. The college opened with an enrolment of twelve students all of whom were at the Grade XIII level of education. The following year, with the registration doubled, the college became affiliated as a junior college with Gonzaga University at Spokane, Washington, and introduced a second year of Arts and Science. In 1961 it became affiliated with St. Francis Xavier University, Antigonish, Nova Scotia, and added third and fourth year courses. By 1962 its student enrolment had reached two hundred and thirty-one. In 1963 Notre Dame University received its charter from the Province of British Columbia and with the attainment of degree granting status became a full four-year university in its own right.

THE FORCES WHICH HAVE STIMULATED DEVELOPMENT

PUBLIC INTEREST AND CONCERN

As we review the growth of the district and regional college movement in British Columbia, we are able to gain some appreciation of the

forces which have stimulated the developments to date. Undoubtedly the most obvious and powerful of these has been that of public interest. Everywhere in the province, even in the areas of relatively small population and geographical isolation, great interest has been demonstrated as witness the number of meetings and discussions which have been held by school boards, Chambers of Commerce, and concerned citizens. Every school district superintendent contacted throughout the province has testified to this fact. Obviously not all of the enthusiasm shown has been motivated by legitimate or genuine concern for the education of our youth. In some areas the "Chamber of Commerce" spirit which was also a moving force in earlier years in California, has been the prime catalyst and in some instances it has later acted to retard the movement. But no matter what the source, the interest has been there.

A number of factors have combined to create this interest and to accelerate the developments which have taken place.

First of all there has been a growing dedication on the part of our people to the philosophy of equalization of educational opportunity. With our closer economic, political and emotional ties to the Old World, the conviction seems to have developed more slowly in Canada than it did in the United States where it was present almost from the beginning. It may well be also that Canada with its more rigorous climate and greater geographical barriers made more severe demands on its pioneers than America did on hers , with the result that the early Canadian had less time to be concerned with educational matters. It was not long, however, before our people came to know that an industrial giant was growing up south of their border - a kindly giant which

promised the highest standard of living in the world - a giant which had grown and was being sustained because a way had been found to release part of the great potential which lies in human beings. The way to this potential was the path of education. The American settlers had learned this early in their history and had long since decided that in the New World learning could no longer be regarded as the special prerogative of a privileged class. It is perhaps characteristic of Canadians that they learned this lesson more slowly than their American cousins had. Indeed, Canadians are still learning it today. But example is a great teacher and certainly the example was obvious.

A second reason for the growing interest in higher education in Canada, and particularly of late in British Columbia, lies in our surging national economy which in large measure has resulted from, and ultimately must result in, expanding educational facilities. Something of the optimism which was present some years ago in California is present today in British Columbia, and optimism is always a stimulus to growth. Canada has at last moved into the technological age which in the years to come will make greater and greater educational demands on its people, and indeed is doing so now.

But there have been other forces at work as well - forces which are more immediate and therefore more compelling. One of these is obvious in the population trends of the province. Recently a number of estimates of population growth have been made. Dr. Marsh has summarized them in Part I of his report on a regional college for Vancouver Island:

Some Projections of British Columbia Population to 1975 (Figures to nearest thousand)

Source	1965	1970	1975
Gordon Commission: B.C. Government Submission (1955)	1,725,000	1,975,000	2,278,000
Bureau of Economics and Statistics (1964)	1,782,000	2,050,000	2,370,000
Chant Commission on Education: lowest of three estimates (1960): also Macdonald Report (1962)	1,964,000	2,333,000	2,771,000

119

Dr. Marsh points out that population growth in British Columbia depends not on natural increase alone, but on immigration to the province and upon the impact of developments in industry. Therefore it is extremely difficult to make forecasts with any accuracy.[120] Dr. Marsh warns, however, that while population increases are impressive they are not in themselves a sufficient guide to the dimensions of school enrolment. "The number of children requiring schools and education may be very much larger than population percentages might suggest".[121] He goes on to give a provincial perspective of school enrolments:

> Estimates looking to future school enrolment at least have a good base from which to start, for several reasons. To begin with, age-distribution statistics, which constitute the best material for demographic projections, are available for each date in liberal quantity. Secondly, the school authorities, from the provincial Department of Education down to individual schools, keep in review the records of actual enrolments at all grades. Thirdly, there have been close examinations of this kind of material, notably by the Chant Commission, and more recently by the collaborators in the Macdonald Report with special reference to university students.

119 Leonard Marsh, op.cit., p. 17.

120 Dr. Marsh points out, for example, that The Gordon Commission had predicted a population of 1,305,000 in 1955. The actual total was 1,342,000.

121 Loc. cit.

Finally, this survey itself provides some original and supplementary data, from the special Grade XII review and from school board records. Without going over all this in detail, the main features, applying to British Columbia as a whole, should first be noted.

Fundamental information for all school planning calculations is the age-composition of the population. Every parent, every taxpayer, every school board trustee now knows the significance of the "baby boom" which occurred in the years following the end of the war. Each succeeding term, from Grade 1 on, brings an older group of these children closer to high school, and eventually they reach Grades X-XII. At this point the prospects of high school graduation and university entrance loom large. If university is not feasible, the various alternatives - on-the-job training, vocational school, business college, army training, the Institute of Technology, and of course the new vocational options in high school, now become hard realities and choices to be faced.

If the age group 20-24 be taken as the section of the population most likely to contain the college potential, the figures for British Columbia are impressive. Aggregating 95,200 in 1961, they rose to 110,500 in 1965, and the prospects are for 156,000 in 1970 and 187,500 in 1975. Approximately half of these are young men, but the proportions of men are rising (to an anticipated 95,500, as against 92,000 women, in 1975). The proportion of young women who go to university is much smaller than the proportion of men (some of this balance is redressed by the large number of women who go to business colleges, hospital nursing courses, etc.) but the demand for college training is growing among women, and this applies to technical training, if anything, even more than for men. The percentage among all young adults of both sexes who will be looking for higher education is undoubtedly going to keep rising. If it were to go as high as 50 per cent, the pressure on the available (or new) facilities would be tremendous: what many people do not understand is that the proportions of university entrants in the recent past have been as low as 10 to 20 per cent. In 1900 they were probably only about 5 per cent. The "revolution of rising anticipations", as Adlai Stevenson called it, applying it on a world scale, can have its greatest social and economic impact in higher education.

The Macdonald Report worked hard on computations of the "student pool", from which, potentially, university students are drawn. But it is a fluid pool indeed, as everyone concerned with the planning of college facilities is now acutely aware. Firstly, there are additions to the "pool" from sources outside the families whose children start school in British Columbia. "In-migration", as it is now termed, is a sizeable and apparently growing factor in the coast province. In the high schools today, pupils from other provinces, and other countries, may be anything from 5 to 30 per cent of the total. Secondly, there are growing numbers of adult students - men and women who want to catch up on Grade XII or Grade XIII, or even Grade X and earlier. A proportion of these eventually make university applications; and of course there

are others who have obtained their university entrance qualifications elsewhere.

Even if the calculations of the potential pool or "student reservoir" were completely accurate (which is too much to expect), the critical factor is the proportion of the "pool" which must be regarded as operative. How many, at the Grade XII level, will actually apply for university admission - and will be accepted? The Macdonald Report, in a series of intricate regional calculations, applies factors as low as 4 per cent in the outer Cariboo districts and 10 per cent for the Peace River, and as high as 42 per cent for the Vancouver-Lower Mainland area and 36 per cent for Greater Victoria. Obviously, the presence of facilities themselves affects the proportion of young men and women who go to college. Motivation, which is probably the most important qualitative factor in the whole story of post high school education, is heavily influenced by environment; and "environment" in the current world includes the very existence of a college, of technical training facilities, of guidance and placement services or their absence, to say nothing of adult education classes, and the presence of people who are doing something about improving their education, or are thinking about it, and discussing it with their friends and acquaintances. Accordingly the "college-going proportion" in an area, which might seem to have been measured by last year's statistics at 25 per cent, might rise rapidly if circumstances change. And there is a vital difference between Grade XII's on "university program", and Grade XII's of all options.

In such a context, it is clear that Grade XIII classes are only a partial index of the demand for college-level education. No enrolment figures have grown more rapidly than these in recent years. It is noteworthy that demand for Grade XIII has increased both in areas where remoteness from college stresses the need, as e.g., in Campbell River, but also in areas, such as e.g., in Duncan, where university facilities (University of Victoria) are close enough for Grade XIII to seem a reasonable transition rather than a compromise "stop-gap". The merits and demerits of Grade XIII need not be argued here: it is important solely to recognize that Grade XIII enrolments are in no way a complex index of college needs. For one thing, they are confined to students who have been following "university program" in high school: many people who might be particularly in need of Regional College courses will thus not be represented here at all.

Perhaps the age group 20-24 is too wide a base (some forecasters prefer the three year group 18-21): actual figures of current Grade X to Grade XII enrolments come closer to the dimensions which college planners must consider. These too, however, are full of imponderables as soon as projections are attempted. In British Columbia as a whole, Chant Report estimates were 31,400 in Grade X in 1971, and 20,100 in Grade XII: but recent reconsiderations of these figures (by the provincial Bureau of Economics and Statistics) suggest 34,500 in Grade X and 40,200 in Grade XII. A minimum figure for Grade X's in British Columbia for 1965-66 (next school session) is 25,000. It could

> be closer to 30,000 very soon. Assuming a retention of 70 per cent (which is rapidly becoming possible) for the smaller number, this will mean 17,500 in Grade XII two years later. This is to envisage 17,500 students graduating from high school in the spring of 1967. A figure of this kind may not seem large, until it is remembered that the first-year entrants of the University of British Columbia in recent years (excluding senior matriculation entrants) have not been much greater than 2,500! It is not hard to see why new universities have been readily accepted as necessary in all parts of Canada; why national reports in Britain have recommended expansions in all fields, including technical colleges as well as work-study programmes; why junior colleges have mushroomed in the United States; why regional colleges make sense as an approach to the educational challenge in British Columbia.[122]

Another force at work, as Dr. Marsh has suggested, is the marked increase in the rate of student retention which is everywhere becoming apparent in the province. While it would be difficult to establish meaningful statistics pertaining to retention without an examination of the philosophy guiding each school and without knowledge of the rate of growth in each district, the Department of Education does compile statistical information from annual reports by following the number of grade seven pupils enrolled in a given year through to grade twelve. This figure is then corrected for the apparent growth that has taken place within that district. On the basis of these reports we can see a pronounced and steady increase in student retention which is province-wide.

The substantial increase in population and school enrolment, together with the increasing "holding-power" of the school system, have been felt most of all by the universities where a veritable tidal wave of students has had to be accommodated. In his report on higher education in British Columbia, published in 1962, Dr. Macdonald, after a careful examination of relevant data, had predicted that 37,000 high school graduates would be either seeking higher education or enrolled in our

122 Ibid., pp. 19-22.

colleges and universities by 1970-71.[123] And according to a report produced by the Canadian Universities Foundation, these 37,000 students will be part of 312,000 enrolled in institutions of higher education in the whole of Canada - i.e., two and three-quarter times as many as in 1960 (114,000).[124]

Faced with this press of students seeking admission, the universities are forced either to increase substantially their facilities, or to restrict enrolments by raising admission standards. The evidence is that they are doing both. As we have already seen, one of the factors which gave impetus to the junior college movement in California was the high standards of admission required by the University of California and Stanford University.[125]

A final factor which over the years has had a significant influence in engendering interest in the development of district and regional colleges in the province, has been the character of the British Columbia school system. With the best of intentions, the doors of the secondary schools were opened in 1948 to all students. Prior to this time students had had to qualify for entrance to high school by meeting demanding educational standards which were purely academic in nature. In 1948 an alternative curriculum was introduced in the secondary schools in the form of a general programme, the purpose of which was to meet the needs of students who were either not academically inclined or academically gifted. In short, the programme was terminal in content and in fact.

In retrospect we can see that over a period extending for

124 Ibid., p. 14.

125 V. supra., f.n.37, item 6, p. 26.

nearly twenty years, the people of the province as a whole consistently rejected the concepts inherent in the so-called "General Programme". Every high school principal can relate accounts of titanic battles waged by individual parents to prevent their children from being placed on it. Although the reasons for the failure of the programme are difficult to document, several can be suggested. First of all it was terminal and in the opinion of parents led nowhere. Another reason was that teachers and school administrators paid only lip service to it and allowed its academic content to degenerate, for the most part, into "busy-work". It failed also because prospective employers rejected its graduates in favour of those from the university programme, even for positions which did not call for a high standard of formal education. It failed because the students who were often forced to accept it felt its stigma. Most of all it failed because it was seen as a retreat from the philosophy of equal educational opportunity - a concept which had been nurtured in our country for many years.

It is obvious now that this dissatisfaction with the school system was one of the factors prompting the provincial government to appoint in 1958 the Royal Commission on Education for British Columbia, which paved the way for the development of a new secondary school curriculum.

The first group of students to complete the new secondary school programmes will graduate in June, 1967. Indications to date are that the majority of them are still attempting to prepare themselves for entry to a university by following the "Academic-Technical" programme.[126] Undoubtedly this situation will continue to obtain until post-secondary

126 A new term for "University Programme".

institutions willing to accept graduates from the new vocational programmes are introduced. If they are not soon introduced there will be the same disenchantment with the new "non university" programmes as there was with the old, and many students will continue to experience failure in the secondary schools or the universities. Whether or not we have learned from past experience, time alone will tell. Certainly there are lessons to be learned. One is that the new secondary school programmes must be of sufficient standard to prepare students adequately for the courses of perhaps a technical but nevertheless collegiate standard that hopefully will be available to them in the new district and regional colleges. Another is that the colleges themselves must make sure that the courses they offer, adequately prepare students to enter a new and remarkably changing world of work and leisure and are indeed worth the fourteen years of time a student who graduates from them will have spent in the education system of the province.

As is the case in most of the provinces in Canada, the time now seems to be "right" in British Columbia for the development of a new type of post-secondary school which will be somewhat after the fashion of those which have grown up in the United States. What methods will be used to establish such institutions in local areas and what form their developments will take, will vary considerably. Experience to date would seem to suggest that the most effective work will be done by strong local committees working so to speak at the "grass roots" level.

CHAPTER IV

THE PURPOSES AND FUNCTIONS OF THE TWO-YEAR COLLEGE

EARLY CONCEPTS

Having attempted to gain some idea of the extent to which two-year colleges have developed or are developing in the United States, Canada and British Columbia, and some notion of the rate and form of that development, we are ready to begin an examination of the purposes and functions which these institutions are supposed to fulfil. To do so, we will again first look to the past. Over the years a good deal has been written about the functions and purposes of junior colleges. It is quite obvious that in their early period of development they existed primarily to offer curricula which was parallel to that found in state colleges and universities. Yet we must not infer from this fact that the original concept was a narrow one.

REPORTS AND COMMENTS

As early as 1904, a committee report referred to the purpose of attracting and holding for two additional years of general culture and training, students who would otherwise not go beyond high school. In this report technical and other special preparation for life work was mentioned as well as studies which would be preparatory for further college work.[127] In 1917 a speaker summed up the purpose in

127 Lois E. Engleman and Walter C. Eells, "Summary of a 1904 Committee Report". The Literature of Junior College Terminal Education, Washington, American Association of Junior Colleges, 1941, p. 1.

this way:

> While at present our junior college is largely engaged in fitting students for advanced college or university work, the future development and its greatest mission will be to extend the opportunity for further education to students who cannot or who should not take the traditional college course.[128]

Referring to the junior college movement as "a renascence of communal interest in higher education",[129] James Rowland Angell spoke of its "promise to bring opportunities for advanced vocational training" to "the very doors of thousands of boys and girls previously denied them" and "to thousands of others who really are prepared to profit by them, the various forms of collegiate education and in general to disseminate in the commonwealth more widely than ever before, the desire for sound learning whose perfect fruit is sanity of judgment and sobriety of citizenship".[130]

McDOWELL'S CLASSIFICATION

In 1920, F.M. McDowell attempted to classify junior college students in terms of the expectations of the institution. He found four categories:

1. Students who, upon graduation from the junior college, expected to continue their liberal arts work in some standard university or college.

2. Students who expected to enter certain professional schools and expect to receive pre-professional training in the junior college.

3. Students who expected to enter a vocation.

128 Ibid., pp. 1-2.

129 James Rowland Angell, "The Junior College Movement in High Schools", School Review, vol. XXIII, May, 1915, p. 302.

130 Loc.cit.

4. Students who considered the junior college as a "finishing school".[131]

THE KOOS SURVEY

As the junior college movement began to accelerate in the 1920-1930 era, more and more attention was focussed on the purpose of the institution. One of the first widespread surveys was made by Leonard V. Koos. Koos analyzed twenty-two articles and addresses and studied fifty-six junior college catalogues.[132] He compiled a list of twenty-five purposes:

1. To offer two years of college work acceptable to colleges and universities.
2. To complete education of students not going on.
3. To provide occupational training of junior college grade.
4. To provide training for citizenship.
5. To offer better opportunities for training in leadership.
6. To provide religious and moral training.
7. To give intellectual training.
8. To provide physical training.
9. To popularize higher education.
10. To continue the home influence during immaturity.
11. To afford attention to the individual student.
12. To allow for exploration.
13. To offer better instruction in these school years.
14. To place in the secondary school all work appropriate to it.

131 F.M. McDowell, "The Curriculum of the Junior College", U.S. Bureau of Education Bulletin, No. 19, 1922, Part 1, pp. 37-38.

132 Ralph R. Fields, The Community College Movement, New York, McGraw-Hill Book Co., Inc., 1962, p. 49.

15. To make the secondary school period coincide with adolescence.

16. To foster the evolution of the system of education.

17. To effect economies in time and money by avoiding duplication.

18. To assign a function to the small college.

19. To relieve the university.

20. To make possible real university functioning.

21. To assure better preparation for university work.

22. To improve high school instruction.

23. To better care for brighter high school students.

24. To offer work meeting local needs.

25. To affect the cultural tone of the community.[133]

Koos found in his investigations that by far the purpose most frequently mentioned and most frequently reflected in college curricula was the offering of two years of standard college work. This led him to the wry comment that "the hopes entertained for it (the junior college) far exceed the original service".[134]

THE CAMPBELL SURVEY

A very extensive study of junior college purposes which was carried out in 1930 by Dook S. Campbell, clearly adds support to Koo's conclusion that the hopes for the junior college as expressed in the literature exceed the service given as indicated in the catalogues of the various colleges. Campbell analyzed 343 junior college catalogues and 349 titles of available literature and compared the statements made in

133 Leonard V. Koos, "Current Conceptions of the Special Purposes of the Junior College", School Review, vol. XXIX, September, 1921, pp. 520-529.

134 Loc.cit.

each under four categories of function, preparatory, terminal and occupational, democratizing and popularizing.[135] He found that while the four stated purposes occurred in the same order, the percentage of occurrence differed significantly.[136] From his study he reached two conclusions:

1. In practice the junior college is performing the preparatory function.

2. The junior college is only partially performing the function of providing terminal education.

WHAT MANNER OF CHILD?

When we examine the literature, it is obvious that in the early years of the junior college movement American educators were not quite sure what "manner of child" the junior college should be. In his introduction to the first issue of the Junior College Journal, for example, R.L. Wilbur had written:

> The Junior College ... covers that vital period of adolescence just before the onset of maturity - the years of the proverbial callow freshman and the exuberant and irresponsible sophomore. This is the true testing period of most minds as to whether they have ripened or are still to grow. Fundamentally it covers elementary work in many fields and opens the way to that advanced study which constitutes a true university and leads into scholarship and the professions.[137]

But writing in the same issue, Nicholas Ricciardi had contended;

> ... that the Junior College is not exclusively an institution to prepare students for advanced work in universities. Its major responsibility is to offer an opportunity for public education of post high school grade to individuals who are not planning to enter the profession. That there is a very definite need for such a programme of public education is indicated by the fact that in California two-

135 Ralph R. Fields, op.cit., p. 51.

136 See Appendix (xv).

137 Ray Lyman Wilbur, "Introduction", The Junior College Journal, vol.1, October, 1930, No. 1, p.3.

thirds of the high school graduates lack certain of the recommended units required for entrance to University grade institutions. The Junior Colleges, therefore, very appropriately offer courses designed to train individuals for the so-called semi-professions. The larger Junior Colleges are giving also, special courses for adults who wish to take additional work in music, art, literature, and other subjects.[138]

A month later Walter Morgan, writing in the same journal, added yet another dimension to the purposes and goals of the junior college:

A sound philosophy of education would require that Junior College education, as the final phase of secondary education, should be made available to all who want it and are able to secure it. Such a philosophy would also direct that the Junior College should make its adequate contribution to the development of all of the objectives of secondary education, insofar as those objectives are applicable to this institution and that it should give stress to those objectives in proportion to their importance as objectives of secondary education.

The acceptance of these principles would in no way preclude a definition of the Junior College which would recognize the lower division of the Universities, four year Colleges, and teachers colleges as specialized types of Junior Colleges, offering curricula closely integrated with the specialized professional curricula of the upper and graduate divisions. It would, however, require considerably more attention to the immediate objectives of the majority of our High School graduates.[139]

But again in the same issue, William Snyder complains that:

... in many Junior Colleges most of the work is academic and simply a duplication of the courses given at the University. These Junior College certificate courses are designed for academic students who are too young or who have not sufficient means to make it possible for them to go away from home to College. The Junior College becomes simply a branch of the University, supervised to a considerable extent by University authorities and offering the foundation courses given in the lower division of the University.[140]

Snyder quotes from an article written for School and Society in 1918 by the eminent Professor Lange who, we will recall, had advocated

138 Nicholas Ricciardi, "Vital Junior College Problems in California", The Junior College Journal, vol.1, October, 1930, No.1, p. 24.

139 Walter E. Moran, "Junior College Developments in California", The Junior College Journal, Vol.1, November, 1930, No.2, p.67.

140 William H. Snyder, "The Real Function of the Junior College", The Junior College Journal, vol.1, November, 1930, No.2, p.76.

the development of the junior college as an institution which would not only round out the preparation for real university work, but would also educate for effective citizenship.[141] Lange, Snyder reminds us, had said that one of the functions of the two-year college was to take care of the people who were between the artisan and professional classes. It should assist the non-academic high school graduate who, up to this time, had not been provided for. Lange had felt convinced that this group of people were not well prepared either to enter industry or to adjust themselves to the social life around them. He argued that they needed skill to make a living but also an adequate knowledge of the world and of the intellectual achievements of mankind in order to orient themselves to life.

To this end he felt that academic courses ought to be general and not foundational: inspirational rather than critical and each one of them should give an overall view of the field it attempted to cover. Obviously, therefore, they should differ from the lower division "foundation" courses of the university. He went on to point out that:

> Their proper development is one of the greatest problems facing junior college instructors. Neither specialists nor pedagogical skimmers can prepare these courses. Broadminded, broadly learned, and clear thinking teachers must be found, teachers who not only understand the complex life of the day but who have a general comprehension of the accumulated knowledge of the ages. The skill courses must give saleable skills; they must be intensive and adjusted to the industrial life of the community or to those particular fields in which the youth of the community will find their greatest industrial openings. They must be practical, not theoretical. They must be accurate and comprehensive, adjusted to actual conditions and motivated by an expectancy of industrial achievement and success. The pupil, when graduated, should be able to do something and to do it in

141 V.supra., p.25.

a worthwhile way and, in addition, to orient himself to life problems.[142]

Lange felt strongly, however, that the junior college must, insofar as possible, be truly collegiate, developing a real college atmosphere and leaving out those features which do not prove to be cultural or advantageous. He does not venture an opinion as to how this goal can be achieved. He does stress the need for flexibility:

> Although the junior college must apparently fill two distinct needs, liberal arts and applied arts, it ought to be possible to pass from one field into the other. This is easy enough from liberal arts to applied arts, but from applied arts to liberal arts the transition must also be carefully guarded. The semi-professional students who, while in the junior college, show university ability and a desire to secure university training, ought to be able to make up their deficiency and pass on to the university. The junior college, however, should never allow itself to become an academic hospital wherein intellectual convalescents are encouraged to try the university. This policy will undermine the morale of the semi-professional work and stultify the more essential mission of the junior college.[143]

The controversy surrounding goals and purposes, continued unabated in the early 1930's. The following two excerpts from articles appearing in the January, 1931 issue of The Junior College Journal point up quite emphatically the nature and scope of the argument. R.G. Sproule in discussing "Certain Aspects of the Junior College" wrote as follows:

> What should the function of the junior college be, assuming it to be not a collegiate but a secondary institution as it has invariably been defined so far as I know. As such, it should be an upward extension of the public school system designed to serve all grades of students to give each insofar as it can, the tools for more effective living if not for a more abundant life. The emphasis should not be on the preparatory function, but instead on the responsibility of the institution to offer an opportunity for public education of post high school grade to individuals who are not planning a career.
>
> As I see it, the junior college is the fulfillment of the high school not the step-child of the university. It stands for further

142 William H. Snyder, op.cit., p. 77.

143 Loc.cit.

educational preparedness for the greatest number, for democratic continuity and completeness of educational opportunity. It stands for the faith of the American people in education and their desire for its further extension for as many as possible. Its true purpose is not to relieve the universities of the burden of numbers, not to save the young collegian the cost of board and lodging away from home, not to keep the growing youth for two years more under his mother's protection and guidance. These things may be worthwhile, but they are merely by-products. The real value of the junior college rests in its attempt to meet the needs of those students whose talents and interests do not lie along the line of a university career but who are interested in further education.

Its main function is to assist the non-academic high school graduates who thus far have been unprovided for.

In advocating that the junior college shall be in fact as well as in theory a secondary school and not a university basement, we are not unmindful of the two per cent or so of our youth who want and deserve a university education, but for one reason or another, cannot or will not go directly from the high school to a four-year college.[144]

But compare this statement with the following observations of Stanton Crawford:

From almost every standpoint it is believed that the type of Junior College with university affiliation fulfills the usual functions of a Junior College. First, the preparation of students who plan to transfer to senior college and universities must always be a prime motive. Students can try out their aptitude for doing actual college work much less expensively at home than away from home. The general courses of the freshman and sophomore years are, of necessity to a considerable extent, foundation courses planned as prerequisites for the more specialized junior and senior courses to be taken in other institutions.[145]

The nub of the controversy, of course, centered around this unanswered question: "Is the junior college an upward extension of the high school or the lower division of the university?"

In his often-referred-to article, "What Manner of Child Shall This Be?" Walter Crosby Eells examined both sides of the argument specifically, the debate was between those who favoured the traditional

144 R.G. Sproule, "Certain Aspects of the Junior College", The Junior College Journal, vol.1, January, 1931, No. 4, p. 274.

145 Stanton C. Crawford, "Junior College as an Extension of University", The Junior College Journal, vol.1, January, 1931, No.4, p. 293.

organization of the school system and those who advocated the 6-4-4 plan: that is, six years of elementary school, four years of secondary (grades 7,8,9 and 10) and four years of junior college (grades 11,12, 13 and 14).

Professor Eells first listed and discussed the ten major arguments most often presented by those who supported the 6-4-4 plan:

1. The Psychological Argument

Those who pressed for the development of the four-year "junior college" apparently felt that such an institution is peculiarly fitted to the needs of the various periods of adolescence. Eells was not convinced. He reminded his readers that there are two main theories of psychological development: the "saltatory", which holds that there are certain periods when sudden and pronounced mental, physical and social changes occur, and the "gradual" which suggests an orderly continuum of development. While he admitted that the "gradual" theory seemed better established, he did not feel that the "Saltatory" concept could be ruled out.

2. The Articulation Argument

Its supporters argued that the four-year "junior college" would eliminate undesirable overlapping of courses which they contended amounted to an average of at least 15 per cent between high schools and colleges. Eells agreed that there had been much undesirable overlapping of subject and course content in the traditional system where a student leaves high school at the end of Grade 12 and enters college. Yet he doubted whether overlapping and duplication of materials was always a bad thing or indeed that it could ever be eliminated. At any rate, in his opinion, closer articulation was essentially a matter of curriculum

revision and organization.

3. The Economy of Cost Argument

Eells did not dispute this argument but said it was obvious that the four-year plan would effect a notable saving in capital outlay and in maintenance and operating cost.

4. The Economy of Time Argument

A point frequently made by those who spoke for the 6-4-4 plan of organization was that the four-year college facilitated the acceleration of the superior student who could finish the four years of work in three. Eells saw merit in this position but wondered whether acceleration was superior to enrichment.

5. The Argument of Vocational Preparation

It was felt that the four-year "junior college" would do a distinctive and unique work in training students for many of the semi-professional occupations since the training period would be significantly longer. Eells made little comment on this point.

6. The Argument from Size

It was generally argued by its supporters that the four-year college permitted college opportunity in places which were too small to justify a two-year college. With some irony Eells asked how, if one hundred students was too small a number for a two-year college, two hundred would be large enough for a four-year one.

7. The Guidance Argument

Could not guidance and counselling be more effectively organized in the four-year college than in the two-year one? Eells was

not so sure. In his opinion the kind of guidance given to junior students differed from that given to college students who really required information more than advice.

8. The Argument of Analogy with German Education

Many writers of the day pointed to the German Gymnasium as the ideal example of secondary school organization. Eells observed, however, that in Germany a two-class system of education had developed and was in operation. Only those of a high enough social status could attend the "Gymnasium". Moreover, the "Gymnasium" was a single unit and not two, four year institutions. Furthermore, a certain church group had attempted to develop Americanized "gymnasia" as early as 1839. But the young men studying in these schools fell behind their contemporaries studying in other institutions. By 1920, it was clear that the American "gymnasia" had failed, and the church then changed all of these schools (nine in number) over into four-year high schools and two-year classical colleges. Eells concluded that an indigenous tree did not always flourish when transplanted to foreign soil.

9. The Compulsory School Law

Its supporters argued that the legal school-leaving age in most of the states was sixteen years which coincided nicely with the beginning of the four-year junior college. Eells challenged this argument by pointing out that while there were thirty-one states with sixteen years as the compulsory school-leaving age, there were ten in which it was seventeen or eighteen years, and indeed the trend across the whole of the United States was to raise the compulsory school-leaving age, not to lower it.

10. The Argument of Superior Teachers

Those who advocated the four-year junior college said that an institution of this dignity and scope would attract better trained and more experienced teachers and administrators than a two-year institution would.[146] In the absence of any evidence that this assumption was valid, Eells could not comment.

The most basic concept of the 6-4-4 plan was the conviction that the thirteenth and fourteenth years of education which were then embraced in the junior college, were in reality secondary in character and should be part of a well-rounded system of secondary education. As such, they should be attached to the public schools since it was recognized that universal public education stops with the completion of secondary education. Professor Eells was never able to accept this argument.

> ... Why does it follow, even if these two years are secondary, that they should be attached to the public schools in a peculiar administrative relationship which involves splitting the prevailing high school squarely in two and welding its upper half into an integral whole with the two junior college years? It may be frankly admitted that the junior college is a part of the public school system without any necessary implication that it must be administratively united with two, and only two years of secondary education immediately adjacent to it.[147]

He went on to list six of the major disadvantages he saw in the 6-4-4 plan:

1. The difficulty of intercollegiate athletic competition.

2. Difficulty of adjusting to existing administrative practice.

3. Difficulty of adjustment to varying geographical conditions.

146 Walter Crosby Eells, "What Manner of Child Shall This Be?", The Junior College Journal, vol.1, February, 1931, No. 4, 311 ff.

147 Loc.cit.

4. Difficulty of too great variety in the age of students.

5. Difficulty of adjustment of instruction to different levels.

6. Danger of stopping school at compulsory age limits.[148]

Eells concluded by arguing strongly for the two-year junior college as a distinct entity logically following graduation at Grade 12. He said that there were at least seven points which must be considered:

1. Ease of adjustment to existing administrative and geographical conditions.

2. Advantages of new contacts.

3. Development of leadership.

4. The advantage of homogeneity of age.

5. The distinctive collegiate atmosphere.

6. Transitional advantages.

Eells reminded his readers that much had been written and said about the "classic gap" between elementary and high school. The transition was always felt to be too sudden and abrupt from one institution to the other. But the gap between the high school and the university was even greater. In Eells view, the junior college provided a natural bridge.

7. The psychology of the American people.

Eells observed that "going to College" had become the "great American ambition" and was indeed rapidly becoming the "great American habit". He said that although American parents may not know exactly what the college stood for and may not recognize the technical distinctions between secondary and higher education, they were very sure that college

148 Loc.cit.

meant something distinctive and worthwhile. In the popular mind the college was an institution to be attended after high school graduation. It was not merely a glorified or amplified high school.[149]

What "manner of child" would this be - the upper division of a high school or the lower division of a university? Would it become a kind of trade school devoting itself solely to the work of vocational training or would it simply offer first and second year courses identical with those given in the universities? These were the questions which troubled American educators up to the end of the second world war and as a matter of fact are troubling Canadian educators today.

While it would be too great an over-simplification to suggest that Professor Eells' thoughtful analysis which we have examined in the article quoted from above, or the point of view he expressed in his other writings and in his many speeches, put an end to the debate, it is not unreasonable to suggest that his work gave impetus to an emerging concept which began to accept the junior college as an institution unique and distinctive in its own right - a new educational and social invention.

In the meantime the American junior college continued to depart along one or other of the lines of these two different tangents; mainly, however, along the one which led directly to the university.

THE CONCEPTS DEVELOPING TODAY

We might ask ourselves why it was that the junior college conceived originally as an institution which would carry out a number of different functions, tended in its early development to stress the

149 Ibid., p. 313.

duplication of the typical first two years of college. The answer to this question can give Canadian educators who are engaged in developing two-year colleges in this country some hint of the problems they can expect to encounter.

THE PROBLEMS ENCOUNTERED

First there is the fact that it is much more difficult to perform a new task than to carry out an accustomed one. This, of course, is a difficulty encountered by all innovators. Secondly, the junior college with its concept of "comprehensive" education at the post high school level, and its attempt to institute the "open door policy" runs counter to the tradition that has surrounded and indeed still surrounds college education. Those conceptions of higher education which have evolved and endured over long periods of time are held particularly by faculty who, in the final analysis, are the people determining the character of the institution. Faculty generally hold strong convictions regarding the type of study which they feel should be characteristic of collegiate work, the purposes appropriate to higher education and the qualities students should possess. Moreover, the expectations of students and parents have been shaped in the same tradition and "both tend to resist work not traditionally 'college'".[150] Consequently there have always been, and as a matter of fact still are, within the junior college movement, those who do not feel that occupational and terminal work belong in a college.

150 Ralph R. Fields, op.cit., p. 53.

THE FORCES AT WORK

Yet a number of social and economic forces have emerged over the years to push the junior college towards at least a partial fulfillment of the broad purposes originally envisioned for it. Of these, Fields lists seven as being most influential:

1. The drive to attain a greater and greater degree of democracy in our social arrangements.
2. The increasing complexity of modern living which has spurred changes in educational purpose.
3. The Economic Depression of the "thirties".
4. World War II which brought with it a need for technical education.
5. Shifts in occupational patterns.
6. Enrolment trends which have applied persistent pressure to the academic programme.
7. The developing ideas of the people serving in junior colleges.[151]

It is clear from the literature that the junior college has indeed made remarkable progress during the last two decades towards expanding its purposes and functions and broadening its programmes to fulfil them.

In the special twenty-fifth anniversary issue of The Junior College Journal, a number of authorities were asked to write on the topic: "What is the most significant development in the junior college field in the past twenty-five years". Nine significant developments were indicated, each suggesting a broadening purpose for the new institutions:

1. The emergence of the concept of the community college.

151 Ibid., pp. 55-58.

2. Increasing and consistent adaptability.

3. Development of adult education programmes.

4. Development of broad, comprehensive curricula.

5. A broadening concept of scope and function.

6. Discovery of extraordinary possibilities in ordinary people.

7. Improvement of instruction.

8. Recognition and acceptance of the junior college.

9. Full discovery of its own potential.[152]

In an analysis of the statements made by educational authorities, James Reynolds, the editor of The Junior College Journal, found that the writers appear to be in agreement on three significant developments:

1. the emergence of the community college concept;

2. improvement of instruction;

3. recognition and acceptance;

and he concluded: "during this period a concept of educational needs which were not being met by existing educational institutions was brought to fruition".[153]

Any institution that centres upon the needs of a specific community must become multipurposed in scope. As well as preparing students for advanced study or for entry to given vocations, as well as providing low cost post-high school education in proximity to the homes of students, as well as making provision for effective guidance, counselling and "salvage" programmes, the community colleges must provide general

152 James W. Reynolds, "The Significance of the Past Twenty-Five Years of Junior College Development", The Junior College Journal, vol.XXV, No. 8, April, 1955.

153 Ibid., p. 426.

education and community service.

General education may be defined as:

> Education which encompasses the common knowledge, skills and attitudes needed by each individual to be effective as a person, a member of a family, a worker and a citizen.[154]

The complexity of contemporary life, the revolution in cynernetics with the attendant problems of an approaching "leisure crisis", the fears and the actualities of conflict, war and violence in general, the terrible increase in problems of mental health, and the threatened breakdown of family life - all attest the need for more general education in all our communities. While no one can expect the community college to answer all of these problems, no community college seriously committed to fulfilling its role can afford to ignore them.

In its role of providing community service, the junior college can perform a number of worthwhile functions. These include:

1. Increasing the productive efficiency of agriculture and industry.
2. Improving the functioning of communities and community organizations.
3. Contributing to the health and physical well-being of citizens.
4. Enriching the cultural, aesthetic and moral life of the community.[155]

As a reservoir of distinctive and various talents and skills, knowledge and expertness, insights and understandings, it can bring to community life new and better purposes, interests and skills.

THE EMERGENCE OF PURPOSES AND GOALS IN CANADA

It is interesting to compare the stated aims and objectives of the two-year colleges now developing in Canada with those which were voiced

154 The Yearbook Committee, "The Role of the Public Junior College", The Public Junior College, Fifty-fifth Year Book of the National Society for the Study of Education, Nelson B. Henry, ed., Chicago, The University of Chicago Press, 1956, p.72.

155 Loc.cit.

most frequently in the United States. It is interesting also to compare them from province to province.

DEVELOPMENTS IN ONTARIO

Ontario, for example, has apparently adopted quite a pragmatic point of view. Although its new "colleges of applied arts and technology" are to be post-secondary in nature, they are to concentrate first on the needs and interests of students for whom a university course is unsuitable and they are to offer a type of training which universities are not designed to offer. In his statement to the Legislative Assembly, the Minister of Education made it quite clear that the plan was not to import and implant unchanged, the system of junior colleges or community colleges that had developed in the United States. Although he agreed that the American junior college had had a long and honourable history, he reminded the members that "our senior matriculation, so I am told" admitting to what was then the second year of a four-year B.A. degree course at the University of Toronto, "dates back to 1853".[156] In the Minister's opinion, therefore, Ontario had had experience for over a century with a programme which was half the length of the junior college transfer courses. Furthermore, he pointed out, Ontario had had vocational education at the secondary level for over forty years and post-secondary technical institutes for twenty.

> What we have in mind, therefore, as you will see later, is not the imposition of an imported or alien institution on our educational system, but the development and expansion of our present system to meet our particular needs. Although it is true that our Colleges of Applied

156 Ontario Minister of Education, "Statement to the Legislative Assembly on Colleges of Applied Arts and Technology", May 21, 1965.

Arts and Technology may resemble some of their United States counterparts in many respects - not surprising, of course, since the age group is the same and the basic needs of youth in our two countries differ little - yet there will be real differences in programs and in emphases. I hasten to add that, far from refusing to profit from experience elsewhere, we have deliberately sought to learn from others and to select the features which strengthen our own proposals. I have personally visited many of these new institutions in the United States, more recently in Florida and in California, and have discussed our tentative plans with knowledgeable educators and laymen in other provinces of Canada as well. As you no doubt know, a form of junior college, differing fundamentally from our proposed Colleges in the emphasis on university-parallel courses, is being developed in Alberta and in British Columbia. We are observing their experience with great interest.

What programs do we plan to offer in these Colleges? As indicated earlier, we have in mind composite or comprehensive institutions, preferably with several buildings on the same campus, providing a wide variety of programs of varying length, including work-experience programs, by day and in the evening, for adults as well as for youth, and for probably more part-time than full-time students.

Nevertheless, some features will be common to all programs: they will be occupation-oriented, for the most part; they will be designed to meet the needs of the local community - and they will be "commuter" colleges. Residence or dormitory facilities will not be provided, except possibly in some areas of Northern Ontario.[157]

In concluding his remarks the Minister recognized three major responsibilities of the new colleges of applied arts and technology:

1. to provide courses of types and levels beyond, or not suited to, the secondary school setting;

2. to meet the needs of graduates from any secondary school program, apart from those wishing to attend university; and

3. to meet the educational needs of adults and out-of-school youth, whether or not they are secondary school graduates.[158]

The Province of Ontario then, is looking towards the development of a new educational institution which exists in its own right. It will be neither "secondary" nor "university" in character, but a distinct entity.

157 Ibid., p. 23.

158 Loc.cit.

DEVELOPMENTS IN QUEBEC

Quebec, on the other hand, would appear to be moving towards an extension of its secondary school system. Having reviewed its entire educational services, it proposes to introduce a new "institute" between secondary school and university. The purpose of the "institute" would be to provide a broad range of technical and vocational opportunities, general education and pre-university courses. The new institution would be comprehensive in nature, regionally controlled, provincially supported and administered on the same pattern as the secondary schools.[159] The attempt in the Province of Quebec is to "create a coherent system of education out of a complex and inchoate one, much of which was recognized as outmoded".[160] The report recommends that the courses of study should be referred to as "pre-university" or as "vocational education" courses. Although in conception the "institute" is seen as something separate from the secondary school, in fact it would appear to be a simple extension of it since it would include Grades 12 and 13.

DEVELOPMENTS IN ALBERTA

Conversely, in Alberta, the main emphasis in the junior college has been on the teaching of university-level courses. The Public Junior Colleges Act passed in April, 1958, provided that junior colleges may be established for the purpose of teaching (a) subjects of university level not higher than the level commonly accepted for the first year beyond university matriculation in a course leading to a bachelor's degree;

159 Report of the Royal Commission on Education, Province of Quebec, 1964, vols. 1 and 2.

160 Andrew Stewart, Special Study on Junior Colleges, December, 1965.

(b) with the approval of the University of Alberta, subjects in a course of study for a year other than the first year beyond University of Alberta matriculation, and; (c) other subjects of a general vocational nature not provided in the high school curriculum of the province.[161]

An examination of the college calendars published by the three junior colleges of Alberta will show that the main areas of concern to date have been with the university programmes. Neither the Red Deer Junior College, nor the Medicine Hat Junior College offers technical or vocational courses and in 1965-66 the Lethbridge Junior College enrolled almost twice as many students on the university than on the vocational programme.[162]

The Alberta experience led Dr. Stewart, in his significant study of junior colleges, to urge a systematic approach to post-school, non-university education. Dr. Stewart agreed that the public schools have had a long experience in meeting the educational needs of children and he felt that the school system, although somewhat static, was well organized to meet these needs. He points out, however, that the responsibility of the schools for day-time instruction ends when the pupil withdraws from school or graduates from it. He agreed also that the universities have had long experience in meeting the needs of those students who could achieve the necessary standards of admission and that the universities were well organized to meet those needs. But what about the increasing numbers of students leaving high school who are neither eligible for, nor desirous of,

161 An Act to Provide for the Establishment of Public Junior Colleges, Province of Alberta, Chapter 64, Article 3, 1958.

162 Andrew Stewart, op.cit., p.27.

a university education?

In support of his contention, Dr. Stewart cites statistics which indicate that in 1965 only fifty-five per cent of all Grade 12 students enrolled in Alberta secondary schools received the high school diploma, and that less than half of these (47%) had met the matriculation requirements.[163] The need for a new kind of post-secondary institution would seem obvious. Dr. Stewart goes on to elaborate his position as follows:

> In contrast to the well-organized school system and the well-organized university system there has, up to this time, been no systematic approach to the provision of opportunities beyond school for the group who will not enter university. One reason is that the group has not been as large as it now is and will certainly become. Also the need for further education of the group has been less evident than it now is. There is increasing recognition that the extended education of the relatively small number through university is not alone enough either in the interests of people as individuals or of society. The young people who leave school but are not admitted to university, can benefit from education appropriate to their needs; and are as entitled to the opportunity to develop their capacities as are those who proceed to university. Even in the narrow occupational sense, university graduates will not be effective in society unless they have associated with them, substantial numbers of people with more education than has been available in the past.
>
> It is of course wrong to imply that nothing has been done to provide educational opportunities for young people who leave school but do not proceed to university. Private institutions have responded to some demands. Public institutions, often under auspices other than those of the schools or universities, have been established to meet the needs of particular groups ...
>
> Provincial Schools of Agriculture and of Home Economics have, for 46 years, offered distinctive education to youth of public school age. The Institute of Technology and Art has for a similar period offered a rich variety of vocational and trade courses to students of upper public school ages. The Apprenticeship Act of 1958 designated nineteen trades open to youth of a minimum age of sixteen years who possessed Grade VIII or Grade IX standing. Under other auspices, recreational, forestry,

163 Andrew Stewart, op.cit., p. 13.

and health courses are taken to youth and adults. Shortly, a trades school will open in Edmonton. All these efforts testify to the need for a variety of programs.[164]

Dr. Stewart acknowledges that a radical modification of the structure of the existing educational system to include a new and different institution will necessitate the solving of many thorny problems, including the achievement of a consensus and definition of the purposes to be served, determination of the specific programmes to be offered, articulation with the schools and universities, responsibility for adult continuing education, as well as the location, organization and government and financing.

He offers the following general guidance:

> The primary purpose must be to extend post-school educational opportunities to young people who, having completed the programs of the schools, do not, either by choice or by failure to meet the required conditions, go on to university. The purpose is to provide a valid alternative to university education for these young people. The new institutions may provide a 'second chance' for students not initially qualified to enter university studies. The new institutions may also provide programs which will advance the education of students who will proceed to university.
>
> The primary emphasis must be on programs related to the needs of students who, for valid reasons, will terminate their formal education when they leave the new institutions; although many of them will seek continuing educational opportunities. The programs should therefore be complete and educationally effective in themselves. The programs should be designed to prepare students for life experiences, including employment experiences, within three broad areas - the technologies, business, and the arts, In each of these broad areas there should be opportunities to achieve competence in more particular areas of knowledge. The content of programs should not be limited to knowledge specifically related to particular employments. By combination of courses the student should have an opportunity to develop his interests as an individual and his capacities as a member of society. The length of the programs may vary; but there will be a tendency for them to extend over two years.[165]

DEVELOPMENTS IN BRITISH COLUMBIA

It is significant to note that the new two-year colleges now

164 Loc.cit.

165 Loc.cit.

in the process of development in British Columbia have to some extent at least accepted these purposes and objectives which have developed over the years in the United States. Vancouver City College, for example as a "comprehensive institution" with an "open door" policy, stresses both flexibility and accessibility.[166]

Opened in August, 1965, the King Edward Adult Centre provided (a) general education college-level programmes parallel to, but much broader than, the former senior matriculation offering; (b) eight new career programmes; (c) a special programme for adults to complete standing equivalent to high school completion.

The development of new career programmes is being emphasized. These are so organized that instruction in the first year emphasizes skill development to enable persons to obtain employment after one year of study. They are also organized so that the second year may be completed through evening classes if necessary. All diploma programmes include English, mathematics, social sciences and a concentration in one field or other and two-year programmes of study. Shorter certificate programmes are also identified. Career programmes are developed in broad fields and in co-operation with active advisory committees.

A specific transfer programme has been avoided. College courses parallel those offered in the universities but are not identical with them. If a centre is to have any autonomy, this is an important concept.

In his preliminary report as consultant to the West Kootenay Regional College Council, Dr. L.W. Downey listed eight specific objectives

166 John H. Wormsbecker, op.cit., p.44.

which he felt should be met:

1. To provide for university-bound students the first two years of a degree programme in Arts, Science Education and, perhaps, other faculties of the university.

2. To provide for technical-institute bound students the first two years of advanced work in selected technologies.

3. To provide two year, terminal programmes designed to prepare students for employment in the various technical and semi-professional fields.

4. To provide a center for specialization in technologies uniquely appropriate to this particular geographic region.

5. To provide two years of general education beyond the high school.

6. To attempt to "salvage" ex-high school students who because of specific academic disabilities have been unable to matriculate and/or graduate from high school.

7. To serve as a "center for higher education" for the entire region and contribute to the cultural and economic development of the region.

8. To conduct research and experimentation in the process of instruction and to share findings with all educational institutions in the province.[167]

Dr. Downey elaborates his position with regard to his final point in this interesting footnote:

> It has been claimed - with justification - that the "junior college" should be a "teaching" rather than a "research" institution. Taken at face value, this is a perfectly reasonable position. But the fact is, considerable research is needed in the area of instruction and learning itself - what sorts of instructional techniques are most effective, for what kinds of students, engaged in the learning of what kind of materials. What could be more appropriate than for an institution dedicated to the perfection of instruction, to engage in experimentation to learn more about instruction.[168]

The purposes and goals of the new Selkirk College were set out in its first calendar as follows:

167 Dr. L.W. Downey, The Proposed College for the West Kootenays. A preliminary report to the West Kootenay Regional College Council, Trail, B.C., July 10, 1964, p. 9.

168 Loc.cit.

Selkirk College is required by statute to provide tuition in first and second year university work and is authorized to offer such courses of a post-secondary school level as may be deemed desirable. The latter courses are generally in the fields of business, industry and public service. The College differs from all secondary schools and from other post-secondary educational institutions in terms of its educational purposes, premises and facilities, staffs, students, curricula and instructional methods.

The College has two broad purposes. The first is to provide within a single educational milieu a variety of educational opportunities for students of different abilities, talents and interests. The second is to extend more widely the opportunity for young people throughtout the Province to continue their education after graduation from secondary school.

The first of these broad purposes implies much more than merely having both academic and technical or other programmes carried out in the same institution. The College should be regarded as a unique educational setting wherein academic and technical fields can be merged in ways that are not open to other post-secondary institutions whose programmes do not cover as wide a range of abilities and interests. By adhering to this broad intention, the College can promote a distinctive type of higher education that will not only offer exceptional educational opportunities for the young people of the Province, but will also serve to counteract the false distinction that is commonly drawn between academic and technical education. In a comprehensive sense all fields of education, whether literary, artistic, scientific or applied have techniques for acquiring, communicating and utilizing knowledge. Likewise, every field of education has its discursive and contemplative aspects as expressed in its historical, social and aesthetic components. Within a college programme these may be merged in ways that will enable students to comprehend their fields of study not merely as academic or technical but as powerful social and intellectual forces that are deeply and widely influential in human affairs.

This is a great educational opportunity and challenge for Selkirk College. Its purpose is much more than that of merely filling a hitherto neglected gap in our educational system. It is its responsibility to fashion a distinctive educational approach designed to meet the needs of modern life. To accomplish this goal will demand an unrestricted educational outlook and the concerted effort of all members of the College staff.

A further purpose of the College is to extend more widely throughout the Province opportunities for young people to continue their education after graduation from secondary school. This purpose is accomplished by the College: (a) being close to the homes of the students who attend; (b) being less restrictive than other institutions of higher education regarding the admission of students who graduate in the various senior secondary-school programmes; (c) being relatively inexpensive to attend; (d) providing various academic, technical and other programmes at the post-secondary level.

> A regional college bears a closer relationship to the community it serves than does any other type of educational institution. For example, the educational services of a university are so widely extended that its relationship to any particular locality is much more tenuous than that of a college. Likewise, a college is more closely associated with the community it serves than is a public school, because it stands as a separate and distinctive educational institution rather than as only one of several comparable units of a large public school system. Also college students have reached an age when they are becoming active participants in the adult life of the community. The College also offers opportunities for continuing education for adults who have established positions in the community.
>
> A college will have its most productive development when it is seen as an educational institution in its own right that offers programs of value in and of themselves rather than as either Grades XIII and XIV or the first two years of university. Moreover, there is need for effective relationships with the secondary schools, the universities and with the businesses and industries in the local area.
>
> Selkirk College will offer general education for all its students, and in addition two year programmes of university instruction and in other fields that have a close relationship to the economic and cultural needs of the community. A district or regional college differs from secondary schools and from other post-secondary educational institutions by the nature of its premises and facilities, its staff, its students, its curriculum and its instructional methods.

(Based on a statement by The Academic Board for Higher Education in British Columbia - January, 1965).[169]

In its second publication, which appeared in November, 1966, The Academic Board for Higher Education in British Columbia added a third purpose to be served by district and regional colleges:

> ... to provide further education for those in the community who wish to augment their knowledge and improve their proficiency in particular fields.[170]

In the opinion of The Academic Board, college education is neither a continuation of secondary education nor a supplement to it. Secondary school provides the proper educational environment for adolescents;

169 Selkirk College Calendar, 1966-67, pp. 12-13.

170 The Academic Board for Higher Education in British Columbia, College Standards, November, 1966, p. 5.

college offers an adult educational environment. The transition from secondary school to college is, in the opinion of The Academic Board, the most pronounced change that a student must adjust to in the course of his academic career. At college he begins a much broader field of work and must cope with instruction that is directed toward independent study and enquiry. Instruction is less didactic than it was in the secondary school and the student is, therefore, made much more responsible for his own progress. Moreover, the tempo of college work is much quicker than it was in secondary school.

The Board also noted that a college differs significantly from the university. The college need not duplicate the courses given at any university since it should not aim to prepare its students in arts and science for transfer to only one university. The Board warns, however, that the educational standards of the college's arts and science programme must correspond to those of the first two years at a university.

The report goes on to observe that:

> All education has a common purpose, and the comprehensive scope of the college program helps to bridge the gap that has widened between what is commonly called ' academic education' on the one side and 'technical education' on the other. This has special significance for students who are studying technical subjects because it enables them to broaden the scope of their education as they acquire proficiency in their special fields. But it also has similar significance for all students in that it brings together those with different interests and aptitudes so that they may learn from one another. This has increasing importance as technology becomes a more dominant feature of modern life. All college students should be encouraged to look upon their courses, not as either academic or technical, but as means for extending their knowledge and improving their competence in ways that are meaningful and important in the increasingly complex world of today.[171]

171 Ibid., p. 6.

Finally, the Board feels that a major purpose of a district or regional college is to provide for flexibility.

> The diversified nature of the college programs allows a degree of flexibility that permits students to transfer from one college program to another without serious loss of time. This cannot be done as freely in a university where all courses have essentially the same prerequisites and are of the same academic nature. It is not that college students are allowed to flit from one program to another, but transfer should be recognized as a normal and important feature of college practice. Some students who have less than the full requirements for entrance to a university may prove their suitability for continuing at university by successfully completing one or two years of the college Arts and Science Program. Similarly, some students who commence in Arts and Science may find that their aptitudes, interests and objectives are more in keeping with a technical program and transfer to it. This feature of college education allows students to change their educational and vocational plans even after having graduated from secondary school. Many students, including some of the best, have not decided upon their future careers by the time they graduate from secondary school and the opportunity to transfer while at college permits them to defer a decision until after they have had a wider educational experience.[172]

Over the years, then, we see emerging the concept of a new and different type of educational institution - comprehensive in nature and flexible in its programmes. The concept has evolved slowly and too often the image of the two-year college has been partial and incomplete. Some educators have seen it only in terms of an extended secondary school and would limit its course offerings accordingly. Others have declared dogmatically that it cannot be considered an institution of higher learning unless it functions as the lower division of a liberal arts college. Still others would limit its functions to that of a trade or technical school. Finally, there are those with particular interests in adult education who vigorously proclaim that this institution must be primarily concerned with the adult community.

172 Loc.cit.

To a degree all are right; to a greater degree, all are wrong; none sees the entire picture.

A POINT OF VIEW FOR CANADA

"What manner of child shall this be?" First and most important of all, it must be the "child" of the community it serves. A community may be described as a geographic, cultural, social and economic unit. If the college serves less than the entire community or if it less than serves its community, it is not fulfilling its major purpose. When, in earlier years, it was concerned only or mainly with two-year academic programmes which prepared students for entrance as juniors into a four-year college or university, it served only a portion of its community. On the other hand when it was concerned only or mainly with offering secondary school extension courses, it served only a portion of its community. It must serve both and more.

A NEED TO CHALLENGE TRADITION

But to do so, and surely this is a lesson which Canadian educators must learn, it must free itself both of the false interpretation so often made by educator and layman alike of the term "academic status" and of sentimental and emotion-laden notions of "educational democracy". In short, it must free itself of some of the deep-rooted traditions which have moved boards and administration and faculty down either the well travelled path of "academic respectability" or through the thickets of organized secondary education.

It must be prepared to accept the multiple academic standards

which are essential to the variety of programmes it must offer. It must depend for its success on being flexible and adaptable.

We must not equate "higher" education with university education. Acceptance of the district or regional college concept must be accompanied by a redefinition of higher education. Undoubtedly university purists will be slow to accept an enlarged concept. But if they see increasing numbers of students profiting from non-university courses which nevertheless demand quality performance even though their emphasis may be more practical than theoretical, acceptance will come.[173]

Regional and district colleges should not limit themselves to programmes which are always exactly two years in length. Their aim is flexibility and there should be nothing magical about two years, four years or any other number of years. If they are to assume greater responsibility for the retraining which will be required for technological change, an increasing number of short term programmes and courses may have to be offered. In some instances, particularly where training in highly complex technological skills and knowledge is needed, three or even four-year courses may be necessary.

AREAS OF MAJOR CONCERN

If the district and regional colleges are to meet their goals or fulfil their purposes, they must find the way to weld together at least five important elements of education into one comprehensive unit and in so doing, still remain flexible.

First of all they must, in cooperation with representatives

173 In this connection it might be well for educational authorities to re-examine the programmes offered in the land-grant colleges which, until the mid-1920's, provided instruction in agriculture and mechanics.

from business, labour, industry and the professions, develop career, technical, vocational or occupational curricula. These programmes should be chiefly designed for employment and not for transfer. Experience teaches us that mixing these two objectives frequently creates chaos and usually results in the subordination of the employment objective to the transfer objective. What better way for a college to achieve "status" than to produce a well trained engineering technician, nurse, dental assistant or retailer. As we have already observed, today's automated technological society is demanding more and more post-high school education for greatly increased numbers.

In developing their career programmes, colleges must keep closely in touch with employment needs. At the same time if they are to preserve their comprehensiveness, and meet the needs of a complex society, they must make sure that the programmes they offer are, in the proper sense of the word, "collegiate" in standard. Above all they must give as much attention to, and show as much respect for, the success of students who complete these programmes as those who transfer.

A second element they must weld into the whole, is the university transfer programme. Studies will show that for the most part, American junior colleges have had good transfer records. The performances of college transfer students to four-year colleges and universities have usually equaled and often surpassed those of students who are "native" to the four-year institutions.

Without question, the junior college has fulfilled its "transfer" role best of all. Its success in this area can be attributed to the fact that the path it has had to follow is a familiar one. If the

district and regional colleges will insist on fully qualified faculty and on quality instruction, we can have every reason to feel confident that they will more than adequately equip their students for upper division work at baccalaureate degree institutions. Indeed it is not too much to hope that college students may be better prepared than their "university" contemporaries who often must adjust themselves to large, impersonal institutions and to the instructional methods of graduate students.

Yet another element which the district or regional college must include is that of continuing or adult education. Certainly the college has a responsibility to the adults of the community it serves. It meets this responsibility by developing broad and comprehensive adult education programmes which will encourage the older members of the community to remain au courrant both culturally and occupationally.

To this end the college should not restrict its offerings only to college credit classes. The primary aim of the evening or adult education programme should be that of community betterment. A second responsibility should be to maintain in the community a competent pool of manpower through the introduction of courses which re-train and up-grade men and women in existing and developing occupations. A third responsibility should be to provide for personal enrichment. Many new or latent interests can be developed or awakened in well-planned evening division programmes and in a society, facing for the first time in its history a crisis in leisure, this responsibility assumes a very great importance indeed.

Still another element to be encompassed is that of general education. The history of general education programmes in American junior colleges is not very encouraging, partly because the programmes have on the

whole been rather unimaginative, and partly because of the tradition of the rigidly prescribed general education requirements of the universities. Yet if our citizens are to receive the common knowledge skills and attitudes which will help them to be effective as parents, workers, citizens or simply as people, they must be given the opportunity to participate in what may well be the most important of all educational areas.

Finally the district or regional college must embrace the remedial or "salvage" functions as one of the integral parts of its overall programme. Over the years there has been some reluctance on the part of American junior colleges, and there may well be in the case of Canadian ones, to assume responsibility for those students who for various reasons, left secondary school with deficient or incomplete academic standings. Frequently the reason for the deficiency was the failure of capable but immature adolescents to apply themselves in high school. Unable, as a result, to meet the high entrance requirements of the universities, these students had in fact reached "a dead end". With increased maturity, many of them deserve a second chance. It is through "the open door of a district or regional college" that they get that chance.

There is considerable evidence available in studies conducted in American junior colleges to demonstrate the convincing success of repair or remedial programmes. Yet the reluctance to include them in college curricula is understandable since colleges which do are almost invariably subject to the charge that they are "second class" institutions.

The district and regional colleges of this province will have to rise above the fear of such charges, because if they do not accept an

increasing amount of responsibility for the less well-prepared students, a substantial amount of talent will continue to be lost to a country that cannot afford to waste any of it.

Surely then the first and most important task to be undertaken by the district or regional college is to become a truly comprehensive institution of higher education. This is at once its task and its purpose. It will not be easy. There will be those who will argue that a college cannot have both strong transfer programmes and strong vocational-technical ones. There will be those who will charge that no college which tries to be all things to all people can hope to offer its students a useful or respectable education. Within these charges there is a degree of validity which no thoughtful educator can afford to ignore. Certainly it is not the purpose of the district or regional college to become an educational service station or super market. And certainly the college must be insulated against the kind of pressure that would displace the freedom of teaching and enquiry with a subservience to the utilitarian needs of the moment.

But it does not follow that the college must lose its integrity if it responds to the great number of legitimate and urgent educational needs of our time. More and more Canadians are learning from experience in American junior colleges, that each type of programme can indeed strengthen the other. The comprehensive college is not beyond our reach. We need only to discard some of our "sacred-cow" attitudes which have surrounded higher education in the past. Most of all we need courage.

CHAPTER V

THE DEVELOPMENT OF CURRICULA

GENERAL CONCEPTS

In its broadest sense, the term curriculum includes both the content of the courses taught and the method of teaching them. Its implementation is the most important function of any educational institution and therefore must receive the major attention of those who plan and administer the institution. The designing of appropriate and worthwhile curricula is by no means a simple undertaking. It is not a task which can proceed strictly along scientific lines or be based only on scientific principles. A curriculum is a living, changing thing. It must have about it a degree of creativity and those who develop it must have the freedom to be imaginative. It does, of course, require the exercise of sound judgment which is founded upon certain basic principles, and upon facts derived from the analysis of comprehensive surveys of conditions in all aspects of individual and community life. This statement implies that the college, as the child of the community, should have the legal authority to design, prescribe and administer its own curricula and courses. It does not follow that these curricula will be only parochial in nature. They must reflect the needs not only of the local, but of the larger community as well.

If the needs of all youth and adults are considered, the following general types of curricula will be required for the typical community:

1. Preparatory, i.e., university - parallel - including those academic

subjects required for entrance into senior college, professional schools or technical institutes.

2. Terminal - designed to prepare students not for subsequent courses but for immediate entry into occupational fields. Terminal curricula should be of two types - general or cultural and vocational or technical.

3. Adult or continuing education - for the purpose of increasing the cultural, social, civic and vocational competence of adults who may or may not already be in full-time employment.

Curricula should be developed for three general classes of students:

1. Full-time students, both preparatory and terminal.

2. Part-time students including youth, who because of regular employment cannot attend full time.

3. Adults who can attend only in the evenings or in "slack" periods.

Certainly curricula should be flexible and readily adaptable to changing conditions and needs. These qualities are probably more applicable to terminal than to preparatory courses or programmes, since preparatory programmes governed by university entrance requirements tend to become somewhat standardized. Specific terminal curricula may vary in length from a few weeks to three or more years depending upon the character and level of the occupation for which the trainee is being prepared. In most cases, however, and in practically all semi- or sub-professional fields, the length of training will be two years beyond the high school graduation.

Courses for part-time students might be of short duration and should concern themselves with quite specific topics or subject matter areas which are closely related to the students' occupations. Courses for adults should probably take the form of lectures, forums, discussions or workshops.

Ultimately, if colleges are to fulfil their real goals or purposes, they should be prepared to offer instruction in any legitimate area of human knowledge and on a level and to the extent which will meet the real needs of those who seek to register for it. This will mean that for some colleges, in areas where other post-secondary institutions do not exist, traditional college entrance requirements will have to be radically modified or even abandoned.

Terminal education should be both general and vocational in nature. Surely there is need today for instruction in citizenship, in cultural appreciation and understanding and in healthful living. This principle of generality should not be forgotten even by those who prepare terminal vocational curricula. The purpose of education should not be just to teach a person to earn a better living. Education ought to help him to live a better life.

THE DIFFERENT TYPES OF CURRICULA

As we review the development of junior college curricula, we shall see that typically they have proceeded in four areas.

LIBERAL EDUCATION

First there is the tradition of liberal education which had its genesis in the time of early Greece. To the Ancient Greek, liberal education was confined to those fields of knowledge which involved the political and intellectual life of free citizens. A liberal education was in no way concerned with the activities which were involved in earning a living. To earn a living one simply performed manual labour. To attain "the good life" one engaged himself in certain kinds of studies,

which would free him from himself. The Greeks saw no anomaly in the fact that only those already free were indeed free to attain further freedom. Aristotle, for example, made it quite clear that liberal education was appropriate only to citizens who already possessed political, intellectual and economic freedom. To Plato these were the citizens who might ultimately become "philosopher kings".

To be a free man meant simply to be a man who could enjoy leisure - or more precisely, a man not under any compulsion to do servile work. To have leisure in turn meant primarily dealing with affairs of the state, engaging in political activities and pursuing knowledge and wisdom. It is significant that the Greek word for leisure is schole, which is of course the root of the word "school" in Latin as well as in other vernacular languages. Leisure meant schooling: that is, the opportunity to learn.

In his Politics, Aristotle had contended that the end for the sake of which any action is taken is leisure:

> It is clear, then, that there are branches of learning and education which we must study with a view to the enjoyment of leisure, and these are to be valued for their own sake.[174]

Liberal education then, in its original concept, involved the study in leisure, for leisure. In this pursuit a man found true liberation.

But it is not the subject matter per se that determines the character of studies as "liberal" studies. It is the way in which a formal discipline or subject is taken up that is decisive. Whenever a subject is taken up for its own sake; whenever genuine wonderment is present, liberal education is taking place.

174 Aristotle, Politics, VIII, 3.

Pure mathematics, the physical sciences, the life sciences, the sciences of languages - grammar, rhetoric, and logic, as well as the great works of literature which are the mirrors of man - these are foremost among the formal liberal disciplines. Too often we equate liberal studies with the so-called humanities, but it is well to remember that mathematics and science are not less human than history, poetry or philosophy.

After Roman scholars adopted Greek culture, liberal education became associated more and more with non-physical, non-commercial and even non-political activities. Thus was born a kind of dualism between knowledge and action.

The Romans codified their educational principles and classified the liberal element as encyclius disciplina, which might be translated as "well-rounded development". A favourite educational aphorism of Roman times was men sana in corpore sano. "Both physical and intellectual development are regarded as contributing to the whole man".

The Greeks appear to have been less utilitarian in bias and had instituted what they called their "seven liberal arts". The influence of the seven liberal arts has continued to be felt throughout the entire history of educational thought and practice. The seven liberal arts were subsumed under two major headings:

1. The Trivium which included grammar, logic, rhetoric, and
2. The Quadrivium which embraced arithmetic, geometry, music and astronomy.

It was generally believed that the trivium was more liberal than the quadrivium since the disciplines of grammar, logic and rhetoric were

supposed to be more purely intellectual than those of music and astronomy or the other sciences, for example geography which in the time of the Bishop of Seville, (A.D. 570-636) was taken to be a part of geometry.[175]

The important corollary which emerged from Aristotle's and his followers' writings on education was that liberal education was one which served no ulterior purpose. Its only end was intellectual fulfillment. Although in the heyday of Aristotelianism, all education attempted to enhance the good life through the agency of politics, it was not thought of as the handmaid of political change. A liberal education, to the major Greek thinkers, was final and not contingent.[176]

For the most part, the Romans though essentially a technological people, continued to uphold the Greek ideal of liberal education. But they added to it another dimension by placing emphasis on tradition and veneration of the past. It is here, as one writer points out, that we have the origins of humanism, which in essence is an attitude of mind resulting from a desire to preserve the records of man's achievement in a variety of fields.[177] We see evidence again of this attitude of conservation in Mathew Arnold's desire for a "science of antiquity" as an antidote to the crass materialism of the latter half of the nineteenth century.

It was of course the Renaissance which gave added direction to the conservative view of liberal education. With the discovery of ancient manuscripts, the leading educationalists of the day began more and more to assume a backwards-looking pose. The Italian educator, Vergerius,

175 Lawrence Davies, Liberal Studies and Higher Technology, Cardiff, The University of Wales Press, 1965, p. 4.

176 Loc.cit.

177 Loc.cit.

for example, in his famous treatise entitled On the Manner of a Gentleman and on Liberal Studies, affirmed the wisdom of the early Roman educators and saw liberal education in terms of a literary education in the classics. He too advocated the seven liberal arts but in a very much modified form. "The main subjects now being history, ethics, eloquence - the last subsuming logic, grammar and argument".[178] Vergerius appears to have been particularly interested in poetry - that is in the style of poetry. This attention to literary style has continued to be the most characteristic concern of those who subscribe to a conservative view of education. In a sense the doctrine that facts are illiberal - a doctrine which was to have strong associations with nineteenth century educators - had its origins here. Even in his day, Vergerius deplored the undue reliance which the scholastics had placed upon a catalogue approach to knowledge - a criticism frequently levelled at modern education - particularly in the sciences.

Between classical times and the late Renaissance period, the classical regard for the literary heritage seems to have crystallized. Davies says that this came about principally from the influence of the first true pedagogues of the Renaissance, Vittorino da Feltre and Guarino da Verona. These were the men who "incarnated the doctrine of classical scholarship as the sine qua non of a liberal education".[179] Latin prosody which later formed the basis of education in most European countries, notably in the English public school, closed the door on almost all the other disciplines. Science made little or no progress in the curriculum. This was the situation which was to create the demand on the part of

178 Ibid., p.6.

179 Loc.cit.

technologists and scientists for a liberal education which would suit their practical needs.

As a result of these demands a marked change in attitude developed towards liberal education in the eighteenth and nineteenth centuries and to the extent to which it ought to include scientific as well as humanistic subjects. The leading advocate of the new science education was T.H. Huxley who pressed for a radical reorientation of education away from linguistic pedantry to an understanding of natural laws and to an appreciation of the fact that science might elevate the conditions of men.

Yet despite Huxley's criticisms, and they were often damning, the humanist tradition stood firm against the introduction of too many new subjects into the curriculum. This was true even in the United States where utilitarian considerations had paved the way for the adoption of electives. A committee of enquiry appointed by Yale University in 1828, fifty years before the Huxley quarrel, concluded that the "discipline and furniture of the mind" which are the main considerations in guiding a liberal education, were best served by the classical subjects.[180]

This doctrine of formal discipline in the curriculum rests on the assumption that some subjects have a greater value in "sharpening" the intelligence, and hence a greater transfer value in facilitating other learning than some other subjects have. This belief had widespread acceptance in England and in America throughout the nineteenth century and indeed continued to have currency until 1918 when Thorndyke's studies suggested that there was little or no transfer of training between one subject

180 Ibid., p. 9.

and another except for identical elements in the subjects concerned. Though partly discredited, the transfer theory is still influential today and still governs the thinking on liberal education of some prominent educationalists.

An important spokesman for a sensible concept of liberal education was Matthew Arnold (1822-88) who believed that materialism threatened to engulf society. He saw in the classics a means of preserving the cultural heritage and urged the educated man to acquaint himself with the best that has been written and thought in the world and in so doing avoid becoming a mere "philistine". But Arnold also had to face up to the new situation created, at least in part, by the too ready acceptance of the benefits of science and technology which consisted of rejecting the classics on utilitarian grounds. In one sense Arnold was the first of the scholars to diagnose the malaise of modern education. Today many of his disciples have attempted to keep alive his principles. Among these have been G.M. Young, the doyen of authorities on the Victorian period, Ortega Y. Gasset, a learned believer in the liberal ideal, and the great poet and critic, T.S. Eliot, who may be said to have carried the Arnoldian position to its logical extreme. Finally there has been F.R. Leavis whose book Education and the University was a landmark in the counterattack launched by supporters of the imagination.[181]

Similar to the Arnoldian tradition of humanist apologetics has been the position stated by Cardinal Newman and latterly by Jacques Maritain. Like Aristotle, Newman and Maritain believed that liberal education signified ultimate freedom. To Newman, liberal education simply involved the cultivation of the intellect as the way of achieving intellectual excellence. He found the rationale for a liberal education

181 Ibid., p.11.

within the disciplinary framework of the subject itself. He saw no other social purpose in education.

Today with the greater emphasis on social and technological skills, the doctrines of Arnold and Newman have become anachronistic. In a rapidly expanding economy and a rising tide of population a more progressive concept of education was called for. The man who gave voice to that concept was John Dewey who described liberal education in terms of society's political and biological needs. To Dewey, a liberal education must include training in social skills and information about how contemporary society actually worked in practice. The emphasis must fall away from traditional knowledge and attach itself to recent knowledge. For a child to know the facts of ancient history but to have only the vaguest knowledge of the political and social changes which were taking place at the moment, was to Dewey a monstrous travesty of education. His view was shared by his fellow countryman, A.N. Whitehead, whose book The Aims of Education substantiates the proposition that education has been too concerned with inert ideas. Liberal and technical education are not completely antithetical as has always been believed. The relevance of Whitehead's views to the problem of providing liberal studies courses in technical colleges is obvious.

As we review the history of liberal education, we can hardly escape the conclusion that to mankind it has been a mixed blessing. On the one hand it has served well as the guardian and transmitter of a great cultural heritage. On the other, because it has been essentially aristocratic in concept, it has injected into education a class bias from which we have never really been able to free ourselves. From the time of

Ancient Greece it has been the special prerogative of the leisured class, its main goal being the training of "gentlemen". Based on the Aristotelian concept of a two-tiered society, it became the means by which the élite engaged in cultural activities and prepared for upper-class living. In contrast, the lower classes must be trained for work and therefore, were denied and in truth still are denied the degree of civilized living which technical advances and their own efforts might bring them. As a result the man who must work to earn his living is ill-equipped to make effective use of the increasing amount of leisure time he is falling heir to. Because of its intimate connection with social status, liberal education was for many years denied to the majority of students. Because it could be afforded only by those who had the leisure to pursue it, a liberal education was considered impractical for all but the privileged classes. For the most part, it was only the privileged classes who could partake of higher education. Therefore the concept developed that the curriculum offered in places of higher education should be one which was essentially limited to liberal studies. Certain studies are appropriate to institutions of higher learning; others are not. This commonly-held notion has for many years conditioned the thinking of educators, and certainly it has militated against the acceptance of the "comprehensive" institution of higher education.

In most of the colleges today, liberal studies still figure largely in the curriculum followed by the university transfer students, but they are given only passing notice in the curricula offered in terminal programmes. Apparently we still feel that a liberal education can only be provided for a very small percentage of our population. The rest must learn something more practical.

Too often we forget that in neglecting to provide a general education in a variety of forms of knowledge we may be delivering our future into the hands of immature specialists "whose skills may be sufficient to extinguish the human race, but whose wisdom cannot be looked upon to save and transfigure it".[182]

Surely a major task facing educators in the years to come will be that of redefining liberal education and translating it into curricula which will not only keep alive for future generations of students the most important learning of the past, but give them also the maturity, the perspective, the breadth of vision that will help them to live amid ideas and to deal with problems which have never before existed on earth. But in redefining "liberal education", we will have to be aware of the obstacles we will encounter and out of the wisdom our experience should have given us, design those programmes of study, evolve those patterns of organization, or build those institutions, in which it can flourish and develop.

The story of liberal education is indeed the story of the obstacles it has encountered. First of all there is the obstacle of the learning situation itself. The ideal learning situation involves the continuous contact between a student and his teacher, who in truth is another student still learning himself. But the institutionalization of learning into schools and into classes, schedules, courses curricula, examinations, and all the "other paraphernalia" of the academic world, make impossible or at least effectively militate against a truly satisfactory student-teacher relationship which is a prime requisite in the liberal

182 Ibid., p. 25.

education process. Liberal education must liberate. It must nurture and be nurtured by the spontaneity of questioning and of learning and the occurrence of genuine wonderment. In short it must be fed by, and it must feed, the spirit of enquiry. But this is a spirit which seems too often to die within the walls of a school room, the length of a period, the pages of a course of studies.

The second obstacle to liberal education looms in our intellectual traditions or at least in our condition as heirs to that tradition. Paradoxically enough, it is man's own rational nature that raises this obstacle. Over the long years of his history, man has built his skills and knowledges into a many-storied edifice. Each generation adds something to what has been previously built and preserved. But in this very process of building, necessary as it is as a sum total of human knowledge, is the ever present danger of sedimentation, fossilization or petrification of that knowledge. We have only to look to the pre-renaissance period of the European universities to see examples of these petrifying tendencies. Indeed, the tendencies are in our own institutions today. Liberal education draws from the past but cannot be limited by it. It belongs always to the future.

The final obstacle and perhaps the most serious one of all lies in the relationship between liberal education and the state. The Greeks saw in schooling or in leisure, a twofold activity - the pursuit of knowledge and of political ends. Man's responsibility as a citizen, that is as a member of a political community, is one of the great themes of all classical philosophy, and particularly of classical literature. But as well as being a political animal, man is also an enquiring one - and these are facts of his existence which very often must come in conflict.

> The demands of the political community to which we belong are indeed memorable. It is important to understand, however, that the idea of liberal education cannot be easily reconciled with those demands. It is important to see that there is a definite tension between the exigencies of political life and the self-sustained goal of liberal education. This tension is very great. Consider that ultimately the existence of any state involves the question of life and death for any of its members. But consider also that no less is at stake for a commitment to leisure in the true understanding of this word.[183]

But despite the obstacles or even the inconsistencies, an attempt to provide liberal education has been reflected down through the years in the curricula of all the major educational institutions of the world. It is too precious and valuable a thing to be forgotten now.

Surely the flexible junior college, if it can free itself from the "status" complex which traditionally has been so much a part of higher education, and if it can withstand the pressure of utilitarian interests, holds out real hope for the development of a new and relevant concept of liberal education. It may well be the most important task the college is destined to perform.

VOCATIONAL EDUCATION

We come now to a consideration of the development of vocational education. In one sense, it may be said that all education at least in present day thinking is "vocational" in nature - even the so-called "liberal" studies which form a large part of most transfer programmes. Here we will use the term in a more restricted manner and subsume under it such categories as "technical education" and trades training. Under each of these categories, of course, different levels of educational or training preparation exist: for example, "semi-professional" education, "technological education",

183 Jacob Klein, "The Idea of Liberal Education", W.D. Weatherford, Jr., ed., The Goals of Higher Education, Cambridge, Mass., The Harvard University Press, 1960, p.40.

"technician training" and others. We have seen that higher education in America, following the long liberal-studies tradition, reproduced and prescribed a curriculum which was in many ways similar in content to that of medieval times. It was also extremely tenacious. Not until the end of the eighteenth century was this concept of curriculum seriously challenged and the challenge came mainly from two directions; the forces released by the American Revolution and the gradual emergence of an industrial society.

An interest in some kind of vocational education was evidenced as early as 1682, when William Penn expressed the desire that his children be taught not only:

> the useful parts of mathematics, as building houses or ships, measuring, surveying, navigation, but agriculture especially let my children be husbandmen and housewives, it is industrious, healthy, honest and of good example.[184]

A few years later, Thomas Budd, also a Quaker, made his own proposals for vocational training. While agreeing that boys and girls should master the most useful parts of liberal studies, he recommended that the boys learn a useful trade and that the girls receive instruction in "spinning, weaving, knitting, needlework and straw work".[185]

Yet it remained for Benjamin Franklin, known in American history as "the apostle of practicality" to set forth the most elaborate plan for utilitarian education during the Colonial period. His Proposals Relating to the Education of Youth in Pennsylvania, published in 1749, undoubtedly was very influential in shaping the curricula that were to

184 Samuel R. Jamey, The Life of William Penn, Philadelphia, Friends Book Association, 1882, pp. 198-203.

185 Thomas Budd, Good Order Established in Pennsylvania and New Jersey, Frederick J. Shepard, ed., Cleveland, Burrows, 1902, p. 12.

come.[186] During his lifetime a number of colleges and military academies started to give instruction in technical subjects. In the following century technological colleges and institutes began to appear to meet the needs of a developing technological society. The first of these was the Rensselaer Polytechnic Institute in Troy, New York, which opened in 1824 as a separate technical school.[187] Since that date the development of technical education in America has proceeded at a remarkable rate and if present predictions can be accepted, the development is really only beginning. America has entered the age of the technician.

Department of Labour statistics reveal that in the decade 1950-60, overall employment increased by only 14.5 per cent. During the same period, however, professional and technical employment increased by 50 per cent, and by far the largest gains were recorded in the ranks of the technicians.[188] The increase is particularly noticeable in the demand for electrical and electronics technicians. Current estimates indicate that 700,000 new technicians will be needed in the United States by 1970.[189] Certainly there is an opportunity here for the junior college to make a significant contribution if it can finally solve the problem of low status which is so often assigned by educator and layman alike to non-transfer courses.

186 R. Freeman Butts and Lawrence A. Cremin, A History of Education in America, New York, Henry Holt and Co., 1953, p. 77.

187 Michael Buck, op.cit., p. 111.

188 Clyde Blocker, Robert Plummer and Richard Richardson, The Two-Year College: A Social Synthesis, Englewood Cliffs, N.J., Prentice Hall, Inc., 1965, p. 215.

189 Loc.cit.

TECHNICAL EDUCATION

In American terms a "technician" is defined as any person who is concerned with the applied aspects of a trade or profession. Technicians are not usually involved in the development of new theory. Their function is to apply existing knowledge to immediate practical problems. This does not mean that they receive no theoretical education. In fact they must receive a good deal but to a more limited extent than that of a fully professional person.

The United States Office of Education does not apparently differentiate between the terms "technician" and "technologist". It does however recognize two general classes - "engineering" and "non-engineering". A breakdown of the non-engineering area includes: health services (nurses, dental technicians, dental assistants, X-ray technicians); agriculture and forestry; applied and graphic arts; business and commerce; home economics; law enforcement; hotel and restaurant management; and other miscellaneous occupations.

The engineering technology student on the other hand, pursues a course of study which in many ways is similar to that followed by the engineering transfer student. As well as studying college level mathematics and science courses, he is required to complete specialty courses which are designed to provide practical preparation in order to make him employable in two years. The courses most commonly offered are in such disciplines as civil, chemical, electrical, electronic, mechanical and architectural engineering.

The United States Office of Education further differentiates within the general area of technical training by the term "industrial"

technology. Courses in industrial technology are of lower level than those in engineering technology. Consequently the students registered in industrial technology programmes take fewer courses in mathematics and science, and spend more time in the laboratory. The courses which they do take in mathematics and science are specially structured and may be quite different from those of the university transfer programme. "Specialty" courses may be offered in such areas as electrical, electronic and mechanical technology, but in general they are less theoretical than those studied by engineering technologists.

One of the primary concerns of technical education at all levels, is with a body of knowledge which leads to competence in the application of mathematics and science to problems encountered in industry. Of equal importance is the commitment within technical education to the development of technical skills of a high order in the use of instruments, testing equipment, design equipment and complex machinery. It is true that the emphasis on mathematics and science-based knowledge as opposed to the emphasis on technical skills will vary in different kinds of institutions. But a relationship to mathematics and science will always be present and the scope and rigour of both academic work and technical skills is such as to demand, in almost all cases, two years of college study.

Within the family of occupations relating to industrial engineering, there exists a continuum of occupational levels and job requirements. At the professional end of this spectrum, the scientist involved in research is obviously closely allied with the engineer engaged in design. When we examine the work of the semi-professional technologist,

we find it frequently overlaps that of the engineer and directly supports that of the scientist in research, design or prototype production. It is difficult also to draw a clear line of demarcation between the engineering technician and the industrial technician. Their work also overlaps. Frequently the same company will have both kinds of technicians, both working in the same laboratory and on the same project. Similarly, the graduation between the industrial technician and the skilled craftsman is indeed a graduation and not a clearcut step.

American junior colleges offer programmes for persons whose futures will be in all of these categories and in many of the colleges all four kinds of programmes will be found:

1. pre-engineering or pre-science transfer curricula;
2. engineering technicians programmes;
3. industrial technicians programmes;
4. skilled trade programmes.

There has been apparently, some tendency in many American junior colleges to favour the offering of the engineering technicians' programme over the industrial technicians' programme. In a thoughtful address to the forty-fourth annual convention of the American junior colleges, Professor Norman C. Harris points out the folly of such a practice:

> I regard this practice as regrettable, in fact, inexcusable. In the first place industry has more jobs to offer at the highly skilled technician level than at the engineering technician level. In the second place, the scope, content, and rigor of the engineering technician curriculum puts it in an academic category which will serve relatively few students in most community colleges. Fully three-fourths of the potential future technicians are in a group which could succeed in an industrial technical level curriculum, but would fail or drop out of an engineering technician curriculum. The relatively few community colleges that do have programs at the level approved by the Engineers' Council for Professional Development is evidence of the fact that these programs are very nearly, if not actually, pre-engineering in level and

rigor, if not in total content. I feel that community colleges should not limit their technician programs to those whose scope, rigor, and content is almost engineering level for the following reasons:

1. There is a shortage of engineers as well as technicians, and persons with the kind of academic ability which would predict success in such programs should be encouraged to enter the pre-engineering curriculum.

2. Community college technician curriculums which almost parallel pre-engineering curriculums result in a high attrition rate (75-80 per cent in the freshman year in some colleges), few graduating technicians, and a general dissatisfaction with the college's technical education program. Where the college has retained this single-purpose philosophy of technical education for some years, industry ultimately asks for and gets "technical education" programs initiated in nearby vocational schools and evening adult high schools.

3. Technical jobs are "middle-level" jobs, and students of middle-level academic abilities should be able to succeed in them. By "middle-level" academic abilities I mean a pattern of test scores (SAT, SCAT, etc.) which places the student somewhere between the twenty-fifth and the seventy-fifth percentiles on national college freshman norms. Students in the upper half of this range would generally be able to succeed in engineering technician curriculums, while students in the lower half should probably be placed in the highly skilled level curriculums. Students ranking above the seventy-fifth percentile should be encouraged to enroll in the university-parallel engineering or science curriculum.[190]

Surely there is a lesson to be learned here by Canadian educators who may be tempted to eschew those programmes designed to train technicians and limit their offerings to the training of technologists in a misguided attempt to maintain academic status.

An examination of twenty-five college catalogues for the academic year 1964-65 gives us some idea of the training programmes which Canadian colleges might consider implementing. For convenience, the programmes have been grouped within seven categories:

190 Norman C. Harris, "Content Distribution in Engineering-Related and Industrial-Related Technician Curriculums", Selected Papers from the 44th Annual Convention of the American Association of Junior Colleges, 1964, Bar Harbour, Florida, American Association of Junior Colleges, p. 54.

1. MECHANICAL TECHNOLOGY

Air Conditioning Technician
Automotive Technician
Diesel Technician
Engineering Aide
Hydraulics Technician
Machine Drafting Technician
Missile Development Technician
Operating Engineer
Tool and Die Technician

2. ELECTRICAL/ELECTRONIC TECHNOLOGY

Aviation Electronics Technician
Communications Technician
Computer Technician
Radio and Television Technician
Sound Systems Technician
Transmitter Technician
Electrical Power Technician
Electronic Drafting Technician
Industrial Electronics Technician
Microwave Technician
Missile Electronics Technician
Radar Technician

3. CIVIL TECHNOLOGY

Architectural Draftsman
Building Construction Technician
Concrete Technician
Estimator
Map Draftsman
Sanitation Technician
Specification Writer
Structural Testing Technician
Surveyor (Engineering Aide)

4. ENGINEERING LABORATORY TECHNOLOGIES

Ceramics Technician
Chemical Technician
Instrumentation Technician
Metallurgical Technician
Optical Technician
Plastics Technician
Research Technician

5. HEALTH FIELDS

Dental Assistant
Dental Laboratory Technician
Electrocardiograph Technician
Histologic Technician
Medical Laboratory Technician
Medical Office Assistant
Optical Technician
Psychiatric Technician
Radioisotope Technician
Registered Nurse (AA Degree)
X-Ray Technician

6. BUSINESS-RELATED OCCUPATIONS

Bookkeeper
Business Data Programmer
Buyer (Retail)
Data Processing Technician
Department Manager (Retail)
Graphic Arts Technician
Insurance Salesman
Legal Secretary
Library Assistant
Medical Secretary
Office Supervisor
PBX Operator-Receptionist
Private Secretary
Real Estate Salesman
Statistical Technician
Technical Illustrator

7. TECHNICIANS IN AGRICULTURE

Agricultural Business
Agricultural Engineering
Agricultural Processing
Agricultural Research-Sales and Service
Farm Management
Landscape and Nursery Technology
Soils Technology

There have been some attempts of late, particularly in the smaller junior colleges, to utilize a core curriculum approach for the freshman year of technical education. Sample "core-curriculum" programmes are given below for the freshman and sophomore years:

THE FRESHMAN YEAR

Course	Units	Hours per week Lecture	Laboratory
English A-B	3-3	3	-
Technical Mathematics A-B	3-3	3	-
Technical Physics A-B	4-4	3	3
Introduction to graphics	1-1		2
Engineering laboratory A-B	3-3	1	6
Major technical specialty	5-5	3	6
	19 19	13	17

Total class hours per week --30

THE SOPHOMORE YEAR

Course	Units		Hours per week Lecture		Laboratory	
American History	3		3			
Economics		3		3		
Psychology	3		3			
*Technical Mathematics C	3		3			
**Technical Mathematics D		3		3		
****Major Technical Spec.cor.	10	12			20	24
Totals	19	18	9	6	20	24

Total class hours second semester 30
Total class hours first semester 29

*Required of all engineering technical level students.
**Required only for electronics technology majors at the engineering technician level.[191]

191 Ibid., p. 59.

The advantages of such an instructional pattern are obvious. In the first place the student's academic performance in the freshman core of courses may well determine his objective - engineering technician or industrial technician. The sophomore pattern may be used as a framework on which to build second-year programmes for either objective. In addition there are the following advantages to the core-curriculum approach.

1. Problems of scheduling and class size are alleviated.

2. Counselling can be made more effective when all technical students are in a core of general education and supporting technical courses.

3. Potential employers can better evaluate the educational background of students since they all will have the core courses.

4. Better utilization of instructors is possible. Since large sections for freshman classes are possible under the core plan, certain very small classes in the sophomore specialty courses can be justified without a rise in average unit costs of instruction.

5. Students frequently find that a switch from one technical field to another is desirable and advisable. The core plan allows such changes at the end of the freshman year with a minimum loss of time.

6. The freshman core serves as a useful selection device to determine whether a student's goal should be at the engineering technician level or at the highly skilled technician level. Since the beginning courses are pitched at the level of the average-to-good student, rather than at the level of the superior student, the inordinate attrition rates found in some junior college technician programs are avoided.

7. When regional or statewide agreements are reached, students can move from one junior college district to another at the end of the freshman year, without loss of time or credits.

8. The emphasis of the core is on <u>education</u> rather than on a narrowly conceived kind of occupational training.[192]

It might be well for Canadian educators to give serious consideration to the core curriculum concept when they are in the process

192 <u>Ibid.</u>, p. 60.

of establishing or implementing technical programmes in their colleges.

As we review the literature on technical education in the junior colleges, a number of important considerations arise. First of all it is obvious that curricula should be closely related to the requirements for skills, knowledges and understandings of the occupation or group of occupations for which the students are being prepared. This does not mean that general education courses should be avoided or that the courses offered must be completely specialized. A curriculum must be flexible and sensitive to occupational changes. It does mean, however, that courses must be relevant.

Secondly, technical curricula should be developed with the advice and support of an industry or a profession. Unless employment can be insured for those who graduate from a given technical programme it should not be undertaken. Properly constituted and carefully chosen advisory committees play an important role in determining the relevancy of the courses proposed and of employment needs. Community leaders must share responsibility with educators for identifying manpower needs and planning programmes to meet them.

A third point that should be kept in mind is that neither the traditional lower-division university curriculum nor the usual vocational-industrial curriculum is in itself adequate in content or objective to meet the requirements of technical education. An examination of technical curricula shows that a tendency to follow either of two practices is frequently in evidence. The first and most common is to modify lower division engineering courses and to refer to them as "technical" courses; the second is to attempt to upgrade skill courses by adding a few hours of

theory. Neither approach is realistic. Technical courses differ in important respects from those of engineering or from those offered in trades training. The depth and scope of the courses offered must be tailored to the special needs of the technical area. Achievement levels and content should be based on job requirements rather than on a specified number of units and courses. Technical courses should have problem-solving objectives. They should place less emphasis on abstract concepts than traditional academic courses do, but their objective involves more than the acquisition of certain manual skills. Technicians ought to be more practical in bent than the engineer but they must have a fuller understanding of process or operation than the tradesman. They are equally at home in the shop and in the laboratory.

Finally it would seem that the junior college, because of its comprehensive nature, its flexible organization of instruction, and because it can vary both its admission and academic standards to provide for students with widely different degrees of preparation and with very different experiences and needs, is ideally suited to train the vast numbers of technicians which will be needed to support a technological society.

TRADES TRAINING

But in addition to the technical programmes we have been considering, the two-year college, at least in the United States, has assumed responsibility in the area of trades or occupational training. Let us now consider this important facet of the junior college curriculum.

From the very outset the public junior colleges of the United States put some stress upon occupational or trades-training courses. As early as 1904 technical and trades training programmes as well as

preparatory courses were included in junior college curricula.[193] In the founding of the first junior college in California at Fresno, courses in technical and occupational training were introduced.[194] In the earliest recorded survey of junior colleges and their curricula made in 1917, 18 per cent of the courses offered by some 19 junior colleges were identified as "terminal".[195] Surveys taken subsequent to that date reveal the steady growth in the percentage of occupational or training courses offered. Fields reports as follows:

> In 1921 Koos reported the proportion as 31 per cent in 23 public colleges and in 1930 and 1937 comparable percentages (33 per cent and 35 per cent) were reported. An analysis made in the late 40's showed that the introduction of vocational courses had continued until they represented some 52 per cent of the total offering.[196]

The introduction of terminal and vocational courses into American junior colleges was stimulated in large measure by the work of the Commission on Junior College Terminal Education. This was a committee established by the American Association of Junior Colleges and its work was financed by the General Education Board.

In its first year of study the committee analyzed all the relevant literature and compiled information on the status of terminal-type education in junior colleges. In charge of this "exploratory" phase of the study was Walter C. Eells. Following the preliminary or exploratory phase, a four-year continuation study was undertaken to determine the effectiveness

193 Ibid., p.65.

194 Frederick Liddeke, "The Junior-College Department in the Fresno High School", Sierra Educational News, vol.10, June, 1914, pp.409-410.

195 F.M. McDowell, The Junior College, U.S. Bureau of Education, Bulletin No. 35, 1919, p. 52.

196 Ralph R. Fields, The Community College Movement, New York, McGraw-Hill Book Company, Inc., 1962, p. 296.

of several different approaches to terminal education and to disseminate information regarding the procedures and findings. In all, five publications emerged from this study[197] and a number of conferences and workshops were held to disseminate information, explore terminal education problems and to plan new programmes of study. These efforts were undoubtedly effective in calling attention to the need for occupational programmes in the junior colleges and in stimulating the work of developing such programmes.

When World War II broke out, the efforts of the Commission were seriously disrupted. The war, however, brought its own stimulus to the terminal education movement. In the early part of the war, junior colleges participated actively in defense-training and war-training programmes. In doing so they received assistance from the federal government in the form of facilities, equipment and experienced personnel. During this period an attitude more favourable to occupational courses began to emerge. This attitude was further strengthened at the end of the war when large numbers of veterans chose to attend junior colleges and brought with them the demand for practical courses. The bulging post-war enrolment, the veteran allotments, the equipment at hand and interested and knowledgeable teaching personnel all combined to give occupational and trades training courses as well as technical courses a permanent place in junior colleges.

197 These were: Lois Engleman and W.C. Eells, The Literature of Junior College Terminal Education.
W.C. Eells, Present Status of Junior College Terminal Education.
W.C. Eells, Why Junior College Terminal Education?
W.C. Eells, Associate's Degree and Graduation Practices in Junior Colleges.
Phebe Ward, Terminal Education in Junior Colleges.

In the years following the war, we see the speeding up of the technological advances that are fast becoming the predominant characteristic of modern life. These changes are bringing an increasing demand for technicians and skilled tradesmen. Junior colleges have responded to these needs by organizing a great variety of occupational-type programmes.[198] Recently a good deal of attention has been focussed on the area of automation. Without question the technological changes it will bring, will create new demands for skilled personnel.

We can see also in recent developments a steady trend to move the specific preparation for occupational life upward in the educational process. This has come about partly through the broader social tendency to delay the entrance of young people into productive work. Whether or not this trend will continue will depend largely upon the needs of employment, but it is certainly evident today. At the junior college level, programmes have been introduced for work previously prepared for in the secondary schools, particularly in areas of business and in skill trades training.

Whether or not a cdlege ought to be involved at this particular level is a question to be asked. It would seem, however, that the demand for technical and semi-professional personnel will force the junior colleges to concentrate more of their efforts on this area of need. Today there appears to be little reason to question the conclusion that much of this type of occupational preparation is appropriate at least for junior colleges to undertake. Surely many of those occupations involving

198 See Appendix (xvi).

both manipulative and physical skill can and do offer opportunities for individuals who are also capable of applying intellectual processes.

One criterion which might be applied in determining the appropriateness of the work undertaken, would be the degree of difficulty in mastering the operations demanded in the performance of the occupational skill. Another might be the length of time that would be necessary to prepare adequately for the occupation. Obviously the rewards of the occupation should be such that the investment of time and effort in learning it are worthwhile. Because of the rudimentary nature of the skills demanded, or the short time required to master those skills, some occupational training programmes may not belong at the college level. But whether they do or do not belong should depend on these criteria and not on some traditional or mythical "college level" concept.

Ralph Wenrich of the University of Michigan made a study of the conditions which should exist if the development of vocational or occupational education is to take place in an orderly and effective fashion. These conditions can be summarized as follows:

1. The community must be clearly committed to the idea of providing occupation-oriented programmes.

2. The administration and faculty must fully accept as a major task of the institution, the goal of preparing students for employment.

3. The internal administrative structure must be such as to facilitate the development of occupation-oriented programmes.

4. Administrative and supervisory offices in the organization must be staffed with specialists who understand occupational education and who have the responsibility for the development and operation of the programme.

5. Provision must be made in the administrative structure for continuous curriculum development. Programmes must be continuously evaluated, revised when necessary, discontinued when they are no longer needed, and supplemented or replaced as new needs arise.

6. Policies regarding student selection must be carefully developed and rigidly adhered to. Admission into occupation-oriented programmes should be based upon realistic standards. These standards will not be the same for all programmes.

7. Placement services as intensive as those provided for college-bound youth must be made available to employment-bound youth.

8. The college must have an adequate financial base to support costly occupational-training facilities.

9. The college must provide adequate facilities.

10. The college must develop and maintain good community relations, especially with the economic interests of the community.[199]

GENERAL EDUCATION

The third area of interest and concern in the development of junior college curricula, is that of "general education". The literature abounds with definitions of this particular aspect of learning but all seem to agree that it includes preparation for citizenship or for life:

> General education includes those phases of non-specialized and non-vocational education that should be the common possession, the common denominator ... of educated persons as individuals and as citizens in a free society.[200]

and:

> General education is concerned with the development of rich many-sided personalities. It is that which prepares a person for the common life of their (sic) time and their (sic) kind. It is the unifying element of a culture.[201]

It is felt by the proponents of general education courses that there are certain responsibilities which all people share in common as citizens in a free society. While it is recognized that students differ and that many different educational programmes are required to accommodate

199 Blocker, Plummer and Richardson, op.cit., pp. 219-220.

200 American Council of Education, A Design for General Education, p.7.

201 Earl J. McGrath, et al., Towards General Education, New York, The MacMillan Co., Ltd., 1949, pp. 8-9.

those differences, it is also believed that students are in many ways alike, and these likenesses beget common needs. There have been many statements made by individuals, by groups and by various commissions concerning the common purposes which should be considered in the education of all students. Nearly all of these statements begin by recognizing that people are individuals, members of families, members of society and workers. These are at least some of the universal aspects of civilized life and thus certain educational goals are shared in common by all students. It follows that the college bears some responsibility in leading its students towards the achievement of these goals.

Although opinion may diverge as to the nature and extent of collegiate responsibility in meeting the aims of general education, there seems general agreement that programmes should be offered which will assist each student to increase his competence in:

1. Exercising the privileges and responsibilities of democratic citizenship.

2. Developing a set of sound moral and spiritual values by which he guides his life.

3. Expressing his thoughts clearly in speaking and writing and in reading and listening with understanding.

4. Using the basic mathematical and mechanical skills necessary in everyday life.

5. Using methods of critical thinking for the solution of problems and for the discrimination among values.

6. Understanding his cultural heritage so that he may gain a perspective of his time and place in the world.

7. Understanding his interaction with his biological and physical environment so that he may better adjust to and improve that environment.

8. Maintaining good mental and physical health for himself, his family and his community.

9. Developing a balanced personal and social adjustment.

10. Sharing in the development of a satisfactory home and family life.

11. Achieving a satisfactory vocational adjustment.

12. Taking part in some form of satisfying creative activity and in appreciating the creative activities of others.[202]

As we examine this list of purposes we realize that none of them is new. Certainly they have been recognized and sought after throughout the history of education. Today they are simply being restated more emphatically, partly as a reaction against the tendency evidenced in many colleges towards excessive vocationalism and other specialization; against the tendency in colleges to teach introductory courses as if all students were preparing for advanced work in the field; and finally against an over-emphasis on subject matter at the expense of student growth.

General education should not be seen as an attempt to achieve new purposes but an attempt to achieve accepted purposes directly and effectively. It should be useful; it should effect a desirable change in behaviour and lead to a consideration of social and individual needs. It should be involved with the selection of instructional materials which can help students satisfy both their own needs and those of society. Also involved must be a consideration of course organization and of teaching method. It may be necessary to depart from traditional subject organization in favour of a more functional organization of educational experiences which are drawn from many different disciplines but contribute harmoniously to the total growth of the student.

202 B. Lamar Johnson, General Education in Action, Washington, American Council on Education, 1952, pp. 21-22.

Although the term "general education" appeared in the early years of the nineteenth century, the concept seems to have developed most rapidly after World War I. Since that time it has become a major curriculum concern of higher education in America. A number of developments helped to spark an interest in this particular area of study. Shortly after the end of the first World War, Columbia University introduced its "contemporary civilization courses". In essence these were orientation courses and their implementation signalled the beginning of a revolution in undergraduate instruction in the colleges and universities of the United States. Up to this time most institutions of higher learning had relied upon introductory courses to acquaint their students with the framework of Western Civilization. After Columbia's innovation, however, curricula were re-examined and new patterns of study were introduced. Basically the Columbia course in contemporary civilization involved two-year sequences in science, the social sciences, and in the humanities. Thus the student gained a comprehensive view of what goes towards the making of an intelligent world citizen.

In his book, The Reforming of General Education, Daniel Bell points out that the introduction of general education courses at Columbia University resulted from a curious mixture of parochial socio-political and philosophical motives:

> ... there were three impulses: the college's struggle against the German tradition of the university, with its "professional" emphasis ...; the abandonment of a sterile classicism symbolized by the Latin entrance requirement which aped the English model; and the changing character of the student body, particularly as the children of immigrants began to predominate intellectually, if not in numbers.[203]

203 Daniel Bell, The Reforming of General Education, New York, Columbia University Press, 1966, p. 13.

Whatever were the forces that gave impetus to a new general education concept at Columbia College, the programme in contemporary civilization awakened the interest of a number of other institutions. Within ten years the University of Chicago, for example, had introduced a similar pattern of instruction, and in short order this was followed by Antioch, St. John's at Annapolis, Sarah Lawrence and Bennington. By 1933 their work, which had been largely experimental in nature, began to make an impact on higher education in general.

In 1939 there appeared a Year Book on General Education, produced by the National Survey for the Study of Education, and in 1943 the American Council on Education published its report on developments in the area. One of the most discussed and most influential documents, however, was the Harvard Report on the Objectives of General Education in a Free Society published by the Harvard University Press at Cambridge in 1945.

Another was the Carnegie Foundation Commission on State Higher Education in California which recommended that general education be the main emphasis of the junior college. The commissioners felt that a junior college should offer five types of curricula:

1. A curriculum for social intelligence.
2. Vocational.
3. Pre-professional.
4. Pre-academic.
5. Adult.[204]

On page thirty-six of the report there appears a definition of the concept of "the social intelligence" curriculum:

204 Michael Buck, op.cit., p. 114.

> A curriculum devised to give the student about to complete his general education a unitary conception of our developing civilization. It should be the most important curriculum, inasmuch as it aims to train for social citizenship in American civilization. The courses will tend to organize knowledge and intelligence for effective social behaviour rather than the intense and detailed mastery required for professional or a vocational scholarship.[205]

Many leaders of the junior college movement have since stressed this principle of "social intelligence", believing that the most important function of a two-year college is neither to prepare students for further university education, nor for entry into a vocation, but for citizenship in their own country and in the world. It is true to say, however, that in practice the idea of general education has not received wide acceptance. There would seem to be reluctance on the part of an increasing number of terminal education students to elect general education courses. On the other hand, an examination of college catalogues points to a growing respect for specialized subject-matter programmes, and suggests that one of the obstacles to the whole general education movement has been a general lack of enthusiasm of junior college administrators, together perhaps with a lack of faculty awareness and understanding - a natural result of traditional preparation for college teaching in subject matter specialization. By the 1960's semi-professional and adult education had replaced general education as an area of main concern and today there appears to be a disenchantment with the whole notion of general education. As Buck points out, however, this may simply be a reaction to the name rather than the basic educational idea.[206]

Part of the problem has been that although the purposes of general education are widely accepted, there is sharp difference of opinion and of practice in methods of achieving them. The resulting

205 Loc.cit.

206 Michael Buck, op.cit., p.116.

variety of approaches frequently arouse the hostility of both traditionalists and practical educators. Too often in the past, graduates have not achieved the stated purposes of the general education programmes. One of the major tasks, therefore, of general educators has been to find the means to lessen the gap between the goals and their realization. In the hope of meeting this challenge, they have employed a number of different approaches.

The first and perhaps the most common of these has been to follow the traditional path of the liberal-arts. Many colleges have stressed the fact that general education is not new and that almost every department and in truth almost every course contributes to the general education of students. In keeping with this philosophy, students have been required, during their first two years, to select one or more introductory courses from each of several different fields of study. Typically they will be expected to complete courses in natural science and mathematics, social sciences including American history, personal relations or psychology, health and physical education, philosophy, English composition and literature and, in most cases, a foreign language. Those who advocate this approach feel that under no circumstances should students be allowed to specialize too early.

The second common approach is by way of the familiar and frequently maligned survey course. The advantage of the survey course is that it avoids the compartmentalization of the liberal-arts path. Students are not forced to select an introductory course from each of several fields. Instead, the college develops and requires broad courses which cut across departmental lines. Thus the learner is introduced to several sub-areas within a broad field. Survey courses have been developed in the fields of social science, natural science and the humanities.

The final approach towards a realization of general education goals is by means of the so-called "functional" course. Many colleges harbour the opinion that both the liberal-arts and the survey-course approaches place too heavy an emphasis on the mastery of subject matter and in so doing neglect the real needs and interests of the student. These colleges institute their courses, therefore, by first analyzing the activities of people in a given society and in particular the characteristic of students in the given college. The programme is then designed to prepare students to perform better, those activities in which they will actually be engaged. This scheme means, of course, that the programme is designed afresh each year. Functional courses avoid traditional titles and draw their materials from any disciplines which contribute to the growth of the students towards the course objectives. Thus we find in college calendars such course titles as "Family Life", "Personal Adjustment" and "The Citizen and His Government".

Another reason for the current decline in emphasis on general education is that few colleges have been able to work out a proper relationship between the specialized type of education that prepares a student to earn a living and the general education which might enable him to profit from his life in other ways. We have seen a steady increase in the demand for skilled technicians and tradesmen. But the same technological advances which have created these demands have also freed more and more of man's time for labour. This fact only underscores the need for broader learning to assist in the development of those particularly human resources and qualities which can make for a more satisfying and worthwhile life.

The all too frequent contest between the "generalist and the specialist" for larger portions of students' time betrays a lack of true awareness of the broader purposes of all education. Surely both general and specialized education serve the student and society and surely each type complements and enriches the other. Perhaps it is misleading and in the final analysis even damaging, to affix either of these descriptive labels. The two types really are concurrent. Sometimes they are intermingled and very often even indistinguishable.

Yet the controversy continues despite such pronouncements as the following from the 1947 President's Commission on Higher Education:

> The ends of democractic education in the United States will not be adequately served until we achieve a unification of our educational objectives and processes. American education must be so organized and conducted that it will provide at appropriate levels proper combinations of general and special education for students of varying abilities and occupational objectives.[207]

For many reasons it seems obvious that the junior college is the appropriate educational level for general education to go on. If it is to effect the changes that society might hope it will bring about, it should be made accessible to large numbers of students who will range widely in interests and abilities. Yet programmes of this nature demand a level of maturity not common among the majority of secondary school students. With its flexible standards of admission, and its accessibility within the community, the junior colleges draw from a wide cross-section of the population and from an age group which can best profit from general education courses. Perhaps more than any other educational

207 The President's Commission on Higher Education, Higher Education for American Democracy, New York, Harper and Brothers, 1947, p. 105.

institution, it has the responsibility of designing those programmes which will provide a common, unifying, enriching education for all its students.

It seems clear that so far only a relatively small number of public junior colleges are fully meeting this responsibility. Again there are a number of explanations as to why this should be so. Among these would be included the high dropout rate of students ill-prepared for the educational demands of college level work, the diversity of student backgrounds with the resulting difficulty of finding common ground, the varying and often onerous demands made by the four-year colleges and universities respecting lower division work, the urgent need for trained technicians and tradesmen, faculty inertia, and the ever present lack of funds. To this list might also be added the confusion which has resulted from the wide disparity of existing practice and finally the general lack of understanding of the purposes and importance of general education programmes.

Two of the intensive studies which have investigated the status of general education curricula in the junior colleges, add weight to the conclusion that this particular aspect of the educational enterprise has largely been neglected or at best has been confused and disorganized.

In 1952 after almost two years of studying the situation in the junior colleges of California, Lamar Johnson wrote as follows:

> As one examines the graduation requirements of California junior colleges with the goals of general education in mind, he is impressed (1) by diversity of practice; (2) by the spotty and limited recognition given some of the general education objectives; and (3) by the apparent failure as yet to make any provision for some of the others. These impressions are further confirmed by an examination of recommended programs listed in junior college catalogues.[208]

208 B. Lamar Johnson, General Education in Action, Washington, American Council on Education, 1952, p. 49.

James W. Thornton in his essay on the "Nature and Scope of General Education" comments on a study conducted at the University of Chicago by James W. Reynolds on "The Adequacy of the General Education Program in Local Public Junior Colleges", to reveal even further the unsatisfactory state of affairs:

> ... he (Reynolds) found that there was a trend to increase the proportion of total credit hours assigned in courses in vocational education and to decrease the relative number of credit hours assigned to electives. He concluded that while "evidence exists ... that junior colleges are making progress in broadening the scope of their general-education programs" ... it is still possible to doubt that junior colleges have well-defined policies governing their provisions for the general-education needs of their students ... the area of general education in most local public junior colleges has received little or no attention.[209]

Another deficiency in general education programmes lies in the quality of instruction offered in them. In a Co-operative Study of Evaluation in General Education carried out in 1953 and 1954, Dressel and Mayhew observed this weakness in the colleges involved:

> General education classes are not well planned to make the most economical use of time, of teaching aids, or of student motivation and interest ... general-education instruction ... has not, in the large, met the challenge involved in general-education objectives.[210]

Still another area of weakness is the failure of American educators to evaluate the degree to which the goals of general education are actually attained. It is true that a number of colleges have examined the general-education courses they are offering but few, if any, have gone beyond this point in their evaluations. Yet, as Paul Dressel has noted:

209 James W. Thornton, Jr., "Nature and Scope of General Education", The Public Junior College, The Fifty-fifth Yearbook of the National Society for the Study of Education, Nelson Henry, ed., Chicago, University of Chicago Press, 1956, p. 136.

210 Paul L. Dressel and Lewis B. Mayhew, General Education: Explorations in Evaluation, Washington, American Council on Education, 1954, p. 256.

> Good instruction requires a constant awareness of the effect on each individual student of the totality of experiences which that student is undergoing; it requires adaptation of the experiences to the needs and backgrounds of each student; and it requires that each student be provided with evidence so that he can discern his own strengths and weaknesses and be motivated to further improvement with regard to general-education goals.[211]

But despite the difficulties it has encountered and the serious deficiencies it frequently displays, general education has had a promising beginning in several of America's public junior colleges. Thornton lists three such colleges and provides us with brief but interesting descriptions of their general-education programmes. Since they may offer a useful model to Canadian educators, his descriptions are quoted below:

1. San Bernardino Valley College (California) has extended its graduation requirements to include six units of related arts. This requirement may be met through a course in history of western civilization, through selection from among twenty-two listed courses in art, English, music, and philosophy; or through a specially developed six-unit course entitled "Humanities".

   The humanities course is intended to provide the student with some insight into the interrelatedness of knowledge, to increase his understanding of his culture, and to help him think more critically; it centers on a synthesis of concepts basic to art, music, literature, and philosophy. Instruction is shared by four staff members, one from each of the four areas; all four attend every class meeting. Presentations are animated by the conviction that general education must utilize forms of communication that are more than words about words. Methods include lecture-discussions, panel discussions, art displays, musical performances, field trips, and student projects in photography, drama, and singing.

   Other newly developed courses which satisfy the related-arts requirements at San Bernardino include a two-semester course in home planning, a one-semester course in philosophy entitled "Basic Ideas in Modern Life", and a one-semester course in "Applied Sociology".

2. Orange Coast College includes two graduation requirements beyond the basic instruction in English, American history, hygiene, and physical education required by state law in all California junior colleges. One is the introductory course in psychology, based on a standard text but emphasizing the understanding of individual

211 Paul L. Dressel, Evaluation in General Education, Dubuque, Iowa, Walter C. Brown Co., 1954, p. 333.

2. differences, adjustment, mental hygiene, and test interpretation. A valuable feature of this offering is that the psychology instructor is also the counselor for students in his classes. One interview with the counselor, for interpretation of tests administered in the class, is a requirement of the course. All students, of course, have other interviews for registration, and perhaps personal counseling interviews as well.

   The second added requirement is in the field of mathematics. In 1949 a faculty committee began the development of a college-level test in basic arithmetic as needed in every-day adult life. After two years of experimentation and refinement of the test, standards were developed, based on test scores of entering students. Those students who scored below the fiftieth percentile on the "Applied Mathematics Test" were advised to complete a one-unit course in applied mathematics. It is recognized that many students have had no instruction in arithmetic (although possibly in algebra and geometry) since the eighth grade; so it reviews the very beginning steps of arithmetic and progresses to fractions, decimals, interest, and mensuration. Since 1954, students have been required to pass either the test, on its first administration to them, or the applied mathematics course, before graduation.

3. In an attempt to achieve more directly the goal of training students for more effective citizenship, Mohawk Valley Technical Institute at Utica, New York, has developed four courses in the social sciences which are required of all students. Departing from the more traditional requirements in history and political science, Mohawk Valley requires one course in "Citizen and His Government", emphasizing responsibilities and privileges of citizenship; politics in government; pressure groups; trends of centralization and integration; and the relation of local, state, federal and international governments.

   A companion course "Citizen and His Community", studies the various communities of which the student is and will be a part. Topics include ecology of the city, state, and region; marriage and the family, development of culture; racial discrimination; ethnocentrism; individual adjustment.

   In addition to the two courses described, Mohawk Valley Technical Institute also requires, in the social-science field, a course in economics and another in industrial and labor relations.[212]

Lamar Johnson's study of general education courses in the junior colleges of California will provide further examples of promising developments in this area.[213]

212 James W. Thornton, op.cit., pp. 133-135

213 Johnson, op.cit., p.40 ff.

THE DEVELOPMENT OF COLLEGE CURRICULA IN CANADA

We come now to an examination of curricular development in the two-year colleges of Canada and in particular in the new regional and district colleges in British Columbia.

LIBERAL ARTS AND SCIENCE

As we begin our examination we see immediately that little can be added to what has already been noted with respect to the area of liberal education. Conventionally the curricula of Canadian colleges and universities is divided into subjects which are based upon the traditional liberal arts and science studies, some of which in the opinion of Marshall McLuhan are "about as out of date as the medieval trivium in the Renaissance".[214] Learning experiences in Canadian institutions of higher education are seldom arranged in forms that are consistent with the ways a person actually confronts life. Canadian educators are, for the most part, as conservative as their colleagues elsewhere, they are suspicious of change and uncomfortable in the creative insecurity it produces. Hence they are reluctant to depart very far from the conventional academic disciplines. An examination of the calendars of course offerings in Canadian universities and colleges will reveal few departures from the conventional liberal arts and science-based courses which have developed and proliferated over the years. By and large they are imitations of those courses offered in comparable British and American institutions and they out-number by a wide margin all other course offerings.

VOCATIONAL AND TECHNICAL EDUCATION

There has been considerable growth in Canada in vocational and

214 Marshall McLuhan, Understanding Media: The Extensions of Man, New York, McGraw-Hill Book Co., 1965, p. 347.

technical education during the past decade. At present approximately 660 provincial and municipal institutions offer technical and trade training. Of these 35 offer mainly post-secondary or advanced technical courses, lasting for two or three years. About 480 offer secondary level industrial, and trade or commercial courses, and about 150 provide trade courses for apprentices and for unemployed persons and other adults. Engineering is taught in polytechnical institutes and in most universities.

Support by the Federal Government for vocational education, usually on a sharing basis with the provinces, has given considerable impetus to the development of vocational and technical education in Canada and has contributed substantially to the economic efficiency of the people in consideration of home and foreign markets. The grants have been generally well received, since this type of education requires costly equipment which very quickly becomes obsolete and must be replaced on a fairly regular basis. Grants are made according to the current vocational training agreements, which provide for assistance to appropriate provincial government authorities operating acceptable vocational training projects.

Most larger secondary schools provide a limited number of options in such subjects as agriculture, shop and home economics, shorthand and typing. Vocational, technical and commercial high schools are an integral part of the high school systems of many provinces. Although these schools stress vocational courses, they include languages, mathematics, history, science and other selected subjects to ensure a well-rounded education in both theory and practice. Composite high schools, whether urban or regional, generally provide several optional courses (academic, technical, agriculture, home economics, commerce, etc.) and may allow

pupils to cut across course lines.

Provincial trade schools and schools of technology are organized by the provinces to complement the work undertaken in vocational high schools. Some of these are clearly post-secondary institutes with courses designed to prepare highly skilled technicians for a variety of fields. Others are essentially trade schools offering courses mostly at the secondary level and ranging from six weeks to two years in the length of their courses. Some schools of this kind include a wide range of courses such as engineering technology, radio, electronics, horology, photography, metal trades, stenography, cooking, business-machine operation and apprenticeship in the skilled trades.

Typically, however, technical and vocational education in Canada has developed in four directions: engineering courses which have gained acceptance as an appropriate level of academic study for universities to undertake; courses in technology which are offered in technical institutes; vocational courses offered either in separate vocational schools or as part of the programme of studies in some secondary schools; and apprenticeship training programmes which go on in a variety of ways and institutions. To date there has been little or no attempt in Canada to combine the various levels of technical education in single institutions. The concept of distributing courses along an hierarchical scale of values is still deeply imbedded in Canadian thinking. Thus, the training of engineers is appropriate at the university level - the training of technologists is not! The training of technologists may go on in technical institutes, but the training of tradesmen belongs in the vocational schools. Granted the differences in requirements in terms of equipment and

instructional personnel, it is still a fair assumption that the underlying cause of this separation is a mythical notion of academic "status". The development of the two-year comprehensive college offers some hope of changing this concept but the question remains: how "comprehensive" will they allow themselves to become?

There would appear to be some variations in proposals and practice, both across the country and within the individual provinces themselves. Ontario, for example, proposes to make its colleges of applied arts and technology fully comprehensive institutions.

> I would hope to see the following range of offerings in most if not all Colleges of Applied Arts and Technology, the choice to be determined by local circumstances, as indicated above, and extended where a particular need exists in a community:
>
> (a) Engineering technician and technologist programs below university level.
>
> (b) Semi-progressional non-engineering type programs (e.g., in the paramedical field).
>
> (c) High level programs in office and distributive occupations, specifically of junior and middle management level, and including courses for small business.
>
> (d) Agricultural and agricultural-related programs, at least in rural areas, in co-operation with the Department of Agriculture.
>
> (e) General adult education programs, including cultural and leisure time activities.
>
> (f) Programs of recreation, including physical education.
>
> (g) General or liberal education courses, including remedial courses in basic subjects, and often incorporated as part of the other programs (e.g., English, Mathematics, Science).
>
> (h) Retraining, upgrading and updating courses.
>
> (i) Trades skills, pre-apprenticeship, and apprenticeship training.
>
> (j) Service industry courses (e.g., for tourist industry).
>
> (k) Commercial courses (e.g., cost accounting, junior accounting, data processing, computer programming).

(1) Other courses to meet local needs.

With respect to the general or liberal education courses, and the general adult education programs, I would point out that these are not thought of as university level courses.[215]

Alberta, on the other hand, has so far limited its junior-college technical programmes to a few terminal or diploma courses of a technical or semi-professional nature.

In British Columbia two patterns have emerged to date. Vancouver City College with its multi-campus situation has become a "comprehensive" institution after the manner of the typical American junior colleges. At the King Edward centre it offers both "technical career" programmes, and "technician" programmes. "Technical career" programmes include:

BUSINESS ADMINISTRATION

Accounting
Executive Secretary
Finance & Investment
Marketing & Sales

ART AND MERCHANDISING
JOURNALISM
THEATRE ARTS - DRAMA

COMMUNITY SERVICES

Food Services Technician
Library/Museum Assistant
Pre-school Teacher Training
Welfare Aide

Under the general heading of "Technician" Programmes it offers the following:

MECHANICAL TECHNICIAN

Automotive
Diesel Engineering
Machine Shop

CONSTRUCTION TECHNICIAN

Building Construction
Drafting, Architectural and Structural

ELECTRONICS TECHNICIAN

Electronics
Electricity and Industrial Electronics

215 Ontario Minister of Education, "Statement to the Legislative Assembly on Colleges of Applied Arts and Technology", May, 1965.

In addition, Vancouver City College provides training in data processing, technical drafting, business administration, electronics and executive secretarial work. At the Vancouver Vocational Institute, which is a branch of Vancouver City College, it provides a variety of courses in the area of trades training.

Selkirk College, partly because of its location and partly because a provincial vocational school exists nearby, has to date travelled in a somewhat different direction. Several criteria seem to have governed the initial thinking of those charged with developing the technical curriculum of the college. In the first place the proximity of a provincial vocational school appeared to make it unwise to duplicate the vocational or trades training courses which were currently being offered in that institution. Secondly, the type of industry located in the region indicated a demand for technologists and technicians who might, in the first instance, serve local needs. There appears to have been some reluctance to be too venturesome in the initial stages of development. Hence the earlier planners decided upon a small number of programmes in which local studies suggested that there would be an immediate placement for graduates. It is quite obvious also from some of the initial statements made relating to the proposed technical curriculum, that genuine doubt existed as to what level of work would be appropriate for such a post-secondary institution to undertake. The consensus seemed to be that technical programmes must be of a "collegiate" level. Thus in its first calendar, technical courses are subsumed under the general heading: "The Applied Arts and Science Division" and the following explanation is given of their place in the college:

The concept of the "comprehensive college", which offers both academic and technological programmes of study, is new to Canada. A word of explanation is therefore in order.

The Applied Arts and Science (Technology Programme) is designed for students who want training and education at the post-secondary school level, but who do not want to proceed on a purely academic course of studies leading to a university degree. In most cases, the technology programmes will be completed after two years of study, at which time the student will be awarded a diploma signifying that he is equipped to enter the world of industry, commerce or business as a trained technician, or to continue his studies at a more advanced technical institute.

The basic requirement for entry to the Applied Arts and Science (Technology Programme) is high school graduation on the University or General Programme. It must be understood, however, that high school graduation on either programme does not automatically guarantee that the student will be immediately eligible to enrol in a full course of studies in the Applied Arts Division. The technology courses are of college standard. They demand adequate background in mathematics and science, as well as some competence in written expression. Students who cannot meet these standards will be required to take college preparatory courses in the subject in which they are deficient before they will be granted full standing in the Applied Arts and Science Division. It is important to note that all of the technology programmes offered are open to both men and women.

Students will be encouraged to undertake three months of supervised employment in the field of their technology between the first and second year of study.

The point must be made and emphasized that the course of studies prescribed in the Applied Arts and Science Division (Technology Programme) is as important and demanding as that provided in the Liberal Arts and Science division (University Transfer Programme).[216]

The first college calendar lists six "technology" programmes and sets out the courses required for the two terms which comprise the first year of study:

ELECTRICAL-ELECTRONICS TECHNOLOGY

The objective of the College's programmes in the Applied Arts and Science Division is to provide graduate technicians equipped for entry into industry.

216 Selkirk College Calendar, 1966/67, p. 33.

The electrical and electronic industry is a vital and rapidly expanding part of Canadian life. (The use of electrical energy in Canada doubles every ten years). This expansion touches almost everyone's life daily in the areas of communication, transportation, industry, automation, defence, and personal comfort. Modern industry in particular has a constant demand for skilled and technically trained workers who are familiar with the principles and practical applications of electricity and electronics.

The two-year Electrical and Electronics Programme will provide sufficient training for the graduate to enter industry at the semi-professional level in a wide variety of positions: technical sales and marketing; electrical and electronic repair, electrical power transmission and distribution; industrial electricity and electronic installation and testing; research technician.

This programme places special emphasis on mathematics, physics (the student should show considerable aptitude for both of these subjects), and electrical and electronic circuits. Basic principles and their applications are stressed in the lecture room, and these are supplemented and tested in the laboratories. These courses will form the foundation upon which can be built the skills of the technician.

The second year courses (not shown) will include some further foundation material, but will in the main be concerned with a much greater coverage of specific electrical and electronic topics than first year.

COURSE REQUIREMENTS - ELECTRICAL/ELECTRONICS TECHNOLOGY

FIRST TERM		SECOND TERM	
Drafting	150A	Drafting	150B
Elec. Circuits	150A	Elec. Circuits	150B
English	151A	English	151B
Mathematics	150A	Mathematics	150B
Physics	150A	Physics	150B
Electrical Shop	150A	Electronics	151B
ONE OF		ONE OF	
Mechanics	150A	Mechanics	150B
Mechanics	151A	Mechanics	151B
Economics	150A	Economics	150B
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
Admin.Science	150A	Admin.Science	150B
Chemistry	150A	Chemistry	150B

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MECHANICAL TECHNOLOGY

The mechanical technology programme is an integral and important part of several areas of industrial activity which incorporate people, machines, mechanics and industrial processes. In general, the functions performed in these industries by technically trained personnel are related to engineering activities in such a way as to require broad understanding of engineering principles.

Employers report that the need for mechanical technology graduates is greater than the available supply. Almost all student placement offices report a shortage of trained technologists in this very important area of industrial service.

This course, which offers a curriculum planned to provide broad technical competence for a variety of occupations, has been prepared to continue for two years the training of students who have graduated from the secondary schools.

Students who have followed the new industrial training programme to be offered in British Columbia schools will be in a good position to take this course since they have had some training in drafting, machine shop, electricity and metallurgy. They will also have sufficient knowledge in mathematics, science and English to cope with the academic courses of the programme.

Students who have deficiencies in Mathematics or Science may be required to enrol in College Preparatory Courses.

COURSE REQUIREMENTS - MECHANICAL TECHNOLOGY

FIRST TERM		SECOND TERM	
Mechanics	150A	Mechanics	150B
Mechanics	151A	Mechanics	151B
English	151A	English	151B
Mathematics	150A	Mathematics	150B
Physics	150A	Physics	150B
Drafting	150A	Drafting	150B
ONE OF		ONE OF	
Economics	150A	Economics	150B
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
Admin.Science	150A	Admin. Science	150B
Chemistry	150A	Chemistry	150B

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FOREST TECHNOLOGY

British Columbia's vast softwood forest empire, one of the world's largest, supplied a new value of $900,000,000 in forest products last year. The forest industries are growing rapidly. In consequence, there is a demand for technicians to serve this thriving development. Employment opportunities are available in a variety of categories: in logging (cutting boundaries, marking timber, surveying and constructing roads); in cruising for inventory and logging development: in forest protection and reforestation. Technicians are also employed by governments for such tasks as scaling, research, inspection and so on.

COURSE REQUIREMENTS - FORESTRY TECHNOLOGY

FIRST TERM		SECOND TERM	
Forestry	150A	Forestry	150B
Forestry	151A	Forestry	151B
Mathematics	150A	Mathematics	150B
English	151A	English	151B
Botany	150A	Botany	150B
ONE OF		ONE OF	
Economics	150A	Economics	150B
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
Admin.Science	150A	Admin.Science	150B

FOUNDATIONS FOR ENQUIRY	ONE OF History of Scientific Thought Reading Skills Contemporary Problems World Religions Public Speaking Drafting 150A

CHEMICAL TECHNOLOGY

The chemical industry operates in two general areas: research of new, and improvement of known processes. Chemical technicians are an essential part of the scientific and management team, working together in research or in production.

This curriculum is designed to take a high school graduate through courses and laboratory training toward the development of a skilled chemical technician suitable on graduation, for immediate employment. Specifically, the courses are designed to provide chemical, physical and mathematical theory combined with the procedural and technical skills involved in chemical and metallurgical industries. Particular emphasis is put on continuity; this programme begins where the academic and technical and industrial programmes of the high school leave off. Graduates will be qualified to serve at the sub-professional level in the wide variety of industries in British Columbia, including metallurgy, pulp and paper as well as government laboratories, and particularly in the two major industries of the West Kootenay Region.

COURSE REQUIREMENTS - CHEMICAL TECHNOLOGY

FIRST TERM		SECOND TERM	
Chemistry	150A	Chemistry	150B
Mathematics	150A	Mathematics	150B
Physics	150A	Physics	150B
English	151A	English	151B
Drafting	150A	Drafting	150B
ONE OF		ONE OF	
Economics	150A	Economics	150B
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
		ONE OF	
FOUNDATIONS FOR ENQUIRY		History of Scientific Thought	
		Reading Skills	
		Contemporary Problems	
		Public Speaking	
		World Religions	

BUSINESS AND COMMERCIAL PRACTICE TECHNOLOGY

High school graduates desiring a career in the business world need to obtain special training. No question exists about that. Questions do arise, however, about the orientation and objectives of such training. It is not sufficient, for example, to provide skill training alone as a basis for immediate employment. Nor is it enough, in the complexities of current business practice, only to be able to provide routine answers: the commercial world requires trained minds who can also ask the right questions. The revolution in marketing, for example, calls for new emphasis in training to fill the many satisfying job opportunities in buying, merchandising, industrial sales and management. The rapidly changing procedures resulting from the use of computers, electronic data processing, mathematical and statistical analysis demand persons of broad basic training, who can apply this training to new situations with confidence and initiative.

Graduates will have a wide range of employment possibilities in the commercial world. Because of the shortage of trained technicians, opportunities for advancement are many.

COURSE REQUIREMENTS - BUSINESS AND COMMERCIAL PRACTICE TECHNOLOGY

FIRST TERM		SECOND TERM	
English	152A	English	152B
Economics	150A	Economics	150B
Mathematics	151A	Mathematics	151B
Admin. Science	150A	Admin. Science	150B
Admin. Science	151A	Admin. Science	151B
ONE OF		ONE OF	
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
FOUNDATION FOR ENQUIRY		ONE OF	
		History of Scientific Thought	
		Reading Skills	
		Contemporary Problems	
		Public Speaking	
		World Religions	

ADVANCED SECRETARIAL SCIENCE TECHNOLOGY

The complexity of today's world of commerce poses a management problem - how to combine certain traditional secretarial skills with increased administrative responsibilities. Automation has reduced the demand for the repetitive manual skills of the stenographer and accountant and has enhanced the value of the "administrative assistant", whose breadth of understanding of commercial practice exceeds that of the legendary "steno". Increasingly, employers want an able secretary who also can bring to the job studies which assist her to use good judgment in the solution of office problems and the expediting of business.

This curriculum is proposed to meet this need. Men and women will receive a thorough training in office equipment, procedure and usages. Graduates will have, in addition, an educational background which will qualify them for a variety of posts indicated by the term "executive secretary".

COURSE REQUIREMENTS - ADVANCED SECRETARIAL SCIENCE

FIRST TERM		SECOND TERM	
English	152A	English	152B
Economics	150A	Economics	150B
Admin. Science	150A	Admin. Science	150B
Admin. Science	152A	Admin. Science	152B
Mathematics	151A	Mathematics	151B

ONE OF		ONE OF	
Geography	150A	Geography	150B
History	150A	History	150B
English	111A	English	111B
		ONE OF	
FOUNDATIONS FOR ENQUIRY		History of Scientific Thought	
		Reading Skills	
		Contemporary Problems	
		Public Speaking	
		World Religions	
Secretarial Skills (as required)	153A	Secretarial Skills (as required)	153B

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It will be noted from the descriptions of the above programmes that some attempt has been made to offer a core curriculum. Thus English 151A and B, Mathematics 150A and B, Physics 150A and B, Chemistry 150A and B. Drafting 150A and B are common to courses in the three engineering technologies: Mechanical, Electrical-Electronics and Chemical. Forestry, while requiring the same Mathematics and English, does not require either Physics or Chemistry, substituting "Botany" instead. "Business and Commercial Practice" and "Advanced Secretarial Science" have English, Economics and Mathematics in common, as well as the specialist courses in "Administrative Science".

At the end of its first year of operation, the college faculty and administration, in consultation with the separate advisory committees, made some basic changes in the first year offerings and added the second year courses. It will be noted also that some changes were made in the remarks introducing the various programmes. These changes came about as the result of experience with the four programmes which were actually offered - that is, Electrical-Electronic, Mechanical, Forestry and Business and Commercial Practice.

217 Ibid., pp. 33 ff.

ELECTRICAL-ELECTRONICS TECHNOLOGY

The electrical and electronic industry is a vital and rapidly expanding part of Canadian life. (The use of electrical energy in Canada doubles every ten years). This expansion touches almost everyone's life daily in the areas of communication, transportation, industry, automation, defence and personal comfort. Modern industry in particular has a constant demand for skilled and technically trained workers who are familiar with the principles and practical applications of electricity and electronics.

The two-year Electrical-Electronics Programme provides sufficient training for the graduate to enter industry at the semi-professional level in a wide variety of positions: technical sales and marketing, electrical and electronic repair; electrical power transmission and distribution; industrial electricity and electronic installation and testing; research technician.

This programme places special emphasis on mathematics, physics (the student should show considerable aptitude for both of these subjects), and electrical and electronic circuits. Basic principles and their applications are stressed in the lecture room, and these are supplemented and tested in the laboratories.

COURSE REQUIREMENTS - ELECTRICAL-ELECTRONICS TECHNOLOGY

FIRST TERM		SECOND TERM	
Drafting	150	Drafting	150
El.-El.	150	El.-El.	150
El.-El.	154	El.-El.	151
English	150	El.-El.	154
Mathematics	150	English	150
Physics	150	Mathematics	150
Elective		Physics	150
General Education	100	Elective	

Elective courses in consultation with the Department.

THIRD TERM		FOURTH TERM	
El.-El.	250	El.-El.	250
El.-El.	251	El.-El.	252
El.-El.	253	El.-El.	254
El.-El.	256	El.-El.	256
English	250	English	250

MECHANICAL TECHNOLOGY

The mechanical technology programme is an integral and important part of several areas of industrial activity which incorporate people, machines and industrial processes. In general, the functions performed in these

industries by technically trained personnel are related to engineering activities in such a way as to require broad understanding of engineering principles.

Employers report that the need for mechanical technology graduates is greater than the available supply. Almost all student placement offices report a shortage of trained technicians in this very important area of industrial service.

This course, which offers a curriculum planned to provide broad technical competence for a variety of occupations, has been prepared to continue for two years the training of students who have graduated from the secondary schools.

Students who have followed the new industrial training programme in British Columbia schools will be in a good position to take this course since they have had some training in drafting, machine shop, electricity and metallurgy. They will also have sufficient knowledge in mathematics, science and English to cope with the academic courses of the programme.

Students who have deficiencies in mathematics or science may be required to enrol in the Pre-Technology Programme.

COURSE REQUIREMENTS - MECHANICAL TECHNOLOGY

FIRST TERM		SECOND TERM	
Mech. Tech.	150	Mech. Tech.	150
Mech. Tech.	151	Mech. Tech.	151
Drafting	150	Mech. Tech.	152
English	150	Drafting	150
Mathematics	150	English	150
Physics	150	Mathematics	150
Elective		Physics	150
General Education	100	Elective	

THIRD TERM		FOURTH TERM	
Mech. Tech.	250	Mech.Tech.	253
Mech. Tech.	251	Mech.Tech.	254
Mech. Tech.	252	Mech. Tech.	255
Mech. Tech.	255	Mech. Tech.	256
Mech. Tech.	260	Mech.Tech.	257
Drafting	258	Mech.Tech.	260
El.-El.	255	Drafting	258
English	250	English	250
Mathematics	250	Mathematics	250

CHEMICAL TECHNOLOGY

The rapid growth of the chemical and chemical process industries in Canada has produced a demand for chemical technicians which is greater than the number available each year. Chemical technicians are usually employed in laboratories where they serve as analysts or assistants to scientists engaged in research and development. However, there is an increasing demand for chemical technicians to work outside the laboratory where they assist engineers in the operation of pilot plants and industrial processes.

The chemical technology programme is designed to provide a good grasp of the principles of chemistry, physics and mathematics and a broad knowledge of modern laboratory techniques and methods of industrial measurement and control.

COURSE REQUIREMENTS - CHEMICAL TECHNOLOGY

FIRST YEAR

Chemistry	150	English	150	
Mathematics	150	Drafting	150	
Physics	150	Elective	150	
	General Education	100		218

FORESTRY TECHNOLOGY

The demand for trained forestry technicians is growing rapidly as the forest industries in British Columbia and the rest of Canada expand and forest management becomes more intensive. The federal and provincial government as well as industry offer employment opportunities to persons with specific training to carry out the technical tasks of forestry.

The types of work available are varied. Most forestry technicians employed by the federal government work in forest research but some carry out insect and disease surveys and others work in the national parks' organization. Forestry technicians employed by industry or by the provincial government carry out routine field and office procedures involved in timber cruising, log scaling, forest protection, logging, road location and construction, photogrammetry, reforestation and silviculture. The forestry technicians' curriculum is planned to provide a sound technical basis for many of the tasks a forestry technician may be called upon to do. Both principles and their practical applications are stressed.

Applicants for the programme should be in good physical health (good eyesight is particularly important) and demonstrate a keen interest in the outdoors. Although some forestry technicians are employed in laboratories

218 Since Chemical Technology was not offered in the 1966/67 academic term, only the first year of work has been planned so far.

or other indoor occupations, most work in the field, sometimes under adverse conditions.

The first year of the programme provides background knowledge and specific forestry topics useful to students during the summer recess, when they are required to engage in some type of forestry employment. The second year of the programme provides a greater coverage of specific forestry topics.

Students will be required to complete two field schools (Forestry 249 and 258), the first at the beginning of the third term in September, and the second at the end of the fourth term, between the end of spring examinations and the awarding of diplomas.

COURSE REQUIREMENTS - FORESTRY TECHNOLOGY

FIRST TERM		SECOND TERM	
Forestry	150	Forestry	151
Forestry	151	Forestry	153
Forestry	152	Mathematics	151
Mathematics	151	English	150
English	150	Biology	150
Biology	150	Drafting	150
Drafting	150	Elective	
Elective			
General Education	100		

NOTE: Students with deficiencies in mathematics may be required to enrol in the pre-technology programme.

THIRD TERM		FOURTH TERM	
Forestry	249*	Forestry	250
Forestry	250	Forestry	252
Forestry	251	Forestry	254
Forestry	253	Forestry	256
Forestry	255	Forestry	257
Forestry	257	Forestry	258*
English	250	English	250
Elective		Elective	

*Field Schools held before and after the third and fourth terms respectively.

BUSINESS AND COMMERCIAL PRACTICE TECHNOLOGY

The Selkirk College programme is designed to enable students to gain the understanding necessary to proceed to business positions requiring technical, analytical and supervisory skills.

At the same time as the students develop skills they will be assisted in continuing the more general educational process in order to develop

understanding of the situations and problems of an increasingly complex civilization. The programme provides training in the expanding areas of data processing as well as the more traditional areas of business practice. Study of English, mathematics, economics, geography, history and psychology deepens understanding of our modern world.

Arrangements are now being negotiated with a recognized professional accounting association whereby those students who attain a satisfactorily high standard in certain subject areas will be exempt from the first two years of a correspondence course.

COURSE REQUIREMENTS - BUSINESS AND COMMERCIAL PRACTICE TECHNOLOGY

FIRST YEAR		SECOND YEAR	
Admin. Science	150	Admin. Science	250
Admin. Science	151	Admin. Science	251
Admin. Science	152	Admin. Science	252
English	151	Admin. Science	253
Economics	150	Admin. Science	254
Two Electives		Economics	251
General Education	100	Economics	252
		English	251
		Two Electives	

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It will be observed that the programme "Advanced Secretarial Science" has been dropped from the curriculum. This came about as a result of insufficient enrolment.

The use of the word "technology" in the foregoing programme descriptions requires further comment. Considerable confusion exists, not only in the mind of the public in general, but also in the minds of educators as to the precise meaning of such terms as "technologist" and "technician". Very often these two terms are used to describe the same person and in most cases they are considered to be synonymous. Let us first attempt a general definition which will embrace both appellations and then try to differentiate between them in terms of length of training and academic standards required.

219 Selkirk College Calendar, 1967/68, pp. 19 ff.

A technologist or a technician is a highly trained individual who fills a job classification midway between the professionally trained engineer or executive and the tradesman or general office worker. His work is of a less sophisticated nature than that of the full professional, but is much more theoretical than that of the skilled tradesman. The technologist or technician must know the capabilities and limitations of the machines the tradesman works with and be able to interpret these capabilities and limitations to the engineer. On the other hand he must be capable of understanding the applications of the mathematics or scientific knowledge used by the engineer and be able to interpret these for the tradesman. The following examples might further help to clarify the relative positions.

Suppose we are considering a mechanical company involved in the design of various types of machinery. We can divide the design process into three distinct parts - that involving the engineer, the technologist, and the machinist. The engineer would initiate a design project by carrying out the necessary theoretical calculations and then sketch the machinery on the basis of this more theoretical work. The technologist might then take the sketches, draft the proper diagrams, and take them to the machinist. The technologist involved would not have the skill of the machinist but he must know how each machine works and its limitations. (In a like fashion he must know what is involved in the engineer's calculations even if he cannot do the detailed calculations himself). The technologist would have to interpret the diagrams to the machinist who would produce a prototype model. The technologist would then take this model, run tests on it, gather data, construct graphs, and make preliminary

calculations. He would then give a complete report to the engineer. On the basis of the report the engineer may make further calculations or drawings. The process may thus be repeated several times. (Note that the foregoing description would apply to a "research" or "design" technologist). Many technologists would work in production and maintenance positions; in these cases, the technologists would still be placed between the tradesmen and engineers, but their duties would be quite different. In practice we would expect a considerable overlap of duties between the technologist, the tradesman and the engineer.

In the business areas, let us consider the executive secretary. This person (either a man or a woman) is not to be confused with the stenographer, but in reality is the "technologist" whose work lies somewhere between that of the stenographer and the executive in terms of job sophistication. Hence an executive may be considering a management problem, for which he works out a solution roughly and prepares a preliminary report. In the preparation of this report he may require the executive secretary to make surveys, digest reports and prepare summaries, including perhaps a graphical presentation. The executive secretary would thus have to have an appreciation of the executive's needs and problems. The executive secretary might then take the report, rewrite it, reorganize it, and take it to the stenographer who would complete the typing or duplicating. The report might then be returned to the executive secretary for revision and then to the executive for further revision. The executive secretary may then be required to make further studies and the whole process would be repeated until the final report is suitable.

The executive secretary must therefore have not only the basic skills of a stenographer (although he is not necessarily a "skilled" stenographer) but also a good background in accounting, economics, business practice, English, business mathematics and psychology. This training may be coupled to a technical specialty involving, for example, certain background technical subjects from the Mechanical Technology Curriculum.[220]

It might be worthwhile at this point to stress the difference of the Transfer and Terminal or Applied courses and to point out the danger inherent in the word "standards" so often used in comparing courses. It would seem that the term "standards" has a strong emotional implication connecting it with the quality of instruction and the depth of understanding that the student actually obtains. When discussing curriculum topics related to technical education, the word "level" would seem more appropriate, and the quality of instruction should be left as a separate consideration. (Certainly, these two aspects are interrelated and it is often only by lowering the level of a course to fit better the aims and abilities of the students that high and demanding standards can be maintained. In many cases the insistence of high levels may well mean low standards because the students can obtain only partial understanding in the time allotted, and because the instructor must accept unsatisfactory or incomplete work to get any of the students through the course). We might further illustrate the point by considering the approaches which might be followed in teaching two courses which are frequently common to both programmes. Mathematics and Science topics can be approached from

220 See Appendix (xviii), The Manpower Spectrum.

either the intuitive or the rigorous points of view. This factor allows the possibility of two different kinds of courses which may be at the same level in regards to topic contents. Thus while the Applied and Transfer programmes cover much the same topics to the same level, their orientations are quite different. The Transfer course instructor would, for example, stress rigor in discussing a particular topic, while the Applied course instructor would take an intuitive approach to the same topic and illustrate its application to an industrial problem.

Studies in the United States and Canada have shown that mathematics takes up about 15 per cent of the technology student's instructional time and basic applied science another fifteen per cent. To illustrate further the necessity for advanced level work and the special applied approach, let us consider applied mathematics.

Mathematics is, of course, the language of technology. Surely this is a key concept which students must be helped to understand. It follows that the Applied Mathematics courses must be completely integrated into the overall technology programme and cannot be treated as loosely attached subjects. This in turn will necessitate the development of a course which is quite distinctive in comparison to the Transfer courses at a similar level. In the Applied courses, the students must develop the ability and confidence to deal with physical situations in a mathematical form. While such ability requires an understanding of basic mathematical theories, models, and manipulations, it also requires an emphasis on applications. It should be remembered that applied mathematics problems on the job will begin with verbal or diagrammatic descriptions of a physical situation. The technologist must be able to translate the given

data into mathematical symbolism, manipulate the symbols to obtain the desired mathematical solutions, and then interpret these solutions as physical anwers.

The above should not be construed to suggest the actual mathematics instruction is limited only to teaching traditional topics and to rote application of mathematical principles. Since mathematics is playing an increasing role in modern technology, with newer mathematical theories finding applications in many areas, and with electronic computing devices making certain older theories (seldom employed previously on account of the length and tedious arithmetic computations necessary) very useful, the applied mathematics instructor must be able to indicate trends occurring in his subject. To the same degree as his counterpart in the Transfer courses, he must be a professional mathematician.

Let us now attempt to make clear the difference in meaning of the terms "technologist" and "technician". Although in popular usage the terms will be considered synonymous, there are differences in the length and the level of difficulty, in the training involved. Those charged with the task of developing technical programmes in regional colleges must become familiar with these differences.

The British Columbia Society of Architects and Engineering Technologists lists three classes of technicians below the technologist level and sets out as follows the schedule of examinations for classification within the society:

TECHNICIAN I

Graduation on any of the B.C. secondary school programmes will be accepted. But it should be noted that Mathematics 12 and Physics 12 on the new programme are considered as preferred prerequisites to the subjects listed for Technician II classifications.

TECHNICIAN II

English
Mathematics I
Physics I
Drafting I

Plus any THREE of the following subjects:
Engineering Materials
General Chemistry
Statics and Strength of Materials I
Surveying I
Hydraulics
Fluid Mechanics
Instrumentation I
Semi-Conductors and Tubes
Circuits - Electrical and Electronic
Geology I
Work Study I

TECHNICIAN III

Mathematics II
Business

Plus any FOUR subjects, not previously taken, from the attached list of subjects appropriate to the applicant's field of specialization.*[221]

TECHNOLOGIST

Mathematics III
Report

Plus any FOUR subjects not previously taken from the attached list of subjects appropriate to the applicant's field of specialization.*[222]

* A combination of subjects other than those indicated by the attached lists could be considered by the Board of Examiner's on an individual basis.

It seemed important to those planning the technical curriculum of Selkirk College, to ensure that students graduating from the programmes could qualify for accreditation by an official body other than the College authorities themselves. As a result the Society of Architects and

221 See Appendix (xix).

222 Loc.cit.

Engineering Technologists' classifications were accepted for the three engineering technologies: electrical-electronics, mechanical and chemical.

In the case of forestry, the Registered Forester's Association of British Columbia is in the process of working out somewhat comparable classifications. The students graduating on the Business and Commercial Practice Technology could receive accreditation under the Chartered Accountants or Certified General Accountants Associations and steps are underway to establish needed courses and standards.

The question immediately before the planners, however, was that of determining the appropriate technical level at which to undertake training. After a number of discussions with the authorities concerned in both the Department of Education and the British Columbia Institute of Technology, and on the basis of a year's experience with students entering the programmes with either university or general programme graduation qualifications, it was decided that the Technician III level at the present stage of development was the most practical and appropriate for the regional college. A number of factors had to be taken into consideration before reaching this decision. First of all, the training of a technician can be accomplished in a shorter time than the training of a technologist which requires two years of instruction given in two terms of approximately ten months each and totalling about twenty-four hundred hours of instructional time. Training at the Technician III level can be completed in two regular academic years of instruction totalling approximately sixteen hundred instructional hours. In addition, however, students are expected to gain "on-the-job" experience during the summer recess. A second factor to be considered was the matter of articulation with the new vocational programmes

in the secondary schools. In its first year of operation Selkirk College enrolled some ninety students in its Applied Arts and Science Division. Of these approximately half were graduates of the university or academic technical programmes from the senior secondary schools and therefore might qualify for training at the "technologist" level. But the college's technical offerings were developed specifically to meet the needs of those students graduating on the new vocational secondary school programmes. A year of experience with these particular students showed that they could work at the "Technician III" training level provided they had included mathematics and physics in their high school Programmes. Those who had not were required to take a year of college preparatory work. A programme designed to prepare students for entrance into the technology courses is now included in the 1967/68 College Calendar.

COURSE REQUIREMENTS - PRE-TECHNOLOGY PROGRAMME

PRE-BUSINESS TECHNOLOGY PROGRAMME		PRE-ENGINEERING AND FORESTRY TECHNOLOGY PROGRAMME	
Mathematics	50	Mathematics	50
English	50	English	50
Admin. Science	150	Applied Science	50
Elective		Drafting	150
General Education	100	Elective	
		General Education	100

NOTE: Students are advised to choose electives from those listed in the course requirements for the technology programme of their choice.

ELECTIVE COURSES FOR TECHNOLOGY PROGRAMMES

Admin. Science	150	History	151
Economics	150	Psychology	151,152
Geography	151,152	Russian	150

A third reason for choosing the Technician III level of training was that such a programme required less by way of very sophisticated equipment and facilities.

Students who can complete the Technician III level of work with a creditable showing, now have the opportunity to enter the second year of study in their particular specialty at the British Columbia Institute of Technology and qualify as "technologist". On the other hand they can simply move into industry where opportunities are great.

In its first year of operation the College enrolments in the various technical programmes were as follows:

Electrical-Electronics	20
Mechanical	10
Forestry	30
Business and Commercial Practice	30

The experience of one year of operation would seem to point to the need to develop other programmes and courses in the Applied Arts and Science Division of the College. It is already obvious that the present offering is too limited to meet the varying needs, interests and abilities of the many capable students who will be completing the vocational programmes in the secondary schools. It must be remembered also that the numbers of students electing vocational studies in the secondary schools is increasing. This fact implies not only that there will be a larger group of students seeking courses in the Applied Arts and Science Division, but also a larger percentage of academically able people, since in years past many of these particular students would have attempted the university programme in secondary school.

In order to meet this anticipated increase in demand for technical offerings, College authorities are actively considering an extension of the Applied Arts and Science division to include courses and programmes in the following areas:

Social Service Assistants	Journalism
Library Assistants	Radio and Television
Civil and Drafting Technology	Recreational Assistants
Nursing	Wild Life Management
Foods and Services Technicians	Pilot Training

No attempt will be made, however, to institute any of these programmes until thorough studies to determine facilities, needs and opportunities have been conducted.

GENERAL EDUCATION

With few exceptions the development of General Education courses has proceeded at a snail's pace in Canadian institutions of higher education. Notable exceptions would include the development about a decade ago of the so-called "pandemic" programme at Sir George William's University in Montreal, and recent developments at Simon Fraser University in British Columbia. In the private sector some concern has been shown, but this has been mainly by way of courses in theology or philosophy. Most of the junior colleges in Canada appear toignore General Education or simply describe it in terms of non-college credit work.

In its 1966/67 Calendar, Vancouver City College describes its General Education Programme as follows:

> A large selection of General Education subjects at the first-year and second-year college levels will be offered in the Evening Division. Instruction in each subject is given on the basis of a one and one-half hour lecture two nights a week for a four-month term. Two terms' work in a subject is equivalent to an academic year in that subject. The completion of the equivalent of two years on this pattern qualifies the student for a College Diploma.
>
> Since there are no residence requirements for evening attendance, students with the required entrance standing may apply for any of these courses or programs. Non-residents may complete a full General Education academic year in two terms by combining evening courses with courses offered after 3:30 p.m. on the day program.[223]

223 Vancouver City College, Calendar, 1966/67, p. 39.

It would seem that the programme described above simply involves offering a number of non-transfer credit courses in several different disciplines.

Again Selkirk College has followed a rather different path. In its first year of operation the College attempted to provide for the general education of its students by way of a programme of studies entitled "Foundations for Enquiry". As originally conceived, the course was given on a two-hour weekly basis. In the first hour students received instruction in large groups from a faculty member or resource person from the community who possessed particular competence in a given area of work. In the second hour the large lecture sections were broken down into small seminar groups numbering no larger than fifteen students each. The seminars were led by faculty members who acted as discussion leaders or resource personnel. The programme carried no university transfer credit but was compulsory for all students registering for the first time at the College.

The course was designed to orient the student to college-level learning and to give him, so to speak, a broad perspective over a wide spectrum of knowledge. A major goal was to acquaint him with the various ways of knowing truth through teaching him the methods of enquiry and giving him knowledge of the many tools which he might use in pursuing those methods. The objectives of the course can be summarized under six headings:

1. To orient the student to college-level learning and to give him an understanding of what the College can offer him and what it expects of him.

2. To lay the foundation for what might be called a "personal-life style" on the assumption that the educated man should not only understand himself but have the ability constantly to evaluate himself as the central point of reference in his learning process.

3. To give the student some grasp of the methods of enquiry through which knowledge is assimilated in the various disciplines of learning, to the end that he might gain respect for the insights and methods of areas other than those of his own specialty.

4. To give the student some understanding of the basic structure and generative principles of most of the major areas of organized knowledge, to the end that he might see his own field of study in its proper context, come to know something of the inter-relatedness of apparently different disciplines, and perhaps discover doors opening for the exploration of subjects he has previously not considered.

5. To provide opportunity for leadership training and for self-evaluation in the small group setting where the importance of relationships to other people can be experienced under skilled group resource persons.

6. To demonstrate to the student that learning cannot be a passive process - that discovery involves commitment and even risk, and to help him to capture something of the excitement of the learning process as new vistas open up before him and as new insights are gained.

In its basic outline the course concerned itself with four major concepts:

I. The Question of Identity.
   A. Who am I and where am I going?
   B. What does college offer me?
   C. What does college expect of me?

II. Ways of Knowing.
   A. The scientific method.
   B. Other valid approaches to truth.
   C. Non-verbal communication.

III. The Map of Knowledge.
   A. The humanities.
   B. The physical sciences.
   C. The life sciences.
   D. The social sciences.

IV. Growth in the Learning Process.
   A. Values, meanings and commitment.
   B. Relationships and Interrelationships of knowledge.
   C. The art of constant evaluation and the development of a "life-style".

In order to gain a better insight into the thinking which lay behind this outline of study, it will be useful to examine each of these

headings in closer detail.

I. The Question of Identity:

It was felt that one of the basic aims of education should be to produce strong, self-reliant, curious individuals who have some knowledge of their abilities, limitations and goals. The question, "Who am I and where am I going?" is surely the critical question of life. Real learning cannot take place until this question is faced squarely. No teacher can give students easy answers to an enquiry of such importance at the personal level. But students can be helped, first to ask the question and then to tackle it. Students need help in self-evaluation. They need to be shown that they do not live in isolation but within a social and physical environment.

It would seem useful to attempt to show college freshmen what college experience can offer them as they explore various areas of study and themselves in their own cultural milieux. Lectures and discussions on the use of the library and the small group method of learning; on the role of the faculty; on the place of student activities; on the tools of research - all might help to give some notion of the function and life of a college. They might also assist in developing the attitudes of self-reliance and independence. In every way possible, students must be encouraged to assume personal responsibility for their own learning.

II. Ways of Knowing:

Here it would seem important to give the student some idea of the development of thought, logic, observation and experimentation. They should be exposed to the various methods of reasoning: deductive, inductive, cause and effect, analogy, and so forth. They should also be required to examine fallacious reasoning and to understand the place of research and

experimentation.

It would seem important also for students to understand that not all truth is derived by way of the scientific method. They should learn to appreciate the roles of intuition, feeling and emotion which are the ways the artist, poet, dramatist finds his "truth". They should also come to know something of the part faith plays in human affairs.

Students living in the complex world of today need a broader concept of the language of symbols and of the inadequacy of any symbol to convey meaning and understanding with complete precision. They will have to learn to make greater use of non-verbal symbols and to understand that reality, insofar as we can apprehend it, lies between the subject and object in the nature of the meaning of one to the other.

III. The Map of Knowledge:

Today in colleges and universities there seems to be an ever-increasing tendency towards narrow specialization - a condition which can hardly lead to the development of an educated man. To some extent today, specialization begins even at the freshman level. Students should be given some general exposure to the major areas of study - the humanities, the physical and life sciences and the social sciences, not only that they might become better educated people, but that they might have the opportunity to explore further areas of interest.

IV. Growth in the Learning Process:

Assessing and forming values and meanings and making commitments cannot be ignored in the total learning process. While enquiry should be open-ended and honest, and indoctrination at all costs avoided, learning should lead to the formation of defensible opinions and to commitment to

worthwhile causes or pursuits. Facts alone will not give us the noble structure that education is, any more than bricks and mortar alone will give us the majesty of a cathedral. Students should be made aware that learning produces change in the individual by releasing within him those special resources which are uniquely human. In a world of increasing population and leisure time the development of these special qualities and resources is the only safeguard to personal freedom and dignity that the individual can hold to.

With only one year of experience with the "Foundations for Enquiry" programme, it is too early to determine the degree to which the course succeeded or failed. Those problems which usually surround non-credit compulsory courses were, of course, always present and ways will have to be found to alleviate such problems. One conclusion, however, can be positively drawn and that is that everything depends upon the talents of the teacher both in the large and small group situations. Where called for, the instruction must be practical and its purpose and value easily understood - for example in the discussion of methods of study, theories of learning, ways of dealing with examinations, and ways of using the tools of enquiry. At other times the instruction must be inspirational and uplifting so that students, once shown the path of knowledge that they must walk, will <u>want</u> to walk it and indeed come to believe passionately in the worth of walking it.

CHAPTER VI

ORGANIZATION AND PERSONNEL

THE DEVELOPMENT OF ADMINISTRATIVE PATTERNS

In turning to discuss the typical organizational and administrative patterns which have evolved in junior colleges over the years, it is perhaps appropriate to reaffirm a guiding principle which must be operative in educational administration at all levels - primary, secondary or tertiary. It is simply this. The prime role of school or college administration, and of the organizations they create, is to facilitate instruction. All institutions of learning worth the name have both specific and general objectives to strive for. The realization of these objectives by the teaching faculty and the students requires leadership, planning, co-ordination, financing, housekeeping, supervision and evaluation. These are the tasks which administrators have traditionally been asked to perform. Their success or failure in performing them is, in the final analysis, a measure of the success or failure of the institution itself. Their major responsibility - and it is a heavy one - is to carry out these functions in such a fashion that the instructional staff may work smoothly, without unnecessary difficulties, and with high morale, at their fundamental job of instructing and leading students.

It is not possible to assemble a single chart of administrative organization which would include appropriate officers and lines of responsibility

for all the various types of two-year colleges presently in existence. Even in those of similar size and type of legal control, local considerations may lead to substantial differences in the names of the various administrative officers and in the grouping of their duties.

THE RUSSEL-AYERS STUDY

A useful study carried out by Russel and Ayers[224] and reported in the Junior College Journal of May, 1963, does, however, give us some conception of the administrative patterns which have developed. Russel and Ayers checked the line-staff charts of one hundred and twenty-nine of the six hundred junior colleges which were in operation in 1963. Of the colleges they checked, ninety-five were public and thirty-six were private. They found that chief administrators, usually designated as "President" or "Dean" had an average span of control of six persons. There was, however, wide variation. In public two-year colleges the span of control ranged, in the case of small institutions, from two subordinate administrators reporting directly to the president to eighteen in the case of large colleges. In private institutions, the range was from two to ten.

Generally speaking the organizational charts showed a separation of administrative responsibility in four major areas of concern: academic affairs, student services, business management, and institutional development. Academic deans had as their major functions the supervision of faculty and of instruction. They were also responsible for curricular development. Deans of Students were in charge of admissions, records,

224 John R. Russel and Archie R. Ayers, "Patterns of Administration", Junior College Journal, vol. XXXIII, May 1963, No. 9, p. 5 ff.

counselling, student activities, financial aids, health services, housing and boarding and placement. Business managers, sometimes called Bursars, were responsible for business management, financial reporting, budget, purchasing, auditing, physical facilities, costs of auxiliary services and non-academic personnel. Those assigned responsibility in the area of institutional development, usually called "public relations officers", directed publicity and fund-raising campaigns and were responsible for maintaining contact with alumni.

Again Russel and Ayers found wide variation in practice. In the academic area, for example, three in five colleges provided for separate administration with one officer reporting directly to the president, but one in four presidents administered the academic area themselves. One-half of the public junior colleges and two-fifths of the private ones showed separate administration in student services. In only five public junior colleges, and in no private ones, did the president administer student affairs. In one-quarter of the junior colleges surveyed, two or more persons reported directly to the president for different phases of student services administration. It is of interest to observe that when major administrative areas were combined in both public and private institutions, combinations occurred usually between the student services and academic areas.

In the area of business management, one-half of the public and three-fifths of the private colleges showed a separate business officer in the president's span of control. One-quarter of the public and two-fifths of the private junior colleges showed two or more officers in the business area all functioning in the president's span of control. In one-

quarter of the public institutions examined, however, financial control was in the hands of the superintendent of the public school system.

In one-third of the public and one-half of the private junior colleges, separate officers were assigned responsibility for institutional development and all reported directly to the president. Again in some instances. this function was carried out by the public school superintendent. Surprisingly enough, two-fifths of the public and one-quarter of the private colleges made no provision for any aspect of institutional development.

One hundred and seven of the line-staff charts analyzed made provision for the position of "Registrar". In over fifty per cent of the cases the position was located in the president's span of control. In the remainder, the registrar reported to the Dean of Students.

A short summary of Russel's and Ayers' findings gives us some conception of the administrative patterns and trends which have evolved in junior colleges. The organizational charts of the one hundred and twenty-nine institutions studied, revealed provision for administration in the areas of academic, student and business affairs, but supplied only limited reference to that of institutional development. In both the public and private colleges, presidents seemed more likely to have a separate administrator in the academic area reporting directly to them, than in the other three phases of administration. As a matter of fact all the colleges which enrolled over five thousand students had Academic Deans. Except for the area of student services, the charts for the thirty-six private two-year colleges showed higher percentages of delegation to a separate officer in each area than did those for the ninety-three public colleges. Public college presidents appeared more likely than their private college counterparts to

engage directly in the administration of the academic area. Also of interest is the fact that private colleges consistently reported higher proportions of institutional charts showing multiple assignments in student services.

ADMINISTRATIVE PATTERNS IN BRITISH COLUMBIA COLLEGES

The organizational charts of some colleges[225] show that quite complex administrative structures have evolved, particularly in larger institutions. Generally speaking there appears to be a clear separation between the function of the teacher and that of the administrator, and the larger the institution the more complete this separation becomes. The administrative charts of the newly established colleges in British Columbia, while showing some similarities to those of their American counterparts, also imply some significant differences in total philosophy.[226] The original line-staff chart of Selkirk College, for example, showed quite clearly that teaching was considered to be an appropriate and desirable function of college administrators. Even the chief administrator was scheduled to teach twenty-five per cent of his time and the three senior officers were to teach as much as fifty per cent.[227] The chart also showed that care had been taken to preserve the "comprehensive" character of the school. Senior officers and their subordinates were assigned responsibility in both the academic and technical sectors. An interesting variation is the use of the term "Principal" instead of "President". In the 1963

225 See Appendices (xx) and (xxi).

226 See Appendix (xxii).

227 The fact that administrators also carry a fairly substantial teaching load might have some effect in reducing the tension which of late appears to be increasing between faculty and administration, particularly in American colleges.

Amendment to the Public Schools Act of British Columbia[228] the chief administrative officers of district and regional colleges are designated as "Principals". Whether or not this is an appropriate term is open to question since it does seem to carry with it the connotation that the colleges are simply extensions to the secondary school system and not discrete entities in their own right or collegiate in character.

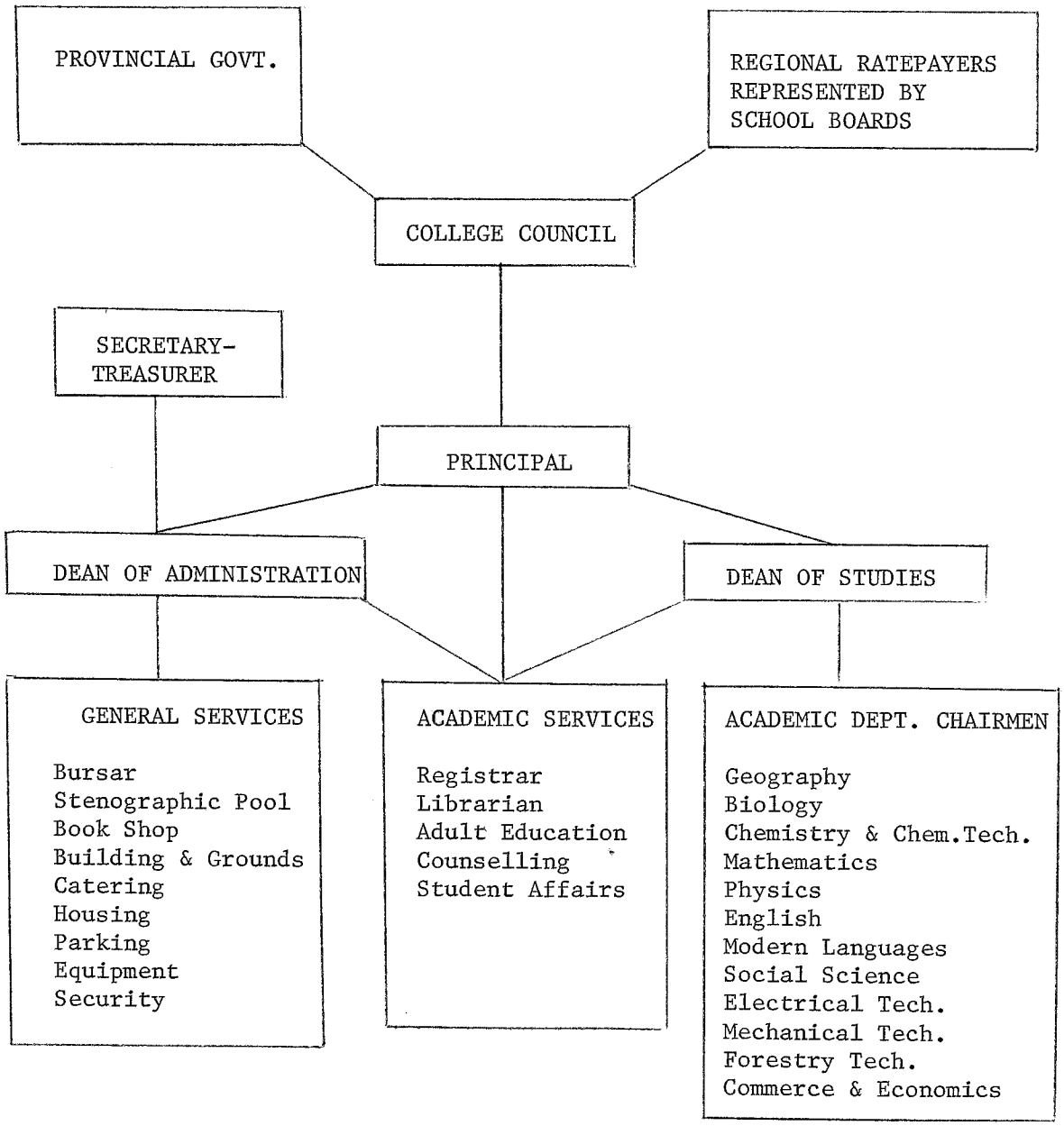
At the beginning of the 1967 academic year the Selkirk College Council revised the administrative structure of the College in an attempt to spell out in more definitive terms the line-staff relationships as they actually existed. The College Council based its acceptance of a new form of administrative structure on the premise that in the early years of its operation, a college must first make administrative provision in three major areas: finance, curriculum, and student personnel services. It therefore moved to appoint a Dean of Administration, who would have special responsibilities in the areas of finance and physical facilities, and a Dean of Studies who would be responsible for all facets of the instructional programme. While the College was still small it decided to place the responsibility for student personnel services directly under the Principal, with the expectation of appointing a Dean of Students when enrolment reached such proportions as to necessitate the addition of such an officer. Consideration also was given to the appointment of a Dean of Applied Arts and Science. Again, serious consideration of such an appointment would be given if enrolment in the Applied Arts and Science indicated a need.

228 See Appendix (xiii).

The revised chart appears as follows:

SELKIRK COLLEGE

ADMINISTRATIVE STRUCTURE 1967-1968



The College Council also accepted in principle, a concept of team administration, recognizing the fact that while the three senior administrators bring special knowledges and skills to their own particular areas of responsibility, they should also become thoroughly knowledgeable about each other's work and have access to the same information so that each shares the same overview. In this way they can work more effectively at their own tasks and provide administrative continuity for the college.

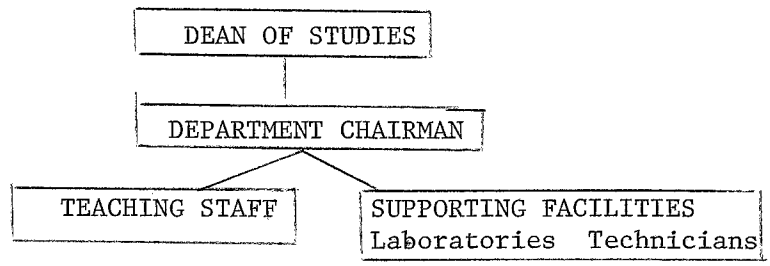
These three men form a team, complementing each other in many different ways - in academic and professional backgrounds, in special knowledges and skills, in experience and in personality. In short, they strengthen each other's weaknesses to form a strong management committee.

The College Council also agreed to establish a system of departmental chairmen and acting chairmen and set out their duties as follows:

DUTIES OF DEPARTMENTAL CHAIRMEN AND ACTING CHAIRMEN

(Other duties will be added if the need arises)

1. Organization:



2. Duties of Department Chairman

(a) Teaching
(b) Administration
(c) Planning and Development
(d) Prepare an Annual Budget
(e) Prepare an Annual Report of Departmental Activities and Growth.

3. Administrative Duties

   (a) Supervision and assessment of teaching staff
   (b) Organization and operation of supporting facilities
   (c) Departmental representative to higher authorities.

4. Planning and Development

   (a) Direct curriculum planning
   (b) Anticipate changes in teaching staff and facilities.

5. Details on Administrative Duties

   (a) Supervision and assessment of teaching staff

      (i) The Department Chairman is usually best qualified to assess the professional status, qualifications and abilities of a teacher in his department.

      (ii) On the basis of this assessment the Department Chairman must assign course responsibilities.

      (iii) He must ensure that the material in each course is covered sufficiently at the desired level and that examinations and tests set a high enough standard.

      (iv) To those who are new as teachers, the Department Chairman should give aid or guidance in the construction of courses.

      (v) Where necessary he should arrange for the appropriate teaching facilities, equipment, library purchases, etc.

      (vi) The Department Chairman must guide, audit, assist and assess the teaching in his department.

   (b) Organization and operation of supporting facilities

      (i) The Department Chairman is responsible for maintaining supporting facilities such as laboratories.

      (ii) He must supervise the selection and purchase of new and replacement equipment.

      (iii) He must assign the duties of the supporting staff such as technicians.

      (iv) Where necessary, the Department Chairman should supervise the training of supporting staff.

      (v) He must assess the efficiency of the supporting staff.

(c) Departmental representative to higher authorities

(i) The Department Chairman should usually be the only representative of his department and his discipline when dealing with higher authorities within the College.

(ii) The Department Chairman will be in the best position to appreciate the course loads of those in his department. He should be the intermediary in assigning extra duties such as counselling, committee work, extra instruction for adult education, etc.

(iii) Each year the Department Chairman should prepare an assessment of each member in his department.

(iv) The Department Chairman should assist in recruitment.

6. Details on Planning and Development

(a) Curriculum Planning

(i) The Department Chairman must keep abreast of developments in similar departments in the B.C. universities and institutes of technology.

(ii) He should visit them once a year at least, to maintain contact and gather information which might aid course articulation.

(iii) The Department Chairman must investigate new course and programme possibilities. He must be prepared to develop these courses in some detail so that their merits and costs can be assessed.

(b) Changes in staff and facilities

(i) The Department Chairman should attempt to anticipate needs for new staff and facilities for about two years. He should also attempt to estimate the costs.

(c) Annual Budget and Reports

(i) The Department Chairman must prepare a detailed annual budget for his department to be submitted in October.

(ii) The Department Chairman should prepare a report of the year's activities in his department.

Duties of Acting Chairmen

The Academic Board for Higher Education in British Columbia states that the minimal qualification for those who teach courses in the arts and

sciences is normally a Master's degree in their teaching subjects. A chairman who is appointed to assess these individuals, and who is responsible for the development of the academic programme in a certain area, should be of such calibre that he would be acknowledged by all in his department as the most qualified for this responsibility. A chairman must have at least a Master's degree in his subject, and show evidence of considerable scholarly ability. Preferably he should have a doctorate in his subject.

It is recognized that a person with sufficient qualifications may not be available in a given department. However, some administrative work must be carried out within the department. For this purpose we propose the appointment of an acting chairman for a period of one year. We recommend that he be assigned a reduced teaching load and be granted an honorarium. The duties and responsibilities of an acting chairman shall be the same as those of the department chairman with the following amendments:

1. Organization - same.
2. Duties of department chairman - same.
3. Administrative Duties:

    (a) Co-ordination and assessment of instruction
    (b) Organization and operation of supporting facilities
    (c) Departmental representative to higher authorities.

4. Planning and Development - same.
5. Details on Administrative Duties

    (a) Supervision and assessment of teaching staff

        (i) The acting chairman should assist the Dean in assessing the professional status, qualifications and abilities of a teacher in his department.

        (ii) Same

        (iii) The acting chairman must assist the Dean in ensuring that the material in each course is covered sufficiently at the desired level and that the examination and tests set a high enough standard.

        (iv) Same

        (v) Same

        (vi) The acting chairman must assist the Dean in auditing and assessing the teaching in his department.

    (b) Organization and operation of supporting facilities - same.

(c) Departmental representative to higher authorities

(i) Same

(ii) Same

(iii) The acting chairman should assist the Dean in preparing an assessment of each member in his department.

(iv) Same

6. Details on Planning and Development - same.

Appointments to the position of chairmen or acting chairmen are made on the basis of experience, demonstrated scholarship and administrative ability. Appointments are made on a yearly basis.

A special word needs to be said about the position of Secretary-Treasurer of the College Council. In the 1967 Amendments to the Public Schools Act, the role of the Secretary-Treasurer is described as follows:

> "(5) The Regional College Council shall appoint a person to be the secretary-treasurer of the Regional College Council, and he shall be responsible for the administration of business and financial matters of the regional college in accordance with the directions of the Regional College Council, and sections 99 to 103, inclusive, apply, mutatis mutandis, with respect to the secretary-treasurer."[229]

At Selkirk College the role of secretary-treasurer is filled by the Dean of Administration. Such an arrangement has the advantage of placing the responsibility for financial matters under the direct control of a senior administrative official who is intimately concerned with the development of the college per se and completely knowledgeable of its needs as well as being knowledgeable of the financial resources available to it. On the other hand the double function of the Dean of Administration has some obvious disadvantages in terms of his relationship with faculty. Experience would seem to indicate that the need for a "secretary-treasurer"

229 An Act to Amend the Public Schools Act, 1967, Section 21, subsection 5, p. 8, March, 1967.

of a College Council disappears once a college is in full operation, because of the fact that a College Council does not of itself have a budget to be concerned about. It is true that a Council will require the services of an efficient recording secretary who can compile complete and accurate minutes of proceedings, but it is doubtful whether it requires a secretary-treasurer in the sense that a school board does.

THE BOARD OF TRUSTEES

A word should be said about the role of the community junior college Board of Trustees. In most of the American states, locally controlled junior colleges are governed in much the same way as other elements of the public schools. Indeed, in some districts a single board determines policy for all the schools from kindergarten through junior college. In a separate junior college district a Board of Trustees is established to deal only with the total administration of the junior college itself, leaving policies for the elementary and high schools to other boards.

Numerous attempts have been made by educators to describe the functions of college boards. In their thirty-fourth year book, for example, the American Association of School Administrators lists six separate functions:

1. To develop and constantly improve the educational programme
2. To provide personnel for staffing the school programme
3. To provide and maintain an educationally efficient physical plant
4. To secure adequate financial resources
5. To maintain a two-way contact with the adult community and the schools
6. To choose the chief executive and work harmoniously with him.[230]

In a recent study by Blocker, Plummer and Richardson, ten functions are listed:

230 School Board-Superintendent Relationships, The Thirty-fourth Yearbook, Washington, American Association of School Administrators, 1956.

1. To select the college president.
2. To create a favourable public image of the college in the community.
3. To establish co-operative relations between the administration and the board.
4. To work toward more adequate support of the college through local and legislative action.
5. To provide a bridge between the college and the community.
6. To approve clearcut policies for the operation of the college which are developed, recommended and implemented by the president.
7. To protect the administration and the college from unreasonable pressures from the community. (In the views of these authors the protection of academic freedom is a primary responsibility of the board).
8. To develop and maintain faculty morale and quality teaching.
9. Periodically to review and approve the philosophy and objectives of the college.
10. To control the college - a function that should not be transferred to a state or higher body.[231]

It is apparent from a study of these two lists of functions that stress is placed upon the college board's responsibility to act as a policy-making body rather than as a purely administrative one. The executive function belongs solely to the president and the line between policy-forming and its execution must be scrupulously observed if the values inherent in the unique combination of lay control and professional leadership are to be fully realized. When the line is crossed and a board sees itself as an administrative rather than as a policy-making body, the president becomes little more than an errand boy with little opportunity to exercise real leadership in education. On the other hand, when a board relinguishes its duties of policy making and evaluation to the president, the danger exists that the college will lose touch with the people it serves. Only when a proper balance exists between the forming of policy and the carrying out of it, can those strengths and values which are in many ways unique to the

231 Clyde Blocker, Robert Plummer and R. Richardson, The Two Year College: A Social Synthesis, Englewood Cliffs, N.Y., Prentice-Hall Inc., 1965, p. 89.

community junior college be achieved.

Section 163A of the British Columbia Public Schools Act, dated July, 1967, sets out the functions of regional college councils as follows:

> 163A. (1) Where the Boards of two or more adjoining school districts have, with the approval of the Council of Public Instruction, entered into an agreement to establish, maintain, and operate a regional college, the title of all property, real or personal, in respect of such college shall vest in the participating Boards as their interests may appear.
>
> (2) The management, administration, and control of the property, revenue, business, and affairs in respect of the college shall be vested in a Regional College Council, and without limiting the generality of these powers the Council has power
>
> (a) to make rules and regulations for meetings of the Council and its transactions, with power to appoint from its members a Chairman and, when necessary, an Acting Chairman and whatever committees are deemed necessary for the proper carrying-out of its functions;
>
> (b) to provide the necessary land, buildings, and equipment required for the college, and to make regulations as to the management and control thereof as may seem meet, and, with the approval of the Council of Public Instruction, may lease land for college purposes;
>
> (c) to appoint all necessary instructional and other staff required for the operation of the college and fix their salaries;
>
> (d) to determine the fees for instruction to be paid by or in respect of the students attending the college;
>
> (e) to provide for the government, management, and carrying-out of curriculum, instruction, and education offered by the college;
>
> (f) to determine all questions relating to the academic and other qualifications required of applicants for admission as students to the college;
>
> (g) to prepare an annual budget for the college for submission to participating Boards in accordance with subsection (7);

(h) to do and perform all other matters and things which may be necessary for the well-ordering and advancement of the college.

(3) The Regional Council shall be composed of

(a) the principal of the college;

(b) two members appointed by the Lieutenant-Governor in Council;

(c) one member appointed by the Minister of Education who shall be a District Superintendent of Schools;

(d) such other number of members as determined by the Minister to be appointed by each participating Board, at least one of whom shall be a trustee;

(e) such other members, representative of non-sectarian and non-political community interests, as shall be determined by the Lieutenant-Governor in Council but not to exceed two-thirds of the number appointed under clauses (a), (b), (c), and (d).

(4) Members appointed by the Boards shall hold office for the term of one year commencing on the first day of February.

(5) The Regional College Council shall appoint a person to be the secretary-treasurer of the Regional College Council, and he shall be responsible for the administration of business and financial matters of the regional college in accordance with the directions of the Regional College Council, and sections 99 to 103, inclusive, apply, mutatis mutandis, with respect to the secretary-treasurer.

(6) Nothing in this section shall be construed as limiting the Regional College Council in exercising any powers and duties which shall or may be exercised by a Board of School Trustees in the administration of a district college, and any authority conferred by this Act upon a Board of School Trustees in respect of a district college shall apply, mutatis mutandis, to a Regional College Council.[232]

In recent months some criticism has been voiced concerning the composition of Regional College Councils. Pressure has been exerted to ensure a place for members of municipal councils and to remove school board

232 Province of British Columbia, Public Schools Act, July 1, 1967, Chapter 319, Section 163A, Subsections 1-6, pp. 4024 ff.

influence. But experience at Selkirk College during a troublesome opening year would seem to give positive indication that College Councils as presently constituted can give strong and effective leadership.

JUNIOR COLLEGE FACULTY

Let us now consider the particular function that teachers perform in junior colleges. It must be obvious that the crucial role of the faculty is implicit in all that we have said about the nature and the mission of the community junior college. Particular weight must be attached to high quality teaching in the junior college, since it is primarily a teaching and not a research institution and the realization of its purposes depends largely upon the effectiveness of instruction. Again and again this need has been stressed by the leaders of the junior college movement. More than thirty years ago, for example, Koos identified, "offering better instruction in these years" as one of the purposes proposed for the junior college.[233] Similarly, in 1931, Eells reported "superior instruction" among reasons cited for having junior colleges.[234]

THE TEACHER SHORTAGE

Yet like all educational institutions, the two-year college continues to be plagued by the mounting shortage of excellent instructors. The 1957 report of the President's Committee on Education Beyond the High School, described the teacher shortage as "the most critical bottleneck to the expansion and improvement of education in the United States.[235]

233 Leonard V. Koos, The Junior College Movement, Boston, Ginn & Co., 1925, pp. 20, 23-24.

234 Walter Crosby Eells, op.cit., p. 202.

235 Second Report to the President, President's Committee on Education Beyond the High School, Washington, Government Printing Office, 1957.

In attempting to determine the total need for college and university teachers, the President's Committee noted that:

> A number of variables, including the speed with which enrolments rise, student teacher ratios and the rate of faculty turnover will affect the total needs for college teachers in the next several years. Taking conservative estimates with respect to these variables, somewhere between 180,000 and 270,000 new college teachers must be recruited within a dozen years - between 15,000 and 22,500 annually. Less conservative assumptions would indicate a considerably higher need.[236]

Recent studies which take into account the rapid growth in the number of junior colleges in such states as Florida, Washington, New York, Texas and California, would suggest that the assumptions are indeed conservative. Thornton, for instance, believes that within the next five years between 3,750 and 5,635 new instructors will have to be recruited annually to meet existing needs.[237]

It goes without saying that vigorous efforts towards the recruitment and training of suitable personnel must be instituted immediately in both the United States and Canada if the gap is to be filled.

THE QUALIFICATIONS REQUIRED

Yet before such programmes can properly begin there needs to be a clear conception of the special qualifications which college instructors should possess. A number of studies relating mainly to the training of junior college faculty have been undertaken in recent years, and these give us some valuable clues concerning the skills and attributes which would seem to be most desirable for a junior college instructor to possess.

236 Loc.cit.

237 James W. Thornton, op.cit., p. 132.

One of the more thoughtful statements on this subject emerged from the Conference on the Preparation of Junior College Instructors, sponsored by the American Council on Education. At this conference twenty-seven representatives of junior colleges, technical institutes, colleges, universities and national agencies discussed the findings of a survey of sixty junior colleges, and technical institutes. The group adopted the following recommendations regarding the selection of a faculty:

1. Teachers who possess a clear conception of the philosophy and background of these institutions, their relationship to the whole educational structure, and especially their place in the community.

2. Teachers who possess an understanding of human growth and development and of the special problems of age groups enrolled in these institutions.

3. Teachers who possess adequate skill in curriculum construction, evaluation and other areas related to the art and science of instruction in these institutions.

4. Teachers who have had adequate supervised teaching experience - at least a quarter or a semester in the type of teaching in which they are planning to engage.

5. Teachers who have a clearly balanced appreciation of both the occupational and general educational services of these institutions.

6. For occupational instructors, occupational competence - which includes practical experience.

7. For instructors in fields of general or academic education, competence in their special fields, and also in broad functional fields - with practical experience also in community service agencies, on newspapers, in camps or the like.[238]

After conducting a number of investigations on certification standards for junior college teachers in California, Thomas Merson

238 Wanted: 30,000 Instructors for Community Colleges, Washington, American Council on Education, 1949, pp. 11-13.

recommended the following requirements:

1. Six years of college beyond high school.

2. A Master's degree in a subject field.

3. One-sixth of the total programme of professional education in a programme designed for preparation for junior-college teaching, including:

   (a) Work organized to include thorough preparation in the basic factors of teaching competence.

   (b) A thorough knowledge of the characteristics of junior college students.

   (c) Work organized to develop attitudes, skills and knowledges necessary to fulfill the functions of the junior college.

   (d) Work emphasizing means of adapting methods of instruction and subject matter presentation to meet the needs of junior college students.

   (e) Field work in typical junior college organized as an integral part of each of the courses used in fulfilling the requirements in professional education, and illustrating the practical application of the theory contained in the courses.

   (f) An internship of directed teaching and related activities of at least one semester in an approved programme in a typical junior college teaching situation.

4. Teachers who possess work-experience in a field related to the major subject. This related work experience shall be longer than three months for teachers of transfer students and a year or longer for teachers of terminal students.[239]

After considering the studies referred to above, Jarvie offers the following summary with respect to the preparation of junior college teachers:

1. Thorough preparation in the field of teaching must be provided. In academic fields, a master's degree is suggested as essential, with an additional year of graduate work recommended. In vocational fields, actual employment experience is urged as essential.

239 Thomas B. Merson, "Certification Standards for Junior College Teachers in California", Unpublished Doctor of Education thesis, University of California, Berkeley, 1952, p. 315.

2. Courses in education should include materials directly related to the junior college, its philosophy, its programme, its students and its problems.

3. Practice-teaching should be done in a junior college, not in a high school or in a university.[240]

We might well ask whether in present practice the standards of qualification, suggested in these studies, are being met. Data are available about the extent of academic preparation of junior college faculty members, as well as about some aspects of their attitudes and previous experience.

Drawing his information from a number of studies, Thornton has compiled data showing the percentage of instructors in public junior colleges who have the Doctor's, Master's, Bachelor's or no degree.[241] He points out that in all cases studied, some of the faculty members with less than doctorate degrees were working toward the next higher degree. He explains also that the smaller proportion of doctorates held by junior college faculty members is understandable because their instruction is limited to lower division work and because their number includes a large proportion of teachers of applied subjects. It is of interest to note that the comparison of junior college faculty training with that of instructors in college and universities shows a remarkably similar proportion of doctor's and master's degrees: the "degree-granting" institutions have a higher proportion of bachelor's degrees and a slight excess of doctorates.

Most of the studies of academic and professional qualifications

240 L.L. Jarvie, "Making Teaching More Effective", The Public Junior College, The Fifty-fifth Yearbook of the National Society for the Study of Education, Part 1, Nelson B. Henry, ed., Chicago, The University of Chicago Press, 1956, p. 221.

241 Thornton, op.cit., p. 132 ff.

of teachers presently employed would seem to indicate that the Master's degree is an almost universal requirement for employment in junior colleges, except in certain special fields. Recent research, however, suggests that the level of preparation for college instructors in all institutions may be decreasing. The following excerpt quoted by Thornton from the 1958 report of the Research Division of the National Education Association gives corroborating evidence:

> In 1953-54, 40.15 per cent of the total full-time staff at all professional ranks and in all types of degree-granting institutions held the earned doctor's degree. Of the newly-employed full-time staff members that year, 31.4 per cent were also at that level of academic achievement ... and in 1956-57 only 23.5 per cent. In a period of three years there has been a drop of 25.2 per cent in the group of new teachers holding the doctor's degree ... Without question, the institutions of higher education are steadily losing their battle to retain the present quality of instructional staff, to say nothing of the need to build to higher levels.[242]

Some very useful and interesting studies of junior college teachers have been carried out by Leland Medsker. He found, for example, that seventy-two per cent of junior college instructors are men, which points up the need to encourage able women to enter the field of college teaching. He found also that sixty-four per cent had once taught at either the secondary or elementary school levels - in the majority of cases, however, in the secondary school. About eleven per cent had previously been senior college or university teachers. It is worth reminding ourselves that such an exchange of positions contributes nothing to the solution of the teacher shortage which exists at all levels of the educational system. Medsker also gathered data on the attitudes of junior college teachers towards the institution and their understandings of its purpose and function. He found that faculties for the most part were in general agreement with the concept

242 Thornton, op.cit., p. 135.

of the two-year college as an integral part of the school system and that they were generally satisfied with their positions in it, believing that it fulfilled several necessary functions including both preparatory and terminal programmes in the same institution. They believed, also, that the quality of instruction in the junior college was equal, if not superior, to that of the university and that the junior college should have its own governing board and its own administrative officer. Medsker did find some minority dissent on every attitude he measured which would seem to indicate the necessity for a continuing programme of in-service training, particularly about the nature of the junior college, and about the characteristics of its students.[243]

PROBLEMS ENCOUNTERED BY JUNIOR COLLEGE TEACHERS

Before leaving our discussion of junior college instructors, we must say a word about the special problems they face and the particular position they are in. Of all the problems they encounter, three appear to be the most common and the most troublesome. First there is the matter of their preparation for the task they must perform, or more precisely the lack of preparation. Programmes of preparation are rarely established for junior college teachers. While the junior college possesses some of the characteristics of the university, and some of the high school, it also has other characteristics which are uniquely its own. But its faculty members must ordinarily be recruited from those who are prepared to teach in high school or from those trained in and interested in research of the type needed for university positions. The result is that when these "recruits" reach the

243 Leland L. Medsker, The Junior College: Progress and Prospect, New York, McGraw-Hill Book Co., 1960, pp. 172-205.

junior college they face what is often a critical problem of adjustment.

The second problem concerns the teacher shortage and the overloading that results. College enrolments have mounted steadily over the past ten or fifteen years. This trend will in all likelihood continue in the future. The teacher supply, while increasing, falls far short of keeping pace. Stated in its simplest terms, this means that college teachers must teach more classes and more students in each class. Yet there is a limit beyond which they cannot go. College teachers need time to plan lectures, to read, to keep up with the latest developments in their fields, and to meet their students individually. It is within the area of student-teacher ratios that the real educational crisis exists.

The third problem concerns the heterogeneity of students. Students in two-year community colleges are notably heterogeneous in age, in socio-economic background, in the range and types of their abilities, and in their educational and vocational goals. The needs of widely dissimilar students can, in part, be met by varied course offerings and by thoughtfully designed student-personnel services. Yet it must be realized that the heterogeneity of students places heavy responsibility upon the teacher who will have in his classes some students preparing for professional careers, others who will be skilled workers or tradesmen, some who are in their late teens, others in their forties or fifties - some with superior verbal ability and achievement, and others who are decidedly deficient in these areas. This all means that junior college instructors, to an unusual degree, must be proficient in recognizing and dealing with individual differences, not only in the matter of building curricula, but in guidance and in teaching as well.

Finally it must be said that the junior college teacher frequently finds himself in a completely untenable position as he attempts to meet the expectations most commonly held for him by the public in general and his colleagues in the academic community in particular.

Consider for example the two lists of criticisms below. The first of these was compiled by Pugh and Morgan who analyzed questionnaire returns from one hundred and five junior college administrators in seventy-two junior colleges. The administrators criticized their teachers as follows:

1. Instructor's preparation is frequently of a narrow and specialized nature.
2. Instructors have the "content point of view", rather than the "student point of view".
3. They lack a suitable balance of subject matter and professional training.
4. They do not understand the junior college.
5. They fail to develop personality traits adapted to the dynamic leadership of youth.
6. They lack ability or knowledge to relate their teaching to practical everyday problems.
7. Placement officers make recommendations on insufficient evidence.
8. Instructors are interested in research, not in classroom teaching.
9. They consider the junior college with an attitude of condescension.
10. They lack appropriate work experience.[244]

But compare these criticisms with those most often made by university professors who fault junior college instructors for:

244 David B. Pugh and Roy E. Morgan, "Shortcomings in Preparation of Instructors", Junior College Journal, Vol. XIV, May 1944, pp. 405-415.

1. Not engaging in research.
2. Not writing sufficient articles, books and monographs.
3. Not having enough specialized training.
4. Not having practical experience in their fields.
5. Not belonging to or participating in professional societies.
6. Not having the proper background in college teaching.
7. Not having the necessary depth of experience in college teaching.
8. Not maintaining high standards.
9. Not continuing their professional growth.[245]

Gilbert and Sullivan had obviously never heard of junior college instructors. It is not only the policeman whose "lot is not a happy one".

From the inception of the district and regional college movement in British Columbia, considerable concern has been expressed that such colleges would have difficulty in attracting well qualified faculty members. Experience at Selkirk College would seem to suggest that these concerns are, at least at the present time, exaggerated.

RECRUITMENT IN BRITISH COLUMBIA

Since it began recruiting faculty in September, 1965, Selkirk College had by September, 1967, received a total of 2,195 applications for teaching and administrative positions.

POSITIONS APPLIED FOR

In terms of the area applied for, the breakdown is as follows:

245 List of criticisms most often voiced by university personnel writing in the Junior College Journal between 1950 and 1965.

Academic Dean	28
Administration in general	36
Biology, Zoology	166
Botany	14
Bursar	35
Bookstore Manager	6
Business Administration	44
Chemistry	216
Commerce	48
Dean of Instruction	12
Dean of Students	5
Director of Continuing Education	46
Director of Guidance	52
Director of Physical Fitness	10
Economics	110
Electronics	53
Engineering-Mechanical	88
Engineering-Civil	13
English	246
Executive Secretary	13
Fine Arts-Performing Arts	26
Forestry	37
French	93
Geography	76
Geology	11
German	10
History	209
Home Management	8
Librarian	26
Miscellaneous	55
Mathematics/Physics	200
Metallurgy	4
Marketing	1
Music	5
Psychology	63
Philosophy	27
Russian	32
Registrar	6
Sociology-Anthropology	60
Technicians (Lab)	5

PERSONAL DATA

An analysis of the curriculum vitae submitted by those applying reveals the following data:

SEX

Male	1870
Female	232

AGE

20 - 25	138
26 - 35	731
36 - 45	496
46 - 55	228
58 - 65	78

PLACES OF BIRTH

Australia and New Zealand	16
Mexico and South America	7
Middle East	7
New Brunswick	2
Nova Scotia	8
British Columbia	172
Canada	9
Eastern Europe	44
Saskatchewan	42
Alberta	88
Manitoba	52
Quebec	13
Far East	66
Africa	28
West Indies	9
U.S.A.	672
Western Europe	81
India and Pakistan	305
Ontario	151
United Kingdom	286

DEGREES

Bachelor's	431
Master's	961
Ph.D's	556

TOTAL NUMBER WHO HAD PUBLISHED	421
TOTAL NUMBER WHO HAD RECEIVED ACADEMIC AWARDS	410

LAST UNIVERSITY ATTENDED

Australia and New Zealand	United Kingdom - Others	2
	Australia - Others	7
	U.S.A. - Others	6
Mexico and South America	United Kingdom - Others	1
	U.S.A. - Others	3
	Canadian - Others	1

Middle East	Europe	2
	U.S.A. - Others	2
	U.B.C.	1
	Middle East - Others	1
New Brunswick	Univ.of New Brunswick	1
	Other Canadian	1
Nova Scotia	University of London	1
	Other American	3
	Other United Kingdom	1
	Other Canadian	1
British Columbia	Simon Fraser	3
	U.B.C.	74
	University of Alberta	6
	Univ. of Saskatchewan	1
	University of Manitoba	
	University of Toronto	9
	McMaster	1
	McGill	4
	Queen's University	1
	Western Ontario	1
	Acadia	
	B.C.I.T.	5
	Victoria	3
	Notre Dame	1
	University of Ontario	1
	Nova Scotia	1
	London	1
	Waterloo	1
	Other American	35
	Other Canadian	2
	United Kingdom	3
	Europe	4
Canada	U.B.C.	2
	University of London	1
	Queen's University	2
	University of Victoria	1
	Other American	2
Eastern Europe	U.B.C.	10
	New York	1
	Queen's University	1
	Others - United Kingdom	3
	Others - United States	7
	Others - Europe	17
	Others - Canadian	5

Saskatchewan	U.B.C.	5
	Univ. of Saskatchewan	14
	University of Manitoba	2
	McGill University	1
	University of London	2
	University of New Brunswick	1
	University of Toronto	1
	Others - United States	2
	Others - Canadian	7
Alberta	U.B.C.	11
	University of Alberta	39
	Univ. of Saskatchewan	3
	University of Manitoba	1
	University of Toronto	1
	Queen's University	1
	Univ. of Western Ontario	
	McGill University	2
	McMaster University	
	Waterloo University	
	University of Montreal	
	Carleton University	
	Ottawa University	
	Guelph University	
	Victoria University	
	Nova Scotia University	
	Univ. of New Brunswick	
	London University	
	Others - Canadian	1
	Others - United States	25
	United Kingdom	2
	Others - Africa	1
Manitoba	Laval University	1
	U.B.C.	5
	Univ. of Saskatchewan	1
	University of Manitoba	13
	University of London	1
	Univ. of Western Ontario	2
	Others - United States	4
	Europe	1
	Others - Canadian	8
Quebec	Harvard University	1
	U.B.C.	2
	New York	1
	Leeds, United Kingdom	1
	University of Ottawa	1
	University of Toronto	1
	Univ. of New Brunswick	1

Far East	London University	3
	Others - United Kingdom	3
	Others - Australia	1
	Others - Europe	3
	Others - Asia	16
	Others - United States	22
	U.B.C.	1
	McGill University	5
	Others - Canada	8
	McGill University	5
	Freiburg Univ., Germany	1
	Manila	2
	Taiwan	1
Africa	Others - United Kingdom	5
	Others - Europe	6
	Others - Asia	2
	Others - United States	6
	Others - Africa	1
	U.B.C.	1
	Others - Canada	3
	Others - Middle East	2
West Indies	Others - United Kingdom	1
	Others - Europe	1
	Others - Asia	1
	Others - United States	2
	Others - Canadian	4
Eastern Europe	Others - United Kingdom	3
	Others - Europe	17
	Others - United States	8
	U.B.C.	10
	Others - Canada	5
	Queen's University	1
United States	Stanford University	8
	Colorado State University	10
	Univ. of California	49
	University of Illinois	19
	Wyoming University	9
	Texas University	18
	Conneticut University	5
	Washington State Univ.	29
	Montana State University	11
	University of Wisconsin	16
	Cornell University	8
	Michigan State University	33
	Oregon State University	23
	Princeton University	3
	Missouri University	5
	Iowa University	15

United States	Denver University	5
	New Mexico University	6
	Massachusettes College	3
	Pennsylvania State Univ.	12
	Dalhousie University	1
	Purdue University	4
	Harvard University	9
	Columbia University	21
	Idaho State College	8
	Syracuse University	8
	Boston University	8
	New York University	13
	Yale University	4
	Others - United States	232
	Others - Canadian	13
	United Kingdom	8
Western Europe	Munich	1
	Univ. of California	1
	London University	2
	Leiden	1
	Torino	2
	University of Toronto	2
	Sorbonne	2
	Paris	2
	Utrecht	2
	University of Manitoba	3
	U.B.C.	5
	Freiburg	1
	Basel	1
	Durham	1
	Univ. of Western Ontario	2
	Vermont	1
	Minnesota	1
	Berne	1
	Zurich	1
	Glasgow	1
	New York	1
	Harvard	1
	Innsbruick	1
	Queen's University	1
	Others - United Kingdom	2
	Others - United States	8
	Others - Europe	15
	Others - Canadian	11
	Others - Asia	1
	Others - Africa	1
India and Pakistan	Punjab	22
	Agra	10
	Calcutta	10
	Poona	6

India and Pakistan	India	12
	Bombay	16
	Delhi	6
	Others - India	16
	Others - Australia	4
	Others - United States	79
	Others - United Kingdom	39
	Others - Europe	6
	U.B.C.	11
	University of Alberta	11
	Univ. of Saskatchewan	4
	University of Manitoba	7
	Toronto	14
	McGill University	10
	Univ. of Western Ontario	2
	Queen's University	5
	McMaster University	3
Ontario	U.B.C.	5
	University of Alberta	1
	University of Saskatchewan	1
	University of Toronto	36
	Queen's University	13
	Windsor University	4
	Univ. of Western Ontario	14
	McGill University	10
	McMaster University	10
	Waterloo University	5
	University of Montreal	1
	Carleton University	4
	Ottawa University	4
	Guelph University	4
	Others - Canadian	3
	Sir George University	9
	Others - United States	4
	United Kingdom - Others	18
	Others - Europe	7
	Others - Africa	2
	New Brunswick University	2
United Kingdom	Glasgow University	23
	St. Andrew's University	7
	Aberdeen University	7
	Durham University	8
	Oxford University	15
	Cambridge University	16
	Edinburgh	20
	London University	31
	Manchester	9
	Liverpool	5
	Bristol	5
	Others - United Kingdom	54

United Kingdom	Others - Australia	
	Others - Europe	5
	Others - United States	18
	U.B.C.	13
	University of Alberta	7
	McMaster University	3
	McGill University	7
	Others - Canada	9

It must be obvious from these findings that the interest in the regional college movement in British Columbia in indeed widespread. It is significant to note also that the majority of applicants are males who fall in the twenty-six to thirty-five age group. Of particular interest is the large number of applicants who possess the Doctor's degree.

REASONS FOR APPLYING

In many cases those applying gave reasons for their interest in the two-year college. In order of frequency the reasons given were as follows:

1. Desire to play a part in developing a new institution.
2. Desire to teach rather than do research.
3. Possibility of advancement in a new institution.
4. Desire to leave the city.
5. Desire to be part of an "experimental" college.

Salary considerations were not often mentioned, but the fact that beginning salaries at Selkirk College were markedly higher than those which young teachers could expect to receive at universities obviously was a factor in their decision to apply.

FACULTY ACTUALLY APPOINTED DURING THE TWO-YEAR PERIOD

An analysis of the curriculum vitae of those who were actually appointed to the college over the two-year period of its operation reveals

the following information:

SEX	
Male	68
Female	8
AGE	
20 - 25	13
26 - 35	50
36 - 45	8
46 - 55	7
56 - 65	-
Total	78

TOTAL NUMBER WHO HAVE PUBLISHED 34

TOTAL NUMBER WHO HAVE RECEIVED AWARDS 62

LAST UNIVERSITY ATTENDED

U.B.C.	31
University of Alberta	10
University of Toronto	5
University of Manitoba	3
Rennseler Polytechnic	1
Brown University	1
University of Saskatchewan	1
Oregon State University	2
Univ. of Southern California	1
Duke University	1
B.C.I.T.	1
Christ Church Teachers' C.	1
University of Washington	1
McGill University	1
Sheffield University	1
Michigan State University	1
University of Utah	1
Dalhousie University	1
University of Bonn	1
Queen's University	2
Univ. of Alaska	1
University of New York	2
Cornell University	1
Toulouse University	1
Missouri University	1
Harris College	1
Punjab University	1
Leyden University, Holland	1

PRESENT FACULTY AND ASSISTANTS

The present staff complement of Selkirk College totals sixty-one persons. Of these, three are administrators and four are full-time counsellors (one of whom is an employee of the Canada Manpower Division). Also included in the staff complement is one full-time librarian and six laboratory demonstrators.

Eight of the present faculty hold the Ph.D. degree; thirty-seven hold Masters' degrees, and four are at the Bachelor's degree level. The remainder possess diplomas or certificates appropriate to their particular area of work.

Twelve of the present faculty members have teaching experience at the secondary school level, although only four of them came directly to the college from the secondary school. Nineteen came directly from university teaching or upon completion of post-graduate degrees. Three came from technical institutes and twenty-seven left industry or other professions to join the College faculty.

Of the present staff only five are female. The average age falls within the twenty-six to thirty-five year range.

GUIDANCE SERVICES

An increasingly important part of the total organization of the American junior college is that of guidance services. Experience has pointed up the need to accentuate these special services since students attending the two-year college tend to be much more diverse in terms of interests, needs and abilities than are their counterparts in the universities. Guidance and counselling services, therefore, assume far greater importance in the junior colleges than in the senior institutions.

THE FUNCTION OF GUIDANCE

Guidance services may be defined as those individualized and group aspects of the educational programme which are designed to help each student reach his full potential in the areas of educational, vocational, and personal-social development. They are intended to help prepare him to assume increasing responsibility for his decisions and plans and to understand and accept the results of his decisions and plans.

The individual student is of central importance to the guidance services, for these services are established for the purpose of helping each student attain his maximum potential within the framework of the total college population and environment. The student's problems, adjustments, and progress are considered to be of major concern to the guidance counsellors.

The point of view of an effective guidance programme may be explained more specifically as that which aims to help the individual student:

(a) understand himself, his strengths and weaknesses, in the process of self-fulfillment;

(b) develop and make the most of his potential abilities, interests, and other qualities;

(c) meet and adjust satisfactorily to new and unfamiliar situations;

(d) develop as a citizen and make his own unique but useful contribution to society.

Guidance must first be thought of as an on-going process which centres upon the individual student. Its second concern is with groups of students, both large and small, and other larger populations as they contribute to individual growth.

Counselling, which is the heart of the guidance programme, should not be thought of as an attempt to change the student directly, but rather to help him toward making sound and realistic plans for himself. It is the student who must live with his decisions, not the counsellor or teacher. As Gilbert Wrenn in The Counsellor in a Changing World states, "In many respects, the best expert on the student is the student himself, and the counselling service must help him become a more qualified expert - less biased, less self-deceptive, more knowledgeable".[246]

Most experts in the field agree that guidance is based upon a belief in the dignity and worth of the individual. This point of view should not imply that the needs of society must be neglected or disregarded. It does mean, however, that individuals will better meet these particular needs if they are educated to the fullest possible extent according to their abilities and interests.

Guidance services are for all students. It does not follow, however, that guidance services should attempt to meet all the needs of all students. Nor does it mean that they should be concentrated on special groups of students with special types of problems. The services may be at one time directed toward all students or a large group of students with special concerns, such as admissions testing. At another time they may be directed toward small groups or with individual students, each according to his needs. These needs may include making educational plans, helping alleviate adjustment difficulties, or providing placement assistance.

Guidance services are an integral part of the total educational

246 C. Gilbert Wrenn, The Counsellor in a Changing World, The Commission on Guidance in American Schools, Washington, American Personnel and Guidance Association, 1962, p. 143.

programme of the college. The services are made available not only to students, but also to teachers and administrators who may then directly or indirectly aid the students. They share with the total educational effort of the college the goal of helping each student develop toward his fullest potential.

Guidance is only one of several student personnel services but it is at the heart of these services.

The need for guidance services is becoming increasingly obvious in terms of the tremendous growth in world population. The population of the world almost doubled from 1900 to 1960. It is expected to double again by the year 2000. Much of this population increase is occurring among youth who are reaching working age. Competition for education and for jobs will soon reach fierce proportions among this age group.

Increasingly, education is being emphasized for all those who can profit from the kind of education best suited to their talents. Although enrolments are increasing in colleges, we must not infer that anyone will be able to get an education just because he wants it. The implication is clear that interested students must demonstrate competence in order to continue with their educational plans. But education cannot be limited only to the academically talented. It must be provided also for those who are going to be the country's skilled technicians and draftsmen. Students need assistance in discovering the type of education which will be most profitable to them personally. Society is placing an ever greater responsibility on educational institutions to provide this assistance.

Youth is increasingly facing a world of change, of new conditions, of new opportunities, of new jobs, and possibly of changing values. Learning to appreciate these factors will certainly require highly developed skills and new attitudes.

There is evidence in literature and in practice that the terms "Student Personnel Services", "Guidance Services", and "Counselling" are used interchangeably. Some of the difficulty stems from the narrow interpretation of these terms.

The term "Student Personnel Services" at the college level has come to mean the broad, overall cluster of special, non-instructional services to students. These services are carried on in close co-operation with the College faculty. All members of the teaching force serving in specific roles provide assistance to students in their educational, vocational, and personal-social development. There seems to be agreement among leaders in the field that "Student Personnel Services" include the following:

1. ADMISSION AND REGISTRATION
   Provision is made here for accepting and processing applications for admission and arranging for the registration and programming of students in courses of study.

2. STUDENT PERSONNEL RECORDS
   The maintenance of comprehensive and accurate records are essential to effective functioning of the programme. They will include results of achievement and standardized psychological tests, academic record, summaries of significant interviews, record of unusual behaviour and of strengths and weaknesses, records of extra-curricular activities, and pertinent background information.

3. HEALTH SERVICES
   These may include whatever services the College provides for dealing with the physical and mental health of students. Part-time physician and nurse assistance is provided to deal with the health needs of students. Usually such services will be confined to diagnosis and education rather than to treatment which should be performed by private practitioners.

4. STUDENT ACTIVITY PROGRAMME
This programme embraces the organized extra-curricular activities conducted outside of classroom time and is designed to increase the student's personal and social development. It is generally operated under the supervision of a faculty sponsor. Some of the activities include student government, subject matter clubs, hobby groups, and intramural athletics.

5. LIAISON BETWEEN THE COLLEGE AND THE COMMUNITY
Liaison work includes informing the community concerning student personnel services, maintaining contact with community agencies, and making surveys that may aid in improving the effectiveness of the personnel programme and the College.

6. FINANCIAL AID
Financial aid programmes are developed to offer assistance to students in the form of scholarships, bursaries, loans, and part-time employment while in college.

7. GUIDANCE SERVICES
These services make up the major part of the student personnel services and are described below.

The term "Guidance Services" may be thought of as the heart of Student Personnel Services; they make up the major part of such services at the college level. They include all those activities which help the student to grow in self-understanding, to make wiser choices, and to do better planning. The following are a number of services that make up such a guidance programme:

1. ORIENTATION OF STUDENTS
Orientation programmes are developed to introduce new students to the College and to acquaint them with College procedures and requirements.

2. INDIVIDUAL INVENTORY OR APPRAISAL
This service involves the primary appraisal programme of the College which emphasizes the collection of data that help to identify the uniqueness of the individual student. It will include gathering, recording, interpreting, and making available test data and other information about students which will be useful to those teaching and counselling them.

3. INFORMATION SERVICE
Collecting, maintaining, and providing accurate and up-to-date educational and occupational information is vital for the effective guidance of students.

4. PLACEMENT SERVICE
This service is developed to aid students in post-college activities such as selecting and obtaining appropriate full-time or part-time employment or in entering the next appropriate educational classes, programme, or institution.

5. FOLLOW-UP OR EVALUATION
Through this service the College can learn about the progress or lack of progress of the student while he is in college and later while he is in another institution or at work. By means of a follow-up programme the College can discover the student's problems, successes, and failures, and can also obtain suggestions for improvement of guidance and other College services.

6. COUNSELLING
This service makes up the major part of the guidance services.

The term "Counselling Services" may be thought of as the most important part of, or the heart of, the guidance programme. This service entails direct, interpersonal relations between the counsellor and the counsellee. It is a process whereby the counsellor makes use of all the resources of the College or other agencies. It is a process which is approached on an individual basis by means of the interview and other techniques. The interview is basic to the counselling process and involves direct face-to-face discussion between the counsellor and counsellee.

In designing the guidance and counselling programme, the faculty of Selkirk College has been mindful of the principles outlined above. The guidance services at the College attempt to aid students in relating out-of-class activities to the College instructional programme, and to assist them in deriving greater benefits from their university experience. Professional services, staffed with competently trained personnel, complement the academic programme.

These services include: the Individual Inventory Service, the Information Service, the Counselling Service, the Placement Service, the Follow-up Service, the Testing Service, STudent Activities, Student Health

Service, Student Housing, and Student Transportation.

The Individual Inventory

This service occurs with an accumulation of information on each student at Selkirk College from the time of his application until his departure. The gathering and maintaining of a body of facts facilitates self-understanding on the part of the student, and enables the faculty to have access to a growing synthesis of information about an individual. In addition to the use of forms as a means of gaining data, other sources of information include: individual interviews, group counselling, the testing programme, faculty, the peer group, and secondary schools.

The Information Service

The Information Service is presented through the collection, storage and dissemination of the following: educational information, occupational or vocational information and personal-social information. This service is provided to the individual in order that he may apply what he knows about himself to the existing conditions within his environment.

The Counselling Service

As has been suggested above, the Counselling Service is usually considered to be the heart of the guidance services. It is that part of the guidance programme that provides a person-to-person relationship between a person who seeks understanding of self and/or his world, and a professional specialist skilled in the attitudes and techniques necessary to help the individual in the relationship achieve understanding.

Although theorists do differ in their approaches to the process of counselling, there appears to be a consensus that counselling is basically a learning process. The counsellee within the counselling situation

is learning about himself and the world in which he lives. The Counselling Service at Selkirk College is open to both students and the public between the hours of 9:00 a.m. and 12:00 noon, and 12:30 p.m. to 4:30 p.m., Monday through Friday. Every effort is made to make available two counsellors during these hours. In addition, group counselling has been introduced on a regularly scheduled basis during the 1967-68 term.

The Placement Service

Placement is that aspect of the Guidance Services which asists students in taking successive steps towards his goals whether they be educational or occupational ones. It implies the satisfactory adjustment of the individual to any appropriate situation. To this end placement is considered to include educational placement, both within Selkirk College and beyond, and occupational placement both while in attendance at the College and after leaving it. Two major phases of this service are articulation and orientation.

The Follow-up Service

This is a plan by which the experiences or status of students who come to Selkirk College and who leave (both transfer and graduates) are investigated or surveyed. This service sees the provision of information to secondary schools in the participating school districts on their students enrolled at Selkirk College. Students transferring to the universities in the Province will also be followed up to determine the mobility and achievement of former college students. The Follow-up Service is a joint or team effort on the part of every member of the guidance services staff.

The Testing Service

The testing programme includes a variety of psychological tests of both an individual and group type. Group tests are required of the student planning to enrol at Selkirk College, whereas individual tests are solely on a voluntary basis. Information gained from standardized instruments are used for purposes of placement by the College and its various faculties. In addition, they are a valuable tool in the whole counselling process. The types of tests used are: scholastic ability, general aptitude, achievement, interest inventories, and personality appraisal.

Student Activities

The student activities which go on at the College represent both the intra-mural and extra-mural areas. Several authors are of the opinion that the activity programme, in conjunction with the counselling service, are the two primary areas in helping the student through this transition period in his life. One of the counsellors serves as Supervisor of Student Activities. His work includes every aspect of the student's life at college except the actual academic instruction and classroom routines.

The Student Health Service

The Guidance Services Department supervises the collection of student medical forms and in co-operation with the College physician supplies the faculty with an information sheet on those students who should be brought to their attention. Routines for first-aid and emergency treatment are co-ordinated as well, and recommendations regarding supplies and improved medical services are made.

Student Housing Service

At this time, student housing is limited to private homes. A list of rentals is made available to students upon request, which includes information regarding location, facilities, and cost.

Transportation Service

This service involves the scheduling of buses to and from the College for those students who must commute and who prefer this means of travel. In addition, the Guidance Services office maintains a student file for "rides wanted" and "rides available". This service allows students to find more convenient means of transportation to the College as well as weekend and holiday trips.

In summary, it can be said that the Guidance Services at Selkirk College are designed to help the College meet its objectives both in terms of its students and of the community at large.

JUNIOR COLLEGE STUDENTS

We come now to a consideration of the characteristics of junior college students. For obvious reasons the one which has been most thoroughly studied is that of academic aptitude. This, of course, is an important factor and one which can be readily measured and compared in the various types of educational institutions.

ACADEMIC POTENTIAL

A number of college aptitude tests have been developed, validated and used by colleges to screen for admission the students with high likelihood of success or as aids in the counselling and guidance of students. One of the best known of these, and perhaps the most widely known,

is the American Council on Educational Psychological Examination which examines fluency in the use of words and skill in the use of mathematics. A more recent test which is gaining in popularity is one developed by the Psychological Corporation, called the College Qualification Test which measures verbal ability, numerical ability, and also attempts to assess the information a student possesses - particularly in the areas of science and social studies.

Using the College Qualification Test, Seashore compared junior college freshmen with senior college freshmen and from his studies drew the following conclusions:

1. The median score for junior college freshmen is near the 25th percentile for senior college freshmen.

2. About 24 per cent of junior college men and 20 per cent of junior college women are above the respective medians for freshmen in four-year colleges.

3. There is considerable overlap of scores. These distributions tell us that there are many junior college students whose scores would be considered superior in senior colleges, and many low-scoring senior college freshmen would also rate low in junior colleges.

4. The difference in favour of the four-year student is slightly greater for women than for men.[247]

Seashore then compared junior college students with those in terminal programmes:

> As would be expected, the scores on a scholastic ability test such as the C.Q.T. are generally higher for the transfer group than for the terminal group ... A large proportion of junior college transfer aspirants is at least as able as the upper three-fourths of senior college freshmen. The terminal students are clearly less (academically) able than the scholastically oriented groups in both junior and senior colleges. Since separate norms are available for terminal and transfer students, each junior college applicant can be evaluated in terms of these two major sub-groupings. Such evaluations are particularly valuable if admission officers have a chance to counsel candidates prior to their entry into

247 Harold Seashore, "Academic Abilities of Junior College Students", Junior College Journal, vol. XXIX, October, 1958, pp. 75-76.

college.[248]

Studies conducted by both Medsker and Thornton using data based on the American College Council on Education Test corroborate Seashore's findings.[249]

From some of these studies it is apparent that although average test scores of junior college freshmen are lower than average scores of liberal arts college freshmen, the range of scores in both kinds of colleges is equivalent. This fact leads Thornton to conclude that:

> it is obvious, in the light of test evidence, that the various kinds of colleges in the American system of diversity are not operated for exclusively different kinds of student abilities.[250]

A number of surveys have been carried out over the years to determine sex and age distribution, marital status, academic aspirations, socio-economic background and the rate of drop-out of junior college students. The findings of these surveys are summarized below.

SEX DISTRIBUTION

On the question of sex distribution, Thornton reports studies which indicate that men students outnumber women students by a ratio of three to one. In the fall of 1958 total opening enrolment of degree-credit students in all institutions included 2,003,424 men and 1,064,993 women - or sixty-five per cent and thirty-five per cent respectively. In the junior colleges the degree-credit figures were 238,105 men and 131,858 women - an exactly similar ratio.. When terminal registrants are included, the ratio increases.[251]

248 Ibid., pp. 78-79.

249 See Appendices (xix) and (xx).

250 Thornton, op.cit., p. 151.

251 Thornton, op.cit., p. 151.

AGE DISTRIBUTION

Surveys of age distribution show that over the years there has been a sizeable increase in the proportion of older students. In 1935 eighty-seven per cent of the students in Wright division of Chicago Junior College were under twenty years of age.[252] But in 1960 Medsker, dealing with 13,300 regular day students in ten junior colleges, found forty-three per cent to be nineteen years of age or younger; ten per cent in the twenty to twenty-two year range; and forty-seven per cent over twenty-three.[253]

Since the number of older students enrolling in junior colleges has increased substantially, it is not surprising to find that the proportion of married students has also increased. Medsker found, for example, that in six colleges reporting on this point, twenty-three per cent of the students were married.[254] Certainly this fact contrasts with an earlier time when marriage was a common cause of expulsion from college.

ACADEMIC GOALS

The literature includes a number of studies and surveys bearing on the academic aspirations of junior college students. All of these support the well known fact that while most students enter the institution with the intention of transferring later to a four-year college, only a small minority actually do transfer. Thornton suggests four reasons why this is so:

1. The American dream - that higher education is right to every youth who will try hard enough.

2. The selective function of the junior college which encourages the student to test himself in college work for comparatively low financial outlay.

252 Loc.cit.

253 Medsker, op.cit., p.43.

254 Ibid., p.45.

3. The paucity of vocational offerings in some junior colleges, so that the student has little choice other than a transfer programme.

4. The failure of community junior college workers to explain early and often to high school students and to their parents the purpose and nature of occupational education in the junior college.[255]

A good deal more research is needed on this critically important question, but there is some evidence which points to a general improvement in the situation. Today it would appear that more students are electing terminal or vocational programmes and a slightly higher proportion of those entering transfer programmes are actually transferring to universities. In 1940, for example, Eells reported that only twenty-five per cent of all entering students in two-year colleges continued their education beyond the junior college, even though almost all of them had planned to do so.[256] On the other hand, Medsker found that thirty-three per cent of 17,627 students enrolled in sixty-three two-year colleges in the fall of 1952 actually transferred to universities, and that between two-thirds and three-fourths of them had entered as transfer students.[257]

In all this there can be little comfort for the college administrator, particularly when he adds to these findings the alarming rate of attrition among junior college students. Data gathered by Thornton from recent issues of the Junior College Directory illustrate the magnitude of the problem.[258]

255 Thornton, op.cit., p. 153.

256 Walter Crosby Eells, Present Status of Junior College Terminal Education, Washington, American Association of Junior Colleges, 1941, p. 60.

257 Medsker, op.cit., p.91.

258 Thornton, op.cit., p.156.

Freshmen		Sophomores		Attrition Percentage
Fall 1955	218,184	Fall 1956	111,858	51.3
Fall 1956	252,850	Fall 1957	131,806	52.1

While it is a fact that many of these students transfer to other colleges at the end of one or two semesters, it is also a fact that as many as ten per cent drop out between fall registration and Christmas vacation.

SOCIO-ECONOMIC STATUS

Studies which have been conducted on the socio-economic backgrounds of junior college students reveal an interesting trend. In 1929 Anderson studied those of 8,330 junior college students and reached the conclusion that "the tax-supported, non-tuition public junior college in California ... has a student body drawn predominantly from the middle to upper social classes".[259] Indeed, his research revealed that the junior college students were derived sixty-four per cent from upper levels and only twenty-four per cent from lower levels. (He did not include agricultural and clerical workers in the distribution). A sample of university students showed eighty per cent and eleven per cent from the upper and lower classes respectively.[260]

A study of the entering class of 1935 at the Wright Campus of Chicago Junior College, conducted by Lide and reported by Thornton, who grouped the data on a basis similar to Anderson's, showed that fifty-eight per cent of the students came from "upper levels" of occupations, and thirty-eight per cent from "lower levels".[261] Medsker, however, studying

259 H. Dewey Anderson, "Whose Children Attend Junior College?", Junior College Journal, vol. IV, January, 1934, p. 168.

260 Thornton, op.cit., p. 155.

261 Medsker, op.cit., p. 41.

the backgrounds of five thousand students enrolled in junior colleges between 1954 and 1957 found that only one-quarter of them came from the higher level and that the largest group (about one-third) came from a skilled labour background.[262] It would seem, then, that the public junior college is beginning to attract able young people from less favoured socio-economic groups.

It is difficult to present a meaningful summary of the most common characteristics of junior college students. Enrolled in two-year colleges across the United States are housewives interested in homemaking, child care, and general culture. There are workers from every walk of life interested in courses to improve their skills in their present work to prepare them for advancement or to allow them to change their present employment. There are those who simply want to develop their avocational interests. There are young adults who have not graduated from high school. There are retired persons seeking to develop new interests. And there are able young men and women beginning their university careers, or learning a trade, or receiving professional training of one kind or another.

Certainly the junior college has considerable distance yet to travel, but there is reason to believe that it is beginning to achieve the purpose for which it exists - "to provide post-high school education for all the children of all the people and for all the people too".[263]

JUNIOR COLLEGE STUDENTS IN BRITISH COLUMBIA

Although experience with students attending the new regional

262 Loc.cit.

263 Thornton, op.cit., p.158.

colleges in British Columbia is still quite limited, an analysis of their performance on the School and College Aptitude Tests provides some interesting and valuable data. A word should be said about this valuable measuring instrument. The SCAT is a test of skills considered by the Educational Testing Service, the publisher of the instrument, to be significant in the performance of college level work. The two main kinds of college-related abilities measured are verbal ability and quantitative ability.

Each test booklet in the SCAT series contains four parts or sub-tests:

1. Sentence understanding.
2. Numerical computation.
3. Word meanings.
4. Numerical problem solving.

Each of the tests yields three scores: a verbal score based on Parts 1 and 3; a quantitative score, based on Parts 2 and 4; and a total score based on all four parts.

The SCAT has the following advantages: (1) specific developed abilities rather than abstract, hard-to-explain psychological traits are measured; (2) the abilities measured have been found to be closely related to success in college; (3) the separate verbal and quantitative scores are useful and meaningful; (4) the recommendations for interpretation of the test take into account the danger of assigning greater accuracy or stability to scores than they really possess; (5) the sub-tests are relatively unspeeded - all but the slowest students can complete them in the time limits allowed; (6) the SCAT is not as threatening as most I.Q. tests, yet provides a fairly good measure of an individual's general ability level.

The SCAT correlates substantially with two intelligence tests, the Wechsler Adult Intelligence Scale (.84) and the Otis Quick-Scoring Mental Ability Tests (.77-.81).

The SCAT is the most popular general ability test used in the United States by junior colleges: 46 per cent of all colleges surveyed by the Educational Testing Service in a recent study use the SCAT (closest rivals are the CEEB-SAT, 25 per cent; the Otis Mental Ability Tests, 23 per cent; and the College Qualification Tests, 23 per cent).

The ETS has found that general ability tests are used in the United States as follows: Guidance and counselling (94 per cent); course placement (51 per cent); service to outsiders (9 per cent); research (6 per cent); selective admission (6 per cent).

The tables which follow provide an indication of the performance of the 1967 freshmen group at Selkirk College on the School and College Aptitude Tests, as compared with the following norm groups: Selkirk College freshmen, 1966; the test publisher's norm group of 1180 students in 99 United States colleges; the University of British Columbia, Arts 1, 1966; University of British Columbia, Science I, 1966; University of British Columbia, Elementary Education I, 1966; University of British Columbia, Secondary Education, 1966.

PUBLISHER'S INDIVIDUAL SCORE NORMS: GRADE 13 (FALL TESTING)

Converted Score	Percentile Band Verbal	Percentile Band Quantitative	Percentile Band Total
340-341		99.5 - 100	
338-339		99.2 - 99.8	
336-337	99.6 - 100	99 - 99.7	
334-335	99.2 - 99.8	97 - 99.5	99.3 - 100
332-333	99 - 99.7	94 - 99.2	99.1 - 99.6
330-331	98 - 99.6	92 - 99	99 - 99.3
328-329	97 - 99.2	90 - 98	98 - 99.1
326-327	96 - 99	88 - 96	97 - 99
324-325	95 - 98	85 - 94	96 - 98
322-323	94 - 97	82 - 92	94 - 97
320-321	93 - 96	74 - 91	93 - 96
318-319	91 - 95	71 - 90	92 - 94
316-317	89 - 94	68 - 87	89 - 93
314-315	86 - 93	63 - 84	87 - 92
312-313	83 - 92	60 - 80	84 - 89
310-311	78 - 91	55 - 74	80 - 87
308-309	75 - 89	48 - 71	74 - 84
306-307	71 - 86	45 - 68	68 - 80
304-305	66 - 83	41 - 63	62 - 74
302-303	60 - 78	37 - 60	55 - 68
300-301	54 - 75	33 - 55	48 - 62
298-299	49 - 71	29 - 48	42 - 55
296-297	43 - 66	25 - 45	37 - 48
294-295	36 - 60	20 - 43	32 - 42
292-293	32 - 54	17 - 39	28 - 37
290-291	28 - 49	15 - 35	24 - 32
288-289	24 - 43	14 - 31	20 - 28
286-287	20 - 40	13 - 27	16 - 24
284-285	17 - 34	11 - 23	14 - 20
282-283	15 - 31	10 - 20	9 - 18
280-281	12 - 25	9 - 17	8 - 15
278-279	10 - 24	8 - 15	7 - 12
276-277	8 - 21	7 - 14	6 - 9
274-275	7 - 18	6 - 12	5 - 8
272-273	6 - 16	5 - 10	4 - 7
270-271	5 - 15	4 - 9	3 - 6
268-269	4 - 12	3 - 8	2 - 5
266-267	3 - 10	2 - 7	1 - 4
264-265	2 - 8	1 - 6	0.8 - 3
262-263	1 - 7	0.8 - 5	0.5 - 2
260-261	0.8 - 5	0.5 - 4	0 - 1
258-259	0.6 - 4	0 - 3	0 - 0.8
256-257	0 - 3	0 - 2	0 - 0.5
254-255	0 - 2	0 - 1	
252-253	0 - 1		
Median	295	305	300
Lower Quartile	286	292	290
Upper Quartile	305	316	307
Semi-interquartile rgs	19	24	17

(Based on 1180 students in 99 colleges in the U.S.A.)

SELKIRK COLLEGE NORMS OF ENTERING COLLEGE STUDENTS FOR THE SCHOOL AND COLLEGE ABILITY TEST (SCAT)

	PERCENTILE		SCORES
Converted Score	Verbal Ability	Quantitative Ability	Total Ability
336 - 337	-	97 - 100	-
334 - 335	99 - 100	93 - 100	-
332 - 333	99 - 100	90 - 99	-
330 - 331	99 - 100	87 - 98	99 - 100
328 - 329	98 - 99	82 - 97	98 - 99
326 - 327	96 - 99	78 - 93	97 - 99
324 - 325	95 - 99	71 - 90	95 - 98
322 - 323	95 - 99	68 - 87	94 - 97
320 - 321	92 - 98	62 - 82	91 - 95
318 - 319	89 - 96	50 - 78	89 - 94
316 - 317	85 - 95	44 - 71	84 - 91
314 - 315	81 - 95	38 - 68	78 - 89
312 - 313	77 - 92	32 - 62	72 - 84
310 - 311	72 - 89	28 - 50	65 - 78
308 - 309	68 - 85	23 - 44	56 - 72
306 - 307	65 - 81	19 - 38	49 - 65
304 - 305	59 - 77	17 - 32	41 - 56
302 - 303	52 - 72	14 - 28	35 - 49
300 - 301	46 - 68	11 - 23	29 - 41
298 - 299	40 - 65	9 - 19	21 - 35
296 - 297	30 - 59	6 - 17	15 - 29
294 - 295	25 - 52	4 - 17	11 - 21
292 - 293	19 - 46	3 - 14	8 - 15
290 - 291	14 - 40	2 - 11	6 - 11
288 - 289	12 - 30	1 - 9	4 - 8
286 - 287	9 - 30	1 - 6	2 - 6
284 - 285	7 - 25	1 - 6	2 - 4
282 - 283	6 - 19	1 - 4	1 - 4
280 - 281	4 - 14	0 - 3	1 - 2
278 - 279	2 - 14	0 - 2	0 - 2
276 - 277	1 - 12	0 - 1	0 - 1
274 - 275	1 - 10	-	-
272 - 273	1 - 9		
270 - 271	1 - 7		
268 - 269	1 - 6		
266 - 267	1 - 3		
264 - 265	0 - 1		
262 - 263	0 - 1		
260 - 261	0 - 1		
258 - 259	0 - 1		
256 - 257	0 - 1		
254 - 255	0 - 1		
252 - 253	0 - 1		
250 - 251	0 - 1		
Median	299	315	306
Lower Quartile	290	306 Q_1	298
Upper Quartile	309	322 Q_3	313
Semi-interquartile rge	19	16 Q	15

(Based on 421 students who entered Selkirk College in September, 1966.)

SCORE DISTRIBUTION SHEET - SELKIRK COLLEGE FRESHMEN TEST
(Administered in Fall)

Converted Score		f	cu.f	PR	Percentile Band
338 - 9	II	2	368	99+	99 - 100
336 - 7		0	366	99	99 - 100
334 - 5	I	1	366	99	99 - 100
332 - 3		0	365	99	99 - 100
330 - 1	I	1	365	99	98 - 99
328 - 9	II	2	364	99	98 - 99
326 - 7	II	2	362	98	97 - 99
324 - 5	II	2	360	98	96 - 99
322 - 3	IIII	4	358	97	95 - 98
320 - 1	IIII	4	354	96	93 - 98
318 - 9	~~IIII~~ III	8	350	95	88 - 97
316 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ III	18	342	93	86 - 96
314 - 5	~~IIII~~ II	7	324	88	81 - 95
312 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~ II	17	317	86	79 - 93
310 - 1	~~IIII~~ IIII	9	299	81	72 - 88
308 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	25	290	79	69 - 86
306 - 7	~~IIII~~ ~~IIII~~ II	12	265	72	66 - 81
304 - 5	~~IIII~~ ~~IIII~~ I	11	253	69	57 - 79
302 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ II	32	242	66	52 - 72
300 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	20	210	57	45 - 69
298 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ III	23	190	52	42 - 66
296 - 7	~~IIII~~ ~~IIII~~ III	13	167	45	33 - 57
294 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ II	32	154	42	26 - 52
292 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	25	122	33	21 - 45
290 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	19	97	26	17 - 42
288 - 9	~~IIII~~ ~~IIII~~ IIII	14	78	21	12 - 33
286 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	19	64	17	9 - 33
284 - 5	~~IIII~~ II	7	45	12	7 - 26
282 - 3	IIII	4	38	10	5 - 21
280 - 1	~~IIII~~ IIII	9	34	09	4 - 17
278 - 9	IIII	4	25	07	2 - 17
276 - 7	~~IIII~~	5	21	05	1 - 12
274 - 5	~~IIII~~	5	16	04	1 - 10
272 - 3	III	3	11	03	1 - 9
270 - 1	IIII	4	8	02	1 - 7
268 - 9		0	4	01	1 - 5
266 - 7		0	4	01	1 - 3
264 - 5		0	4	01	1 - 2
262 - 3	I	1	4	01	0 - 1
260 - 1	I	1	3	01	0 - 1
258 - 9		0	2	01	0 - 1
256 - 7		0	2	01	0 - 1
254 - 5		0	2	01	0 - 1
252 - 3		0	2	01	0 - 1
250 - 1		0	2	01	0 - 1

N = 368
Median = 299
Q_1 = 292
Q_3 = 309
= 17

SELKIRK COLLEGE

SCAT QUANTITATIVE - FALL 1967

Converted Score		f	cu.f	PR	Percentile Band
336 - 7	~~IIII~~ II	7	368	99+	98 - 99+
334 - 5		0	361	98	96 - 99+
332 - 3	~~IIII~~ IIII	9	361	98	90 - 99
330 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ II	22	352	96	90 - 98
328 - 9		0	330	90	85 - 98
326 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ II	17	330	90	81 - 96
324 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~	15	313	85	76 - 90
322 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~ 11	17	298	81	71 - 90
320 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	20	281	76	66 - 85
318 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	19	261	71	55 - 81
316 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	40	242	66	48 - 76
314 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ II	27	202	55	43 - 71
312 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~	15	175	48	35 - 66
310 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ III	33	160	43	30 - 55
308 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ III]	18	127	35	26 - 48
306 - 7	~~IIII~~ ~~IIII~~ II	12	109	30	20 - 43
304 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	24	97	26	16 - 35
302 - 3	~~IIII~~ ~~IIII~~ IIII	14	73	20	14 - 30
300 - 1	~~IIII~~ IIII	9	59	16	11 - 26
298 - 9	~~IIII~~ ~~IIII~~	10	50	14	8 - 20
296 - 7	~~IIII~~ IIII	9	40	11	26 - 16
294 - 5	~~IIII~~ IIII	9	31	8	4 - 16
292 - 3	II	2	22	6	2 - 14
290 - 1	IIII	4	20	5	2 - 11
288 - 9	~~IIII~~ II	7	16	4	1 - 8
286 - 7	II	2	9	2	1 - 6
284 - 5	III	3	7	2	1 - 5
282 - 3		0	4	1	1 - 4
280 - 1		0	4	1	1 - 2
278 - 9	II	2	4	1	0 - 2
276 - 7		0	2	1	0 - 1
274 - 5	II	2	2	1	0 - 1
272 - 3		0			
270 - 1		0			

N = 368
Median = 314
Q_1 = 305
Q_3 = 321
Q = 16

SELKIRK COLLEGE

SCAT TOTAL

Converted Score		f	cu.f	PR	Percentile Band
340 - 1					
338 - 9					
336 - 7					
334 - 5					
332 - 3	IIII	4	368	99+	99 - 100
330 - 1	I	1	364	99	99 - 99
328 - 9	IIII	4	363	99	98 - 99
326 - 7	III	3	359	98	97 - 99
324 - 5	~~IIII~~ II	7	356	97	95 - 98
322 - 3	~~IIII~~ IIII	9	349	95	92 - 97
320 - 1	~~IIII~~ IIII	9	340	92	90 - 95
318 - 9	~~IIII~~ III	8	331	90	88 - 92
316 - 7	~~IIII~~ ~~IIII~~ II	12	323	88	85 - 90
314 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~ III	18	311	85	80 - 88
312 - 3	~~IIII~~ ~~IIII~~ III	13	293	80	76 - 85
310 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ III	33	280	76	67 - 80
308 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	25	247	67	60 - 76
306 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ I	26	222	60	53 - 67
304 - 5	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ II	22	196	53	47 - 60
302 - 3	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	35	174	47	38 - 53
300 - 1	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	29	139	38	30 - 47
298 - 9	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ III	23	110	30	24 - 38
296 - 7	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	30	87	24	15 - 30
294 - 5	~~IIII~~ ~~IIII~~ IIII	14	57	15	12 - 24
292 - 3	~~IIII~~ ~~IIII~~	10	43	12	9 - 15
290 - 1	~~IIII~~ ~~IIII~~	10	33	9	6 - 12
288 - 9	~~IIII~~ IIII	9	23	6	4 - 9
286 - 7	~~IIII~~ I	6	14	4	2 - 6
284 - 5	II	2	8	2	2 - 4
282 - 3	III	3	6	2	1 - 4
280 - 1	I	1	3	1	1 - 2
278 - 9		0	2	1	1 - 2
276 - 7		0	2	1	0 - 1
274 - 5	I	1	2	1	0 - 1
272 - 3	I	1	1	1	0 - 1

N = 368
Median = 304
Q_1 = 298
Q_3 = 311
Q = 13

SCAT NORMS

U.B.C. - ARTS I

Converted Score	Verbal	Quantitative	Total	Total
340 - 341				
338 - 339				
336 - 337		99		
334 - 335				99.3 - 100
332 - 333				99.1 - 99.6
330 - 331		95		99 - 99.3
328 - 329	99		99	98 - 99.1
326 - 327		90		97 - 99
324 - 325	95		95	96 - 98
322 - 323		80		94 - 97
320 - 321	90		90	93 - 96
318 - 319		70		92 - 94
316 - 317	80	60	80	89 - 93
314 - 315	-	50	70	87 - 92
312 - 313	70	40	-	84 - 89
310 - 311	-	30	60	80 - 87
308 - 309	60	-	50	74 - 84
306 - 307	50	-	40	68 - 80
304 - 305	-	20	30	62 - 74
302 - 303	40	-	20	55 - 68
300 - 301	30	10	-	48 - 62
298 - 299	-	-	10	42 - 55
296 - 297	20	5	5	37 - 48
294 - 295	-	-	-	32 - 42
292 - 293	10	-	-	28 - 37
290 - 291	5	-	1	24 - 32
288 - 289	-	1		20 - 28
286 - 287	1	1		16 - 24
284 - 285				14 - 20
282 - 283				9 - 18
280 - 281				8 - 15
278 - 279				7 - 12
276 - 277				6 - 9
274 - 275				5 - 8
272 - 273				4 - 7
270 - 271				3 - 6
268 - 269				2 - 5
266 - 267				1 - 4
264 - 265				0.8 - 3
262 - 263				0.5 - 2
260 - 261				0 - 1
258 - 259				0 - 0.8
256 - 257				0 - 0.5
254 - 255				
252 - 253				
Median	306	313		309
Lower Quartile	299	308		303
Upper Quartile	314	320		316
Semi-interquartile range	15	12		13

(Based on 1318 students at U.B.C., 1966-67.)

SCAT SCORES
U.B.C. - SCIENCE I

Converted Score	Verbal	Quantitative	Total
340 - 341			
338 - 339			
336 - 337		99	
334 - 335			
332 - 333		95	
330 - 331		90	99
328 - 329	99	-	-
326 - 327	-	80	95
324 - 325	-	70	-
322 - 323	95	60	90
320 - 321	-	50	-
318 - 319	90	40	80
316 - 317	-	30	-
314 - 315	-	-	70
312 - 313	80	20	60
310 - 311	70	-	50
308 - 309	-	10	40
306 - 307	60	-	30
304 - 305	50	5	20
302 - 303	40	-	-
300 - 301	-	-	10
298 - 299	30	-	5
296 - 297	20	1	-
294 - 295	10	-	-
292 - 293	-	-	-
290 - 291	-	-	1
288 - 289	5		
286 - 287	-		
284 - 285	-		
282 - 283	-		
280 - 281	-		
278 - 279	-		
276 - 277	1		
274 - 275			
272 - 273			
270 - 271			
268 - 269			
266 - 267			
264 - 265			
262 - 263			
260 - 261			
258 - 259			
256 - 257			
254 - 255			
252 - 253			
Median	305	321	311
Lower Quartile	298	315	306
Upper Quartile	312	326	317
Semi-interquartile range	14	11	11

(Based on 1124 students in Science I at U.B.C., 1966-67.)

SUMMARY OF PERFORMANCE OF SELKIRK COLLEGE FRESHMEN ON THE SCHOOL AND COLLEGE ABILITY TESTS (SCAT) IN COMPARISON WITH OTHER GROUPS

Norm Group	Selkirk 1967			Selkirk 1966			Test Publishers			U.B.C. Art I, 1966			U.B.C. ScienceI,1966			U.B.C. Elem.Ed.I,/66			U.B.C. Sec.Educ./66		
	V	Q	T	V	Q	T	V	Q	T	V	Q	T	V	Q	T	V	Q	T	V	Q	T
Median (50%)	299	314	304	299	315	306	295	305*	300	306*	313	309*	305*	321*	311*	301	310*	304	304*	314	307
Lower Quartile (Lower 25%)	292	305	298	290	306	298	286	292	290	299	308	303	298	315	306	293	303	298	296	307	303
Upper Quartile (Upper 25%)	309	321	311	309	322	313	305	316	307	314	320	316	312	326	317	309	316	309	310	320	313
Semi-inter-quartile Range (Range containing middle 50%)	17	16	13	19	16	15	19	24	17	15	12	13	14	11	11	16	13	11	14	13	10
Number tested	268			421			1180 in 99 U.S.Colleges			1318			1124			277			116		

V = converted verbal score
Q = converted quantitative score
T = converted total score
* Significant difference at the .10 level of confidence or higher when compared with the 1967 Selkirk group.

The data summarized in the foregoing table[264] would seem to indicate that:

1. There is no real difference between the freshmen of 1966 and those of 1967 in terms of potential ability.

2. Selkirk students are about equal to American students in verbal ability, but superior in quantitative ability.

3. Compared with Arts I students at University of British Columbia in 1966, Selkirk College students have significantly lower ability in verbal tasks and consequently lower overall ability. (Arts I students at University of British Columbia had the highest mean verbal score for all faculties in 1966).

4. Selkirk students are significantly lower in all three scores when compared with students enrolled in Science I at University of British Columbia in 1966. (Science I students at University of British Columbia had the highest mean score for quantitative ability and also the highest total score).

5. Selkirk students are about as high in verbal and total ability as Elementary Education I students at University of British Columbia, but slightly higher in quantitative ability.

6. Compared with University of British Columbia students enrolled in Education I at the university, Selkirk students are lower in verbal ability but the same in quantitative ability and total ability.

7. Secondary Education I students at University of British Columbia are about the same as Selkirk students in quantitative and total ability but they scored higher in verbal ability on the SCAT.

8. There seems to be a slightly greater range of ability at Selkirk College when compared with University of British Columbia students, especially in quantitative ability.

The following considerations should be kept in mind when interpreting the information provided by the table: (1) the Selkirk norm group contains all entering freshmen, including technology and pre-technology students. Since separate studies have not yet been made for each division in the college it is impossible to say with certainty that Selkirk Arts I students are definitely lower in verbal ability than Arts I students at the University of British Columbia. The combined norm group tends to depress the median scores

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which may have been made by students in various sub-faculties in the college; (2) the University of British Columbia has higher entrance requirements than Selkirk College.

The following table shows the actual performance of Selkirk College freshmen in each subject in the 1966-67 academic year:

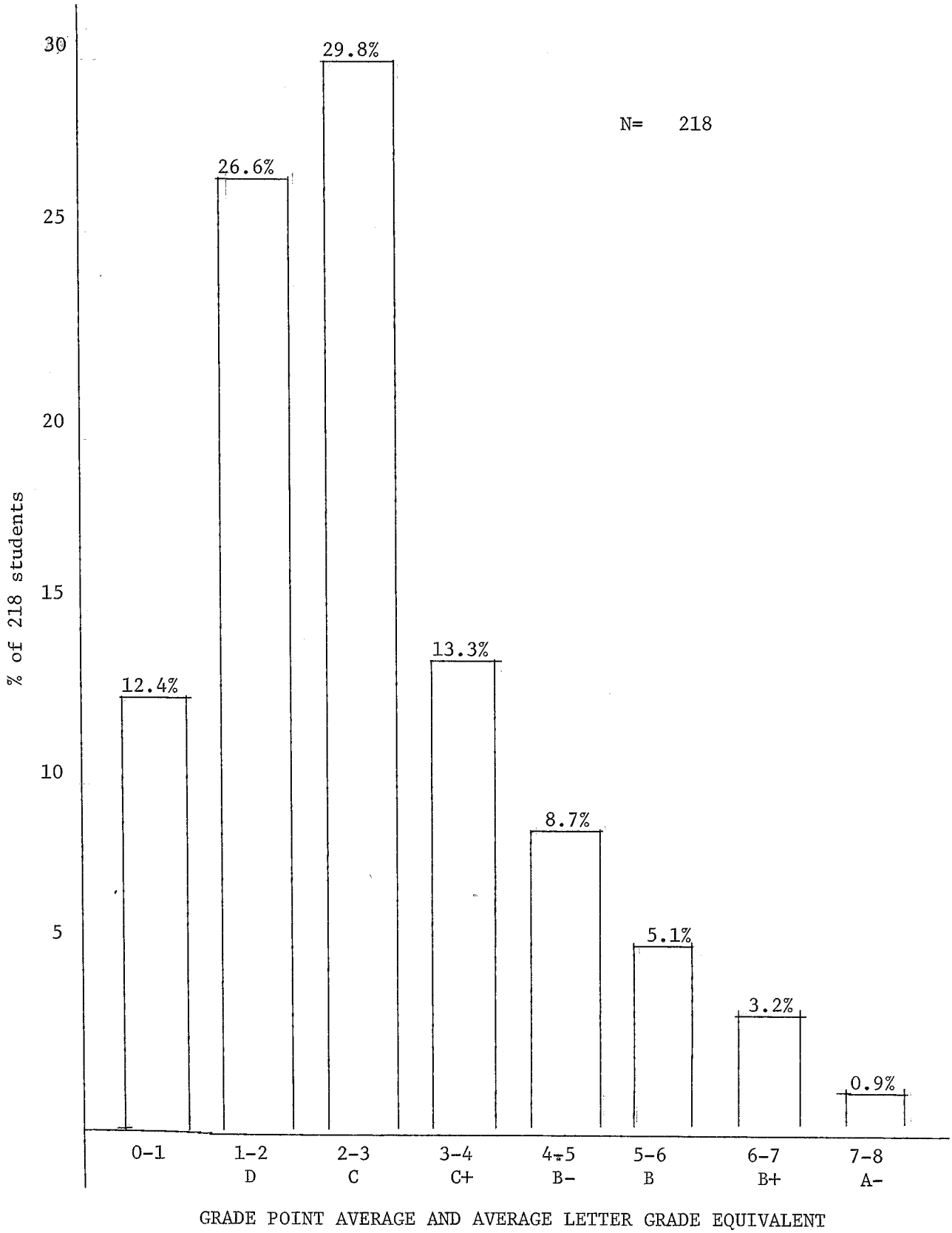
FINAL LETTER GRADE PERFORMANCE OF SELKIRK COLLEGE FRESHMEN IN FIRST YEAR LIBERAL ARTS AND SCIENCE AND FIRST YEAR APPLIED ARTS AND SCIENCE COURSES 1966-67 ACADEMIC YEAR

Subject	No.in course	A	B	C	D	Sup	Fail	With-drew
Administrative Science 150	27	-	7	14	1	-	1	4
Administrative Science 151	23	2	-	7	6	-	4	4
Biology 111	81	3	18	16	9	2	14	19
Botany 150	32	2	7	12	2	-	5	4
Chemistry 111	134	15	30	37	14	-	11	27
Commerce 111	23	-	4	8	4	-	4	3
Drafting 150	74	4	26	17	3	-	-	24
Economics 111	43	5	12	11	4	-	5	6
Economics 150	36	1	5	14	3	-	4	9
Electric Shop 150A	13	2	4	4	1	-	-	2
Electric Shop 150B	4	-	3	1	-	-	-	4
Elec.-Electronic Tech. 150	17	-	1	6	-	-	1	9
Elec.-Electronic Tech. 151	10	1	2	3	1	-	1	2
English 111	222	6	60	79	30	-	44	3
English 112	218	8	57	110	23	-	17	3
English 151	52	2	13	21	9	-	5	2
English 152	18	-	1	5	6	-	5	1
Forestry 150A	36	5	7	13	3	-	2	6
Forestry 150B	27	1	7	9	5	-	5	-
Forestry 151AB	14	2	3	2	2	-	3	2
French 111	100	3	14	25	19	-	14	-
French 112	22	1	9	6	3	-	-	3
Geography 111A	81	-	6	34	15	-	8	18
Geography 111B	63	1	11	17	17	-	17	-
Geography 150A	44	-	3	23	8	-	4	6
Geography 150B	33	1	3	15	7	-	5	2
History 112AB	11	-	1	6	2	-	-	2
History 111AB	55	3	14	16	10	-	6	6
C.P. Mathematics	34	2	-	2	7	-	2	21
Mathematics 111AB	206	7	24	18	62	6	48	41
Mathematics 149AB	39	1	5	5	6	2	13	7
Mathematics 150AB	19	3	3	5	3	-	2	3
Mathematics 151AB	21	2	1	8	4	-	3	3

Subject	No.in course	A	B	C	D	Sup	Fail	With-drew
Mathematics 152AB	13	2	5	1	3	-	1	1
Mechanics 150AB	9	1	2	1	3	-	-	2
Mechanics 151AB	10	1	3	1	-	-	2	3
Physics 111AB	100	9	19	21	16	-	12	23
College Prep. Physics 149AB	23	2	9	5	1	-	-	6
Physics 150	19	2	3	2	3	-	4	5
Psychology 111A	126	2	23	84	10	-	2	5
Psychology 111B	123	6	32	64	6	-	3	12
Russian 112AB	9	4	2	1	1	-	-	1
Sociology 111AB	23	8	3	10	-	-	2	-

Inconclusive as the following graph may be when we consider the relatively short time the college has been in operation, it would nevertheless seem to add validity to a growing assumption that a large percentage of the students entering district and regional colleges will be average or below average in terms of their academic performance. Whether or not this percentage is significantly higher than those we might find at more senior institutions is a matter of further study, but it seems likely that it will be. The implications of these data in respect to the patterns and techniques of instruction which will have to be evolved if effective learning is to take place, require the most careful consideration by those charged with the responsibility of developing the instructional programme.

GRAPH SHOWING GRADE POINT AVERAGES AND AVERAGE LETTER GRADE EQUIVALENTS OF FRESHMEN COMPLETING FIRST YEAR IN SELKIRK COLLEGE APRIL 30, 1967



The following table gives data relevant to registration in the various programmes offered in the College, as well as indicating the places from which students come. It is interesting to note that fifty-nine of the students enrolled come from areas outside of the West Kootenay district. Of these many come from adjacent East Kootenay districts, but a number also have registered from places as far away as Hong Kong, Connecticut, Toronto, Edmonton and Calgary.

It will be observed, at once, that so far the College mainly engages in college transfer work, but it is hoped that the new vocational programmes recently instituted in the secondary schools will appreciably shift the present balance between the Liberal Arts and Science and the Applied Arts and Science programmes.

SELKIRK COLLEGE
ENROLMENT DATA - 1967-68 ACADEMIC YEAR

	Arrow Lakes	Slocan	Castle-gar	Grand Forks	Nelson	Rossland	Salmo	Trail	Outside	Total
LIBERAL ARTS & SCIENCE										
Full time, First Year	5	9	72	13	43	24	4	114	34	318
Part time, First Year			7			2		7	1	17
Full time, Second Year	1	3	27	1	3	6		34	3	78
Part time, Second Year			4					2	1	7
TOTAL	6	12	110	14	46	32	4	157	39	420
Students with Deficient Entrance Standing	1	2	28	3	11	7		28	14	94
APPLIED ARTS & SCIENCE										
Pre-Technical	1		9	8	5	2	2	4	3	34
Admin. Science I			6		5			9	1	21
Admin. Science II			3		3			1	1	8
Electronics I		2	4	2	1	1		3	2	15
Electronics II					2			2		4
Forestry I			4		2	1		7	5	19
Forestry II	1		3	1	4			3	5	17
Mechanical I		1	1	2				4	1	9
Mechanical II			3	1				1		5
TOTAL	2	3	33	14	22	4	2	34	18	132
CONTINUING EDUCATION										
College credit, Day		1	10		1	2		5	1	20
College credit, Evening			63		10	11		37		121
Non-College credit		4	98		13	8		29	1	153
TOTAL		5	171		24	21		71	2	294
GRAND TOTAL	8	20	314	28	92	57	6	262	59	846

The personal data revealed in the following tables gives additional information concerning the types of students presently enrolled in the one regional college now in operation in the Province, and again these data have important implications for the instructional programme which is being developed. For example, a number of students are over twenty years of age; many are working full or part time; a substantial number are deficient in secondary school standing; the majority are male; and a number have already experienced academic failure.

SELKIRK COLLEGE

SUMMARY OF REGISTRATION CARD INFORMATION FOR 528 STUDENTS ENROLLED IN FULL-TIME STUDIES DURING DAYTIME, 1967-68

	No.	%
AGE		
1. Under 18 years old	67	12.7
2. Under 20 years old (18 to 20)	326	61.7
3. Twenty years old or over	135	25.6
	528	100.0
SEX		
4. Male	389	73.7
5. Female	139	26.3
	528	100.0
MARITAL STATUS		
6. Single	505	95.6
7. Married, no children	9	1.7
8. Married, have children	14	2.7
9. Other marital status	0	0.0
	528	100.0
LOCATION OF LAST SECONDARY SCHOOL ATTENDED		
10. Castlegar	112	21.3
11. Nelson	64	12.1
12. South Slocan	15	2.8
13. Grand Forks	26	4.9
14. Rossland	31	5.9
15. Trail	180	34.1
16. Nakusp	8	1.5
17. Salmo	7	1.3
18. Other	85	16.1
	528	100.0

SECONDARY SCHOOL PROGRAMME	No.	%
19. Academic-Technical (New Programme)	146	27.6
20. University (Old Programme)	299	56.6
21. Commercial	10	1.9
22. General (Old Programme)	50	9.5
23. Industrial (New Programme)	20	3.8
24. Other	3	.6
	528	100.0
HIGH SCHOOL GRADUATION COMPLETE		
25. Yes	471	89.2
26. No	57	10.8
	528	100.0
NUMBER WHO HAD ATTENDED ANOTHER POST-SECONDARY INSTITUTION		
27.	32	6.1
NUMBER WHO HAD FAILED IN ANOTHER POST-SECONDARY INSTITUTION		
28.	23	4.3
NEW AND RETURNING STUDENTS		
29. New	334	63.3
30. Returning	194	36.7
	528	100.0
PROGRAMME		
31. Liberal Arts and Science	398	75.4
32. Applied Arts and Science	130	24.6
	528	100.0
TECHNOLOGY		
33. Electrical-Electronics	22	20.8
34. Forestry	42	39.6
35. Mechanical	16	15.1
36. Business	26	24.5
	106	100.0
ACADEMIC YEAR		
37. Pre-Technology	31	5.9
38. First Year	366	69.3
39. Second Year	131	24.8
	528	100.0

PERCENTAGE OF FULL-TIME STUDENTS	No.	%
40. Full-time students	528	62.4
41. Part-time students	318	37.6
	846	100.0
COURSES REPEATED		
42. Students repeating 1 - 2 courses	52	9.8
43. Students repeating more than 2 courses	34	6.4
EMPLOYMENT		
44. Students working 40-hour week	4	.8
45. Students working part-time	92	17.4
TRANSPORTATION		
46. Students driving a car to campus	228	43.2

Brief as this overview has been of the organizational patterns which have emerged in the development of the two-year college, and of the personnel who must be accommodated by them, we can now see clearly that the structures, educational techniques and attitudes which have obtained for so many years in institutions of higher education are no longer entirely appropriate - at least not at this level of education.

The two-year colleges must indeed become "islands of innovation" where imaginative, creative and courageous educational thinkers and leaders will have a unique opportunity to develop new and exciting concepts which hopefully might inject new energy and life into a tired educational system.

CHAPTER VII

PROBLEMS, TRENDS AND PROSPECTS

As we attempt to gauge the future developments of the two-year college in Canada and in British Columbia, it will be useful first to examine both the pattern which has emerged in the United States and the problems and questions which, for the most part, still remain unanswered.

DEVELOPMENTAL TRENDS

In the developments which have taken place in the United States and particularly in California, a number of trends are now clear. In the first place it is obvious that the junior college is here to stay. We can expect more two-year colleges to develop in the next few years; we can expect many of them to expand into multi-campus institutions, and we can expect more students to enrol in them. It is safe to predict, also, that the overall academic calibre of junior college students will improve, as high school standards improve and as universities begin to centre more of their attention on upper class and graduate work. We can look for rapid and dramatic developments in the new area of educational technology, and in plant facilities. It is unlikely that there will be much immediate relief of the problem of teacher shortage.

THE NEW BREED

These are all obvious trends. There are others that are much more subtle, but just as real. It is becoming fairly apparent, for example,

that the American junior college is moving farther and farther away from the philosophy and practice of the secondary school and taking upon itself many of the characteristics of the four-year colleges and universities. This trend is more clearly reflected in the areas of administration, faculty and students. Administrative structures are growing in their complexity and in the numbers of personnel engaged in them. This development means an increasing degree of separation between administrators and faculty. Indeed, a new "breed" of administrator has emerged. By tradition administrators came up through the ranks of teaching - began to assume responsibilities on various committees, were appointed to minor administrative positions and ultimately received senior appointments. But today we are entering the era of the formally trained administrator who may have had little or no teaching experience, and who may have little appreciation of the problems, the whims and the concerns of faculty members. It is true, also, that a new "breed" of junior college teacher has arrived and he is much closer in philosophy to his university than to his high school colleague. Today a growing number of junior college teachers in the United States come from the graduate schools. One is tempted to describe some of them as "educational entrepreneurs" rather than as teachers. Often they are interested in research, in publishing, in acting as consultants and in moving into administrative posts. Moreover, they are becoming increasingly insistent in their demands for a larger voice in college government. It is not an exaggeration to say that in many colleges in the United States, and probably in many in Canada, there is mounting tension between teacher and administrator. Finally, we must realize that a new "breed" of student has emerged. Not many years ago colleges assumed a kind of <u>in loco parentis</u> role. It disciplined its students, made certain demands of

them and expected a certain standard of behaviour. This function is no longer performed, particularly in community colleges where most students continue to live at home. Today students are dissatisfied with the traditional relationships which have for so long existed between them and their instructors and administrators. They too want a voice in college government and most of all they want freedom. Witness the recent incidents at the Berkeley campus of the University of California. In some colleges students actually sit with faculty as members of administrative committees.[265] Finally, there is today a new interest in higher education as more and more people begin to seek from it the answers to the critical problems which beset contemporary life. Among these we might include the revolution in cybernetics, the increase in the amount of leisure time, the population explosion, the control of nuclear arms, the growing tension among the races and the clash of ideologies. All of these bear directly upon the life of the individual, filling him with doubts and uncertainties and fears, as he seeks to find the relevance of old moral and ethical codes to a world which has changed completely.

QUESTIONS TO BE ANSWERED

Today we live amid ideas that have never before existed on earth, and it is within the context of these ideas that education must make its way. Surely this means that the junior college, dedicated as it is to the task of educating the whole community, has a special mission to fulfil. Yet as it charts its course, it must find the answers to many troublesome and perplexing questions. Let us list some of them:

1. Can and should the junior college retain the "open door" policy?

262 Such is the case at Antioc College in Ohio and a number of other post-secondary institutions.

2. Should the junior college develop more comprehensive curricula, or should it begin to restrict its offerings?

3. Can a college simultaneously provide college transfer-programmes of high quality as well as vocational technical and community service programmes? In other words, is "comprehensiveness" possible?

4. How can the junior college stimulate status for and acceptance of vocational and technical programmes?

5. Can the educational programmes of two-year colleges be co-ordinated with those of the university so that students may have a meaningful four-year educational experience?

6. What types of community service programmes can be provided by the two-year college which are compatible with other educational functions and of significant value to the community?

7. What types of personnel services should be developed to best serve the needs of today's students?

8. How can the college adapt its programmes to rapidly changing occupational and educational needs and still retain order and stability within the institution?

9. How can the junior college adapt its programmes to the wide differences in abilities, motivations and ages of its students?

10. What are the distinctive roles of the two-year college which are not merely reflections of either the secondary schools or of the four-year colleges?

11. Can the junior college develop educational leaders with energy and foresight to bring such colleges to their maximum potential?

12. Is the generally accepted pattern of administrative organization of the two-year college appropriate to its educational mission?

13. What roles should the faculty and the students play in the administration of the college?

14. Can the two-year college retain internal flexibility of administration, and of its programmes in the face of increasing size and complexity?

15. Can adequate financial support be secured to insure both high quality educational programmes and services and the necessary diversity of programmes required to meet local and national needs?

16. What is the minimum level of financial support necessary for sustaining the multiplicity of programmes in the college?

17. How should the operating costs be distributed among students, local sources and state and federal governments?

18. What is the optimum distribution of resources within the college to ensure effective and balanced instructional programmes and other educational services; e.g., counselling, guidance, and community services?

19. What roles should business and industrial communities play in influencing the educational programmes of the junior college?

20. Will the junior college continue in its present form or will it prove to be a transitional institution designed to become a vocational, technical, or trade school?

21. What are the general images of the two-year college held by its faculty and students and by the community? How do these perceptions affect the functioning of the college?

22. Can the two-year college attract and hold qualified faculty members who understand and accept the college's purpose and function?

23. What is the impact of the bureaucratic structures of large institutions on students and faculty?

24. Will the new educational technology "dehumanize" education?

25. Can students really find"community" in large institutions?

26. What "testing" programmes should be established for most effective screening or streaming?

27. What, if any, special procedures must be followed in grading the examinations of junior college students?

28. Can commuting students participate fully in the student life of the college?

29. Will community rivalries which have existed over many years adversely affect student relationships in regional colleges?

30. Should business techniques and philosophy be employed in running a junior college?

31. What effect will an "immediate public" have on a community or regional college?

32. Can a community college retain its independence and safeguard its academic freedom?

33. How best can the transition between the high school and the university be effected?

34. Should junior colleges continue to offer the associated arts or science degrees?

35. Should any attempts be made to inculcate spiritual values?

Only when the appropriate answers are found to these and other questions will the junior college really come of age.

THE TWO-YEAR COLLEGE IN CANADA - QUESTIONS FOR CANADIANS

These questions which have been troubling American educators over a period of thirty or more years are now very much in the minds of Canadians as they seek to develop the two-year college in this country. But they have only begun to grapple with some of them and others will have to be left to the future.

Indeed it is true to say that many of the questions now concerning college councils, administrators and faculty are identical with those which were so ardently debated three decades ago in the United States. We need only to re-read Walter Eell's perceptive article, "What Manner of Child" to realize the truth of this statement. To anyone, for example, who has studied the growth and development of the junior college in the United States, the question: "Shall the Canadian junior college be an extension of the high school or the lower division of the university?" is all too familiar. And there are many other questions which appear with similar frequency which could be cited. What seems surprising is the reluctance on the part of Canadian authorities to learn from the American experience. Prevalent among our educators is the assumption that most American institutions of learning, with the exception of a few very famous ones, are somehow inferior in quality. We often see this attitude explicity stated in national or provincial newspapers. The junior colleges of California,

Washington and Oregon, for example, have over the past year been labelled "dead end" institutions, and Canadian college authorities have been exhorted to view them as being "very far from satisfactory models". These statements are almost always made by persons who have had no direct experience with the American junior college, and are simply reflecting a bias which is deeply embedded in our educational tradition.

Undoubtedly this attitude has helped to retard the development of the two-year college in Canada and in British Columbia. One of the major and most difficult tasks facing those who feel a commitment to the college movement here, will be to break down these biases and false assumptions.

In recent months press comments have called attention to the government and financing of the new regional colleges in British Columbia. It has been alleged, for example, that the colleges must be removed from school board control and taken over by the provincial government. It has been suggested that present financing arrangements are unfair and impractical. Certainly there are troublesome problems which ultimately must be dealt with. Yet the better part of wisdom might be for Canadian educators to concentrate their attention, skills and experience first on the institution itself, and what goes on inside it, attempting to "make-do" with the facilities they now have and the situation as it now exists, while they set about to prove by the unique services they can offer the worth of the institution even in the face of difficulties which are all too readily conceded to be insurmountable. If the two-year college fails in this province it will be because it has not been able to demonstrate its potential value to the people of the community it purports to serve. Burdened as they may be with external problems, dedicated administrators and faculty can nevertheless begin to develop some

public appreciation of the institution's potential worth if they will recognize and seriously come to grips with some crucial problems which lie within the institution itself.

What are those problems? First and perhaps most difficult of all is the vitally important matter of achieving "comprehensiveness". This is not a problem which will be easily solved. As has been suggested earlier, Canadian educators are prone to assign traditional "academic values" to certain courses and to deny them to others. This attitude threatens one of the fundamental concepts of the two-year college - that of flexibility in curricular offering. One of the stated purposes of the institution is to meet the needs and interests of any student who completes twelve years of public education, no matter what programme he has followed. Must a college administrator constantly face the problem of deciding whether or not a given area of study is of collegiate standard and hence appropriate to an "institution of higher learning", or will he have the freedom to implement those courses which obviously meet the academic qualifications and the occupational goals of a substantial number of incoming students? A question to be asked and answered.

If he decides to "fly in the face" of traditional prejudices, and offer the course not blessed with "academic respectability", he will encounter a number of related problems. First of all his action bids fair to divide his institution into first and second class academic citizens. If he has ever served in one of the province's secondary schools he will be familiar with this condition, and he will find that by far the greatest

majority of his students, irrespective of their academic potential, will elect the academic or transfer programme. No one wants to parade the fact that he is a second class citizen. Most students would prefer not to come at all!

As will be discussed in more detail later, he will also have difficulty in finding qualified teaching personnel to give the non-academic courses.

But another and even more serious problem related to the comprehensive ideal faces him. His action may well place in jeopardy the academic reputation of his institution, particularly in the thinking of the concerned university officials. A college that might stoop to offer "cosmetology" or "television repair courses" can hardly be considered a "scholarly" institution and therefore its overall standards might well be open to question and concern. This is the kind of attitude he can expect to encounter and it must give him pause to consider very carefully the action he must take. If he does not offer a wide variety of courses,he denies needed education to quite a large group of incoming students who are not intellectually equipped to handle purely academic work. On the other hand, if he does offer these programmes he may threaten the scholastic careers of his transfer students since the receiving universities may not be prepared to accept their college credits. An unhappy dilemma surely!

The degree to which he is able to make his institution "comprehensive"is, of course, the degree to which its door can be opened. Under the terms of the school act, the district and regional colleges are authorized to offer the first two years of university work and other courses which may be "deemed desirable" to meet the needs of the community.

If the college administrator dare not offer those "other courses" without threatening either the reputation or the purpose of the institution, then he must close the door on all students who have not met traditional university entrance requirements. On the other hand, if he must limit those "other courses" to ones which involve highly technical knowledge, skills or concepts, he can open the door only partially and allow to enter only the best graduates from the new vocational programmes. We cannot make scholars or high level technologists out of students whose bents are not in those directions, and we have no right to open wide a college door that can lead only to failure. How "comprehensive" will the academic community, the community at large, and the university officials in particular, allow the regional or district colleges to become? This is the first major question to which the college administrator must find an answer.

A second major question concerns the recruitment and retention of fully competent faculty. It is obvious that college teachers must be academically able people. They must have acquired a mastery of their subject and they must be deeply committed to it. Surely college freshmen and sophomores deserve teaching that is every bit as dedicated, thorough-going and inspirational as that required by more senior students. In truth, the first and second year students probably require it more.

Considered as a group, faculty who have the needed scholastic qualifications prefer to work at the more senior academic levels where they can more easily conduct research, keep abreast of their field, work exclusively in their narrow and specialized area of interest, and write or carry out other scholarly activities. In the colleges, the teaching loads tend to be heavier than those of the university professor, the work is of a

more general nature, and the faculty do not have the stimulation of graduate students to spark their interests in higher endeavours or to assist them in their research. It is not surprising, therefore, that a good many college teachers are quite young and in the beginning stages of their careers. It is also logical to assume that the majority of them will not remain long at the college level. They may come in the first instance to gain teaching experience and because the salaries are generally higher than those they can command in their early years at the universities. After a few years their tendency will be to move away. This tendency on the part of college faculties will obviously create a somewhat unstable situation for the college administrator who particularly needs a continuing hard core of competent teachers and who will face the problem of "breaking in" large numbers of new instructors each year.

But this is only one of his problems insofar as faculty is concerned. Another and more difficult one is that of finding college teachers who understand and accept the basic philosophy of the two-year college movement. The problem does not, at least at the present time, centre in a limited teacher supply. As we have noted earlier, Selkirk College received well over two thousand applications in its first two years of operation. The problem is to find the right kinds of teachers. College teachers must be people who possess rather special qualifications. They must not only be the masters of their discipline, they must have more of the missionary zeal for "education" in the broad sense than is commonly found among senior academics. In the small colleges in particular, they will be required to teach students who are bound not for the universities, but for occupations; and college teachers must want to teach these students

and be willing to do so with the same enthusiasm they would demonstrate in teaching the university-bound group. Not all of those who aspire to teach at the college level possess these special attributes. Finding and retaining the special kinds of teachers required by district and regional colleges is, then, another major problem which must continue to engage the attention of administrators.

Yet another is that of articulating the programmes offered at the college with those of the secondary school and of the university. Obviously the college is part of a total educational system. One of its functions is to bridge the gap between the high school and the university. In doing so it must work towards an integration of the work carried on in both institutions - something which has long been needed in this province. The courses given in the district or regional colleges should follow naturally and smoothly those given in the secondary schools. A course in first-year college mathematics, for example, must not involve concepts which secondary school graduates have not the background to understand. On the other hand, the course must be of sufficient standard to prepare adequately those students who may transfer into the second year university course at the end of their first year. College faculty, department heads and administrators must, therefore, keep constantly in touch with both institutions. They must be aware of changes in curricula, of subject content, and of standards. It is true, of course, that this need for close articulation has always been present. But in the district or regional college the situation is complicated by two factors. In the first place the colleges may be located at considerable distance from the university and find it difficult to keep as closely in touch as they must.

Secondly, the college may transfer its students into several different universities, the individual departments of which vary in their entrance requirements not only with those of other universities, but very often with those within their own university as well.

If difficulties exist in achieving the effective articulation of university transfer courses, the problems are even more acute in the case of vocational and technical programmes. Here again, the college must attempt to build courses which allow for a smooth flow, in this instance from the new vocational programmes recently implemented in the secondary schools to the technical programmes which are being developed in the college. But if the college hopes to keep the way clear for the transfer of its students from its technical programmes into those of an institution of higher technology (B.C.I.T., to take one example) it must make certain that its courses are of adequate standard to facilitate that transfer. On the other hand, the college may wish to ensure that its technical graduates are sufficiently well trained in their separate disciplines to meet the requirements of several outside accrediting bodies, for example the Society of Architects and Engineering Technologists, the Registered Foresters Association, the Certified General Accountants, or the Chartered Accountants. The requirements of each of these institutions or agencies are likely to vary markedly, but the curriculum planners in the college cannot hope to offer a great number of courses at a great number of different levels. They must, therefore, attempt to find some common ground through the development of core courses - a very difficult task.

The matter of achieving articulation raises yet another problem for the college - that of achieving and retaining autonomy. No college

can hope to live in splendid isolation. As we have already suggested, it must be part of a total educational system. At the same time it would like to be master of its own fate. It may be recalled that President John Macdonald, in his report Higher Education in British Columbia and a Plan for the Future, stressed the point that strength in any institution is closely associated with autonomy in the making of essential decisions affecting the institution's operations. "It is virtually impossible to build a strong institution of higher education unless it is given the maximum of self-determination in its operations".[266]

The district and regional colleges will not find it easy to remain autonomous insofar as their curricular offerings are concerned. Placed between two well established systems of education they will very often find themselves pulled in two directions at once. Curricular changes in a state system of education come about slowly. The colleges may be instrumental in bringing about needed changes in secondary school curricula, but they must be prepared to be patient. In the meantime they must build on that curriculum courses which will meet the requirements of the senior institutions, be they academic or technical, and of the various accrediting agencies. But if they do so, can they be assured that their students will be accepted if they should choose not to offer courses which are parallel to those given in the senior institutions? A question to be asked.

A final problem is that of determining the place of the regional and district colleges in the educational system of the province. That it is an institution existing between the high school and the university is obvious. But what is its relationship to the vocational schools and the technical institutes? What relationship does it have with other training

266 John B. Macdonald, op.cit., p. 22.

agencies - for example, apprenticeship training programmes? Should it see itself mainly as a transfer institution both in terms of academic and technical programmes, or should it seek to develop a number of terminal programmes and if so, what should those programmes be? To date there have been few attempts made to seek satisfactory answers to these questions.

We can sum up our discussion to this point by setting out the problems we have identified in five questions:

1. Can the district and regional colleges achieve comprehensiveness?
2. Will the colleges be able to recruit and retain faculty who possess those special qualities or that particular philosophy which can best serve college students?
3. How can the colleges best achieve the articulation of their courses with those in the secondary schools and with those in the university or other institutions or agencies of higher education?
4. Can the colleges achieve curricular articulation and still remain autonomous?
5. What is the place of the district and regional colleges in the total educational system of the province?

To find the answers to these questions is of first priority in the orderly development of the two-year colleges in British Columbia. The problems inherent in them cannot be solved by money alone, although some of them can be alleviated. Nor will they disappear with a change of management. We must first clarify our thinking with respect to our expectations. Having done so, we must seek the necessary commitments from governmental agencies and academic or technical institutions. And finally, we must set about in a quiet and orderly fashion to find the answers to our problems and to show the institution's worth. With these steps taken, we will be in a better position to gauge our future needs in terms of finance and management.

A NEW DESIGN FOR POST-SECONDARY EDUCATION

It is still too early to suggest final solutions to some of the major problems we have raised. Only time and experience will reveal their true character and magnitude. But only as we dedicate ourselves to their solutions will we begin to shape the precedents which give hope of equipping a sufficient number of our young men and women for lives of responsibility and leadership in a world more demanding of these qualities than at any other time in its history. Our task is to create a new design for post-secondary education. In this design we must incorporate the best of the concepts which have evolved over the long years in the universities. Of these perhaps the most important is that of academic freedom. This is a term so bandied about, these days, that one hesitates to use it at all. Yet in its original concept, it has an honourable meaning which suggests that ideas and works of the imagination must be studied as far as possible without fear of society's notions of their moral or political dangers. Despite the fact that the two-year colleges will include a growing number of students involved in terminal career programmes, many of which are technological in nature, college education must be guided by more than mere utilitarian purposes. If we seek only the social adjustment of our students to the world in which they must live, we betray them, for the world in itself provides no real standards or values. Like the university, the college must demand "that the student accept a dialectic between his social environment and a cultural environment which crosses it, so to speak, at right angles".[267] In short our task is to educate our students, not simply

267 Northrop Frye, "The Critical Discipline", Canadian Universities Today, George Stanley and Guy Sylvestie, eds., University of Toronto Press, 1961, p. 32.

to process them.

In creating a new educational design for two-year colleges, we have a unique opportunity to excise from higher education much of the snobbery, much of the confused thinking and many of the retrograde, obscurantist and reactionary ways which all too often seem to have characterized the universities in the past. Of these we might mention just two examples by way of illustration. The first concerns the assumption so often made in the university that teaching should be left to take care of itself, that every scholar can teach, and that if he cannot teach there is merely something the matter with his scholarship. It must be admitted that insofar as the university is concerned, this assumption has worked fairly well. The majority of competent scholars are also reasonably effective teachers. On the other hand, those interested solely in teaching often show a lack of any real interest in scholarship - a condition which increasingly isolates them from the classroom as well as every other aspect of university life. It is true also that the really competent student faced with an inarticulate scholar, will simply stop attending classes and work on his own. For these and other reasons the university's practice of regarding teaching as a by-product of scholarship has largely remained unchallenged.

The time has come to challenge this assumption, and it is in the two-year college that the challenge can most effectively be made. We can no longer afford to concentrate our efforts on the relatively small percentage of students who are academically gifted. Important as these few are, they cannot alone keep the wheels turning or solve the problems that threaten to destroy us. The age in which we live demands better

educated and more highly skilled people than has any other age in man's history. But the needs are not only in the areas of technology and commerce. Today we live amid ideas and are confronted by problems which have never before existed on earth. Unless we can equip our students with the kind of critical judgment which will allow them to test out the validity of those ideas and to reject those which are wrong, and unless we can imbue them with a real dedication to seek solutions to those problems, they may descend into a new kind of slavery, more sinister and terrible than that which chained their ancestors.

Judged by the standards we set ourselves, a large percentage of students entering university, and an even larger percentage entering college, are of mediocre academic ability. Yet we might wonder whether our standards are really relevant to the world of today. We might ask ourselves also whether our teaching has been adequate. Do we really know what might be accomplished if we were seriously to set about the task of turning our scholars into better teachers and our teachers into better scholars? Have we not too easily accepted the assumption that teaching interrupts scholarship, and scholarship leaves no time for teaching?

A second example of the reactionary kind of thinking still current on university campuses can be found in our definition of higher education. We have already alluded to the fact that educators are conditioned to believe that certain studies are appropriate to be included under the general umbrella of higher education, and that others must be excluded. We have seen how these concepts were formed in the development of the liberal education tradition with its subservience to a privileged class. There

still persists today a good deal of academic snobbery. One is tempted to dismiss it for what it is. But it is snobbery with serious implications, for it leads to the further assumption, and one completely unproved, that the academic standard of an institution of higher education will fall, or the scholarly tone disappear, if these "other" courses are allowed a place. Practical considerations may suggest the desirability, in larger centres of population, of developing separate institutions specially equipped and staffed to do certain work. This does not mean that one institution is superior to the other. Nor does it suggest that separation is desirable in smaller centres, where diversification of institutions is neither practical nor possible. The regional colleges must be free to serve the legitimate needs of their students. They must be free to become comprehensive without having to suffer the unfair judgment that they are somehow inferior because they are so.

Today we need a new definition of higher education - a definition which will retain what is of worth and discard what is irrelevant and inconsequential. We can no longer afford to indulge ourselves in the kind of educational smugness which fixes its gaze only on the well-ordered plot it cultivates and ignores the wilderness beyond. Our educational responsibility is more and more spreading beyond the institutions and into society at large. There is no part of our educational system of which our present complacency is justified, and little in our current practice which does not call for close and critical scrutiny. We dare not waste our human resources.

TOWARDS A MODUS OPERANDI

Urgent as our needs are, the design we attempt to create cannot be stamped out overnight. Education is a process in which theory and practice broaden down from precedent to precedent. We must build with patience and with care, setting our goals clearly and moving towards them thoughtfully and deliberately. We must avoid the temptation of trying to do too much, too quickly, of involving ourselves in experiments which are not properly designed or controlled. We need time to grow and to prove our worth.

Let us consider the implication of this approach in terms of the fundamental goals we must try to reach. Our first goal is to develop a comprehensive institution of post-secondary education. How best can this aim be achieved? The answer probably lies in progressing one step at a time. We should begin with basic programmes in both the Liberal Arts and Science and Applied Arts and Science divisions, and concentrate our efforts on doing first-class work. Certainly it would be unwise at the outset to attempt to offer too many courses in either programme. We should teach the fundamental courses and teach them as well as, if not better than, they would be taught at a university or technical institute. It would be equally unwise in the beginning to introduce courses which differ widely in levels or standards. To do so would be to run the risk of dividing the students and the faculty into first and second class citizens and of raising legitimate doubts in the minds of prospective faculty and university officials as to the overall standards and goals of the college. Time is needed to demonstrate that the comprehensive ideal we preach can be made to work in practice. Only as we translate this

concept into reality will we earn the confidence and support of the students we teach, the community we serve, the institutions or organizations we send our students to, and the faculty we hope to attract and retain. Words alone are not enough.

A second goal we strive for is excellence in teaching. At all levels of education there is need for a new emphasis on the art and craft of giving instruction. Certainly this need is obvious in the new two-year colleges where faculty will have to cope with a completely heterogeneous student body including students returning to college after a long absence from formal study, students with deficiencies in their academic records, and those in special need of remedial help. Much can be learned from carefully designed experiments with new organizational patterns of instruction (team teaching, seminars, tutorials, special laboratories, workshops and the like). The whole area of the new educational technology needs to be explored. Conscious efforts should be made to put new learning theories and new methods into practice. But these steps should be taken after the needs are identified, the extent of the problems known. We should start with familiar concepts, with practice that has been tested, and then gradually introduce the innovations we require.

In the end everything will depend upon the appointment of able and imaginative faculty members. They must be selected with great care, not only on the basis of their scholarship which must be impeccable, but also with regard to their personalities, their flexibility, and their dedication to teaching. Again we will have to build slowly and patiently, developing a "hard core" of teachers who understand and accept the goals which the two-year college strives to reach and the philosophy which guides it. The recruitment, retention and gradual expansion of this

"hard-core" faculty is of critical importance to the whole regional college movement. Conditions must be such within the colleges that able teachers will be attracted to serve in them. In practical terms these conditions will include salaries which are higher than those young faculty members could normally expect to command at universities; reasonable teaching assignments of not more than fifteen hours per week[268]; opportunities for travel to meetings of learned societies; association meetings, and so forth; and encouragement to engage in scholarly activities such as writing and appropriate research. It is of major importance also that faculty members be given an integral part to play in developing the philosophy, designing the instructional programmes and setting the policies of the new institutions. Under the terms of the present school act, there are no provisions for the establishment of anything analogous to a senate, where part of the decision-making role (particularly that respecting academic affairs) can be assigned in a legal or constitutional way to faculty members. It is essential that college administrators recognize this shortcoming and, until such time as the act is amended, develop the kinds of structures within the college which will give maximum opportunity for faculty involvement.

The achievement and preservation of autonomy is yet another goal before us. Legally the new regional colleges have been granted autonomy; in fact they will not possess it until they have earned the right to have it. We can hardly expect the universities to receive our

268 College faculty should be expected to carry somewhat heavier teaching assignments than their colleagues in universities who, in many instances, will be sponsoring graduate students.

transfer students without examining closely the content of the courses these students have taken, and without some knowledge of the instructors who have given the courses. The controls which the universities exert over the colleges, while not explicitly stated are nevertheless implicit in all matters relating to the transfer of students. In the early stages of the development of a college, such concerns are understandable and even desirable. Time is required for college students to prove that they can perform as well at the third-year level as those who have taken all of their post-secondary work at the university. During this time of testing it might be the better part of wisdom for colleges not to try to become too experimental or avant-garde in the matter of course content or instructional patterns. This approach does not imply that their courses should be carbon copies of those given at the universities. Nor does it follow that the giving of instruction should be limited to the lecture system. It does suggest, however, that in their initial stages of development, colleges should probably be content to offer courses which parallel those of the senior institutions and to show some restraint in the kinds of instructional patterns and groupings they devise.

Once the confidence of the receiving institutions has been gained, the colleges will be in a much safer position to move into newer areas of curricular development, new ways of determining standards, new allocations of time, and new approaches to the individual differences among their student bodies. The colleges have great opportunities to become innovative in the right sense, but timing is very important.

When the time is "right", there are four areas which deserve careful attention. The first of these involves the content of the curriculum,

particularly in the freshman year. Studies underway in other institutions[269] suggest that the curriculum in the first year might very well be drawn from original materials in the fields of politics, social science, philosophy, psychology, the arts, literature, and science dealing with those issues or questions which can arouse real concern in the students:

> Courses should be planned which are not summaries and outlines of fields of subject matter but which deal with fresh and interesting ideas about man and nature society and the individual.[270]

The purpose of a programme such as this is not simply to till the same old ground using somewhat different implements, but "to plunge the student into a world of ideas in which he can become truly concerned".[271] If we give our students the opportunity to work at the things they want to know, they may indeed cover the ground in a more thorough fashion than students in the past have ever done.

A second area where innovation is needed is that of traditional time structures. Students vary markedly in the speed with which they can assimilate knowledge. Obviously some students should not carry a full course load every year. In truth, many are unable to do so and finish their year with one or more failures. For some students failure may prove to be a good experience. For the majority, however, it results in discouragement and the ultimate abandonment of further study. On the other hand, students of ability should not be forced to mark time. They should be permitted to go as far and as fast as their capacities can take them in those special studies in which their aims, motives and interests drive them.

269 The Arts I programme at the University of British Columbia.

270 Harold Taylor, "Individualism and the Liberal Tradition", The Goals of Higher Education, Willis D. Weatherford, Jr., ed., Cambridge, Harvard University Press, 1960, p. 24.

271 Loc.cit.

We must begin to respect individual differences in the development of educational programmes. We have talked long about this. The time has come to act.

The third area where changes should be seriously contemplated embraces several academic traditions which many educators feel have long impeded the educational process. Included here is the lecture system, the academic credit system, and the conventional examination system. Has not the time come to consider replacing these by a combination of discussion methods, independent study, tests of achievement, oral examinations and a greater freedom and responsibility for the individual student?

The fourth area, and one which has been for the most part neglected in institutions of higher education, is concerned with the value of immediate experience as a prime educational force. Too often in the past we have isolated the colleges and universities from the world around them, requiring of our students that they master material which is far removed from their experimental backgrounds and with only remote relevance to the world they live in. The world ought to be regarded as a giant resource centre - a learning laboratory. Students who want to engage themselves in research projects and experiments in that laboratory, who want to paint, sculpt, compose, act, write plays, poetry, novels, short stories, produce films, or involve themselves in local or national issues, ought to be encouraged to do so and rewarded for doing so. The end product of their endeavours is not at this stage of their careers of first importance, but what they learn as they involve themselves in these and other activities is eminently significant and real because it is deeply involved with life itself.

A FINAL COMMENT

We have examined the development and growth of the junior college in the United States and in Canada with a view to comparing the developments presently underway in British Columbia. We have identified and discussed the purposes and goals which have evolved over the years and have attempted to test their relevance to the college movement as it exists today and particularly in this province. We have explored the area of curriculum development, observing the forms it has taken as educators and others have attempted to make it relevant to a particular age. We have looked at the administrative patterns which have emerged and the roles and problems of the personnel they are meant to serve and who must serve under them. We have tried to identify the major problems that are before us and to suggest an approach which might lead us to their solutions.

Our purpose has been simply to measure the dimensions of our task as we attempt to create the kind of educational design which gives the best promise of developing in the generation of the young a capacity for further growth, an open and active mind, a passion for knowing, and a dedication to those ideals of liberalism which one day might reconcile man to mankind.

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COLLEGE AND UNIVERSITY CALENDAR CHECK LIST 1967/68

1. CANADA

Acadia University
University of Alberta, Edmonton
University of Alberta, Calgary
Anglican Theological College of B.C.
Banff School of Fine Arts
Bishop's University
Brandon University
Brescia College
University of British Columbia
B.C. Institute of Technology
Brock University
Campion College
Camrose Lutheran College
College DeSaint-Boniface
College Saint-Jean
College of Emmanuel & St. Chad
Carleton University
Dalhousie University
- University of King's College
Eastern Ontario Institute of Technology
Emmanuel College of Victoria University
University of Guelph
Hamilton Institute of Technology
Huron College
Ignatius College
Knox College
Lakehead University
Laurentian University of Sudbury
- Huntington University
- University of Sudbury
- Thorneloe University
Universite Laval
Lethbridge Junior College
University of Lethbridge
Loyola College
Luther College
Lutheran Faculty of Theology
University of Manitoba
Manitoba Institute of Technology
The Manitoba Law School
McGill University
McMaster Divinity College
McMaster University
Marianopolis College
Maritime School of Social Work
Massey College
Memorial University of Newfoundland
Mennonite Brethren College of Arts
Universite de Moncton
- College de Bathurst
- College Saint-Joseph
- College Saint-Louis
Montreal Diocesan Theological College
Universite de Montreal
Mohawk College
Mount Allison University
Mount Royal College
Mount St. Bernard College
Mount Saint Vincent College
University of New Brunswick
- St. Thomas University
New Brunswick Institute of Technology
Notre Dame University of Nelson
Northern Ontario Institute of Technology
Nova Scotia Agricultural College
Nova Scotia Technical College
Northern Alberta Institute of Technology
Ontario Vocational Centre, London
Ontario Vocational Centre, Ottawa
Ontario Vocational Centre, Sault Ste. Marie
Osgoode Hall Law School
University of Ottawa
- Saint Paul University
Presbyterian College of Montreal
Prince of Wales College
Provincial Institute of Automotive and Allied Trades
Provincial Institute of Mining
Provincial Institute of Trades
Provincial Institute of Trades and Occupations
Queen's University
Queen's College
Queen's Theological College
Red Deer Junior College
Regis College
Royal Militart College of Canada
Royal Roads
Ryerson Polytechnical Institute
St. Andrew's College

St. Augustine's College
St. Bride's College
St. Dunstan's University
St. Francis Xavier University
St. John's College
St. John Institute of Technology
St. Joseph's College, Edmonton
St. Joseph's College, Yorkton, Sask.
St. Mark's College
St. Martha's School of Nursing
St. Mary's University
College Sainte-Anne
St. Patrick's College
St. Paul's College
St. Peter's College
St. Peter's Seminary College of Arts
St. Stephen's College
St. Thomas College
St. Thomas More College
St. Thomas University
Saskatchewan Technical Institute
University of Saskatchewan, Saskatoon
University of Saskatchewan, Regina
Selkirk College
Universite de Sherbrooke
Simon Fraser University
Southern Alberta Institute of Technology
School of Journalism
Sir George Williams University
University of Toronto
- University of St. Michael's College
- University of Trinity College
- Victoria University
Trent University
Union College of B.C.
The United Theological College of Montreal
University College, Sudbury
University of Winnipeg
Vancouver City College
The Western Ontario Institute of Technology
University of Victoria
University of Waterloo
- University of St. Jerome's College
Waterloo Lutheran University
University of Western Ontario
University of Windsor
- Assumption University
Wycliffe College
Xavier College
York University
University of Calgary
Cambrian College of Applied Arts and Technology
Fanshawe College

II. THE UNITED STATES

Alabama

Alabama A and M College
Snead Junior College

Arizona

Phoenix College

California

Allan Hancock College
American River Junior College
Antelope Valley College
Armstrong College
The Art Center School
Bakersfield College
Barstow College
Biola College
Brooks Institute of Photography
Cabrillo College
California Baptist College
California College of Arts and Crafts
California College of Medicine
California Institute of Technology
California Lutheran College
California Podiatry College and Hospital
California School of Fine Arts
California State Polytechnic College
California Western University
Cerritos College
Chabot College
Chaffey College
Chapman College
Chico State College
Citrus College
Chouinard Art School
City College of San Francisco
Claremont Graduate School and University Centre
Coalinga Junior College
Cogswell Polytechnical College
Claremont Men's College
College of the Desert
College of Marin
College of the Holy Names

California, continued . . . .

College of Notre Dame
College of San Mateo
College of the Sequoias
College of the Siskiyous
Compton College
Contra Costa College
Deep Strings College
Diablo Valley College
Cominican College of San Rafael
East Los Angeles College
El Camino College
Foothill College
Fresno City College
Fresno State College
Fullerton Junior College
Glendale College
Golden Gate College
Grossmont College
Hartnell College
Harvey Mudd College
Humboldt State College
Immaculate Heart College
Imperial Valley College
College of the Redwoods
Lassen Junior College
LaSierra College
LaVerne College
Loma Linda University
Long Beach City College
Long Beach State College
Los Angeles City College
Los Angeles College of Optometry
Los Angeles County Art Institute
Los Angeles Harbor College
Los Angeles Metropolitan College of Business
Los Angeles Pacific College
Los Angeles Pierce College
Los Angeles State College
Los Angeles Trade-Technical College
Los Angeles Valley College
Loyola University of Los Angeles
Marymount College
Menlo College
Mills College
Modesto Junior College
Monterey Institute of Foreign Studies
Monterey Peninsula College

California, Continued . . .

Mount San Antonio College
Mount St. Mary's College
Napa Junior College
Northrop Institute of Technology
Oakland City College
Occidental College
Oceanside-Carlsbad College
Orange Coast College
Orange State College
Otis Art Institute of Los Angeles County
Pacific College
Pacific Oaks College
Pacific Union College
Palo Verde College
Palomar College
Pasadena City College
Pasadena College
Pasadena Playhouse College of Theatre Arts
Pepperdine College
Pomona College
Porterville College
Reedley College
Riverside City College
Sacramento City College
Sacramento State College
St. John's College
St. Joseph College of Orange
St. Mary's College of California
St. Patrick's College
San Benito College
San Bernardino Valley College
San Diego City College
San Diego State College
San Fernando Valley State College
San Francisco Art Institute
San Francisco State College
San Joaquin Delta College
San Jose City College
San Jose State College
San Luis Rey College
Santa Ana College
Santa Barbara City College
Santa Monica City College
Santa Rosa Junior College
Scripps College
Sonoma State College
Shasta College
Sierra College

California, Continued . . .

Southwestern College
Stanford University
Stanislaus State College
Taft College
U.S. Naval Post-Graduate School
University of California, Berkeley
University of California, Davis
University of California, Los Angeles
University of California, Riverside
University of California, San Diego
University of California, San Francisco Medical Centre
University of California, Santa Barbara
University of Judaism
University of the Pacific
University of Redlands
University of San Diego College for Men
University of San Diego College for Women
University of San Francisco
University of Santa Clara
University of Southern California
Upland College
Vellejo College
Ventura College
Victor Valley College
West Coast University
Westmont College
Whittier College
Woodbury College
Yuba College

Canal Zone

Canal Zone Junior College

Colorado

Adams State College of Colorado
The Colorado College
Colorado School of MInes
Colorado State College
Colorado State University
Colorado Woman's College
Fort Lewis A and M College
Loretto Heights College
Mesa College
Northeastern Junior College
Otero County Junior College

Colorado, Continued . . . .

Pueblo Junior College
Regis College
Rangely College
Saint Thomas Seminary
Southern Colorado State College
Trinidad State Junior College
University of Colorado
University of Denver
Western State College of Colorado
Lamar Junior College

Connecticut

Hartford St. Technological Inst.
University of Hartford
Bridgeport Engineering Inst.
New Haven College

Delaware

University of Delaware

District of Columbia

Capitol Radio Engineering Inst.

Florida

Brevard Junior College
Central Florida Junior College
Chipola Junior College
Dade County Junior College
Daytona Beach Junior College
Florida A and M University
Florida Christian College
Gulf Coast Junior College
Manatee Junior College
Palm Beach Junior College
Pensacola Junior College
St. Petersburg Junior College
University of Florida

Georgia

Armstrong State College of Savannah
Georgia Institute of Technology
South Georgia College

Hawaii

Church College of Hawaii

Idaho

Boise Junior College
The College of Idaho
Idaho State University
North Idaho Junior College
Northwest Nazarene College
Ricks College
University of Idaho

Illinois

Belleville Junior College
Canton Community College
Chicago City Junior College
Bradley University
Bloom Township Community College
Devry Technical Institute
Joliet Junior College
Black Hawk College
Morton Junior College
Thornton Junior College
University of Illinois
Wabash Valley College
Chicago Technical College
Danville Junior College
Southern Illinois University

Indiana

Indiana Technical College
Purdue University
Valparaiso Technical Institute
Vincennes University

Iowa

Burlington Community College
Centerville Community College
Clinton Junior College
Iowa State University of Science and Technology
Clarinda Community College
Eagle Grove Junior College

Kansas

Coffeyville College

Kansas Continued . . . . .

Hutchinson Junior College
Independence Community College
University of Wichita
Pratt Junior College

Maryland

Allegany Community College
Baltimore Junior College
Catonsville Community College
Hartford Junior College

Massachusetts

Franklin Institute of Boston
Lowell Technological Inst.
Northeastern University
Massachusetts Bay Community
Newton Junior College
Northern Essex Community College
Wentworth Institute
Worcester Junior College
New Bedford Institute of Tech.
Nichols College of Business Admin.
University of Massachusetts

Michigan

Alpena Community College
Grand Rapids Junior College
Henry Ford Community College
Kellogg Community College
Lansing Community College
Lawrence Inst. of Technology
Western Michigan University
Community College and Tech. Inst.
Flint Junior College
Michigan College of Mining and Technology
Northwestern Michigan College

Mississippi

Itawamba Junior College
Pearl River Junior College
Hinds Junior College
Northwest Mississippi Junior College
Perkinston Junior College
Jones County Junior College

Missouri

Central Missouri State College
Central Tech. Institute
Joplin Junior College

Montana

Carroll College
College of Great Falls
Custer County Junior College
Dawson County Junior College
Eastern Montana College of Educ.
Montana School of Mines
Montana State College
Montana State University
Northern Montana College
Rocky Mountain College
University of Montana
Western Montana College of Educ.

New Hampshire

New Hampshire Tech.Inst., Manchester
New Hampshire Tech.Inst., Portsmouth
University of New Hampshire

New Jersey

Fairleigh Dickinson University
Monmouth College
Newark College of Engineering
Rutgers - The State University
Stevens Institute of Technology

New Mexico

New Mexico Highlands University

New York

Bronx Community College
Broome Tech. Community College
Dutchess Community College
Erie County Technical Institute
Hudson Valley Community College
New York City Community College
Orange County Community College
Suny Ag and Tech., Farmingdale
Westchester Community College
Academy of Aeronautics
New York Institute of Technology

New York

R.C.A. Institutes Inc.
Suffolk Community College
Syracuse University
Voorhees Technical Institute
Corning Community College
Elmira College
Jamestown Community College
Mohawk Valley Tech. Institute
Pratt Institute
Queensborough Community College
Rochester Inst. Technology
Staten Island Community College
Suny AG and Tech., Alfred
Paul Smiths College of Arts and Science
Suny College of Forestry

North Carolina

University of North Carolina State College Raleigh
Agricultural and Tech. College of North Carolina

Ohio

Marietta College
Ohio College of Applied Science
University of Dayton
Poteau Community College
Franklin University
Sinclair College
University of Toledo
Ohio College of Applied Science
University of Cincinnati
Ohio University

Oklahoma

Cameron State Agricultural Col.
Eastern Oklahoma A and M College
Northeastern Oklahoma A and M College
Northern Oklahoma Junior College
Oklahoma State University
Sayre Junior College

Oregon

Blue Mountain College

Oregon, Continued . . . .

Central Oregon College
Clatsop College
Concordia College
Multnomah
Oregon Technical Institute
Portland Community College
South Western Oregon Community College
Treasure Valley Community College
Cascade College
Eastern Oregon College
George Fox College
Lewis and Clark College
Linfield College
Maryshurst College
Mt. Angel College
Museum Art School
Northwest Christian College
Oregon College of Education
Oregon State University
Pacific University
Portland State College
Reed College
Southern Oregon College
University of Oregon
University of Portland
Warner Pacific College
Williamette University

Pennsylvania

Pennsylvania State University
Spring Garden Institute
Temple University
York Junior College
Alliance College

Rhode Island

Roger Williams Junior College

South Dakota

Southern State College

Texas

Amarillo College
Arlington State College
Del Mar College
Letourneau College

Texas, continued . . . .

Odessa College
Prairie View A and M College
St. Philips College
San Antonio College
San Jacinto Junior College
Tyler Junior College
University of Houston
Wharton County Junior College

Utah

University of Utah
Brigham Young University
Weber College

Vermont

Vermont Technical College

Washington

Central Washington State College
Eastern Washington State College
Fort Wright College of the Holy Names
Gonzaga University
Pacific Lutheran University
St. Marin's College
Seattle Pacific College
Seattle University
Sulpician Seminary of the Northwest
University of Puget Sound
University of Washington
Walla Walla College
Washington State University
Western Washington State College
Whitman College
Whitworth College
Spokane Community College
Big Bend Community College
Centralia College
Clark College
Columbia Basin Community College
Everett Junior College
Grays Harbor College
Highline College
Lower Columbia College
Olympic College

Washington, continued . . .

Peninsula College
Skagit Valley College
Wenatchee Valley College
Yakima Valley College
Green River Community College, Auburn
Shoreline Community College

West Virginia

Bluefield State College
West Virginia Institute of Technology

Wisconsin

Milwaukee Institute of Technology
Milwaukee School of Engineering

Wyoming

Casper College
Northwest Community College

APPENDIX (i)

GROWTH IN NUMBER OF PUBLIC AND PRIVATE JUNIOR COLLEGES 1900-1960

YEAR	TOTAL	NUMBER OF COLLEGES		PERCENTAGES OF COLLEGES
		PUBLIC	PRIVATE	PUBLIC
1900 - 1901	8	0	8	0
1915 - 1916	74	19	55	26
1921 - 1922	207	70	137	34
1925 - 1926	326	136	189	42
1929 - 1930	436	178	258	41
1933 - 1934	521	219	302	42
1938 - 1939	575	258	317	45
1947 - 1948	651	328	323	50
1952 - 1953	594	327	267	55
1953 - 1954	598	338	260	57
1954 - 1955	596	336	260	56
1955 - 1956	635	363	272	57
1956 - 1957	652	377	275	57.8
1957 - 1958	667	391	276	58.6
1958 - 1959	667	400	277	59.1
1959 - 1960	663	390	273	58.8

See Edmund J. Gleazer, Jr., "Analysis of Junior College Growth", Junior College Directory, 1961, Table 6, p. 41

APPENDIX (ii)

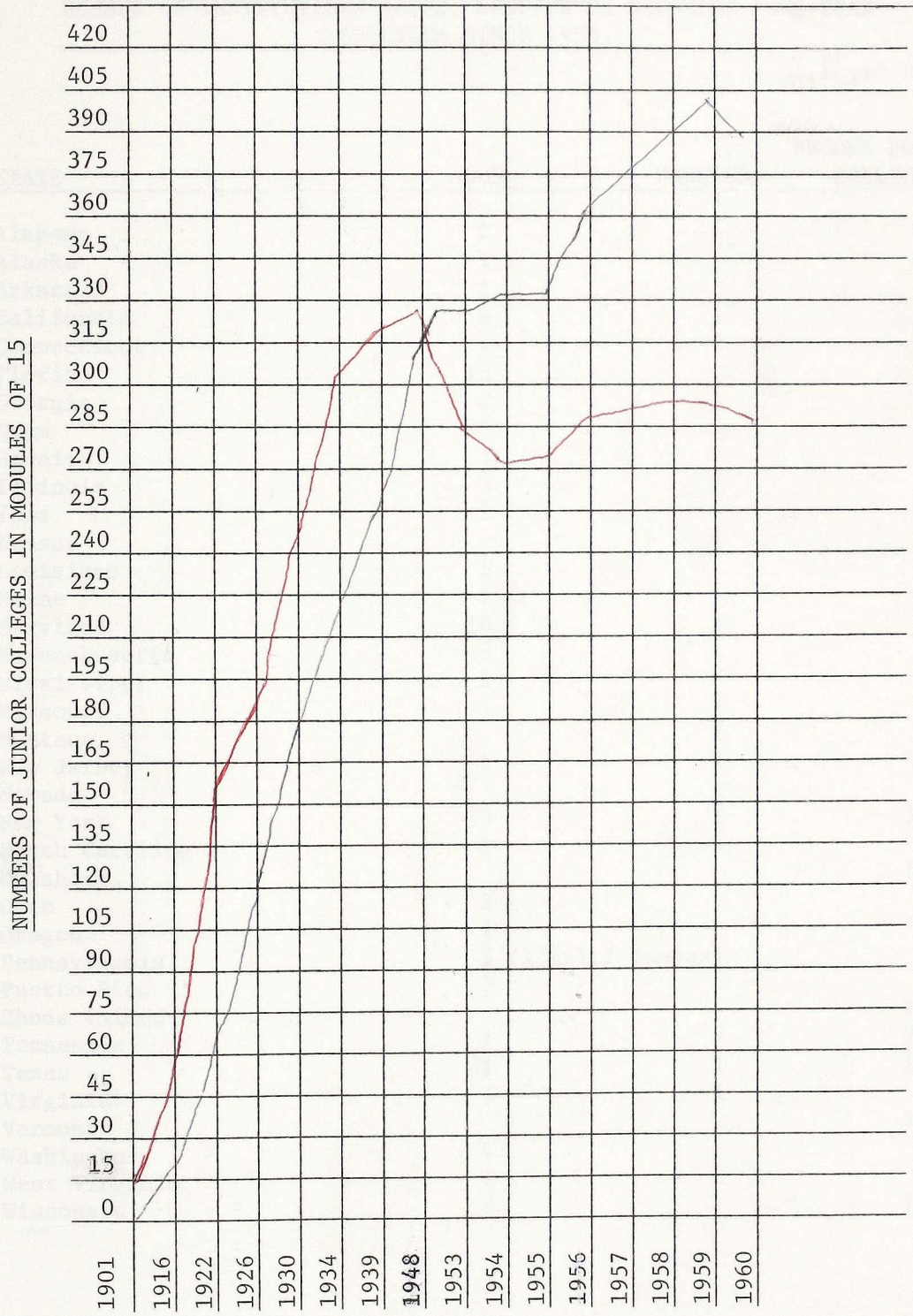
JUNIOR COLLEGE ENROLMENTS, 1900 - 1960

YEAR	TOTAL	PUBLIC	PRIVATE	PERCENTILE PUBLIC
1900 - 01	100	0	100	0
1915 - 16	2,363	592	1,771	25
1921 - 22	16,031	8,349	7,682	52
1925 - 26	35,630	20,145	15,485	57
1929 - 30	74,088	45,021	29,067	61
1933 - 34	107,807	74,853	32,954	69
1938 - 39	196,710	140,545	56,165	71
1947 - 48	500,536	378,844	121,692	76
1951 - 52	572,193	495,766	76,422	87
1952 - 53	560,732	489,563	71,169	87
1953 - 54	622,864	553,008	69,856	89
1954 - 55	696,321	618,000	78,321	89
1955 - 56	765,551	683,129	82,422	89
1956 - 57	869,720	776,493	93,227	89.2
1957 - 58	892,642	793,105	99,537	88.8
1958 - 59	905,062	806,849	98,213	89.1
1959 - 60	816,071	712,224	103,847	87.3

Edmund J. Gleazer, Jr., "Analysis of Junior College Growth", Junior College Directory, 1961, Table 7, p. 42.

APPENDIX (iii)

Linear graph showing comparative growth patterns of the number of public and private junior colleges between the years 1901 and 1960. Private institutions are shown in red.



APPENDIX (iv)

NUMBER OF INSTITUTIONS ADDED, DROPPED OR BECOMING FOUR-YEAR COLLEGES SINCE 1956.

STATE	ADDED	DROPPED	BECOME FOUR-YEAR COLLEGES
Alabama	2		
Alaska	3		
Arkansas	1		
California	6	1	
Connecticut	1		
Florida	13		
Georgia	2		
Guam	1		
Hawaii	1		
Illinois	5		
Iowa	1		
Kansas		1	
Louisiana	1		
Maine	1		
Maryland	10	1	
Massachusetts	3	1	
Mississippi	2		
Missouri	1	2	
Montana		1	
New Jersey	1	1	1
Nevada		1	
New York	19	1	3
North Carolina	1		
Oklahoma			1
Ohio	2		
Oregon	1		
Pennsylvania	5 (1 multi campus)		
Puerto Rico	1		
Rhode Island			1
Tennessee	1		3
Texas	1	1	1
Virginia	3	1	
Vermont			1
Washington	1		
West Virginia	1		
Wisconsin	3		1

APPENDIX (v)

Total enrolment and number of public and private junior colleges by year and State and the percentage of increase of 1954 over 1930

	1929-30		1934-35		1939-40		1944-45		1949-50		1953-54		% Increase over 1930	
	No. Col	Enrol-ment	No. Col	Enrol-ment	No. Col	Enrol-ment	No. Col	Enrol-ment	No. Col	Enrol-ment	No. Col	Enrol-ment	No. Col	Enrol-ment
Alabama	5	286	8	556	8	1,173	9	1,010	9	2,719	10	1,702	100	495
Arizona	2	641	2	863	2	1,184	2	1,086	2	2,410	2	3,138	0	300
Arkansas	11	1,864	10	2,433	9	2,692	9	1,792	7	4,077	5	2,181	55	17
California	50	17,072	55	36,977	64	86,357	74	120,685	78	246,708	78	294,508	46	1,625
Colorado	5	792	5	743	7	2,106	7	3,222	8	7,605	8	7,605	60	852
Connecticut	3	182	5	388	14	3,170	13	3,586	10	8,562	7	8,472	133	4,554
Delaware	0	-	0	-	0	-	1	124	1	147	1	179	-	-
Dist.of Col.	7	314	10	645	11	3,049	6	852	6	8,475	6	2,377	14	657
Florida	3	256	7	902	7	1,908	9	1,481	9	3,245	10	4,815	238	1,781
Georgia	12	1,083	19	33,345	20	5,635	20	4,637	19	12,427	18	14,832	50	1,270
Idaho	2	859	5	1,940	4	2,110	4	1,634	3	2,030	2	2,514	0	193
Illinois	18	8,222	21	9,904	24	19,589	24	9,192	26	28,943	22	32,455	22	295
Indiana	3	268	6	542	5	623	4	462	3	472	8	9,983	167	3,625
Iowa	37	2,357	37	3,066	36	3,768	22	1,446	26	6,512	23	8,278	38	251
Kansas	18	2,413	19	3,494	24	5,798	20	2,368	21	5,719	23	6,068	28	151
Kentucky	17	2,021	17	3,012	14	3,514	15	1,947	15	4,545	14	3,453	18	71
Louisiana	4	194	7	702	3	876	2	639	3	1,127	1	239	75	23
Maine	3	137	3	245	4	517	6	413	4	1,285	4	595	33	334
Maryland	5	314	6	518	8	1,163	5	1,951	9	2,445	10	2,286	100	229
Massachusetts	10	593	9	831	23	5,994	20	3,129	22	7,723	18	6,225	80	950
Michigan	9	2,158	12	2,785	13	4,187	13	3,168	13	11,286	17	17,937	89	731
Minnesota	10	1,540	9	2,068	16	3,326	14	1,658	12	5,157	11	7,702	10	400
Mississippi	14	1,574	21	4,117	22	5,205	22	3,674	23	11,670	23	8,859	64	463
Missouri	**23**	**5,275**	**22**	**4,537**	**24**	**8,143**	**23**	**6,953**	**24**	**11,450**	**22**	**10,016**	**4**	**90**
Montana	**2**	**859**	**5**	**1,940**	**4**	**2,110**	**4**	**1,634**	**3**	**2,039**	**2**	**2,514**	**50**	**242**
Nebraska	**10**	**718**	**7**	**727**	**5**	**800**	**5**	**1,137**	**6**	**3,350**	**5**	**2,183**	**50**	**190**
New Hampshire	**1**	**120**	**3**	**368**	**3**	**530**	**1**	**360**	**1**	**395**	**1**	**459**	**0**	**283**
New Jersey	**2**	**125**	**10**	**2,097**	**11**	**2,900**	**9**	**1,732**	**14**	**7,998**	**10**	**3,292**	**80**	**2,534**
New Mexico	**1**	**235**	**2**	**520**	**2**	**1,319**	**1**	**93**	**0**	**-**	**-**	**-**	**0**	**0**
New York	11	1,053	6	859	12	2,936	19	8,176	28	20,981	31	23,415	182	2,124
North Carol.	16	1,975	23	3,584	25	6,602	24	4,419	24	7,357	24	8,127	50	311
North Dakota	2	402	2	239	4	912	5	345	4	1,540	4	1,484	100	269
Ohio	5	1,381	8	2,865	8	2,203	8	2,255	8	5,631	7	4,979	40	261
Oklahoma	14	1,908	24	3,281	30	5,409	17	1,452	19	6,023	16	5,072	14	166
Oregon	2	112	2	164	2	758	2	787	2	3,908	5	5,870	60	5,141
Pennsylvania	7	923	10	1,167	24	4,844	20	2,472	21	8,042	25	17,722	257	1,178
Rhode Island	0	-	0	-	0	-	2	342	2	604	1	547	-	-
South Carol.	2	311	4	405	11	1,553	11	1,199	8	1,534	7	1,358	250	337
South Dakota	5	267	4	472	4	363	5	446	4	347	3	335	40	25
Tennessee	12	1,785	12	2,727	14	2,860	13	1,984	11	4,134	9	2,360	25	32
Texas	44	8,473	43	10,558	43	15,085	48	15,221	58	53,931	45	47,332	2	459
Utah	5	815	5	1,537	6	3,299	6	15,521	4	4,847	4	6,266	20	669
Vermont	0	-	1	162	3	454	3	412	2	559	2	467	-	-
Virginia	11	1,349	13	2,205	16	3,166	15	4,374	15	5,215	14	6,084	27	351
Washington	6	558	10	1,021	8	1,398	8	1,568	10	14,181	10	18,762	67	3,262
W.Virginia	5	455	5	1,117	4	1,052	4	620	4	2,475	4	1,168	20	157
Wisconsin	2	91	6	1,129	7	4,273	9	6,210	16	5,986	12	6,722	500	7,287
Wyoming	0	-	0	-	0	-	1	198	4	1,658	4	2,793	-	-
GRAND TOTAL	436	74,088	518	122,311	610	236,162	591	251,290	634	562,786	598	622,864	37	741

APPENDIX (vi)

SUMMARY BY STATES

	NO. OF JR. COLLEGES			ENROLMENT AS AT OCTOBER, 1963.								ALL JUNIOR COLLEGES			
				Full-time				Part-time							
	Total	Public	Independent	Freshmen	Sophomores	Unclassified	Total	Freshmen	Sophomore	Unclassified	Total	Total Enrolment Oct./63.	Summer Session /63.	Total Enrolment Oct./64.	Total Faculty
Alabama	8	2	6	1,230	754	222	2,206	127	65	2	194	2,400	521	2,323	178
Alaska	7	6	1	51	25		76	23	13	1,191	1,227	1,303	210	1,314	102
Arizona	4	4		3,184	1,568	230	4,982	906	198	3,554	4,658	9,640	3,763	15,550	363
Arkansas	5	1	4	932	498	19	1,449	431	55	240	726	2,175	480	4,437	93
California	79	74	5	95,338	35,458	2,465	133,261	169,162	49,117	36,932	255,211	288,472	100,975	444,948	13,886
Canal Zone	1	1		246	139	38	423			468	468	891	893	1,055	57
Colorado	6	6		2,282	1,050	18	3,350	619	60	1,160	1,839	5,189	588	5,446	288
Connecticut	15	6	9	3,487	2,053	120	5,660	2,361	1,146	2,749	6,256	11,916	3,190	13,451	788
Delaware	1		1	286	127		413			159	159	572		801	43
Dist.of Col.	3		3	260	187		447	119	29	12	160	607		729	142
Florida	32	29	3	14,501	6,933	99	21,533	6,886	2,713	9,343	18,942	40,475	10,139	48,448	2,300
Georgia	19	9	10	4,652	2,882	116	7,650	716	433	181	1,330	8,980	2,999	10,917	525
Hawaii	1		1	99	78		177	10			10	187	106	186	26
Idaho	3	2	1	2,399	1,255		3,654	30	35	1,929	1,994	5,648	610	5,645	301
Illinois	38	25	13	12,439	5,787	513	18,739	17,155	5,481	10,162	32,798	51,537	15,587	57,805	2,126
Indiana	2	1	1	378	244	7	629	31	64	9	104	733	276	895	51
Iowa	21	17	4	4,214	2,274	36	6,524	543	217	1,197	1,957	8,481	783	8,574	568
Kansas	19	14	5	4,244	2,336	156	6,736	909	302	540	1,751	8,487	556	9,507	536
Kentucky	16	8	8	1,947	909	2	2,858	688	553	66	1,307	4,165	1,030	5,422	309
Louisiana	1		1	31	22		53					53		60	16
Maine	2		2	342	241	8	591	2		4	6	597		644	60
Maryland	17	12	5	3,892	1,397	82	5,371	2,726	828	976	4,530	9,901	1,515	11,689	708
Massachusetts	26	10	16	8,064	4,670	1,001	13,735	810	354	3,836	5,000	18,735	1,492	19,603	1,286
Michigan	21	18	3	11,964	4,939	387	17,290	10,673	3,494	9,147	23,314	40,604	8,390	48,605	1,668
Minnesota	13	11	2	2,991	1,354	43	4,388	252	89	736	1,077	5,465	364	5,857	352
Mississippi	27	17	10	6,972	4,003	229	11,204	682	276	462	1,420	12,624	2,130	13,041	862
Missouri	19	9	10	5,082	2,780	1,348	9,210	1,955	970	1,426	4,351	13,561	2,420	18,390	946
Montana	2	2		142	53	2	197	55	78	130	263	460	168	614	40
Nebraska	5	4	1	932	562	76	1,570	41	44	102	187	1,757	303	1,890	104
New Hampshire	2		2	357	251	18	626			5	5	631		698	83
New Jersey	11	1	10	2,114	1,639	14	3,767	1,219	855	445	2,519	6,286	3,592	6,731	396
New Mexico	5	5		353	110	19	482	932	241	125	1,298	1,780	721	2,005	147
New York	69	34	35	23,476	13,468	591	37,535	9,351	5,041	28,344	42,736	80,271	15,077	89,164	5,166

APPENDIX (vi) Continued . . . . .

SUMMARY BY STATES

NO. OF JR. COLLEGES				ENROLMENT AS AT OCTOBER, 1963.								ALL JUNIOR COLLEGES			
				Full-time				Part-time							
	Total	Public	Independent	Freshmen	Sophomores	Unclassified	Total	Freshmen	Sophomore	Unclassified	Total	Total Enrolment Oct./63.	Summer Session /63.	Total Enrolment Oct./64.	Total Faculty
N. Carolina	19	4	15	4,824	2,375	25	7,224	729	93	1,110	1,932	9,156	2,492	11,547	625
N. Dakota	4	4		1,815	920	59	2,794	118		201	319	3,113	414	3,335	182
Ohio	9	4	5	2,371	907	59	3,337	3,244	719	83	4,046	7,383	1,103	12,488	453
Oklahoma	16	11	5	3,709	2,102	445	6,256	417	147	1,252	1,816	8,072	829	9,284	478
Oregon	10	8	2	2,629	1,029	144	3,082	2,529	455	10,258	13,242	17,044	702	11,475	717
Pennsylvania	35	15	20	6,932	4,325	166	11,423	1,411	1,494	5,746	8,651	20,074	3,332	22,575	1,359
Puerto Rico	2	1	1	890	473	2	1,365	106	155	86	347	1,712	738	2,017	93
Rhode Island	3	1	2	449	245	103	797	88	36	583	707	1,504	395	1,685	81
S. Carolina	6		6	1,500	894	55	2,449	77	38	103	218	2,667	1,002	2,894	158
S. Dakota	2		2	203	71	7	281	14	17	17	48	329	169	305	43
Tennessee	7		7	1,313	774	11	2,098	72	71	72	215	2,313	342	2,778	170
Texas	45	33	12	17,022	8,061	636	25,719	10,811	4,426	2,447	17,684	43,403	17,320	50,131	2,277
Utah	3	3	3	834	400	7	1,241	49	15	123	187	1,428	67	1,813	95
Vermont	5	1	4	1,206	760	221	2,187	4			4	2,191	129	2,257	183
Virginia	17	7	10	3,187	1,883	74	5,144	249	55	809	1,113	6,257	882	7,050	497
Virgin Islands	1	1	1											321	
Washington	15	15	14	10,153	3,690	567	14,410	4,086	1,042	6,445	12,573	26,983	4,093	29,527	1,454
West Virginia	3	1	2	1,072	393		1,465	107	66	45	218	1,683	421	1,724	105
Wisconsin	12	10	2	3,648	1,330	253	5,231	3,705	1,325	1,015	6,045	11,276)	1,337	12,986	715
Wyoming	5	5		989	466	54	1,509	89	33	1,692	1,814	3,323	169	3,307	204
TOTAL	719	452	267	283,627	131,144	10,747	425,518	258,319	82,938	147,719	488,976	914,494)	214,814	1,043,963	44,405

From: The Junior College Directory, Washington.

American Association of Junior Colleges, 1965, p. 25.

SUMMARY BY STATES - PUBLIC JUNIOR COLLEGES

Enrolment as of October, 1963

	No. of Public Jr. Colleges	FULL-TIME Freshmen	FULL-TIME Sophomores	FULL-TIME Unclassified	FULL-TIME Total	PART-TIME Freshmen	PART-TIME Sophomores	PART-TIME Unclassified	PART-TIME Total	Total Enrolment October, 1963	Summer Session 1963	Total Enrolment October, 1964	Total Faculty (1963-64) Instr. & Admin.
Alabama	2	163	104	204	471	26			26	497	50	369	46
Alaska	6	22	12		34			1,191	1,191	1,225	210	1,201	90
Arizona	4	3,184	1,568	230	4,982	906	198	3,554	4,658	9,640	3,763	15,550	363
Arkansas	1	94	69		163	4	2		6	169		184	12
Calif.	74	94,851	35,221	2,462	132,534	169,017	49,040	36,886	254,943	387,477	100,528	442,818	13,738
Canal Zone	1	246	139	38	423			468	468	891	893	1,055	57
Colorado	6	2,282	1,050	18	3,350	619	60	1,160	1,839	5,189	588	5,446	288
Conn.	6	820	291		1,111	342	175	790	1,307	2,418	243	2,790	154
Delaware	0	-	-	-	-	-	-	-	-	-	-	-	-
D.C.	0	-	-	-	-	-	-	-	-	-	-	-	-
Florida	29	13,645	6,582		20,227	6,581	2,572	9,151	18,304	38,531	9,459	45,949	2,189
Georgia	9	2,752	1,750	50	4,552	607	359	155	1,121	5,673	2,316	7,406	317
Hawaii	0	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	2	1,419	733		2,152	30	35	1,779	1,844	3,996	384	3,799	207
Illinois	25	10,768	4,862	332	15,962	16,874	5,363	8,017	30,254	46,216	14,399	52,179	1,801
Indiana	1	356	223	7	586	31	44		75	661	183	818	40
Iowa	17	3,183	1,733	36	4,952	199	133	1,163	1,495	6,447	521	6,486	445
Kansas	14	3,613	1,999	109	5,721	717	193	441	1,351	7,072	263	7,883	420
Kentucky	8	907	336	2	1,245	640	518	57	1,215	2,460	612	3,623	149
Louisiana	0	-	-	-	-	-	-	-	-	-	-	-	-
Maine	**0**	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	**12**	**3,673**	**1,231**		**4,904**	**2,717**	**825**	**975**	**4,517**	**9,421**	**1,398**	**11,166**	**643**
Mass.	**10**	**2,462**	**1,162**	**724**	**4,348**	**475**	**122**	**732**	**1,329**	**5,677**	**595**	**6,486**	**340**
Michigan	**18**	**11,400**	**4,817**	**387**	**16,604**	**10,653**	**3,485**	**9,142**	**23,280**	**39,884**	**8,390**	**47,635**	**1,596**
Minn.	**11**	**2,903**	**1,275**	**37**	**4,215**	**252**	**87**	**735**	**1,074**	**5,289**	**364**	**5,685**	**326**
Miss.	17	5,982	3,503	156	9,641	612	244	459	1,315	10,956	1,980	11,333	696
Missouri	9	2,359	1,099	1,308	4,766	1,895	912	1,388	4,195	8,961	1,971	13,522	475
Montana	2	142	53	2	197	55	78	130	263	460	168	614	40
Nebraska	4	789	494	76	1,359	36	43	102	181	1,540	303	1,635	88
New Hamp.	0	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	1	365	341		706	311	384		695	1,401	422	1,528	83
New Mexico	5	353	110	19	482	932	241	125	1,298	1,780	721	2,005	147
New York	34	20,266	10,968	472	31,706	9,190	4,718	27,774	41,682	73,388	13,810	81,202	4,386
N.Carolina	4	839	173	15	1,027	643	21	862	1,526	2,553	1,068	4,249	115
N. Dakota	4	1,815	920	59	2,794	118		201	319	3,113	414	3,335	182
Ohio	4	1,874	587	27	2,488	2,442	474		2,916	5,404	361	10,248	298
Oklahoma	11	3,260	1,890	443	5,593	379	147	1,068	1,594	7,187	725	8,208	377
Oregon	8	2,025	643	144	2,812	2,176	385	10,258	12,819	15,631	373	9,372	646
Penn.	15	2,610	1,440	42	4,092	94	41	4,556	4,691	8,783	831	9,373	573
Puerto Rico	1	289	178	2	469	90	44	86	220	689	357	725	43
Rhode Is.	1	-	-	-	-	-	-	-	-	-	-	325	-
S.Carolina	0	-	-	-	-	-	-	-	-	-	-	-	-
S. Dakota	0	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	0	-	-	-	-	-	-	-	-	-	-	-	-
Texas	33	15,390	7,227	629	23,246	9,799	3,927	2,348	16,074	39,320	15,548	44,834	2,014
Utah	3	634	400	7	1,241	49	15	123	187	1,428	67	1,813	95
Vermont	1	150	101		251					251	108	264	22
Virginia	7	814	551	46	1,411	212	48	570	830	2,241	546	2,785	150
Virgin Is.	1	-	-	-	-	-	-	-	-	-	-	321	-
Wash.	15	10,153	3,690	567	14,410	5,086	1,042	6,445	12,573	26,983	4,093	29,527	1,454
W. Va.	1	381	241		622			45	45	667	134	657	47
Wisc.	10	3,190	1,204	94	4,488	3,675	1,319	247	5,241	9,729	1,020	11,383	588
Wyoming	5	989	466	54	1,509	89	33	1,692	1,814	3,323	169	3,307	204
TOTAL	452	233,612	101,436	8,798	343,846	248,573	77,327	134,875	460,775	804,621	190,348	921,093	35,944

From The Junior College Directory, Washington, American Association of Junior Colleges, 1965, p. 26.

APPENDIX (viii)

SUMMARY BY STATES - INDEPENDENT JUNIOR COLLEGES

Enrolment as of October, 1963.

State	No. of Independent Jr. Colleges	FULL-TIME Freshmen	FULL-TIME Sophomores	FULL-TIME Unclassified	FULL-TIME Total	PART-TIME Freshmen	PART-TIME Sophomores	PART-TIME Unclassified	PART-TIME Total	Total Enrolment Oct./63.	Summer Session 1963.	Total Enrolment Oct./64.	Total Faculty (1963-64) Instru. & Admin.
Alabama	6	1,067	650	18	1,735	101	65	2	168	1,903	471	1,954	132
Alaska	1	29	13		42	23	23		36	78		113	12
Arizona	0												
Arkansas	4	838	429	19	1,286	427	53	240	720	2,006	480	2,253	81
California	5	487	237	3	727	145	77	46	268	995	447	2,130	148
Canal Zone	0												
Colorado	0												
Connecticut	9	2,667	1,762	120	4,549	2,019	971	1,959	4,949	9,487	2,947	10,661	634
Delaware	1	286	127		413			159	159	572		801	43
Dist. of Col.	3	260	187		447	119	29	12	160	607		729	142
Florida	3	856	351	99	1,306	305	141	192	638	1,944	680	2,499	111
Georgia	10	1,900	1,132	66	3,098	109	74	26	209	3,307	683	3,511	208
Hawaii	1	99	78		177	10			10	187	106	186	26
Idaho	1	980	522		1,502			150	150	1,652	226	1,846	94
Illinois	13	1,671	925	181	2,777	281	118	2,145	2,544	5,321	1,188	5,626	325
Indiana	1	22	21		43		20	9	29	72	93	77	11
Iowa	4	1,031	541		1,572	344	84	34	462	2,034	262	2,088	123
Kansas	5	631	337	47	1,015	192	109	99	400	1,415	293	1,624	116
Kentucky	8	1,040	573		1,613	48	35	9	92	1,705	418	1,799	160
Louisiana	1	31	22		53					53		60	16
Maine	2	342	241	8	519	2		4	6	597		644	60
Maryland	5	219	166	82	467	9	3	1	13	480	117	523	65
Mass.	16	5,602	3,508	277	9,387	335	232	3,104	3,671	13,058	897	13,117	946
Michigan	3	564	122		686	20	9	5	34	720		970	72
Minnesota	2	88	79	6	173		2	1	3	176		172	26
Mississippi	10	990	500	73	1,563	70	32	3	105	1,668	150	1,708	166
Missouri	10	2,723	1,681	40	4,444	60	58	38	156	4,600	449	4,868	471
Montana	0												
Nebraska	1	143	68		211	5	1		6	217		255	16
New Mexico	0												
New York	35	3,210	2,500	119	5,829	161	323	570	1,054	6,883	1,267	7,962	780
North Carolina	15	3,985	2,202	10	6,197	86	72	248	406	6,603	1,424	7,298	510
North Dakota	0												
Ohio	5	497	320	32	849	802	245	83	1,130	1,979	742	2,240	155
Oklahoma	5	449	212	2	663	38		184	222	885	104	1,076	101
Oregon	2	604	386		990	353	70		423	1,413	329	2,103	71
Pennsylvania	20	4,322	2,885	124	7,331	1,317	1,453	1,190	3,960	11,291	2,501	13,202	706
Puerto Rico	1	601	295		896	16	111		127	1,023	381	1,292	50
Rhode Island	2	449	245	103	797	88	36	583	707	1,504	395	1,360	81
South Carolina	6	1,500	894	55	2,449	77	38	103	218	2,667	1,002	2,894	158
South Dakota	2	203	71	7	281	14	17	17	48	329	169	305	43
Tennessee	7	1,313	774	11	2,098	72	71	72	215	2,313	342	2,778	170
Texas	12	1,632	834	7	2,473	1,012	499	99	1,610	4,083	1,772	5,297	263
Utah	0												
Vermont	4	1,056	659	221	1,936	4			4	1,940	21	1,993	161
Virginia	10	2,373	1,332	28	3,733	37	7	239	283	4,016	336	4,265	347
Virgin Islands	0												
Washington	0												
West Virginia	2	691	152		843	107	66		173	1,016	287	1,067	58
Wisconsin	2	458	126	159	743	30	6	768	804	1,547	317	1,603	127
TOTAL	267	50,015	29,708	1,949	81,672	9,746	5,611	12,844	28,201	109,873	24,466	122,870	8,461

From: The Junior College Directory, Washington, American Association of Junior Colleges, 1965, p. 27.

APPENDIX (ix)

DISTRIBUTION OF SIZE OF

ENROLMENT IN JUNIOR COLLEGES 1963-65.

	Public			Private			Total		
Enrolment	1963	1964	1965	1963	1964	1965	1963	1964	1965
1- 99	5	3	4	57	53	50	62	56	54
100- 199	25	18	16	51	51	39	76	69	55
200- 299	49	31	23	36	39	38	85	70	61
300- 399	32	34	29	35	36	31	67	70	60
400-4 99	32	36	41	18	19	31	50	55	72
500- 599	26	31	20	16	13	14	42	44	34
600- 699	28	32	30	10	12	17	38	44	47
700- 799	14	25	27	6	7	6	20	32	33
800- 899	19	16	26	2	4	5	21	20	31
900- 999	16	17	19	3	3	4	19	20	23
1000-1999	65	74	105	21	18	22	86	92	127
2000-2999	36	50	50	6	8	6	42	58	56
3000-3999	20	21	34	1	1	5	21	22	39
4000-4999	12	11	15	1	1	1	13	12	16
5000-5999	7	12	7				7	12	7
6000-6999	10	8	9				10	8	9
7000-7999	3	5	7				3	5	7
8000-8999	6	6	8				6	6	8
9000-9999	3	8	6				3	8	6
10000&Over	14	13	22				14	13	22
TOTAL	422	451	498	263	265	269	685	716	787

Note: The Junior College Directory contains names of 771 colleges. This table shows only 767 because enrolment figures of four junior colleges are represented by totals for two junior college districts. There was no enrolment data available for one institution.

From The Junior College Directory, Washington, American Association of Junior Colleges, 1966, p. 59.

APPENDIX (x)

Number of Independent and Church-Related Junior Colleges by Type of Control or Affiliation

Independent, Non-profit	99
African Methodist Episcopal	2
Assemblies of God	1
Baptist	24
Byzantine Catholic	1
Christian Church	1
Church of Christ	9
Church of God	2
Church of Jesus Christ of Latter-Day Saints	1
Church of the New Jerusalem	1
Episcopal	2
Evangelical United Brethren	1
Free Methodist	1
Lutheran	12
Mennonite	2
Methodist	22
Pentacostal Holiness	2
Pilgrim Holiness	2
Presbyterian	7
Roman Catholic	75
Seventh Day Advantist	1
TOTAL	268

From The Junior College Directory, Washington, American Association of Junior Colleges, 1966, p. 60.

APPENDIX (xi)

Total and 1st-time opening fall degree-credit enrolment in junior colleges, by sex: United States, 1954 to 1974.

	Total Fall Enrolment			1st-time Fall Enrolment		
	Total	Men	Women	Total	Men	Women
1954	282,433	171,752	110,681	129,349	76,517	52,832
1955	308,411	196,671	111,740	139,969	86,176	53,793
1956	347,345	225,635	121,710	162,810	101,610	61,200
1957	369,162	237,679	131,483	167,640	104,037	63,603
1958	385,609	248,040	137,569	174,949	107,744	67,205
1959	409,715	259,754	149,961	181,679	111,257	70,422
1960	451,333	282,155	169,178	213,976	128,570	85,406
1961	517,925	320,156	197,769	243,777	145,665	98,112
1962	589,529	365,624	223,905	260,440	156,163	104,277
1963	624,789	386,660	238,129	271,673	163,062	108,611
1964	710,868	439,509	271,359	322,241	193,407	128,834
			PROJECTED			
1965	791,000	492,000	299,000	384,000	230,000	154,000
1966	866,000	535,000	331,000	383,000	229,000	154,000
1967	944,000	587,000	357,000	388,000	232,000	156,000
1968	1,016,000	631,000	385,000	400,000	239,000	161,000
1969	1,048,000	651,000	397,000	419,000	251,000	168,000
1970	1,086,000	675,000	411,000	448,000	269,000	179,000
1971	1,150,000	714,000	436,000	474,000	284,000	190,000
1972	1,220,000	756,000	464,000	498,000	299,000	199,000
1973	1,291,000	799,000	492,000	519,000	312,000	207,000
1974	1,350,000	832,000	518,000	542,000	325,000	217,000

From U.S. Department of Health, Education and Welfare, Projections of Educational Statistics to 1974-75, Washington, U.S. Government Printing Office, 1965, p. 11.

APPENDIX (xii)

Total and 1st-time opening fall degree-credit enrolment in junior colleges, by control: United States, 1954 to 1974

	Total Fall Enrolment			1st-time Fall Enrolment		
	Total	Public	Private	Total	Public	Private
1954	282,433	241,145	41,288	129,349	108,538	20,811
1955	308,411	265,326	43,085	139,969	117,288	22,681
1956	347,345	297,621	49,724	162,810	137,406	25,404
1957	369,162	315,990	53,172	167,640	140,522	27,118
1958	385,609	330,881	54,728	174,949	146,379	28,570
1959	409,715	355,967	53,748	181,679	153,393	28,286
1960	451,333	392,310	59,023	213,976	181,860	32,116
1961	517,925	456,381	61,544	243,777	210,101	33,676
1962	589,529	519,257	70,272	260,440	224,537	35,903
1963	624,789	551,308	73,481	271,673	234,757	36,916
1964	710,868	620,859	90,000	322,241	275,413	46,820
			PROJECTED			
1965	791,000	694,000	97,000	384,000	329,000	55,000
1966	866,000	762,000	104,000	383,000	330,000	53,000
1967	944,000	833,000	111,000	388,000	335,000	53,000
1968	1,016,000	899,000	117,000	400,000	346,000	54,000
1969	1,048,000	930,000	118,000	419,000	364,000	55,000
1970	1,086,000	965,000	121,000	448,000	390,000	58,000
1971	1,150,000	1,025,000	125,000	474,000	414,000	60,000
1972	1,220,000	1,090,000	130,000	498,000	436,000	62,000
1973	1,291,000	1,157,000	134,000	519,000	455,000	64,000
1974	1,350,000	1,212,000	138,000	542,000	476,000	66,000

From U.S. Department of Health, Education and Welfare, Projections of Educational Statistics to 1974-75, Washington, U.S. Government Printing Office, 1965, p. 12.

APPENDIX (xiii)

PUBLIC SCHOOLS AMENDMENT

Chapter 36

An Act to Amend the Public Schools Act, pp. 140 ff.

Amends s. 163 7. Section 163 is amended by striking out clause (i) and substituting the following as clauses (i) and (ii):

"(i) establish, maintain, and operate, after having secured the consent of the Council of Public Instruction, a school district college and exercise all the powers necessary to maintain and to administer the school district college subject to the Rules of the Council of Public Instruction;

"(ii) enter into an agreement, after having secured the consent of the Council of Public Instruction, with the Board of an adjoining school district or with Boards of adjoining districts to establish, maintain, and operate a regional college according to the Rules of the Council of Public Instruction".

Enacts s.163A. 8. Chapter 319 is further amended by inserting after section 163 the following as section 163A:

"163A. (1) Where the Boards of two or more adjoining school districts have, with the approval of the Council of Public Instruction, entered into an agreement to establish, maintain, and operate a regional college, the title of all property, real or personal, in respect of such college shall vest in the participating Boards as their interests may appear.

"(2) The management, administration, and control of the property, revenue, business, and affairs in respect of the college shall be vested in a Regional College Council, and without limiting the generality of these powers the Council has power

"(a) to make rules and regulations for meetings of the Council and its transactions, with power to appoint from its members a Chairman and, when necessary, an Acting Chairman and whatever committees are deemed necessary for the proper carrying out of its functions;

APPENDIX (xiii) continued . . .

"(b) to provide the necessary land, buildings, and equipment required for the college, and to make regulations as to the management and control thereof as may seem meet;

"(c) to appoint all necessary instructional and other staff required for the operation of the college and fix their salaries;

"(d) to determine the fees for instruction to be paid by or in respect of the students attending the college;

"(e) to provide for the government, management, and carrying-out of curriculum, instruction, and education offered by the college;

"(f) to determine all questions relating to the academic and other qualifications required of applicants for admission as students to the college;

"(g) to prepare annual budgeting provisions and capital expenditures for the college and the apportionment to the Boards of each of the participating school districts;

"(h) to do and perform all other matters and things which may be necessary for the well-ordering and advancement of the college.

"(3) The Regional College shall be composed of

"(a) the principal of the college;

"(b) two members appointed by the Lieutenant-Governor in Council;

"(c) one member appointed by the Minister of Education who shall be a district superintendent of schools; and

"(d) such other number of members as determined by the Minister to be appointed by each participating Board, at least one of whom shall be a trustee.

"(4) Members appointed by the Boards shall hold office for the term of one year commencing on the first day of February.

"(5) The secretary-treasurer of the Board of the school district in which the college is situated shall be the secretary-treasurer of the Council.

"(6) Nothing in this section shall be construed as limiting the Regional College Council in exercising any powers and duties which shall or may be exercised by a Board of School Trustees in the administration of a school district college, and any authority conferred by this Act upon a Board of School Trustees in respect of a school district college shall apply, mutatis mutandis, to a Regional College Council".

Re-enacts s. 192. Operating funds for school district colleges

9. Section 192 is repealed and the following substituted:

"192.(1) The Minister of Finance shall pay in each calendar year to the Board of each school maintaining a school district college a grant for operating expenses of the college for that year equal to one-half of the difference obtained by subtracting from the total amount of essential operating expenses set forth in the annual estimates of the college as finally approved by the Minister of Education the amount of the grant payable to the college for that year by the Government of Canada.

"(2) The Board shall assume as its obligation the amount by which the total amount established in the annual estimates of the college for operating expenses reduced by the amount of the grant payable to the college by the Government of Canada exceeds the sum of the operating grant calculated under subsection (1) less any tuition fees or other revenue in respect of the college which accrue to the Board.

"(3) Where the Boards of two or more adjoining school districts are authorized under this Act to maintain a regional college, the Minister of Finance shall pay in each calendar year a grant for operating expenses of the college for that year calculated as provided in subsection (1), except that the grant payable to each district shall be so apportioned that the amount assumed as its obligation by each Board under subsection (2) shall be equivalent to the amount raised by a uniform levy in each of the school districts or a levy as otherwise agreed upon by the participating Boards".

Re-enacts 2.193.

10. Section 193 is repealed and the following substituted:

"193. (1) The Minister of Finance shall pay in each calendar year to the Board of each school district maintaining a school district college a capital grant for that year equal to one-half of the total amount set forth in the annual estimates of the college for the payment of principal and interest of debts for capital expenditures in respect of the college that are approved by the Minister of Education and specified by him as being eligible for grants under this Act.

10. "193. "(2) The Board shall assume as its obligation

"(a) the amount of the difference obtained by subtracting from the total amount set forth in the annual estimates of the college for payment of interest and principal of debts for capital expenditure the amount of the capital grant calculated under subsection (1); and

"(b) the total amount required for capital expenditures, as set forth in the annual estimates of the college for capital expenses, that are approved by the Minister of Education but specified by him as not eligible for grants under this Act.

"(3) Where the Boards of two or more adjoining school districts are authorized to maintain a regional college, the Minister of Finance shall pay in each calendar year a capital grant for that year calculated as provided in subsection (1), except that the capital grant payable to each school district shall be so apportioned that the amount assumed by each Board under subsection (2) shall be equivalent to the amount raised by a uniform levy in each of the school districts".

Amends s. 219 13. Section 219 is amended by adding the following as subsection (11):

"(11) Where two or more adjoining school districts have been granted authority under this Act to establish and maintain a regional college, and questions providing for the borrowing of money for purposes of the college are submitted to the owner-electors in each of the school districts, then, for the purposes of this section, "the total of the votes polled referred to in subsection (2) shall be deemed to mean the total of all of the votes polled in all of the respective school districts, and the question submitted in each of the school districts shall be deemed to have received the assent of the owner-electors if the total number of all the votes so polled in favour of the question equal at least three-fifths of the total of all the votes so polled, exclusive of those rejected".

Re-enacts s. 243

15. Section 243 is repealed and the following substituted:

"243. (1) Where under this Act a school district college has been established in any school district, the secretary-treasurer of the Board of the school district shall set apart and keep in a separate account, to be known as the 'School District College Account',

"(a) all money paid by way of fees by or on behalf of students in attendance at the school district college;

"(b) all moneys received by the Board from the Minister of Finance by way of grants paid in respect of the school district college under this Act, and any special grants voted by the Legislature of the Province for the benefit of the school district college;

"(c) all moneys received by the Board by way of local taxation for the purposes of the school district college;

"(d) any additional moneys received by the Board or by the college from the Government of Canada or any other source for the benefit of the school district college;

and the money so set apart or that should be set apart shall be used solely for the benefit of the school district college and shall not be applied to any other purpose whatsoever by the secretary-treasurer of the Board, but shall be paid over by the secretary-treasurer of the Board from time to time as required, on the order of the Board, to the several persons to whom moneys are payable".

APPENDIX (xiv)

List of Questions and Answers Prepared by the West Kootenay Regional College Council Prior to Placing Money By-Law.

Q. 1. WHAT EDUCATIONAL PROGRAMMES WILL THE COLLEGE OFFER?

A. The college is being planned to provide:

1. Two-year terminal technical-vocational programme for high school graduates leading to employment or other training institutions.

2. Two-year liberal arts programme for high school graduates desiring a general education.

3. Two-year academic programme with transfer of full credit towards university degrees in the liberal arts, science and engineering.

4. Opportunities for adults whose studies were interrupted and who now desire to gain high school or college standing or raise their educational qualifications through day classes.

5. A broad programme of evening courses for adults.

6. Seminars and intensive short courses for professional, technical and business specialists.

7. A resource for the educational programmes of voluntary and professional organizations.

Every major city in Canada has at least one college or university. The absence of college facilities in smaller communities causes an unfortunate waste of promising youthful talent. In short, a community college is an important and valuable community resource.

Q. 2. WHY SHOULD I SEND MY SON TO A TWO-YEAR COLLEGE AT CASTLEGAR WHEN I CAN AFFORD TO SEND HIM TO A UNIVERSITY?

A. If your son has definitely decided on a professional course and is eligible for admission, by all means send him to a university. However, for young people who have no clearcut vocational goals, attendance at a regional college will help them to sort themselves out and clarify their goals without costly and irretrievable mistakes.

Perhaps your son has no academic aptitudes or interests. If so, the regional college may offer a more suitable course for him.

If your son has not the required academic standard for admission to a university, attendance at a regional college will give him a chance to repair his deficiencies and transfer to a university at a later date.

Q. 3. CAN A STUDENT WHO HAS SUCCESSFULLY COMPLETED ACADEMIC COURSE REQUIREMENTS AT THE COLLEGE TRANSFER TO THE UNIVERSITY OF BRITISH COLUMBIA OR OTHER UNIVERSITIES IN THE PROVINCE AND CANADA?

A. It is fully expected that properly registered students in the academic programme will be able to transfer to the university of their choice.

Q. 4. DO WE REALLY NEED A COMMUNITY COLLEGE?

A. Yes, for three good reasons. The first has to do with numbers. By 1965-66 there will be some 24,000 students in British Columbia continuing education beyond high school. By 1971, a total of 37,000 students will continue their academic education beyond the secondary school level. If no other institutions have been established by that time, more than 27,000 of these students will enrol in the University of British Columbia alone.

"I am convinced", says Dr. Macdonald, President of the University of British Columbia, " that such a situation would be an educational disaster for the Province of British Columbia". Dr. Macdonald added that unless other educational facilities are made available immediately, "thousands of very able and deserving young men and women of this province will be deprived of higher education". Dr. Macdonald strongly favors regional colleges.

Recently a President's Committee, set up by Dr. Macdonald, recommended that undergraduate enrolment at the University of British Columbia be limited to 16,500 students. If this college is not built, there is a good chance that many deserving students from this area will not have an opportunity to get a post high school education.

The second reason has to do with our changing society. With the advancement in technology in all spheres of activity, a greater variety of skills is required. At present, in Canada, there are only a few institutions which meet this need. The need is, and will be, urgent. Colleges, such as the one to be built at Castlegar, are essential.

The third reason is the changing concept of education in our secondary schools. The projected enrolment figures for British Columbia universities as given by Dr. Macdonald appear extensive, yet only 18 per cent of the students completing high school in this province go to university. At the same time, 60 per cent of the high school students are on the university programme because there has been no suitable alternative for them in the past that kept the door open to higher education.

APPENDIX (xiv) continued . . . . .

Q. 5. WHY SHOULD THE COMMUNITY COLLEGE TEACH TECHNOLOGICAL SUBJECTS WHEN A VOCATIONAL SCHOOL EXISTS AT NELSON? DO THE PROGRAMMES OF THE VOCATIONAL SCHOOL AT NELSON AND THE COMMUNITY COLLEGE OVERLAP?

A. No. The vocational school at Nelson offers "job training" as such rather than a broadly based academic or technological education. The courses tend to be more limited in scope and generally short term. Their purpose is to offer training in skills, which will lead immediately to employment in the trades and other skilled manual occupations. They also retrain people displaced by technological change.

Q. 6. WILL GRADUATION FROM THE COMMUNITY COLLEGE HELP ME TO GET A JOB?

A. The multipurpose community college can play a vital role in preparing students for immediate employment in technical and semi-professional positions at the end of two years and in retraining adults for new jobs created by an automated economy.

In this age of automation, an increasing range and number of positions require training at the post-high level of at least two but not necessarily four years' duration. Norman C. Harris, professor of technical education at The University of Michigan, points out that an elementary education or less in 1930 was adequate for 58% of the employed population; a high school education sufficed for an additional 32%. In contrast, Professor Harris suggests that during the 1970's, 50 per cent of the labor force will be in positions requiring post-high school education equivalent to graduation from a community college, with an additional 18 per cent in positions requiring university graduation.

Q. 7. WHAT ARE THE CHARACTERISTICS OF STUDENTS WHO GO TO COMMUNITY COLLEGES?

A. There is no Canadian experience to suggest an answer to this question. However, from such states as Washington and California we can give the following answer:

College students range in age from 16 to 70. Usually about half the students are 19 and under and about half are 23 or over. All income levels are represented. Approximately two-thirds of the academic students intend to transfer to universities; one-third usually do. Many students decide in a community college to prepare for careers other than those leading toward conventional professions. Community college students compare favourably in academic averages with university students. Community college transfer students show marked success in upper division work in the universities.

Q. 8. WILL THE COLLEGE PROGRAMMES BE AVAILABLE TO OLDER MEN AND WOMEN?

A. Yes, indeed. A central purpose of the college is to make opportunities for further learning available to adults in the day time as well as during evenings and weekends. (There is a growing need for adult classes. Ten years ago there were adult school programmes in forty-eight school districts in British Columbia offering 800 different classes. At the present time there are adult education programmes in 86 school districts offering 3000 classes).

Q. 9. WHAT MIGHT THE SPECIAL ADVANTAGES OF A COMMUNITY COLLEGE BE TO A STUDENT?

A. First, is the quality of instruction. Faculty will be appointed who want to teach and who are interested in young people. Excellence in teaching will be a goal of the college. Classes will be small.

Second, is the diversity of opportunity. Students who find that a straight academic programme has limited appeal for them can transfer to a semi-technical-vocational programme within the same institution without heavy time and financial loss.

Third, is the full programme of student counselling services. Students uncertain about their educational or career objectives are able to assess their abilities under the direction of professional counsellors and teaching faculty. Small classes also help students to find themselves.

Fourth, is the question of expense. It costs at least $1500 annually for a student to attend the University of British Columbia, from the West Kootenays. Living at home, the cost of attending the community college should be about one-half this amount.

Q. 10. WILL THE COLLEGE OFFER CORRESPONDENCE COURSES?

A. Not likely. There are many good correspondence courses already available in British Columbia and Canada. Programmes for adults given at the college will help to offset the need to search for technical training opportunities by mail.

Q. 11. WILL IT BE POSSIBLE TO ACQUIRE PRACTICAL KNOWLEDGE IN LOCAL INDUSTRIES, MINES AND FORESTS IN CONNECTION WITH STUDIES AT THE COLLEGE?

A. Such programmes, as well as employment possibilities, have not been worked out in detail. Discussions that have been held so far with industrial concerns indicate strong support of the college and a desire to co-operate in any practicable way.

Q. 12. WHAT SERVICES COULD BE MADE AVAILABLE TO THE COLLEGE FOR PROFESSIONAL AND MANAGEMENT PERSONNEL?

A. The needs of these people will be met by the college. Industry has discovered that administrators, as well as technicians, can grow obsolete. Consequently, most companies look for seminars, conferences, short courses, laboratory services, evening classes, films and publications, which will enable senior staff to review current research, study new technologies, improve skills in human relations, meet colleagues, and so on. Ministers, lawyers, teachers, doctors and other professional people are also looking to the college as a regional centre for continuing professional education.

Q. 13. MUST STUDENTS ENROL IN THE COLLEGE DIRECTLY FROM HIGH SCHOOL?

A. Not necessarily. Adults whose studies have been interrupted will be encouraged to apply for admission to the college directly.

Q. 14. WHAT COURSES WILL BE AVAILABLE FOR UNIVERSITY-BOUND STUDENTS?

A. Basically, the first two years of courses in the faculties of Arts and Science will be available. Talks are being held with the universities of the province to ensure that courses which will be offered at the college will meet the requirements for the first two years of the following university programmes:

Agriculture	Science
Applied Science	Arts
Architecture	Commerce
	Education

It is still too early to know precisely which courses will be available in 1966. Listed below are the proposed instructional divisions and the courses which may be offered:

Physical Sciences	Life Sciences
Chemistry	Bacteriology
Geology	Biology
Mathematics	Botany
Physics	Zoology
Social Sciences	**Arts and Humanities**
Anthropology	English
Economics	French
Geography	German
History	Music

Social Sciences cont'd . .

Political Science
Psychology
Sociology

Arts and Humanities cont'd . .

Philosophy

Commerce

Accounting
Industrial Administration
Business Fundamentals

Q. 15. WHAT TECHNICAL-VOCATIONAL PROGRAMMES WILL BE OFFERED AT THE COLLEGE?

A. It is intended that the first year, and in some cases the second year, of the following Diploma courses will be available:

Business Management
Chemical and Metallurgical Technology
Civil and Structural Technology
Electrical and Electronic Technology
Forestry Technology
Instrumentation and Control Technology
Mining Technology
Surveying Technology
Drafting
Home Economics
Advanced Secretarial Science

Q. 16. WILL SENIOR MATRICULATION CONTINUE TO BE OFFERED IN HIGH SCHOOLS?

A. No. High schools in the sponsoring school districts will transfer senior matriculation to the college. The adult atmosphere of a college with its special resources should promote a more mature response in students, enabling them to achieve better grades and greater satisfaction from their studies.

The college will be able to offer a broader, more varied curriculum, more in line with first year university. The present senior matriculation curriculum is very limited by necessity in a high school organization.

High school administrators find it difficult to reconcile a college philosophy and atmosphere with that of the high school.

Q. 17. HOW WILL THE COLLEGE BE FINANCED?

A. There are four principal sources of funds: the provincial government, the federal government, local taxpayers and students.

The cost of building and equipping the college will be shared by the provincial government and local taxpayers on a fifty-fifty basis. There is a very real possibility that the federal government will share substantially in the cost of building and equipping that portion of the college devoted to technical-vocational education. This could reduce the cost to local taxpayers substantially. The possibility of federal participation is being regorously pursued by the College Council at the present time.

Operating costs will be shared on the approximate basis of provincial government one-half, local taxpayer one-quarter, student one-quarter. Again, there is every likelihood that federal government funds will be available for technical-vocational courses, which will reduce the local taxpayer contributions. Precise figures will be available before the by-law vote.

Q. 18. WILL THE FEDERAL LOANS NOW MADE AVAILABLE TO UNIVERSITY STUDENTS BE ALSO AVAILABLE TO COLLEGE STUDENTS?

A. There is every indication that federal loans will be available to college students in precisely the same way as they are now available to university students.

Q. 19. WILL THE COLLEGE OFFER SCHOLARSHIPS AND BURSARIES?

A. Certainly. How many and what kind have not yet been determined. There is already a fine pattern of scholarship support in this area.

Q. 20. WILL THE TUITION FEE PAID BY A STUDENT COVER THE COST OF HIS EDUCATION?

A. No. A student pays barely one-quarter of the costs of his education. The rest is obtained from the federal and provincial governments, local taxation and gifts. The tuition fee is expected to be approximately $200 or less for a full-time day programme. Fees will be much less for individual day courses and for evening classes.

Q. 21. WHAT IS THE DIFFERENCE BETWEEN A PLEBISCITE AND A MONEY BY-LAW? WHY GO TO THE EXPENSE OF POLLING OPINION TWICE?

A. A plebiscite is a vote to determine the wishes of the people. A money by-law is a vote by taxpayers to provide money for the project. As these apply to the regional college, a plebiscite was put by the six West Kootenay school boards to determine if the people in their

APPENDIX (xiv) continued . . . .

A. Continued . . . . .
respective districts were in favor of establishing a regional college in the West Kootenay area. Each district voted separately. A simple majority of all registered voters was required to pass it. Following the plebiscite the regional College Council was formed and work proceeded towards setting up the college.

Having determined the requirements, the Council is now putting a money by-law to raise the local share of the capital cost. This by-law will be voted on by owner-electors only and must pass by a 60 per cent majority in the whole West Kootenay area, not in individual school districts.

Q. 22. THE THREE PROVINCIAL UNIVERSITIES OF BRITISH COLUMBIA ARE SUPPORTED BY FEDERAL AND PROVINCIAL GRANTS. WHY IS IT THAT THE PROPOSED COMMUNITY COLLEGE DIRECTLY "PENALIZES" THE LOCAL RATEPAYER BY ASKING FOR ADDITIONAL TAXATION TO SUPPORT IT?

A. The answer to this question lies in the provincial government policies concerning education. As we understand it these policies differentiate between province-wide and local needs. Institutions catering to total provincial needs, irrespective of location, will be financed entirely by provincial funds. The new British Columbia Institute of Technology is a good example. It is providing a particular kind of education and training to students all over the province.

Institutions catering to a local need will be financed in part by local tax money. The philosophy behind this policy is that citizens should have some say in determining their local educational needs and should accept some financial responsibility in paying for them. This is the case with our elementary and secondary schools.

The regional college, in the provincial government's view, falls into the latter category. The advantage from the local community's point of view is that the college will be managed and controlled by a board made up of local citizens who will be much more sensitive to local needs. What the provincial government is actually saying is this: "If you want to provide the opportunity for post-high school education for the young people and the adults of your area, we will permit you to do it and will provide a large chunk of the money. But, to show the extent of your determination and conviction you also must put up some of the money".

In the final analysis, the cost of all education comes from the same source - taxes. The increase in local taxes for this purpose will be more than offset by offering a less expensive education at the local level, rather than offering the same at a provincial institution.

Q. 22A. WHAT IS THE DIFFERENCE BETWEEN CAPITAL AND OPERATING COSTS? WHO PAYS THESE COSTS?

A. Costs can be divided into two main areas: capital costs and operating costs. Legislation and the agreement between the co-operating school boards spells out the basis for the sharing of these costs.

Capital costs are the costs of buildings and equipment. These costs will be shared by the provincial government and the local taxpayer on a fifty-fifty basis, after any grants from the federal government have been deducted. There is a real possibility that the federal government will share substantially in the cost of building and equipping that portion of the college devoted to technical-vocational education. Under the terms of a dominion-provincial agreement, the federal government will pay 75 per cent of the cost of approved facilities. This could reduce the cost to local taxpayers substantially. The possibility of federal participation is being rigorously pursued by the College Council.

Capital funds to be supplied by the provincial government and local taxpayers will be raised in the same manner as for regular school purposes, that is, by the sale of debentures. These debentures will be retired over a twenty-year period. The local school boards will include appropriate amounts in the annual school levies for their share.

Costs of operating the college will be shared on the same basis fifty-fifty formula. Again, these costs may be reduced by federal contributions. There are two possible sources of federal funds. First, it is expected that a portion of the federal per capita grants to the provinces on behalf of post-secondary students will be available to the college. Secondly, federal funds are available for operating technical-vocational programmes under a number of formulas mutually agreed to by the provincial and federal governments. It is fully expected that the technical-vocational programmes offered by the college will qualify for such funds.

The legislation provides that fees charged to students will be credited against the local share of operating costs. Considering all these factors it is quite probable that the local taxpayers' share of operating costs will be less than one-quarter of the total.

The co-operating school boards have agreed to divide the local tax burden in proportion to the current property assessment in each local district. Under this formula the districts will share the costs on the following approximate proportion (based on 1964 assessments):

APPENDIX (xiv) continued . . .

A. Continued . . .

School District No. 7	(Nelson)	20%
School District No. 8	(Sbcan)	4%
School District No. 9	(Castlegar)	20%
School District No. 10	(Arrow Lakes)	4%
School District No. 11	(Trail)	47%
School District No. 12	(Grand Forks)	5%

The precise figures with respect to costs will be available shortly after the architectural competition is completed and certainly before the money by-law is held.

Q. 22B. WHAT ARE THE FEES OF THE REGIONAL COLLEGE EXPECTED TO BE? HOW DO THEY COMPARE WITH FEES OF UNIVERSITIES IN BRITISH COLUMBIA? WITH THE BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY?

A. The tuition fee of the regional college is expected to be $200 or less. This fee would cover all academic costs to the student for the period of one academic year (two terms).

The fees for the Faculties of Arts, Science and Education at the University of British Columbia are $400. The fees for University of Victoria also are $400. The fees for the same courses at Notre Dame University of Nelson are $500. The fees for the Institute of Technology are $170.

The cost of board and room at the University of British Columbia varies according to the residence. The minimum cost of a double room with board at Fort and Acadia Camp at the University of British Columbia is $472. At Notre Dame one figure of $595 is given with two or more students to a room. All of the above figures are taken from the 1964-65 Calendars of each institution.

Q. 23. WHAT IS THE VIEW OF THE B.C. SCHOOL TRUSTEES ASSOCIATION ABOUT FINANCING COMMUNITY COLLEGES?

A. The Association has stated: "Obviously all costs of education, no matter how the programme is developed and operated, will have to be met from the pockets of taxpayers. The B.C. School Trustees Association believes that taxpayers will be much more willing to make a contribution if the development is in the direction of community colleges, because such institutions will be easily available to people throughout the province. The results of the contributions will thus be more evident and tangible. The taxpayer will realize he is benefitting directly through the continuing education programme offered, and he will have a voice in the control through his ballot".

Q. 24. WHERE IS THE PROPOSED COLLEGE SITE? HOW MUCH DOES THE LAND COST?

A. The site of some 200 acres is near Castlegar at the junction of the Kootenay and Columbia rivers. Independent experts agree that the site offers excellent possibilities for a campus. It is within commuting distance of most West Kootenay population centres.

The Council has made application for this former Doukhobour land through the Land Settlement Board. No difficulty is seen in obtaining this land from the provincial government at a very nominal cost.

Q. 25. HOW IS THE COMMUNITY COLLEGE BEING PLANNED?

A. The Council for the College has:

1. Considered carefully the reports of the Royal Commission on Education in British Columbia and elsewhere, and the recommendations contained in Dr. J. Macdonald's report on "Higher Education in British Columbia and a Plan for the Future".

2. Consulted extensively with educational authorities in the Province knowledgeable in higher education.

3. Consulted with experts in United States and studied the operation of certain colleges on the spot.

4. Conducted a series of surveys in the schools and communities. The surveys were designed not only to get information but to provide a means to give advice to the Council.

5. Engaged professional consultants to advise on curriculum and other specialized matters.

6. Entered into preliminary negotiations with authorities regarding land, buildings and so on.

Q. 26. WHAT TRANSPORTATION WILL BE AVAILABLE AND WHAT WILL IT COST?

A. It is not anticipated that the college will provide transportation. It is expected that commuting students will travel in private cars or by public transportation. No doubt private bus companies will operate from district communities if it is warranted. The daily return cost would probably be in the order of 75 cents. This compares with an average of 50-75 cents paid by non-campus resident students in Vancouver attending the University of British Columbia.

A. Continued . . . . .

The site of the college was chosen to allow commuting from most of the population centres in the West Kootenay area. A maximum travel time of one hour was used. The majority of students will spend less than 35 minutes travelling. This also compares with the average time spent travelling by most University of British Columbia students living off campus.

Some of the school boards are considering providing some measure of assistance with transportation. However, this is very tentative and beyond the scope of the College Council's responsibility.

Q. 27. WHO ARE THE MEMBERS OF THE COUNCIL OF THE COLLEGE? HOW WERE THEY APPOINTED?

A. The members are appointed under the Public Schools Act by participating school boards; by the Lieutenant Governor-in-Council; by the Minister of Education. Members of the Council are:

Name	Community	Representing
J.E. Fletcher	Rossland	School District No. 11 (Trail)
J.A. Gray (Chairman)	Trail	School District No. 11 (Trail)
Dr. J.V. Hall	Castlegar	School District No. 9 (Castlegar)
Mrs. P.A. Jacobson	Kinnaird	School District No. 9 (Castlegar)
J. Kary	Nelson	Provincial Government
C.S. McKenzie	Trail	Minister of Education
S. Mitchell	Trail	School District No. 11 (Trail)
R. Palmer	Nelson	School District No. 7 (Nelson)
Dr. D.A. Perley	Grand Forks	School District No. 12 (Grand Forks)
R.T. Waldie	Robson	Provincial Government
G.F. Warning	Salmo	School District No. 7 (Nelson)
G. Weatherhead	Nakusp	School District No. 10 (Arrow Lakes)
J. Welton	Trail	School District No. 11 (Trail)
J.L. Wilson	Silverton	School District No. 8 (Slocan)
Not appointed yet		Principal of the College

Q. 28. HOW MANY STUDENTS ARE EXPECTED TO ENROL?

A. When the college opens in September, 1966, it is expected that there will be from 500-600 full-time day students, 500 part-time evening students and as many as 2,500 people participating from time to time in weekend seminars, lectures, etc. These figures are quite firm, being based on student populations already in our West Kootenay schools.

Q. 29. IF ONE SCHOOL DISTRICT DOES NOT OBTAIN THE NECESSARY MAJORITY IN THE BY-LAW VOTE, IS THE DISTRICT BOUND TO STAY IN THE AGREEMENT AS A SPONSORER OF THE COLLEGE?

A. Yes. Following the successful plebiscite in each of the participating school districts, the school boards entered into a binding agreement to create a Regional College Council. The district for college purposes is the sum total of the six school districts. The anticipated money by-law will be put to this college district as a whole, not by individual school districts. A 60 per cent majority vote by owner-electors in the whole area will carry the by-law. The law provides, however, that a district may be released from its obligation by the consent of all other participating districts.

Q. 30. WHAT ARE OTHER PROVINCES - ONTARIO, FOR EXAMPLE - DOING ABOUT COMMUNITY COLLEGES?

A. In Ontario, the Minister of Education appointed an Ontario Grade 13 Study Committee to explore the matter. A sense of urgency prevailed in its work. Within a week after it had reported, the Minister took steps to implement some of its recommendations. The Committee recommended long-range revision of the entire school curriculum with the eventual abolition of Grade 13 and the establishment of two-year community colleges. There is already widespread interest in the community college idea in Ontario. Alberta has already developed a number of community colleges.

Q. 31. HOW WAS THE LOCATION OF THE COLLEGE DECIDED?

A. When the West Kootenay school boards first examined the question of a regional college it was quite obvious that the centre of the area for transportation purposes was Kinnaird-Castlegar. Dr. Macdonald, in his report, had reached the same conclusions.

In the agreement signed by the six co-operating school boards, the location was specified as "within the boundaries of School District No. 9 (Castlegar)". The West Kootenay College Council, within this limitation, chose the proposed site at the confluence of the Kootenay and Columbia rivers as being most suitable and available.

Q. 32. CAN INDIVIDUAL CITIZENS ASSIST IN PLANNING THE COLLEGE?

A. Yes, indeed. They are warmly invited to help by getting in touch with any Council member. Any person or group wanting further information is asked to phone the temporary office of the Council in Trail (368-9181) or write:

A. Continued . . . . .

West Kootenay College Council,
1186 Cedar Avenue,
Trail, B. C.

Q. 33. WILL RESEARCH BE CARRIED ON AT THE COLLEGE?

A. Basically community colleges are teaching institutions. It is anticipated that research of a specialized nature may be conducted as time and experience suggest opportunities. However, teaching rather than emphasis upon research will be the faculty's main consideration.

Q. 34. WILL THE COLLEGE HAVE RESIDENCES?

A. Residences are not being planned for the College at this time. It will be a commuting college for the large majority of students. A few students may board in private homes in Kinnaird or Castlegar. If the need arises at some future date, residences may be considered.

Q. 35. WHAT DO HIGH SCHOOL TEACHERS THINK ABOUT THE COMMUNITY COLLEGE IDEA?

A. High school teachers are thinking men and women with individual views. It does them an injustice to lump together their views into one blanket opinion. Teachers have frequently expressed their support for the college in many ways. The West Kootenay District Council of the B.C. Teachers' Federation has unanimously supported the action undertaken by the school boards to establish a regional college.

Q. 36. WILL THE COLLEGE HELP VOLUNTARY AND PROFESSIONAL ORGANIZATIONS?

A. Yes. Facilities will be available and personnel of the College will assist community organizations in planning seminars and educational conferences. Some of the finest educational programmes in the country have been developed by such co-operation. The College will develop a working partnership with these groups. The leadership available through voluntary and professional organizations is vital to the College's successful operation.

Q. 37. WHAT IS THE VIEW OF THE B.C. SCHOOL TRUSTEES ASSOCIATION REGARDING COMMUNITY COLLEGES?

A. The B.C. School Trustees Association has issued a formal statement analyzing the need for post-high school education. This thoughtful statement should be read in its entirety. The trustees, in brief, support "....comprehensive community colleges which will cater not only to the top group of students with high academic ability but also to the very large percentage of pupils whose needs may not be defined as purely academic today".

Q. 38. WHERE WILL THE TEACHING STAFF COME FROM?

A. It is expected that for academic courses teachers will be drawn from both high schools and universities. In agreeing to set up a college in the West Kootenay area the school boards were very much aware of the possibility that the college might drain the high schools of teachers. It was agreed that this should be avoided at all costs. The College will honour the school boards' wishes when selecting staff. Such appointments will be arranged by mutual agreement.

Teachers for technical-vocational courses will require special background and experience. Many will be drawn from business and industry. Gold is where you find it. And you don't always find it in the obvious places. Simon Fraser found its distinguished president in the Meteorlogical Service of Canada, which he headed. He has successfully recruited an internationally distinguished faculty. The B.C. Institute of Technology also managed to find an outstanding staff of instructors when they opened this September. The College has already received a number of inquiries from eminently qualified persons across Canada, some of whom have their doctorate degrees, expressing an interest in teaching in a smaller institution of higher learning. The Council of the College foresees no difficulty in recruiting fully qualified staff.

Q. 39. WHAT IS THE VIEW OF THE PROVINCIAL GOVERNMENT AND THE UNIVERSITIES OF BRITISH COLUMBIA TOWARD THE ESTABLISHMENT OF THE COLLEGE?

A. Dr. John B. Macdonald, President of the University of British Columbia, recommended in his much-discussed report Higher Education in British Columbia and a Plan for the Future" that "...two-year colleges offering a variety of programmes of one or two years of education beyond Grade XII" be established. This report was endorsed by the Provincial Government and enabling legislation was passed.

A. Continued . . . .

Since then, officials of the Department of Education, the Universities of British Columbia, Simon Fraser and Victoria, and the British Columbia Institute of Technology have been exceptionally co-operative, encouraging, and helpful in every way to the College Council and its consultants.

Q. 40. WHY DO WE NEED A COLLEGE AT CASTLEGAR WHEN WE HAVE NOTRE DAME UNIVERSITY AT NELSON?

A. There are several good reasons. First, the two schools will be very different. Notre Dame is a university offering regular university work leading to a degree. Although the college will offer two years of university work, its main purpose will be to offer post-secondary education to all high school graduates (not only matriculants). These two-year courses will lead to employment in a number of technical and semi-professional fields. In addition, the college will meet the needs of West Kootenay communities for part-time courses, seminars, conferences, to upgrade job skills or satisfy personal needs. The rapid advancement in the technology of industry and business makes it imperative that young people and adults be trained in a variety of ways to meet modern needs.

Second, there is an urgent need for more post-secondary institutions to cope with the rapidly expanding population. In his report "Higher Education in British Columbia", Dr. John Macdonald of the University of British Columbia, predicted that the population of British Columbia will be two million by 1971 and three million by 1981. In 1962-63 there were 17,000 students registered in post-secondary programmes. By 1971 there will be 37,000 students seeking entry into these programmes. It is certain that both Notre Dame and the proposed college will be needed to cope with the flood of young people seeking admission to universities and colleges.

Third, Notre Dame is a private, sectarian university. As such it is not a public institution and does not therefore receive the governmental support necessary to fill a public need in the Province.

Fourth, the proposed college at Castlegar will provide less expensive education for the first two years. The fees will be much less than Notre Dame or any of the provincial universities. In addition, most students will commute.

APPENDIX (xiv) continued . . .

Q. 41. IN WHAT WAYS IS A COMMUNITY COLLEGE DIFFERENT FROM A UNIVERSITY?

A. 1. A university is a degree-granting institution. The community college will not offer degrees.

2. A university offers a minimum of four years academic undergraduate study. It offers extensive post-graduate studies. A community college is a two-year institution from which qualified students may transfer to a university.

3. A university emphasizes research; a community college emphasizes teaching.

4. The community college offers two-year technological diploma programmes; a university is not primarily concerned with non-degree courses.

5. Community colleges emphasize flexibility in response to community needs; its administrative board resides in the area, its adult programmes are oriented to area interests. A university, by definition, is a provincial institution with concerns of a broader nature and administered by a more widely representative Board of Governors.

6. A community college emphasizes a strong counselling programme.

7. Admission requirements of universities are highly selective and usually rigidly based on high school matriculation standing; community colleges have more flexible categories of admission regulations, emphasizing selective retention and placement of students in various programmes.

Q. 42. WHAT ARE SOME OF THE ADMINISTRATIVE POLICIES BEING PROPOSED FOR THE COLLEGE?

A. 1. The college will be open in the evening as well as during the day, Monday through Friday, and Saturdays. It will operate on a year-round basis. Students will be able to attend on a part-time or full-time basis. As far as possible, timetables will be constructed to assist shift workers.

2. Courses will vary in duration from a weekend to two years. Every effort will be made to provide courses in sequence leading to a diploma. Diploma courses will be developed in consultation with advisory committees representing some of the most competent persons in their fields in the Province.

3. Certain programmes will relate directly to employment opportunities of the industry concerned.

APPENDIX (xiv) continued . . .

A. Continued . . . .

4. Outstanding guidance services will be available for all students.

5. The College administration, in making maximum use of the physical plant, will seek to maintain flexibility in response to community needs, maximum opportunity for further learning at all levels and, above all, standards of excellence in all areas of study.

Q. 43. WHY IS IT SO IMPORTANT NOWADAYS FOR YOUNG PEOPLE TO ATTEND A COLLEGE AND FOR ADULTS TO HAVE EVERY CHANCE TO IMPROVE THEIR QUALIFICATIONS?

A. There are a number of trends which demand that higher education seek new directions. Here are a few:

1. The complexity of everyday life in an urban, industrialized society.

2. The explosion of technical and scientific knowledge which has characterized the past four decades.

3. The increase in complexity of occupations at all levels.

4. The fact that in our society, education stands between man and his job - that lack of education is a barrier between men and jobs.

5. The disappearing of unskilled (common labour) jobs.

6. The impact of automation on production, on jobs, and on people.

7. The realization that knowledge is the key to a better life - not just for the few, but for the many.

8. A manpower shortage in professional, semi-professional, and technical categories; contrasted with unemployment in the unskilled and semi-skilled categories.

Q. 44. WHAT WILL BE THE ENTRANCE REQUIREMENTS TO THE COLLEGE?

A. 1. Junior matriculation.

2. B.C. high school graduation.

3. Graduation from some other high school system.

4. Completion of a preparatory programme at the college designed to bring the student up to high school graduation or junior matriculation.

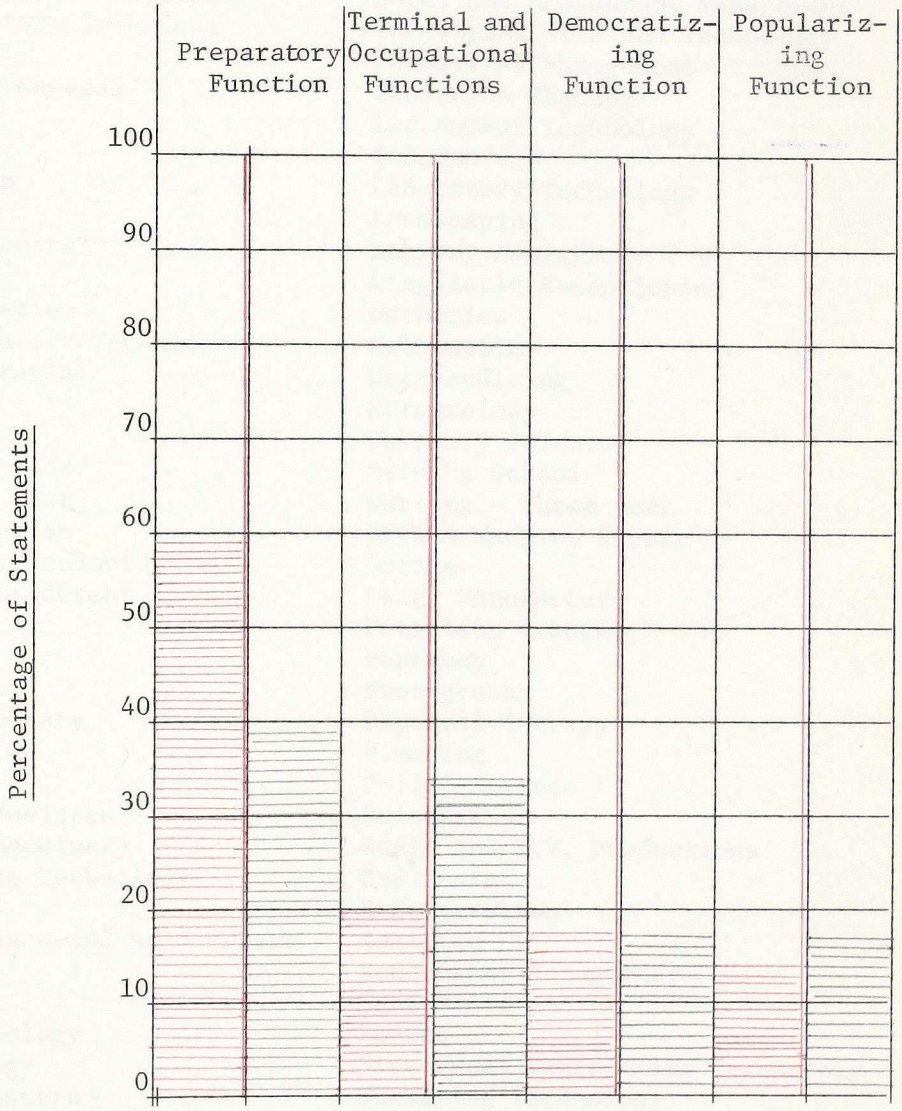
APPENDIX (xiv) continued . . .

5. Special admission on the basis of maturity, previous experience and background.

The College will have flexible admission regulations, emphasizing selective retention and placement of students in programmes suited to their aptitudes and interests.

APPENDIX (xv)

Graph showing differences in the percentages of statements occurring in junior college literature and in the junior college catalogues with respect to function. Catalogue statements are shown in red.



Based on Dook S. Campbell, A Critical Study of the Stated Purposes of the Junior College, Contributions to Education No. 70, George Peabody College for Teachers, Nashville, Tenn., 1930.

APPENDIX (xvi)

Typical Terminal or Semi-Professional Curricula Offered as Indicated by Inspection of a Number of Junior College Catalogues.

General Education
Agriculture
Architecture
Art
Aviation Flight
Building Trades
Business Education - General
Dental Laboratory Technique
Drafting
Electricity - General
Engineering
Forestry
Home Economics
Journalism
Mechanics - General
Mechanics Auto
Mechanics Aviation
Medical Laboratory Techniques
Medical Secretarial
Metal Work
Music
Nursing - one year
Nursing - two year
Physical Education
Radio and T.V. Technology
Recreational Leadership
Salesmanship
Secretarial
Social Service
Teaching Elementary
Woodworking
Advertising
Agricultural Business
Agricultural Machinery
Airconditioning Technology
Apparel
Banking Insurance and Real Estate
Broadcasting
Cartography
Chemical Technology
Civil Technology
Coal Mining Western
Communications
Conservation
The Dance
Data Processing
Diesel Technology
Drama
Electronics Technology
Fashion Design
Fire Science
Fisheries
Floriculture
Food Technology
Gasoline Plant Operation
Gunsmithing
Horticulture
Horology (watchmaking)
Hotel and Restaurant Management
Industrial Arts and Technology
Industrial Management
Tholation Therapy
Instrument Technology
Insurance
Laboratory Technology
Landscaping
Library Assistance
Linguistic Receptionist
Machinist
Mathematics
Merchandising
Meteorology
Mortuary Science
Nursing School
Nursing - three year
Office Machine Repair
Optics
Paint Manufacture
Petroleum Trades
Pharmacy
Photography
Physical Therapy
Plumbing
Police Science
Printing
Radio and T.V. Productions
Real Estate
Refrigeration
Religion
Restaurant Management
Sanitation
Speech
Structural Engineering Technology
Surveying Technology
T.V. Broadcasting
Textile Design
Tool and Die Design
Transportation
Travel Hostess
Upholstery
Watchmaking
Water and Sewage Technology
Wild Life and Conservation

APPENDIX (xvi) continued . . . .

Typical Transfer Curricula Offered as Indicated by an Inspection of a Number of Junior College Catalogues

Liberal Arts
Agriculture
Business
Dentistry
Engineering
Forestry
Home Economics
Law
Medicine
Music
Nursing
Pharmacy
Religion
Science
Teaching
Veterinary Science
Architecture
Art
Chiropody
Chiropractic
Communications
Drafting
Drama
Fisheries
Hotel Management
Industrial Management
Journalism
Laboratory Technology
Library Science
Logopedics
Medical Technology
Military Science
Mineral Industry
Mortuary Science
Occupational Therapy
Optometry
Osteopathy
Physical Education
Physical Therapy
Police Science
Public Health
Radio Production
Social Work
Speech
Television Production
Wildlife Conservation
X-Ray Technology

APPENDIX (xvii)

Proposed Courses for the West Kootenay Regional College

1. LIBERAL ARTS

A. Physical Sciences

1. Chemistry
2. Geology
3. Mathematics
4. Physics

B. Social Sciences

1. Anthropology
2. Economics
3. Geography
4. History
5. Political Science
6. Psychology
7. Sociology

C. Life Sciences

1. Bacteriology
2. Botany
3. Zoology

D. Arts and Humanities

1. English
2. French
3. German
4. Music
5. Philosophy

E. Commerce

1. Accounting
2. Industrial Administration
3. Business Fundamentals

II. APPLIED ARTS

1. Advanced Secretarial Science
2. Business and Commercial Practice
3. Civil and Structural Technician
4. Drafting
5. Electrical and Electronics Technician
6. Forestry Technician
7. Home and Institutional Practice
8. Instrumentation and Control Technician
9. Mechanical Technician
10. Mining Technician
11. Chemical and Metallurgical Technician.

APPENDIX (xviii)

THE MANPOWER SPECTRUM

EXAMPLES	Office Boy	Stenographer		Executive Secretary	Executive
			Machinist	Mechanical technician or technologist	Mechanical Engineer
	Labourer		Electrician	Electrical techician or technologist	Electrical Engineer
	UNSKILLED WORKER	SEMI-SKILLED WORKERS AND OPERATORS	CRAFTSMEN AND SKILLED TRADESMEN	TECHNICIANS --TECHNOLOGISTS	ENGINEERS AND SCIENTISTS
TYPES OF KNOWLEDGE	Muscular activity only	Simple hand Skills. Repetitive operation in mass production	Complex hand skills and some technical knowledge. Job oriented	Basic math., science and technical knowledge to second year college level. Field oriented	Advanced Math. and Sc. Advanced Technological knowledge.
TYPES OF JOBS			Production, repair, maintenance and construction jobs	Test, mtnce, drafting, detailing, checking, estimating, gathering of data and preliminary calculations. At more advanced levels, individual research activities in support of engineers, scientists etc.	Basic research and design, the direction of research and production activities

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APPENDIX (xix)

FIELD OF SPECIALIZATION — CIVIL AND STRUCTURAL

List of Subjects	Prerequisite
1. Strength of Materials II	Statics and Strength of Materials I
2. Surveying II	Surveying I
3. Work Study II	Work Study I
4. Soil Mechanics and Foundations	Statics and Strength of Materials I
5. Design and Dftg. in Steel & Timber	Strength of Materials II*
6. Design and Dftg. in Reinforced Concrete	Strength of Materials II*
7. Concrete Technology	----------
8. Public Services Engineering	Hydraulics
9. Highway Technology	Surveying II*
10. Specifications and Estimating	----------
11. Construction Superintendence	Work Study II*
12. Photogrametry I	Surveying II*

FIELD OF SPECIALIZATION — ELECTRICAL & ELECTRONICAL

List of Subjects	Prerequisites
1. Physics II	Circuits - E & E
2. Measurements	Circuits - E & E
3. Electronic Circuits	Circuits - E & E - S/C
4. Communications	Circuits - E & E - S/C
5. Electrical Equipment I	Circuits - E & E
6. Electrical Equipment II	Circuits - E & E
7. Circuit Analysis	Circuits - E & E
8. Pulse Circuits & Digital Techniques	Circuits - E & E - S/C
9. Radar	Circuits - E & E - S/C
10. Microwave Systems	Circuits - E & E - S/C
11. Power Systems	Circuits - E & E
12. Industrial Electronics	Circuits - E & E - S/C
13. Radio and T.V. Transmission	
14. Servos and Control	
15. Electrical Drafting	

FIELD OF SPECIALIZATION — GAS & OIL

List Subjects	Prerequisites
1. Gas and Oil Production & Transmission	----------
2. Distribution and Utilization (Gas)	----------
3. Refining and Utilization (Oil)	----------
4. Unit Operations	General Chemistry
5. Organic Chemistry	General Chemistry
6. Organic Chemistry Laboratory	General Chemistry
7. Physical Chemistry	General Chemistry
8. Physical Chemistry Laboratory	General Chemistry
9. Process Control	----------
10. Telemeters and Computers	Instrumentation I

Society of Architects and Engineering Technologists' list of Required Subjects in Various Fields of Specialization.

APPENDIX (xix) continued . . . . .

FIELD OF SPECIALIZATION — MECHANICAL

List of Subjects	Prerequisites
1. Machine Design*	Statics and Strength of Materials I
2. Thermodynamics	
3. Electrical Equipment	
4. Work Study II	Work Study I
5. Manufacturing Processes	Work Study I
6. Production Engineering	Work Study I
7. Tool Design	Work Study I
8. Hydraulic and Pneumatic Equipment	Fluid Mechanics
9. Refrigeration and Air Conditioning	Thermodynamics
10. Instrumentation and Control	
11. Drafting II	----------

* Machine Design is an essential subject for all candidates in this field of specialization.

FIELD OF SPECIALIZATION — MINING

List of Subjects	Prerequisites
1. General Chemistry	
2. Engineering Materials	
3. Surveying II	Surveying I
4. Geology II	Geology I
5. Mining I	Geology II
6. Mining II	Geology II
7. Assaying I	General Chemistry
8. Assaying II	General Chemistry
9. Mineral Processing	----------
10. Statics and Strength of Materials I	----------

FIELD OF SPECIALIZATION — CHEMICAL AND METALLURGICAL

List of Subjects	Prerequisites*
1. Organic Chemistry	
2. Organic Chemistry Laboratory	
3. Analytical Chemistry	
4. Analytical Chemistry Laboratory	
5. Physical Metallurgy	
6. Physical Metallurgy Laboratory	
7. Instrumentation II	Instrumentation I
8. Unit Operations I	----------
9. Unit Operations II	----------
10. Work Study I	----------

*General Chemistry and Engineering Materials are essential prerequisites in this field of specialization.

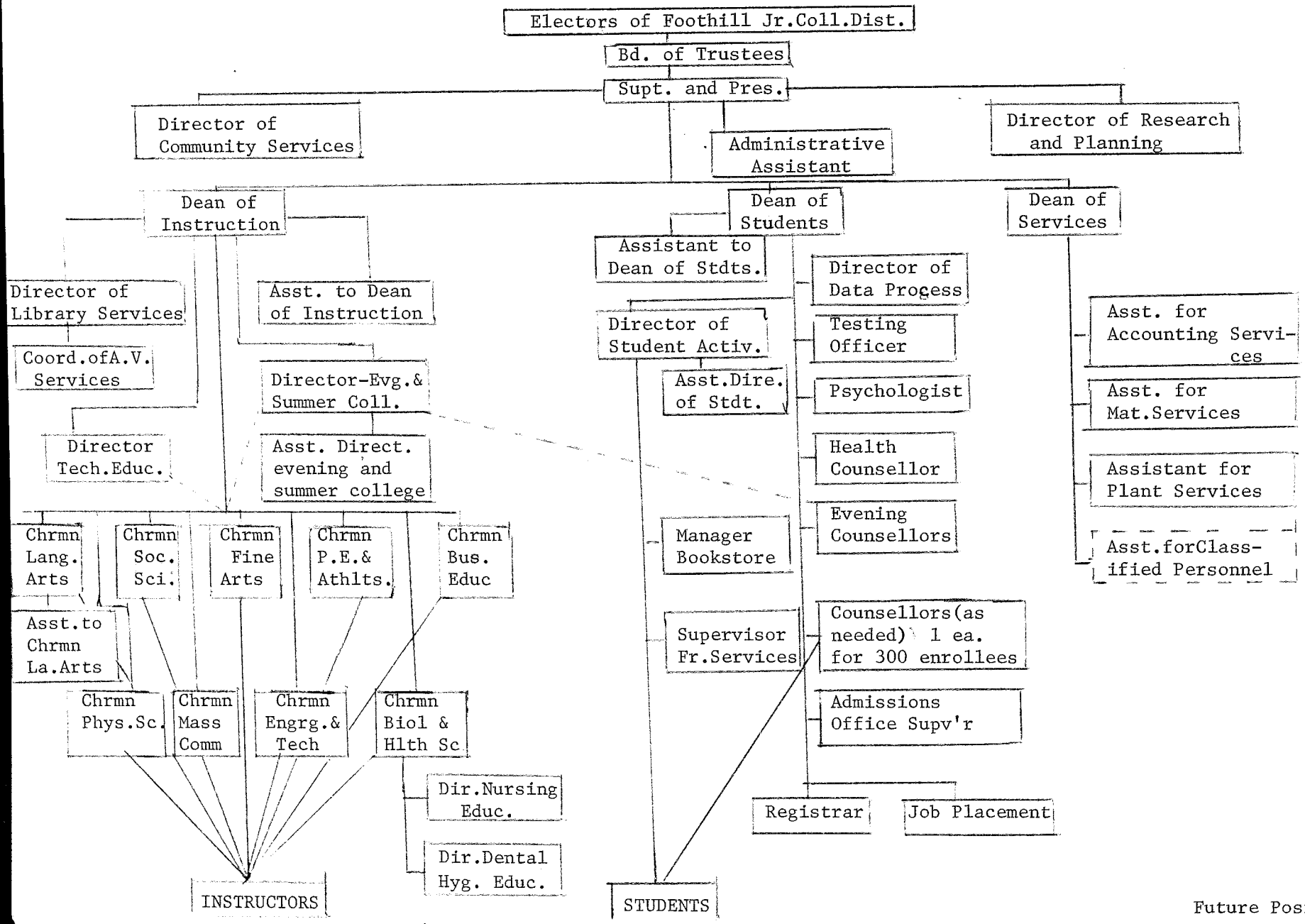
FIELD OF SPECIALIZATION — INSTRUMENTATION

List of Subjects	Prerequisites
1. General Chemistry	
2. Instrumentation II	Instrumentation I
3. Process Control I	Instrumentation II
4. Process Control II	Process Control I
5. Telemeters and Computers	Semiconductors and Tubes; Circuits - E & E
6. Measurements	Instrumentation II
7. Advanced Measurements	Measurements
8. Unit Operations	General Chemistry
9. Hydraulics	----------
10. Engineering Materials	----------

FIELD OF SPECIALIZATION — SURVEYING

List of Subjects	Prerequisites
1. Field Survey II	Survey I
2. Survey Computations	Survey I
3. Hydrographic and Topographic Survey	Survey I
4. Astronomy	Field Survey II
5. Photogrametry I	Field Survey II
6. Photogrametry II	Photogrametry I
7. Advanced Photogrametry	Photogrametry II
8. Survey Drafting	Drafting * and Survey I
9. Highway Design and Layout	Field Survey II
10. Mining Survey	Field Survey II
11. Work Study I	----------
12. Public Services Engineering	Hydraulics

APPENDIX (xx) FOOTHILL COLLEGE ORGANIZATIONAL CHART

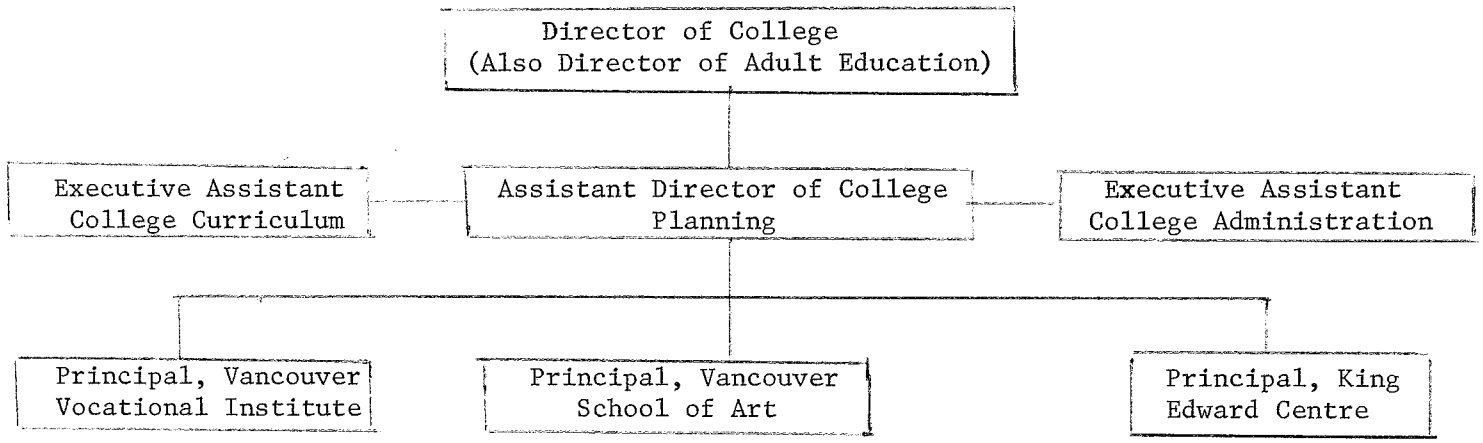


Future Position

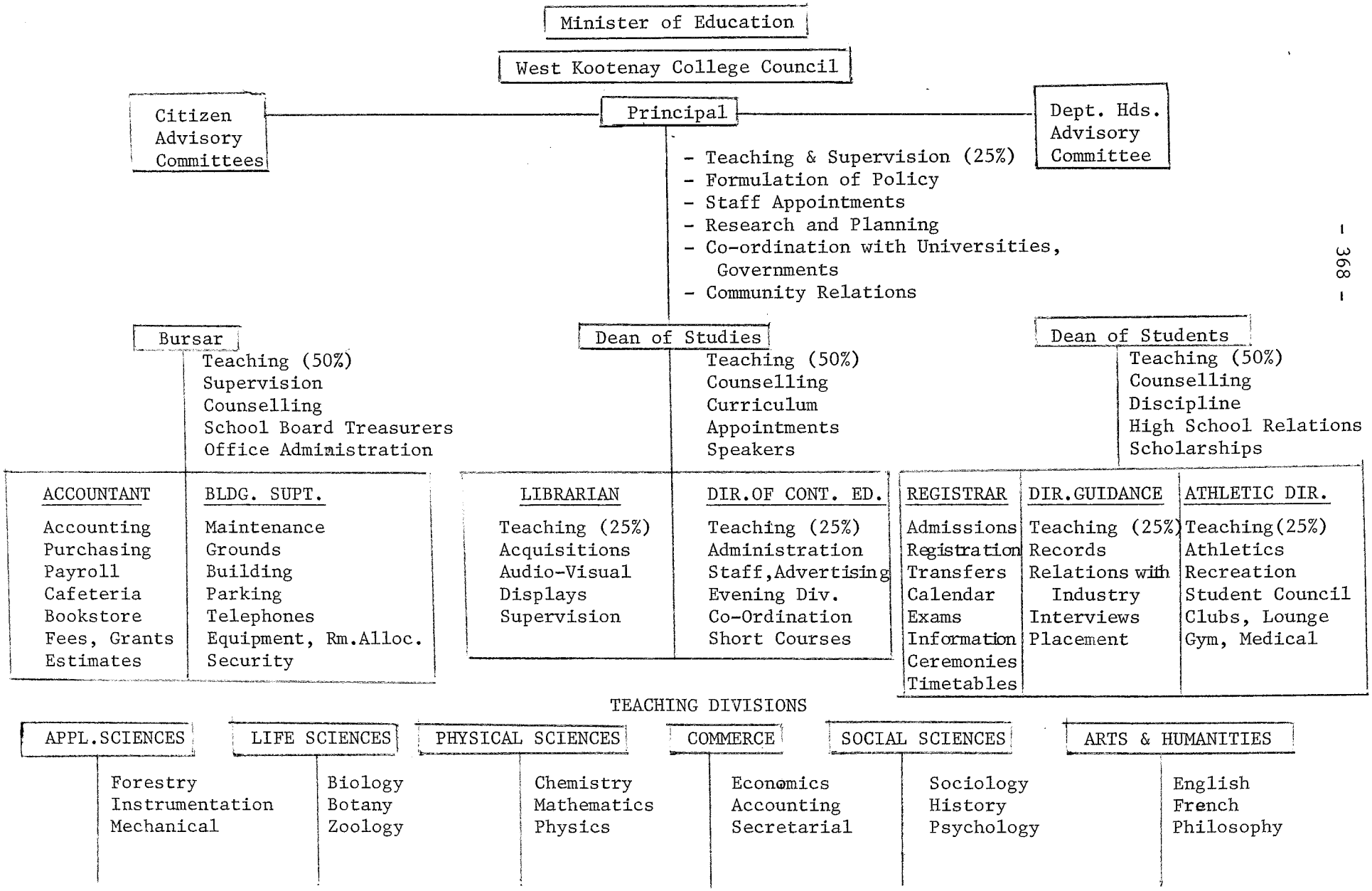
APPENDIX (xxi)

ORGANIZATIONAL CHART

VANCOUVER CITY COLLEGE

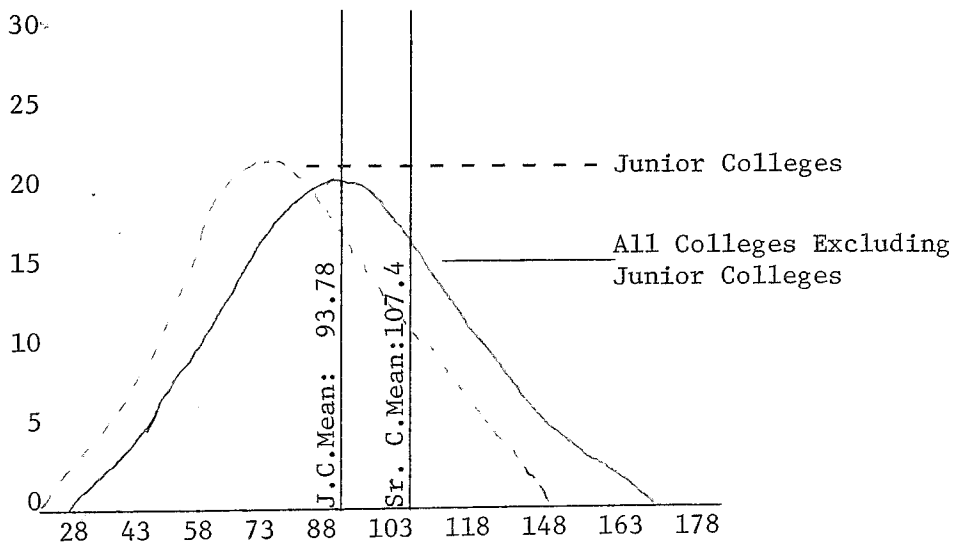


APPENDIX (xxii)



APPENDIX (xxiii)

Graph Showing Overlap in Terms of 1952 A.C.E. Raw Scores Between Junior and Senior College Students. Data Based on Study of 200 Institutions by the Center for the Study of Higher Education



From Leland L. Medsker, The Junior College: Progress and Prospect, New York, McGraw-Hill Book Co., 1960, p.37.

APPENDIX (xxiv)

Decile Distribution of A.C.E. Test Scores, Orange Coast College - Terminal and Transfer Students, Fall Semester, 1955.

Decile	Number of Terminal Students	Number of Transfer	Total Students	Per Cent Terminal	Per Cent Transfer	Per Cent Total
10	7	24	31	1.7	4.0	2.9
9	10	43	53	2.2	7.2	5.0
8	16	51	67	3.5	8.5	6.4
7	20	78	98	4.4	13.1	9.3
6	29	59	88	6.4	9.9	8.4
5	41	69	110	9.0	11.6	10.5
4	51	65	116	11.2	10.9	11.0
3	61	71	132	13.4	11.9	12.6
2	104	83	187	22.9	13.9	17.8
1	116	54	170	25.3	9.0	16.1
	455	597	1052	100.0	100.0	100.0

From James W. Thornton, Jr., The Community Junior College, New York, John Wiley and Sons, Inc., 1964, p. 150.