

AN ANALYSIS OF THE LIBERAL ARTS CONTENT OF
THE HIGH SCHOOL CURRICULUM IN NOVA SCOTIA
AS PREPARATION FOR COLLEGE

A Thesis Written
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by

H. A. J. Wedderburn

Saint Mary's University

School of Education

© Copyright
March 1961

AN ANALYSIS OF THE LIBERAL ARTS CONTENT OF
THE HIGH SCHOOL CURRICULUM IN NOVA SCOTIA
AS PREPARATION FOR COLLEGE

TABLE OF CONTENTS

CHAPTER	PAGE
I. AN HISTORICAL SKETCH OF THE DEVELOPMENT OF THE LIBERAL ARTS	
FROM ANCIENT TIMES TO THE PRESENT DAY	1
The Liberal Arts in Greece	2
Education in early Greece	2
Late Greek education	3
The Liberal Arts in Rome	6
The Liberal Arts in Medieval Times	8
The Renaissance and the Liberal Arts	12
Modern Times	15
II. AN OUTLINE OF THE SENIOR HIGH SCHOOL PROGRAM AND THE BACHELOR OF ARTS COURSES IN THE UNIVERSITIES OF NOVA SCOTIA AND NEW BRUNSWICK	28
The Senior High School Program	28
Grade Ten	28
Grade Eleven	29
Grade Twelve	30
University Entrance Requirements for 1961-1962 Leading to the Bachelor of Arts Degree	31
Description of Courses Leading to the Baccalaureate Degree	33
Acadia	33
Dalhousie	34
Kings	35
Mount Allison	36

CHAPTER

PAGE

Mount Saint Vincent 37
 Saint Francis Xavier 37
 Saint Joseph's 38
 Saint Mary's 39
 University of New Brunswick 39

III. CRITICIZMS AND RECOMMENDATIONS FOR IMPROVING THE PRESENT

SENIOR HIGH SCHOOL CURRICULUM 43
 Survey of Pupil Performance: Grades Seven to Eleven . . 44
 Interpretation of Tables 47
 Streaming 48
 Alternative Plan 54
 Conclusions 55

BIBLIOGRAPHY 56

INTRODUCTION

Two of the aims of the high schools of Nova Scotia are to provide a liberal education for all, and to prepare the more intelligent, who so desire, for college. Unfortunately, the high schools have not always fulfilled these demands, particularly the latter.

College professors complain that freshmen can neither read, write, think nor study, and Europeans in particular have described our universities as glorified high schools. Therefore, there seems to be agreement that our standards of education are in need of some upgrading, and our curriculum, some renovation.

In this study an attempt will be made to find ways and means of achieving this improvement in the high schools without decreasing the present percentage of graduates, thus in turn enabling the colleges to improve their own courses. This will be done by an assessment and evaluation of the current curriculum in Nova Scotia high schools, both for its liberal arts¹ content, and as preparation for college.

The study proposes to do this by:

a) A close perusal of the high school programme of studies, text books, of Teaching Guides, Superintendent's Reports from the Provincial Legislature Library, and of the liberal arts courses in each university in Nova Scotia.

b) Considering the opinions of officials of the department of education, school teachers, and college professors, and

¹The term liberal arts is here taken to mean the division or branches of learning leading to the B.A. and M.A. degrees.

c) A study of the views of various outstanding men in the field of curriculum development.

Chapter I will be a presentation of the case for the liberal arts by means of an historical sketch of its development leading up to present-day concepts and theories of the high school curriculum. In Chapter II there will be outlined the present Nova Scotia high school curriculum, and the universities liberal arts courses. Chapter III will be an assessment, evaluation and criticism of the present high school curriculum. This chapter will deal with recommendations to attain the necessary improvements which it is hoped will be of value to the architects of our system of education.

CHAPTER I

AN HISTORICAL SKETCH OF THE DEVELOPMENT OF THE LIBERAL ARTS FROM ANCIENT TIMES TO THE PRESENT DAY

Modern education is a very complex process made up of contributions from different peoples, in different lands, at different times. It is interesting to note, for instance, that although the origin of the liberal arts as we now know it is usually traced to the Greeks,¹ the Chinese practiced a form of education which may be defined as liberal as far back as the Chou dynasty, 1122 B.C.² This system placed special emphasis on:

"six virtues, six good actions, and six arts. Wisdom, benevolence, goodness, righteousness, loyalty, and harmony were the highest virtues. In actions, one must honour parents, be friendly to brothers, cordial to relatives by marriage, be neighbourly, trustful, and sympathetic. The six arts were rituals, music, archery, charioteering, writing, and mathematics. Of rituals, music, archery, and charioteering there were five types; of writing six; while mathematics included nine operations."³

It is evident that these people had a humanistic concern with man, that their approach was both intellectual and practical, and that their main cultural ends were to be achieved through wisdom and example.⁴

¹John S. Brubacher, A History of the Problems of Education (New York: McGraw Hill Book Company, Inc., 1947), p. 474.

²Thomas Woody, Liberal Education For Free Men (Philadelphia: University of Pennsylvania Press, 1951), Chap. 1.

³Ibid., pp. 9 - 10.

⁴William A. Smith, Ancient Education (New York: Philosophical Library, Inc., 1955), p. 81.

From the time of its formal inception in early Greece until the present day, the curriculum of the liberal arts as a course of studies may be said to have undergone five main periods of development. These shall here be discussed under the headings: the liberal arts in Greece, Rome, Medieval Times, the Renaissance, and Modern Times. This will be more than a mere account of cold ideas and events. References will be made to the thoughts, influences, and experiences of some of the great educators who gave spirit to the various movements of their day.

I. THE LIBERAL ARTS IN GREECE

Education in Greece may be subdivided into: the education of Early Greece, dating from about 1200 to 490 B.C., and later Greek education dating from about 490 to 201 B.C.¹

Education In Early Greece

The education of citizens in early Greece was concerned primarily with the training of a son to take part in religious ceremonies, his duties of citizenship in the state, and the defense of his country in time of war.² The core of the curriculum was music, all aspects of physical training, the literature and religion of the age, and instruction in the responsibilities of citizenship.³ This instruction was given at home during early childhood, but later on in various

¹Elwood P. Cubberley, A Brief History of Education (New York: Houghton Mifflin Company, 1922), Chap., 1-2.

²Ibid., Chap. 1.

³Ibid.

schools such as the music school, or the gymnasium or by private tutors.¹ In the Iliad of Homer, for example, Phoenix, the tutor, reminded Achilles, his pupil, that it was to him he had been sent when a youth by his father for training in rhetoric and the military arts - "the two main stages in a noble achievement".²

This was the education of the upper class only of Greek society, and, as such, was limited to a small portion of the population. Also it was not an education to be had from books but rather from doing, which may have further enhanced its popularity.³ The remainder of the populace apparently remained relatively illiterate.

Late Greek Education

In this, the Golden Age of Greece, there began to develop new trends in education. Gymnastics was now being practiced for personal enjoyment rather than as a drill for state service, the old authors studied at school were replaced by modern authors, new musical instruments were introduced, geometry, drawing, grammar, and rhetoric were added to the curriculum, with grammar and rhetoric soon becoming the leading study of the day.⁴ These two subjects seem to have been the

¹Ibid.

²William Benjamin Smith, and Walter Miller (trans.), The Iliad of Homer (New York: The MacMillan Company, 1944), Bk. IX, lines 440 - 442.

³Gubberley, op. cit., p. 16.

⁴Ibid., p. 20.

discoveries of the Sophists,¹ the new teachers of the period who made extravagant claims for their teachings.² They said they could teach virtue, they professed a great ability to train young men for leadership, or the profession of politics,³ which claims, of course, were vigorously opposed by such advocates of the older school of education as Plato⁴ and Socrates.⁵ Nonetheless, it was the Sophists who elaborated on the Protagorean idea of education as being the process by which the soul is shaped through the shaping of the intellect,⁶ which educational technique is today considered one of the most outstanding discoveries ever made by the mind of man.⁷

In spite of great opposition, the Sophists, who are also now considered to be the first humanists,⁸ exerted a great influence upon the Greece of their day and by 350 B.C. Greek school education had

¹Werner Jaeger, Paideia (New York: Oxford University Press, 1947), p. 314.

²Ibid., p. 291, see also Cubberley ibid.

³Ibid., p. 20, see also Cubberley ibid.

⁴Alfred Edward Taylor, Plato: The Man and His Work (New York: Meridian Books, Inc., 1958), pp. 378-382.

⁵William A. Boyd, The History of Western Education (London: A. and C. Black, Ltd., 1928), p. 29.

⁶Jaeger, op. cit.

⁷Ibid.

⁸Ibid.

been divided into three main categories as follows:

1. Primary Education, covering the ages 7 to 13 and concentrating on music, reading, writing, and arithmetic. The teacher was known as a grammatist.
2. Secondary Education, extending from age 13 to 16 with the teacher being known as a grammaticus. The subjects studied were drawing, geometry and music.
3. University Education was concerned with the years after 16.¹

It was in this cultural and intellectual setting that the liberal arts as we know it in the west today had its birth.²

The main aspect of this type of education as practiced by the Greeks is revealed by the lexical meaning of the word "liberal" which is derived from the Latin "liber", meaning free. In keeping with its political and economic connotation, this type of education was therefore that appropriate for a free man in contrast to the education of a slave. The primary reason for this was that a free man, in virtue of his ample leisure, could devote more time to the development of his mind than could a slave, and was expected to do so.³

This Greek conception of the liberal arts is well presented by Aristotle (384-322 B.C.) in his Politics, where he states that:

" . . . occupations are divided into liberal and illiberal; and to young children should be imparted only such kinds of knowledge as will be useful to them without vulgarizing them. And any occupation, art or science, which makes the body or soul or mind of the freeman less fit for the practice or exercise of virtue, is vulgar. . . . There are also some liberal arts quite proper for a freeman to acquire, but only in a certain degree, and if he

¹Cubberley, op. cit., p. 21.

²Brubacher, op. cit.

³Ibid., p. 475.

attend to them too closely, in order to attain perfection in them, the same evil effects will follow."¹

In this same passage he proceeds to condemn the illiberal subjects as being mechanical in nature and as having a supposedly demoralizing effect upon the soul, intellect, or body of free men. The object of a liberal education, he concludes, should be learning for its own sake, "with a view to excellence",² for the achievement of what is described in the Paedia as "the ideal perfection of body and mind."³

For this development Greece had evolved a curriculum of seven main subjects, later named the seven liberal arts. These subjects were grammar, logic, rhetoric, arithmetic, geometry, music and astronomy.⁴ These were in time separated into two groups, the first three subjects being designated the trivium, and the remaining four the quadrivium. On this foundation Rome, in the years to come, also built its system of education and in turn disseminated the liberal arts through all the world by conquest.

II. THE LIBERAL ARTS IN ROME

Very little is known concerning Roman Education prior to the

¹Benjamin Jewett (trans.) The Works of Aristotle (New York: Oxford University Press, 1952) Bk. VIII, Chap. 2.

²Ibid.

³Jaeger, op. cit., pp. 314-317.

⁴Ibid.

third century B.C.¹ However, after the Roman conquest of Greece in 146 B.C., large numbers of educated Greeks migrated to Rome, bringing with them their system of education. Thus Rome, with but slight modification, came to perpetuate the liberal arts of Greece.² The system of education finally established in Rome was as follows:

1. Elementary Education for ages 6 to 12 took place in Primary Schools or *Ludi*. The subjects taught were reading, writing, and reckoning, by a *Ludi Magister*.
2. Secondary Education for ages 12 to 16 took place in Latin Grammar Schools, the teacher being a *Grammaticus*. The subjects taught were Grammar and Literature.
3. Collegiate Education took place in schools of Rhetoric under the tutelage of a Rhetor. The pupils of this school were between the ages of 16 and 19, and the curriculum consisted of grammar, rhetoric, dialectic, and law.
4. The University was attended by scholars aged 18 to 25, and dealt with the professions of law, medicine, architecture, mathematics, grammar, and rhetoric.³

Slaves, of course, received no education whatever.⁴

Rome's greatest contributions to modern education were perhaps her alphabet and speech.⁵ To the alphabet which they had adopted from the Greeks, who had in turn apparently inherited it through Etruscan sources, the Romans added two letters.⁶ Also, instead of writing from

¹Boyd, *op. cit.*, p. 65.

²Cubberley, *op. cit.*, p. 33.

³Cubberley, *ibid.*, p. 37.

⁴*Ibid.*

⁵*Ibid.*, p. 40.

⁶Smith, *op. cit.*, p. 184. The Greek alphabet had only 24 letters.

right to left as did the Etruscans, they wrote from left to right.¹ Finally, in speech, languages such as French, Italian, Portugese, Spanish and English, the tongues of at least one-third of the present civilized world have many Roman sources. Today, it is almost impossible to utter a sentence in any of those languages without using a word that is either directly descended from or was "once used by the citizens of ancient Rome".² In keeping with their genius for the practical, the Romans made language more useful and effective.

III. THE LIBERAL ARTS IN MEDIEVAL TIME

With the downfall of Rome through its conquest by the Barbarian hordes, the lamp of learning was threatened with extinction.³ Fortunately, in the midst of all the prevailing turmoil, lawlessness, and disorder, there remained but one sanctuary for any kind of repose or scholarly contemplation. It was the monasteries.⁴ Thus, for the remainder of this age the Christian Church became the main guardian of learning.⁵

The types of schools developed and instruction provided during the Middle Ages were:

1. Elementary instruction was given in Monastic Schools, Song

¹Ibid.

²Cubberley, op. cit., p. 40.

³Ibid., Chaps. VI-VII

⁴Ibid.

⁵Ibid.

and Parish Schools, and Chantry Schools. The curriculum was mainly reading, writing, some arithmetic, and church ritual.

2. Advanced instruction was given in Higher Monastic and Cathedral Schools. The curriculum here was comprised of the Seven Liberal Arts preserved from Roman times, which were:
 - a) The Trivium of grammar, rhetoric, and dialectic or logic.
 - b) The Quadrivium of arithmetic, geometry, astronomy, and music.¹

In addition to these, came Ethics or Metaphysics, and, the most important study of all Medieval Times, Theology.² Two outstanding educators of the day were Saint Thomas Aquinas, who taught in the scholastic school of Albertus Magnus, and Rhabanus Maurus (776 - 865), for years Abbot at Fulda.

In teaching methods, the teachers of the Monastic Schools seemed definitely to possess some pedagogical skill as special emphasis was placed on dictation and memory, along with the etymological and literary value of the authors studied.³ A passage would be dictated with explanations, which the pupils copied and committed to memory. At a later period, the pupils would be questioned on this passage.⁴

Although under the guardianship of the church during this period, the curriculum of the liberal arts suffered very little if any changes from Roman times. To think of the Medieval era as "the dark ages" is

¹Ibid., p. 86.

²Ibid.

³Frank Pierrepont Graves, A History of Education During the Middle Ages and the Transition To Modern Times (New York: The MacMillan Company, 1914), p. 19.

⁴Ibid., pp. 19-20.

a misnomer.¹ There may not have been the rapid advancement of learning as in previous times, but there must have been a good deal of deep thinking, research, and deliberation out of which the Renaissance arose.²

Perhaps the finest product of the Middle Ages was their universities, even although no two could have attributed their birth to the same causes.³ The University of Salerno soon became famous as a school of medicine, and Bologna as a school of civil and canon law.⁴ The University of Paris was a product of the Cathedral School of Notre Dame, first chartered in 1180 by Louis VII.⁵ Many other universities sprang up all across Europe between the years 1200 and 1300, and by the beginning of the Renaissance there were no less than seventy-nine seats of higher learning on the continent of Europe.⁶

A course of studies leading to a degree in Arts is found to have existed as early as 1215.⁷ The curriculum was based on the seven liberal arts with some modification.⁸ Logic was the main study and

¹Boyd, op. cit., p. 130.

²Graves, op. cit., pp. 103-107.

³Ibid., Chap. IX.

⁴Ibid.

⁵Ibid.

⁶Ibid.

⁷Boyd, op. cit., p. 154.

⁸Ibid.

was followed as laid out in Aristotle's Organon, and Porphyry's Introduction.¹ Grammar, not including literature, was pursued with reference to Priscian's Treatises, and philosophy and rhetoric being regarded of secondary importance, were read only on feast days.² There were, however, changes within the period and so by about the fourteen-fifties, the courses fell into three categories:

1. For the baccalaureate degree there were the studies of grammar, logic, and psychology.
2. For a license to teach the study was natural philosophy.
3. For the Masters degree the studies were both moral and natural philosophy.³

It is noticeable that there were not as yet any of what may be termed the modern studies on the curriculum.⁴ Although a 'liberal' course, the curriculum contained no history, modern languages, and literature, devoted little attention to Roman Classics, and, with the exception of Aristotle, none to Greek at all.⁵ Before the end of the era, however, the arts faculties of the Medieval Universities developed such an enthusiasm for the classics and their curriculum became so classical in nature in the universities, that a liberal education soon came to be synonymous with training in the classics.⁶

¹Ibid.

²Ibid.

³Ibid.

⁴Graves, op. cit., p. 89.

⁵Ibid.

⁶Brubacher, op. cit., p. 131.

IV. THE RENAISSANCE AND THE LIBERAL ARTS

This revival of learning had its beginning in Italy¹ with the discovery by Petrarch in 1333 of two of Cicero's orations, and in 1416 of Quintillian's Institutes of Oratory at Saint Gall.² Other discoveries followed these throughout Europe, thus reviving the interest of Greek in the West and its accompanying influences on education. Libraries were built, and academies founded, all of which were given further impetus by the discovery of paper and printing.³ Because this new movement placed special emphasis upon man, his affairs, and the beauty of this world, its devotees became known as humanists, and this phase of the Renaissance as humanism.⁴

Two of the most outstanding humanist educators of Renaissance times were Vitterino da Feltre, famous for his school at Mantua from 1423 to 1446, and Guarano da Verona, who conducted another famous school from 1429 to 1460 at Ferrara. Da Feltre's school was ideally situated in a picturesque spot on the estate of the Marquis of Mantua, and he had as pupils the princes and sons of leading Mantuan families, the sons of his personal friends, and a few promising students whose parents could not afford to pay fees.⁵ The humanist schools of this time aimed at the

¹Gubberley, op. cit., p. 131.

²Ibid., Chap. XI. It is interesting to note that Graves does not agree with this concept. He maintains that the Revival of Learning preceded these discoveries. Graves, ibid., p. 108.

³Ibid.

⁴Graves, op. cit., p. 108.

⁵Graves, op. cit., pp. 123-125.

perfect development of the body, mind, and morals by means of the liberal arts. Thus, Vergerius wrote:

"We call these studies liberal which are worthy of a free man; those studies by which we attain and practice virtue and wisdom; that education which calls forth, trains and develops those highest gifts of body and of mind which ennoble men, and which are rightly judged next in dignity to virtue only."^{1,2}

In this new humanistic course of instruction, Latin and Greek were the basic subjects, along with the literature of Greece and Rome,³ known as "belles lettres",⁴ and the activities, manners and morals of the times.⁵ These literary works which fully portrayed man's aesthetic depths, moral sublimity, and profound intellectual scope became the core of the liberal arts curriculum, and the words "liberal" and "humanistic" soon evolved into being synonymous adjectives applicable to higher education.⁶

Erasmus was the most famous humanistic scholar of the age. He studied at Paris, Oxford, Seventer, and centres before going to Cambridge as Professor of Divinity, and lecturer in Greek.⁷ His educational

¹Graves, op. cit., pp. 123-125.

²W. E. Woodward, Vittorino da Feltre and Other Humanist Educators (London: Cambridge University Press, 1897), p. 102.

³Ibid.

⁴Belles Lettres mean humane letters, or the humanities.

⁵Gubberley, op. cit., p. 143.

⁶Brubacher, op. cit., p. 477.

⁷Graves, op. cit., pp. 149-153.

treatises were: *Colloquia*, *Ciceronianus*, *De Pueris*, *De Ratione*, and *De Civilitate*.¹ In the *De Civilitate*, Erasmus fully discusses what he considers to be the aims of education. These are the ideals of piety, learning, moral duty and manners, all of which should be developed through a liberal education primarily classical in nature.² Although such ideas were considered rather broad and remarkable for his day, they were, however, indicative of the new importance of the classics in education,³ and their final dominance over the other subjects of the liberal arts.

Humanism in England had the support of many influential people. Humphrey, Duke of Gloucester, for example, brought several younger humanists from Italy to translate the classics and the spirit of the Renaissance to his native land.⁴ As a result, Oxonians began visiting centres of humanism, especially in Italy, Greek was introduced into the curricula of Oxford and Cambridge, and more students sought training at Italian universities.⁵ One such was Thomas Lenacre (1460 - 1524) who, while visiting Italy, developed an interest in Aristotle and went on to study the natural sciences and medicine at Padua. On his return to Oxford, he eventually achieved much fame as a classicist and a physician.⁶

¹Ibid.

²Ibid.

³Ibid.

⁴Ibid., p. 161.

⁵Ibid., p. 163.

⁶Ibid.

This spirit of humanism finally reached the English court where Sir Thomas Moore (1478 - 1535), and Cardinal Wolsey successfully persuaded Henry VIII to give his support to the humanists.¹ As a result of this royal blessing, the influence of humanism now spread through all branches of public education in Great Britain. The famous public schools of Eton (1441), Harrow (1371) and Rugby (1567), were all products of this spirit,² and, as was to be expected, this new trend in education later spread even to the English Colonies, including the North American continent.

Unfortunately, however, by the middle of the sixteenth century that questioning spirit of the Renaissance was starting to ebb. Education soon became almost as formalized as in the Middle Ages, except that dialectic and theology had been replaced by literary subjects.³ The classics now dominated the curriculum, special emphasis being placed upon grammar and literary style, content being considered to be of secondary importance.⁴

V. MODERN TIMES

The domination of the classics, or the humanities, over the liberal arts continued until about the nineteenth century when various political and economic changes in the world brought about a questioning

¹Ibid., p. 166.

²Ibid., pp. 172-173.

³Ibid.

⁴Ibid., p. 176.

of its feasibility. The French Revolution, the expansion of the American frontier, and the Industrial Revolution, gave rise to radical changes in the underlying sociological conditions from which the traditional ideas of the liberal arts had originated.¹ The spread of the philosophy of democracy, the increased size of the working class which now found a new dignity in labour, and the dwindling in size of the leisured aristocracy necessitated radical changes in education.²

The State of Massachusetts discontinued its financial aid to Harvard because it gave a literary education suitable only to an aristocracy instead of giving the practical instruction which most people needed.³ In like manner, Brubacher quotes the then president of Brown as complaining:

"Our colleges are not filled because we do not furnish the education desired by the people. . . . We have produced an article for which the demand is diminishing. We sell it at less than cost, and the deficiency is made up by charity. We give it away; and still the demand diminishes."⁴

The main flaw in the then existing curriculum was the neglect of the sciences.

During Aristotle's time, the sciences were not as exact, or as popular a study as they had become by the nineteenth century. Their

¹Brubacher, op. cit., p. 478.

²General Education in a Free Society, p. 52. The Harvard University Press, Cambridge, Mass., 1945.

³Brubacher, loc. cit.

⁴F. A. Walker, Discussions in Education (New York: Henry Holt and Company Inc., 1900), p. 82, quoted by Brubacher, ibid., p. 478.

omission from the curriculum at this time therefore amounted to nothing short of the scandalous. This flaw was hence remedied by their addition to the curriculum through the principle of electives. That is, the curriculum was expanded to include the sciences and to permit their choice among the academic subjects offered towards a degree. A further protest against the situation was the founding of new colleges like the Rensselaer Polytechnic Institute.¹

Thomas Huxley, the famous English naturalist (1825 - 1895) was in the vanguard of those championing the inclusion of scientific studies in the liberal arts course. In his book, "Science and Education" he wrote:

"That man, I think, has had a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength, and in smooth working order; ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great fundamental truths of nature, and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or of art, to hate all vileness and to respect others as himself. Such an one, and no other, I conceive, has had a liberal education; for he is, as completely as man can be, in harmony with nature."²

This drastic change in curriculum occurred far more easily than expected. That may have been due in great measure to the spirit of laissez-faire and liberalism which dominated the century. Just as there was then a revolt by free-enterprise against excessive government regulations, there was also a related struggle against the undue

¹Brubacher, *ibid.*, p. 479.

²Quoted in Brubacher, *ibid.*

rigidity of the curriculum.¹ The good student was quite capable of making his own decisions, because he knew what he wanted.

There then arose a prolonged debate between the protagonists of the old traditional school, and the advocates of the new liberal education, that blending of liberalism, utilitarianism and naturalism. The traditionalists, whose chief spokesman was Matthew Arnold (1822 - 1888) defended the classics as the best subjects for both the discipline, and cultivation of the mind and for introducing a man "to the best that has been thought and said" down through the ages.² The case for the scientific curriculum was best presented in Huxley's description of a liberal education.

It remained for John Henry Cardinal Newman (1801 - 1890) to resolve this conflict by a restatement of the ideals of a liberal education in terms of a philosophy of education. In the "Idea of a University", Newman writes:

"I consider knowledge to have its end in itself. Liberal education makes not the Christian, not the Catholic, but the gentleman . . . I say here, that Liberal Education viewed in itself is simply the cultivation of the intellect, or such, and its object is nothing more or less than intellectual excellence. . . . What is really meant by the word (liberal)? . . . First, in its grammatical sense it is opposed to servile; and by 'servile work' is understood, as our catechisms inform us, bodily labour, mechanical employment, and the like, in which the mind has little or no part. . . . And so in like manner, we contrast a liberal with a commercial education or a professional; yet no one would deny that commerce and the professions afford scope for the highest and most diversified powers of the mind . . . Why this distinction? Because that alone is liberal knowledge, which stands on its own pretensions, which is independent of sequel . . . Surely

¹ Gubberley, op. cit., Chap. XII.

² Walter B. Kolesnik, Mental Discipline In Modern Education, (Madison: The University of Wisconsin Press, 1958), p. 120.

it is very intelligible to say, and that is what I say here, that Liberal Education, viewed in itself, is simply the cultivation of the intellect, as such, and its object is nothing more or less than intellectual excellence."¹

Dewey (1859 - 19), being a pragmatist, does not agree with the idealistic concepts of Newman. He considered education to be far more than the mere development of the intellect par excellence. He further pointed out that Aristotle's ideas of education were the product of a two-class Greek society comprised of slaves and free men. His (Dewey's) idea of mind was as an emergent factor concomitant with the evolutionary process, and is for the better adaptation of man to his environment. Thus, higher education is to be conceived as liberal in the sense of being more broadening.²

Dewey expressed these views at just the time when college enrollment was reaching a new peak in the U.S.A., and colleges were still traditional in outlook. As a result of trying to fit these greater numbers into traditional trends, many misfits were produced and there was much complaint. These institutions were therefore compelled to re-examine their aims, and reassess their curricula. Numerous experiments were conducted, attempts were made to combine the best of the old with the best of the new, and for the first time the problems exclusively of higher education were given serious study in the better graduate schools. For the American educator this was an era of greatest stress. Robert M. Hutchins (1899 -), president of Chicago University,

¹J. Newman, The Idea of a University (London: Longmans, Green and Company, 1919), pp. 106-121.

²Brubacher, op. cit., p. 482.

was the one who, by a recapitulation of the lasting ideals of Aristotle and Newman, pointed the way to a solution of the problem. Education, he explained, was "a cultivation of the intellect, as well as the peculiar excellence of all men in all times and in all places."^{1,2}

In his book, "The Conflict in Education", Hutchins forcefully presents his case for the liberal arts.³ A liberal education, he says, "was designed for those who were to rule the Commonwealth, and for those who had leisure." Today, Western man, through his inventions of machines to perform more of his duties, is finding himself with veritable empires at his command, and a great deal of leisure at his disposal. Because leisure, Hutchins warns, "tends to be degrading and dangerous unless it is intelligently used, . . . everybody should have the education that fits him to use his leisure intelligently."⁴ For this he advocates a liberal education. "A liberal education", he explains, "consists of training in the liberal arts, and of understanding the leading ideas that have animated mankind. It aims to help the human being learn to think for himself, to develop his highest human powers."⁵

¹Brubacher, op. cit., p. 483.

²General Education in a Free Society (Mass.: Harvard University Press, Cambridge, 1945.)

³Robert M. Hutchins, The Conflict in Education in a Democratic Society (New York: Harper and Brothers, 1953), Chap. V.

⁴Ibid., p. 84. See also Great Books of the Western World (Chicago: Encyclopaedia Britannica, Inc., 1957), Vol. 1, p. 29.

⁵Ibid., p. 83.

Mark Van Doren also propounds the views advocated by Newman.

Van Doren states that only through a "liberating" or liberal education can man's intellectual powers be freed for their full development.

"The liberal arts," he writes, "are the liberating arts. They

involve memory, calculation, manipulation, and measurement, and call for dexterity of both mind and hand. Without these powers no mind is free to be what it desires. The mind itself desires to be free - from the animal within, from the enigma without. It most of all desires to be free of the individual who was born possessing it. We can use no mind but our own, but the more we use it, and the better, the closer it is in its resemblance to whatever other minds have been used well. Our mind desires to be the human mind."¹

Man therefore remains a slave until his mind is free, says

Van Doren, which freedom is only to be had through discipline. "The undisciplined individual is free . . . to do things badly." This discipline, Van Doren avers, might very well be in accordance with the old theory of "formed discipline".² He maintains that although,

"it is the fashion now to make fun of what used to be called 'formed discipline' in education, . . . As a theory it was often expressed naively; and it was sometimes used in defense of studies for which nobody could discover the reason. But its bad name today can be traced in part to the fact that few living persons have submitted themselves to the sort of discipline under dispute. . . . The philosophers of a curriculum could make no graver error than to accept the fashionable criticism of formal discipline at its face value. It is superficial criticism, especially when it alleges that the powers acquired are trivial. The accuracy which mathematics requires is not a trivial virtue. . . . Mathematics, particularly if it is enjoyed, also trains the mind in abstraction, the prelude to a central and major virtue."³

¹Mark Van Doren, Liberal Education (New York: Henry Holt, 1943), p. 67.

²Ibid., pp. 121-122.

³Ibid.

Here Van Doren is at the same time stating his position in the "interest vs. effort" controversy which for a long time has concerned educators. He feels that a study which is interesting will discipline the mind, nor can anything which is not discipline be of interest for long. Hence, "Education is honoured when it is hard, but it is most honoured when it is hard and good."¹

Discipline, and interest, as well as all that which is good for the mind, are to be had through a liberal education as laid down by the ancient Romans and Greeks, maintains Van Doren. Thus the curriculum of the school and the college should be devoted,

"to two principal and simultaneous activities; learning the arts of investigation, discovery, criticism, and communication, and achieving at first hand an acquaintance with the original books, unkillable classics, in which these miracles have happened."²

Van Doren's views have often been criticized as being outmoded, too limited and inadequate for our democratic society of today.³ In an attempt to rectify the short-comings of some of these ideas and those of other liberal educators, numerous committees have been delegated the task to study and make up-to-date recommendation for the liberal arts. One such committee was appointed by the American Council of Learned Societies for the specific purpose of re-examining the rule of liberal education in our present-day democracy.⁴

¹Ibid., pp. 135, 153.

²Van Doren, op. cit., p. 145.

³Sidney Heck, Education For Modern Man (New York: The Dial Press, 1946), pp. 19, 24, 140, 200.

⁴Walter B. Kolesnik, op. cit., pp. 124-129. The committee was composed of Theodore M. Green, Chairman, Charles M. Fries, Harry M. Wriston and William Dighton.

In its report the committee stated the aims of a democracy to be: "(1) The welfare of each individual as an individual, (2) responsible citizenship and political leadership, (3) vocational competence."¹ The first of these is the "primary objective" and along with the second can best be obtained through a liberal education. The third, being vocational, specialized and professional in nature, requires that "ample provision must therefore be made in a democracy both for liberal education and for vocational and professional training, and thus proper relationship must be maintained."² This proper relationship can be had, the committee suggests, by students who obtain as much of a liberal arts background as their means and abilities permit before proceeding into concentrated professional or vocational training.³

The dual aims of a liberal education, the committee submits, are the "acquisition of truth for its own sake", and the cultivation of "habits of thought and action which are essential to understanding."⁴

A liberal education, it continues, is

"essentially cultural in content and reflective in approach. Its function is to introduce the student to his cultural heritage as adequately as his native ability and degree of maturity permit. It is also its function to discipline and guide him, during his formative years, to think clearly, evaluate wisely, and adopt a

¹Ibid., pp. 125-126.

²Quoted by Walter B. Kolenik, ibid., p. 126.

³Ibid., p. 126.

⁴Loc. cit.

mature and responsible attitude."¹

A liberal education thus both informs and disciplines the mind.

Owing to the diversity and complexity of educational institutions in America, the committee made no specific, universal curricula proposals. Nor does the committee consider that such proposals would be in keeping with the democratic idea. At the same time, however, it advises against the identification of the liberal arts with specific subjects such as the humanities alone. The curriculum should be well balanced between the classics, the natural sciences, philosophy, history, and the social studies.²

Robert M. Hutchins lays much of the blame for our conflict in education today on the lack of philosophy in the university, the lack of the classics in our curriculum, and on the great importance attached to vocational education.³ He would further have "vocationalism and unqualified empiricism" banished from higher education.⁴ Hutchin's views are given expression in the book, "General Education In a Free Society" which was sponsored by a group of Harvard University professors and published by the Harvard University Press in 1945. The book presents a democratic philosophy of education for both the high school and the

¹Quoted by Walter B. Kolesnik, op. cit., p. 127.

²Ibid., pp. 127-130.

³Robert M. Hutchin, The Higher Learning in America (New Haven: Yale University Press, 1936), p. 117.

⁴Stella V. Henderson, Introduction to Philosophy of Education, (Chicago: University of Chicago Press, 1951), p. 280.

university. It also makes an examination of general and special education.

Early in its report the committee states that the terms 'general education' and 'liberal education' have somewhat the same meaning. The exception being that by applying the term general education

"to high school as well as to college, it envisages immensely greater number of students and thus escapes the invidium which rightly or wrongly, attaches to liberal education in the minds of some people. But if one clings to the root meaning of liberal as that which befits or helps to make free men, then general and liberal education have identical goals. The one may be thought of as an earlier stage of the other, similar in nature but less advanced in degree."¹

The Harvard group believes that in keeping with the western tradition, man is an end in himself and not a means, and also that the present is built upon the vital aspects of our past cultural heritage. Hence the richness of ancient thoughts and ideas should be the foundation upon which the superstructure of modern education is placed. Nor must science be neglected, for on it we rely "to implement the humanism which classicism and Christianity have proclaimed."² The committee here seems to be advocating "the study of the humanities, of natural sciences and mathematics, and of the social studies",³ as the core of the curriculum for a general education. The committee more specifically recommends that all students on the college level should be required to take two courses in "Great Texts in Literature" and "Western Thought and Institutions".

¹General Education In a Free Society, op. cit., p. 52.

²General Education In a Free Society, op. cit., p. 50.

³Henderson, op. cit., p. 357.

A committee set up primarily for the purpose could work out the remainder of the general education in accordance with individual needs.

This report has been criticized mainly on two points: (1) the little emphasis it places upon foreign languages, and (2) its apparent lack of enthusiasm for vocational education. Nonetheless, it has been proclaimed the most important educational document of our time.

In recent years there has been some concern over "the state of the humanities in Canada". The feeling has been that the contributions of the classics to Canadian life have not been as full as they could be, for which our country is the poorer. As a result, the Humanities Research Council of Canada began a survey in 1944 into all aspects of the humanities in Canada. The findings of the survey were published in 1947.¹ The survey studied "the place of the humanities in secondary education" and in the universities, facilities for research, aids and scholarships to students, libraries, and publications. Conditions were found to be such that certain recommendations for immediate action were made. In summary, these were as follows:

- 1) In the high school and the university, the humanities should be thought of not as subjects to be studied primarily for their financial ends, but rather as "liberalizing disciplines".
- 2) To the curricula should be added courses in creative writing, drama, more serious literature of the contemporary world, and the necessity of reading more "great books", even over the summer months.
- 3) At the graduate level there should be a greater availability of the country's great men and books, mainly to students, but to the public as well.

¹Watson Kirkconnell and A.P. Woodhouse, The Humanities in Canada, Humanities Research Council of Canada (Ottawa: 166 Marlborough St., 1947), p. 203.

- 4) Both the volume and quality of research in the humanities should be increased and improved.

and

- 5) For the implementation of the above, greater financial aid to education is required, which aid could be from governments as well as private industry. With more money, more and better libraries could be equipped, more students could receive aid, and teaching faculties, both in the schools and Universities, could be increased and improved.¹

Today, especially here in Nova Scotia, improvements have been but slight since then.

¹ Watson Kirkconnel, op. cit., Chap. XII.

CHAPTER II

AN OUTLINE OF THE SENIOR HIGH SCHOOL PROGRAM AND THE BACHELOR OF ARTS COURSES IN THE UNIVERSITIES OF NOVA SCOTIA AND NEW BRUNSWICK

This chapter shall give an outline of the Senior High School Program,¹ a list of the entrance requirements for a Bachelor of Arts course, as well as an outline of the Bachelor of Arts courses in the universities of Nova Scotia and New Brunswick. This information was obtained from the Program of Studies in the Schools of Nova Scotia,² the Teaching Guide for each subject,³ and the college calendar from each university.

THE SENIOR HIGH SCHOOL PROGRAM

Grade 10

A full year's work for a Grade 10 pupil is comprised of English, History and at least three electives. The subjects from which the electives may be taken are: Geography, Science, Mathematics (Algebra and Geometry), Latin, French, German, Greek, Music, Household Science, Industrial Arts, Art, Craft, Commercial courses, and Agricultural Courses.

¹High school is from Grade 10-12 inclusive.

²This booklet is put out annually by the Curriculum Branch, Department of Education, Province of Nova Scotia, Halifax, Nova Scotia.

³These booklets are published annually by the Curriculum Branch, Department of Education, Province of Nova Scotia, Halifax, Nova Scotia.

The last three of these courses may only be counted as credits as approved by the Department of Education. The pass mark in each subject is 50.

Grade 11

In Grade 11 the minimum number of courses needed for a full year's work is English, History and any other three courses. However, should a pupil be taking the minimum number of courses, he may not take more than two foreign languages.

The subjects for this year are: English (Composition and Literature), History, Economics, Science (Physics, Chemistry, Household Science),¹ Mathematics (Algebra and Geometry), Latin, Greek, French, German, Music, Industrial Arts, Art, Crafts, Commercial courses, and Agricultural courses.

Completion of this year's work makes one eligible to write the Provincial examinations, or apply for entrance to the Nova Scotia Normal College. The subjects of the Provincial examination are: English (two papers), History, Economics, Science (any two out of Physics, Chemistry, Household Science), Mathematics (Algebra and Geometry), Latin, French, German, Grammar of Music, and Agriculture.

For the Teacher's License Class 3 the candidate should have successfully completed Grade 11 by making at least 50 marks in English, History, Mathematics and two additional courses from Latin, French, German, Science, Economics, Music, Art, Crafts, Agriculture, or Household Science, and one course may be included from Music, Art, Crafts, or Agriculture.

¹The same restrictions in Grade 10, as applicable to these courses, apply here.

Grade 12

A year's work for Grade 12 consists of at least: English, History, and three other subjects. A person doing the minimum number of courses is not permitted to take more than two foreign languages. The subjects of this grade are: English (Language and Literature), History, Social Problems, Physics, Chemistry, Biology, Geology, Mathematics (Algebra and Trigonometry), Latin, Greek, French, German, Music, Arts, Crafts, Commercial and Agricultural courses. The restrictions on these last four are the same as in Grades 10 and 11.

The successful completion of this grade makes one eligible to write the Grade 12 Provincial examinations, or to pursue a course at the Normal College leading to the Teacher's license Class 2. The subjects of the provincial examination are: English (two papers), Social Problems, History, Physics, Chemistry, Biology, Geology, Mathematics (two papers in Algebra and Trigonometry), Latin, French, German, Grammar of Music, and Agriculture. Entrance requirements for the Nova Scotia Normal College are the Grade 11 certificate, plus a Grade 12 certificate made up of no mark under 50 in English, History, and three other courses, not more than one being from Music, Art, Crafts, Household Science, or Agriculture.

It is thus noticeable from the above that the requirements for a high school certificate are quite liberal. In the present system, two courses - English and History and at least three options from the sciences, languages, art, music, crafts, commercial subjects, household science and industrial arts form the core of the curriculum. Every art pupil is therefore compelled to take at least one science during his

high school years, the opposite being true of his counterpart in the sciences. This is a form of liberal education.

UNIVERSITY ENTRANCE REQUIREMENTS

For 1961 - 1962

Leading to Bachelor of Arts Degree

<u>Acadia</u>	7 subjects in Junior Matriculation An average of 60% with no mark below 50%	1-English 2-Algebra	3-Geometry 4-A Foreign Language	5,6 and 7 Three electives from: History, Physics, Chemistry, French, Latin, Greek, German, Spanish, Music, Economics, Biology and Trigonometry.
<u>Dalhousie</u>	7 subjects in Junior Matriculation An average of 60% with no mark below 50%	1-English 2-Algebra	3-Geometry 4-A Foreign Language	5,6 and 7 Three from History, Physics, Chemistry, Biology, Trigonometry, Latin, Greek, French, German, Spanish.
<u>Kings</u>	7 subjects in Junior Matriculation An average of 60% No mark below 50%	1-English 2-Algebra	3-Geometry 4-One Foreign Language	5,6 and 7 Three from History, Physics, Chemistry, Biology, Latin, Greek, French, Spanish, German and Trigonometry.

<u>Mount Allison</u>	7 subjects in Junior Matriculation Average of 60% No mark below 50%	1-English	3-Geometry
		2-Algebra	4-A Language subject other than English
		5,6 and 7 Three from History, Trigonometry, Physics, Chemistry, Biology, Geology, Geography, Economics, Music, Languages, or one other suitable elective not mentioned above.	
<u>Mount Saint Vincent</u>	7 subjects in Junior Matriculation An average of 60% No mark below 50%	1-English	3-Geometry
		2-Algebra	4-Latin or Greek
		5-Modern Foreign Language 6-History 7-One from Physics, Chemistry, Botany, Biology, Economics, Trigonometry.	
<u>St. Anne's</u>	7 subjects in Junior Matriculation Average 60% req'd. No mark below 40%	1-English	3-Geometry
		2-Algebra	4-Latin
		5-Chemistry 6-French 7-History	
<u>Saint Francis Xavier</u>	7 subjects in Junior Matriculation Average of 60% No mark below 50%	1-English	3-Geometry
		2-Algebra	4-Latin
		5-One modern language 6-History 7-One of Physics, Chemistry, Biology, another History, Trigonometry, another Language	

<u>St. Joseph's</u>	7 subjects in Junior Matriculation	1-English 2-Algebra	3-Geometry 4-Latin 5-French 6-History 7-One of Chemistry, Physics, Biology.
<u>St. Mary's</u>	7 subjects in Junior Matriculation No mark below 50%	1-English 2-Algebra	3-Geometry 4-Latin 5-Another Foreign Language 6,7-Two from Chemistry, Physics, Biology, History, Economics, another Language
<u>University of New Brunswick</u>	7 subjects in Junior Matriculation Average of 60% with no mark below 50	1-English 2-Algebra	3-Geometry 4,5,6 and 7: Four of Senior Mathematics, Physics, Chemistry, Biology, History, French and Latin. ¹

The courses leading to the Baccalaureate degree at the universities are as follows:

ACADIA

Candidates for the Bachelor of Arts degree must complete twenty courses, in twelve of which there must be achieved a grade of "C" or better. Furthermore, every candidate must have a major field in which he pursues four courses maintaining an average of 60 or better, and a minor field, different from the major consisting of at least two courses.

¹Department of Education, Nova Scotia Guidance Newsletter, (Special Edition: Halifax, Nova Scotia, August 1960).

The course of study is as follows:

1. Two English
2. Two credit courses in a foreign language in the first and second years.
3. One History
4. One from: first year Chemistry, Physics, or Mathematics
5. One from: first year Economics, Sociology, Political Science
6. One from: first year Biology, Geology, or two Psychologies
7. A half course in the English Bible; half course in Philosophy

The major study consists of at least four courses from one of the following departments: Biology, Chemistry, Classics, Economics and Sociology, English, English Bible, Geology, German, History, Music, Mathematics, Philosophy, Physics, Psychology, Romance Languages.¹ Every graduate, therefore, must take one or more courses in English, Science (Geology, Biology, Chemistry, Physics) or Mathematics, a foreign language, English Bible, and Philosophy.

DALHOUSIE

The ordinary course for the Bachelor of Arts degree consists of twenty classes as follows:

1. Two classes in English, one in Mathematics, three in a Foreign Language
2. Any two of: European History, Philosophy, Psychology
3. One from: Biology, Chemistry, Geology, or Physics
4. Any one of: Sociology, Political Science, Economics

¹Acadia University Annual Calendar 1960-1961 (Wolfville: Truro Printing & Publishing Co. Ltd., Nova Scotia), pp. 88-89.

5. Classical Literature in translation, or Latin or Greek beyond the first year level.
6. Six pre-requisites selected from not more than two of the following departments: Biology; Chemistry (including Biochemistry); Classics (Greek and Latin); Economics (including Sociology); English Language and Literature (including English Bible); Geology; German; History; Mathematics; Philosophy; Physics; Political Science; Psychology; Romance Languages (French, Spanish); Russian.
7. Three other electives so that of the nine chosen from section 6 and 7 not more than seven are in any one department.¹

KING'S COLLEGE

For a Bachelor of Arts degree at this college the minimum requirements are:

1. Two courses in English, one in Mathematics, and three in a foreign language.
2. One course in Biology, Chemistry, Geology or Physics
3. Any two of: European History, Philosophy, Psychology
4. Any one of: Economics, Political Science, Sociology
5. One from: Classical Literature in translation, or Latin or Greek beyond the first year.
6. Nine other courses beyond the first year level, not more than seven being in any one department.²

¹ Atlantic University Calendar 1960-1961, Halifax, Nova Scotia, pp. 48-49.

² University of King's College Calendar 1960-1961, Halifax, Nova Scotia, pp. 40-41.

MOUNT ALLISON UNIVERSITY

In order to qualify for a Bachelor of Arts degree, a student must complete twenty full courses in the following order.

First Year

1. English
2. One from: Latin, Greek, Mathematics
3. One not already chosen from: French, German, Spanish, Latin, Greek
4. One from: Biology, Chemistry, Geology, Physics
5. One from: History or another from those listed above

Second Year

1. English
2. A language other than English
3. One from: Religion, Classics, Fine Arts, History, Music, Philosophy
4. Two further courses

Third and Fourth Years

The courses taken in these years will be those to satisfy the honours or major and minor requirements, plus electives to complete the required total.

Electives may be chosen from: Biology, Chemistry, Archaeology, Classics, Commerce, Economics, Education, English, French, Geology, German, Greek, Hebrew, History, Fine Arts, Home Economics, Italian, Latin, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Religion, Sociology, Spanish.¹

¹Mount Allison University Calendar, 1960-1961, Sackville, New Brunswick, pp. 65-67.

MOUNT SAINT VINCENT COLLEGE

The following are the studies required for the Bachelor of Arts degree:

Religion	8 points
Philosophy	18 points
English	24 points
Latin, Greek or a Modern Foreign Language	30 points

History	12 points
Science	6 - 9 points
Mathematics	6 points
Electives	24 points

Majors may be taken in Philosophy, English, History, the Classics, Modern Languages, and the Social Sciences.¹

SAINT FRANCIS XAVIER UNIVERSITY

For the general Bachelor of Arts degree the curriculum is:

Freshman Year - Religion; English; Latin; Modern Language; History; Mathematics; Orientation; Physical Education.

Sophomore Year - Religion; English; Modern Language; two Philosophies, Economics or Political Science; Public Speaking; Physical Education; an elective.

Junior Year - Religion; two Philosophies; History; Music Appreciation; three electives.

Senior Year - Religion; Philosophy; Physical Science; Art Appreciation; Three electives.

The electives may be chosen from: Art, History, Library Science, Music, Philosophy, Psychology, Commerce, Economics, Political Science,

¹Mount Saint Vincent College Announcements 1960-1961, Halifax, Nova Scotia, p. 20.

Sociology, English, Classical Languages, Modern Foreign Languages,
Science, Mathematics.¹

SAINT JOSEPH'S UNIVERSITY

The programme at this University, leading to the Bachelor of

Arts degree is:

First Year

Religious Instruction	2	hours	per	week
English	5	"	"	"
Latin	5	"	"	"
General History	1	"	"	"
Algebra	2	"	"	"
Trigonometry	2	"	"	"
Astronomy and Geology	1	"	"	"

Second Year

Religious Instruction	2	hours	per	week
English	5	"	"	"
Latin	5	"	"	"
General History	1	"	"	"
Analytical Geometry	4	"	"	"
Biology	1	"	"	"

Third Year

Religious Instruction	2	hours	per	week
Physiology	2	"	"	"
Philosophy	8	"	"	"
English	3	"	"	"
History of Philosophy	1	"	"	"
General History	1	"	"	"
Physics - Theory	4	"	"	"
Laboratory	1½	"	"	"
Biology - Theory	1	"	"	"
Laboratory	2	"	"	"

Fourth Year

Religious Instruction	2	hours	per	week
Philosophy	8	"	"	"
English	3	"	"	"
History of Philosophy	1	"	"	"

¹ Saint Francis Xavier University Calendar 1960-1961, Antigonish, Nova Scotia, p. 47.

General History	1	hour	per	week
Social Economy	1	"	"	"
Chemistry - Theory	4	"	"	"
Laboratory	3	"	"	"

SAINT MARY'S UNIVERSITY

The requirements for the Bachelor of Arts degree at this institution are as follows:

Freshman

Theology
English
Mathematics
Latin
History
Natural Science

Sophomore

Theology
English
Philosophy
Latin
Modern Language
Elective

Junior

Theology
Philosophy
Elective
Elective
Elective

Senior

Theology
Philosophy
Elective
Elective
Elective

Electives are chosen under the guidance of a faculty adviser and registrar.²

UNIVERSITY OF NEW BRUNSWICK

First Year

English		
History		
One from Group 'A'	'A' {	{
Two from Group 'A' and 'B'	Classics	French
	Latin	German
	Mathematics	Spanish
		'B' {
		Biology
		Chemistry
		Geology
		Physics

¹ Saint Joseph's University General Calendar 1960-1961, New Brunswick, p. 53.

² Saint Mary's University Calendar 1959-1960, Halifax, Nova Scotia, pp. 46-47.

Second Year

Students must take English 200 and four other courses, not more than three being from any one group.

<u>Group A (Humanities)</u>	<u>Group B (Social Sciences)</u>	<u>Group C (Natural Science and Mathematics)</u>
Classics	Economics	
English	Political Science	
French	Psychology	Mathematics
German	Anthropology and	Biology
Greek	Sociology	Chemistry
History	History	Geology
Italian	Philosophy	Physics
Latin		
Philosophy		
Spanish		

Third and Fourth Years

Students in these years shall select their courses in consultation with the Dean and the heads of the appropriate departments.

<u>Group A</u>	<u>Group B</u>	<u>Group C</u>	<u>Group D</u>
Spanish	Fine Arts	Sociology	Physics
Italian	Philosophy	Political Science	Mathematics
Latin	History	Education	Geology
Greek		Economics	Chemistry
German		Anthropology	Biology
French		Psychology	Psychology ¹
English			

The B.A. courses in all these universities are, in general, the same. Some universities may offer a wider choice of subjects than others (mainly because of the size of the institution), their prescribed texts and approaches to the individual subject may also differ, but in the overall curricula there does not appear to be much difference. Thus every graduate student must do some English, a foreign language, a science, and some mathematics. The degree to which these studies are

¹University of New Brunswick Calendar 1960-1961, Fredericton, New Brunswick, pp. 75-76.

pursued will depend upon whether the student is doing a general degree, a major study,¹ or honours.

Whether one does a general course, majors or does honours, will depend primarily upon his ability, choice, industry and marks. The general course is intended to introduce the student to a wider field of study so that he will know something about a greater number of things and hence be in a position to concentrate on some field of choice, if so desired, later on in university or after graduation. In the major and minor studies the student is not expected to read as widely as in the general course, but rather to do more concentrated work in two related fields. In honours, specialization begins early and concentrated work in this field is carried on throughout his course. Honours work would appear to be definitely for the more intelligent.

Not all Maritime universities offer a Master of Arts degree, but those that do follow a somewhat general pattern. The course generally extends for two years beyond the completion of the undergraduate course, there are fewer formal lectures, the main point being to solve a specific problem or do some original work on which a thesis is written. When this is complete, an oral examination is given where the student is examined in his and related fields by a panel of professors. The successful candidate is now considered to be a master in his own field.²

This is the liberal arts as presented in the universities of

¹For every major study there is also a minor one.

²Interview with: Sara (Mrs. A.) Judd, Acting Registrar, St. Mary's University, Halifax, Nova Scotia, March 16th, 1961.

Nova Scotia and New Brunswick.

In summation, by the time a young Nova Scotian has completed high school he would have had three years of English, three years of history, at least one year of a science (chemistry, geology, physics, biology), and a choice of a foreign language, mathematics, music, arts, craft, commercial and agricultural courses. This collection of courses offers a very wide choice to all high school students. From it a good or conscientious pupil can select an extremely challenging course of studies, but in like manner the lazy can find subjects through which he need do no more than drift intellectually. This is unfortunate for it is perhaps these same intellectual drifters who later clutter up the universities, making themselves a nuisance to fellow students and professors alike.

The graduate with a Bachelor of Arts degree from a Maritime university will have done at least one advanced course in English, one advanced course in a foreign language, one science to an advanced standard, and one year of mathematics. His other choice of subjects will be determined by the nature of his course, as to whether it be general, a major or honours, and his interest in a specific field or fields. Here, as in the high school, the serious, conscientious student can select a challenging course of studies, or the drifter can drift.

It may be that we have drifters and failures in our schools and universities due to a lack of guidance for those young pupils who do not know what they really want to do, or because of inadequacies in our present high school curriculum. A solution to this problem may be found in the form of some changes in the present curriculum and better guidance in the schools, as will be discussed in the following chapter.

CHAPTER III

CRITICIZMS AND RECOMMENDATIONS FOR IMPROVING THE PRESENT SENIOR HIGH SCHOOL CURRICULUM

There have been many criticisms of the present Nova Scotia High School curriculum, some of which are valid. Quite often, however, when the curriculum is criticized, the individual teacher may be more at fault than the curriculum. In the school year ending in 1959 only 22.5 per cent of 6177 teachers employed in this province possessed professional licenses,¹ and of this number only a smaller percentage were actually teaching the subjects for which they were qualified. Too often because a senior member of the staff has been teaching a certain subject for years, a younger and more qualified teacher may be forced into a field for which he is not as well qualified. With the rapid progress of science, for instance, many theories and accepted facts of ten years ago may today be either totally discredited or considered elementary. It is therefore paramount that the teachers in these and similar fields must either keep abreast of the times by frequent refresher courses, or else find their ideas becoming outmoded. For this purpose, sabbatical leave for study and travel will in time have to become departmental policy.

Next, the present legislation governing the school and its curriculum are a little too rigid for the really dynamic and imaginative teacher. Because a child must be in school from 9:00 a.m. to 3:00 p.m., five days per week, the teacher who would like to take his class on a

¹Nova Scotia Teachers' Union Economic Handbook, 1960-1961, Qualifications of Teachers, p. 2.

tour of a factory or to visit a museum must ask permission from his inspector and employing school board. They will probably refuse this permission since there is no provision for such activities in the Education Act.

Finally, the curriculum as it now stands seems to be sufficiently challenging to the pupils of IQ's of about 100, not sufficiently challenging to those of higher IQ, and far too difficult to those of lesser intelligence. This fact was clearly revealed by a survey conducted in a typical Rural High School of Nova Scotia in 1958 by Mr. John Ross, Supervisor of Pupil Personnel for the Department of Education in Nova Scotia. Mr. Ross followed a group of pupils from Grade 7 to Grade 11, testing them at regular intervals. He then set up his results in tabular form for each grade as follows:

GRADE 7

I.Q.	20	30	40	50	60	70	80	90	Median Ave	
120 up					/	////	////	/	10	79.5
110					///	+++	+++	//	15	77.5
100		/		/	////	+++	///		19	72.5
90			///	+++	++++	+++	/	/	29	62.5
80		/	//	+++	+++	///			22	61.4
70	/	/	+++	+++	////				21	52.8
60	/	//	//	/					6	39.5
50		//			/				3	35.
	2	7	13	21	38	27	13	4	125	
Median I.Q.	69.5	67.	66.5	79.5	91.5	105.	114.5	114.5		

GRADE 10

I.Q.	20	30	40	50	60	70	80	90	Median	Ave.
120 up				/	//	//	//	/	8	74.5
110				//	///	///	///		11	71.2
100			//	//	////	/	////		14	65.5
90			//	/	///	/			7	61.1
80			/	/		//			4	
70			/		/				2	
60										
50										
			6	7	14	9	9	1	46	
Median I.Q.			94.5	107.	105.9	111.1	111.1	124.5		

GRADE 11

I.Q.	20	30	40	50	60	70	80	90	Median	Ave.
120 up						///	//	/	6	79.5
110			/	////	//	/	///		11	64.5
100				////	///	/	//		10	64.5
90				//	/				3	57.
80				/		/			2	63.
70										
60										
50										
			1	11	6	6	7	1	32	
Median I.Q.			114.5	105.8	106.1	119.5	114.5	124.5		

The tables are read thus:

- a) The extreme left-hand column is for individual IQ's, reading from 50 at the bottom to 120+ at the top.
- b) The numbers across the top of the tables (20-90) represent the average marks made to the nearest ten.
- c) The extreme right-hand column indicates the median average made by the number of pupils in each row and, running to the left, contains the corresponding IQ.
- d) The strokes within each box represent the number of pupils of the IQ to the left who made the mark directly above.
- e) The column second from the bottom denotes the total number of strokes above it; likewise, the column of numbers before the median average is the total number of strokes of each row to the left.
- f) The column at the very bottom of the table indicates the median IQ of the pupils in the row above.

Thus, for instance, in grade 7 there were thirteen pupils with a median IQ of 66.5 who made 40 marks each on their examination. Of these thirteen, three possessed an IQ of 90, two possessed an IQ of 80, seven possessed an IQ of 70, and two had an IQ of 60 each. In this same grade and examination twenty-nine pupils of IQ 90 had a median average of 65.5; twenty-one pupils of IQ 70 had a median average of 52.8; and three pupils of IQ 50 had a median average of 35.

The remaining tables are read in like manner.

It is evident from these results that generally the more intelligent tend to do better in high school, and the percentage of drop-

outs for the less intelligent increases as the higher grades are approached. Furthermore, the great differences in median averages between the various IQ groups could be an indication that whereas the average pupil is being challenged to capacity, the bright student is not. One remedy for this short-coming of the high school curriculum may be a form of 'streaming'.

STREAMING

A comprehensive, cumulative record card should be kept for every child from the time he enters school in Grade Primary. This card would be a detailed record of the child's academic performance, native intelligence, and some indication as to his capabilities. Between Grades 7 and 9 division in accordance with performance, intelligence, and capabilities could begin. If careful selection has been made during these three years, the possibility of faulty selection should be greatly diminished.

By the time the pupil has reached Grade 10 it should have been established into which of three proposed groups he will fall. Group 1 could be the Academic stream, Group 2 could be the vocational stream, and Group 3, the unskilled stream.

Group 1 The Academic Stream

The brightest pupils will fit into this group. They are the ones who, by their past record of performance and intelligence, have shown that they are likely to benefit most from university; they are our future professional people. In this select group a more challenging course of studies could be prescribed and the curriculum for the last three grades of high school could be upgraded.

Group 2 The Vocational Stream

This group will be comprised of those of average intelligence. It will definitely be a large and amorphous group, delineated by Groups 1 and 3.

Group 3 The Unskilled Stream

These are the students who obviously will not benefit from further academic schooling. Their progress through school will have been slow, and so by the time they reach Grade 10 they will be much older than those in the other two groups.

With the universities getting pupils from the top stream only, they will be in a better position to improve their curricula. The course of studies for the Academic Group, comprised of candidates for university, is as follows:

English: 5 hours per week

GRADE TEN - By the time the more intelligent child reaches Grade 10 he should be ready to do more concentrated work in prose-composition and literary appreciation which together account for roughly eighty percent of the English curriculum. Moreover, the two are so correlated that the course in literary appreciation finds immediate practical applications, while the prose-practice sharpens the pupil's literary sense. There could be frequent use of literary passages for imitation. Something of an "historical sense" of literature should be general at this level. Every pupil should be quite able to view the literary masterpieces, and to see wherein they all fit.

Curriculum time remaining may be given to practice in discussion or in debate, perhaps even to the occasional speech taken from, or

simply inspired by, classic oratory.

GRADE ELEVEN - A pupil who has reached the goal of the grade eleven curriculum will show skill in debates and discussions, will be able to handle a dramatic role, will have developed a personal style in writing and in oral speech. He will recognize and appreciate whatever is best in ancient or modern literature. He will not be indifferent to good speech in any of the media. Briefly, he will have the modern equivalent of the old *eloquentia perfecta* - a certain skill in speaking, a certain distinguishing love of literature.

Because English is the mother tongue of our country, every Canadian should be fluent in it. Democracy requires leaders who can think clearly and speak well, especially extemporaneously. These abilities are only to be achieved by reading the best books, hearing the best speakers, and seriously pondering their ideas. This English course is expected to fulfill this aim.

Social Studies: 5 hours per week

In the lower grades there will have already been covered the history of the Atlantic Provinces, of Canada, the United States, and the British Empire up to the present time. The pupil should also have had the geography of the Atlantic Provinces, North America, southern continents, Europe and Asia. In Grades 10 - 12 the following could therefore be covered:

GRADE TEN - History: Ancient and Medieval.

Geography: The World: Climatic conditions, resources, trade-patterns.

GRADE ELEVEN - History: European: From the 14th century to the end of the 19th century.

Economics: Theoretical and related to Canadian Industry.

GRADE TWELVE - History: Canadian and Contemporary.

World Problems.

The ultimate aim of these studies is to:

- (1) create an understanding as to how society could and should operate, and develop the ability to take part in its operation.
- (2) develop an appreciation for other peoples' points of view and the realization that although they differ from ones own, they
- (3) aid in the development of a cosmopolitan mind that can see the virtue of things different and
- (4) develop a fortification against propaganda.

Science: 8 hours per week

GRADE TEN - The year's work should at least be a review of equations and the nature of the more important elements, basic terms in physics, chemistry, and biology, and the structure of the solar system. At the completion of the above review there could be continued in more detail the history of science, the nature of elements, valence and chemical equations, production and properties of common gases, analyses of the atmosphere, problem-solving involving valence, chemical equations and gases, analyses of the structure of the living cell, and the classification of organisms. Other material covered should be:

Plant physiology

Heredity and evolution

Mechanics of liquids and gases

Introduction to molecular physics, force, work, heat energy, power.

GRADE ELEVEN - More detailed study of work begun in grade ten.

Sound, light, magnetism, static electricity

Application of theory in the form of problems

Brief review of previous work in chemistry problems:

Related groups of compounds and reactions

Periodic Law

Atomic structure and associated phenomena

Introduction to organic chemistry.

Wherever possible the project method of teaching should be adopted. This will involve a good deal of laboratory work, as well as many research projects. Because of their greater ability, these pupils will be more capable of working on their own.

Mathematics: 6 hours per week

By the end of grade 9 the brighter pupil should have a good foundation in elementary algebra, which would include factoring, fundamental operations with algebraic fractions, fractional equations, linear equations in two unknowns, and verbal problems. In the senior high school the course can therefore be:

GRADE TEN - Algebra: Review first degree equations, graphs, simultaneous equations (graph and algebraic), surds, quadratic functions and equations, graphs of quadratic functions, simultaneous equations of second or higher degree.

Geometry: Continuation of geometry, including ratio and proportion.

Trigonometry: Right-angled triangle, law of sines and cosines, Pythagorean identities, etc.

- Analytic Geometry: General introduction.

In both mathematics and the other sciences a high standard of accuracy must be maintained and especially with fundamental things which should be right all of the time. These pupils will be our future leaders in the professions, and in some fields a small error may mean lives or cost millions of dollars.

Languages: 11 hours per week

Canada being a bilingual country, both native tongues should be studied throughout school. If this were the case, by the time the pupil reached grade 9 he should have acquired a good knowledge of French grammar and composition, French heritage and its place in Canadian history, the culture of France, and her place in the diplomatic world.

GRADES TEN AND ELEVEN - At this level we would therefore expect the pupil to be thinking in French. Hence, a large field of French Literature, prose, poetry, etc. would be introduced. There would be no necessity for translations.

Latin at the high school level could be concerned more with the literature and history of Rome and with improving English prose style, as well as teaching an appreciation for the ancient cultures upon which our present civilization is built. In other languages there need be only two years of grammar and composition in preparation for a more advanced study of this language at university level.

Since Grade 12 is the first year of university, the colleges should set up the curriculum for this year. This is not now the case.

Students who take Grade 12 before going to university therefore find that they are not always given credit for subjects taken, or that they have to unlearn much of what they learnt in this grade. The reason for this is that there is not now sufficient liason between the university and the high school in setting up the high school curriculum. If the high school is to prepare candidates for the university, it must have some indication of what the university requires. Thus, especially during the last year of high school, there should be a programme of guidance or counselling to assist the student in his choice of courses and in his orientation to the university way of life. This programme of orientation and guidance could take the form of frequent interviews of the student with faculty members of the university, or guided tours through the colleges for those students who plan on going to university. Such interviews and tours would help the prospective undergraduate to get a better idea of what a university has to offer, as well as what is expected of him, thus assisting him in deciding on what courses he can take and their prerequisites.

ALTERNATIVE PLAN

An alternative plan for the structure of the curriculum would be to divide each grade in three classes, A, B, and C. Thus, grade 10A, for instance, would be the academic group, grade 10B, the middle group, and so forth. In this manner, the present curriculum could be enriched for the A group, and a different one composed for the C group, or the previously proposed curriculum for the A group could be watered down for the B group. Groups A and B would, however, have to have the same curricula, varying only in depth, or closely related curricula, as the

majority of pupils would grade from a B grade to an A, then to a B and to an A and so on. For example, a bright boy could go from grade 9A to 10A to 11A. A boy of low average intelligence, however, would be more likely to go from grade 9B to 9A to 10B to 10A to 11B, and finally, to 11A. In other words, he would take twice as long to cover as much work as the very bright pupil. One of higher average intelligence could, of course, jump some grades and so not take as much time as the individual of low average intelligence.

Streaming, such as here proposed, would first of all create more homogenous classes. At present, as shown in the tables on pages 44 - 46, grade seven, for example, consisted of pupils with IQ's ranging from 50 - 120+ and, finally, grade eleven, the most select class in the school, had an IQ range of from 80 to 120+. With such a heterogenous group the pace of a class must inevitably be slowed for the benefit of the slower pupils. With a more homogenous group of brighter pupils, a well-qualified teacher could work virtual wonders.

Two virtues of these alternative suggested curricula are therefore that they make allowances for differences, even among the brighter pupils so that each may be sufficiently challenged, and they are both practicable. But even more important, the above suggested curricula are truly liberal in nature. They will provide the pupil with a thorough knowledge of the humanities, an appreciation of literature, the arts, and the sciences, in addition to the discipline and training of his mind. The pupil, with this wider scope, is now in a better position to think more critically, to appreciate more fully, and apply more knowledge to his everyday life. On this foundation of the liberal arts the university will be better able to build.

BIBLIOGRAPHY

- Acadia University, Annual Calendar 1960-1961. Nova Scotia: Truro Printing and Publishing Company, 1960.
- Boyd, William A. The History of Western Education. London: A. and C. Black Ltd., 1928.
- Brubacher, John S. A History of the Problems of Education. New York: McGraw Hill Book Company, 1947.
- Cubberley, Elwood P. A Brief History of Education. New York: Houghton Mifflin Company, 1922.
- Dalhousie University, Calendar 1960-1961. Halifax, Nova Scotia, 1960.
- General Education In a Free Society. A Report prepared by the Harvard Committee. Cambridge: Harvard University Press, 1946.
- Graves, Frank P. A History of Education During the Middle Ages and the Transition to Modern Times. New York: The MacMillan Company, 1914.
- Henderson, Stella V. Introduction To Philosophy of Education. Chicago: The University of Chicago Press, 1951.
- Hook, Sidney. Education For Modern Man. New York: The Dial Press, 1946.
- Hutchins, Robert M. The Conflict In Education In a Democratic Society. New York: Harper and Brothers, 1953.
- _____. The Higher Learning In America. New Haven: Yale University Press, 1936.
- Jaeger, Werner. Paideia. New York: Oxford University Press, 1947.
- Lowett, Benjamin (trans.). The Works of Aristotle. New York: Oxford University Press, 1952. Bk. VIII.
- Kirconnell, Watson and Woodhouse, A.P. The Humanities In Canada. Ottawa: 166 Marlborough Street, 1947.
- Kolesnik, Walter B. Mental Discipline In Modern Education. Madison: The University of Wisconsin Press, 1958.
- Mount Allison University, Calendar 1960-1961. Sackville, New Brunswick, 1960.
- Mount Saint Vincent College, Announcements 1960-1961. Halifax, Nova Scotia, 1960.

- Newman, J. The Idea of a University. London: Longmans, Green and Company, 1919.
- Nova Scotia Guidance Newsletter. A special edition issued by the Nova Scotia Department of Education. Halifax: Nova Scotia Department of Education, 1960.
- Nova Scotia Teachers' Union Economic Handbook. Halifax: Nova Scotia Teachers' Union, 1960.
- Nova Scotia Department of Education, Program of Studies In the Schools of Nova Scotia 1960-1961. A program prepared by the Curriculum Department. Halifax: Nova Scotia Department of Education, 1960.
- Saint Francis Xavier University, Calendar 1960-1961. Antigonish, Nova Scotia, 1960.
- Saint Joseph's University, General Calendar 1960-1961. New Brunswick, 1960.
- Saint Mary's University, Calendar 1959-1960. Halifax, Nova Scotia, 1959.
- Smith, William A. Ancient Education. New York: Philosophical Library, Inc., 1955.
- Smith, William Benjamin, and Walter Miller (trans.). The Illiad Of Homer. New York: The MacMillan Company, 1944.
- Taylor, Alfred Edward. Plato: The Man and His Works. New York: Meridian Books Inc., 1958.
- University of New Brunswick, Calendar 1960-1961. Fredericton, New Brunswick, 1960.
- University of King's College, Calendar 1960-1961. Halifax, Nova Scotia, 1960.
- Van Doren, Mark. Liberal Education. New York: Henry Bolt, 1943.
- Walker, F.A. Discussions in Education. New York: Henry Holt and Company Inc., 1900.
- Woodward, W.E. Vittorino da Feltre and Other Humanist Educators. London: Cambridge University Press, 1897.