

PREPARING OUR YOUTH FOR THE 21st CENTURY



REPORT OF THE
TASK FORCE ON ELEMENTARY AND
SECONDARY SCHOOL LEARNING PROFILES

PREPARING OUR YOUTH FOR THE 21st CENTURY



REPORT OF THE
TASK FORCE ON ELEMENTARY AND
SECONDARY SCHOOL LEARNING PROFILES

JUNE 1994

The Direction des communications
of the ministère de l'Éducation du Québec
collaborated in the publication of this report.

© Gouvernement du Québec
Ministère de l'Éducation, 1994 — 9495-3034

ISBN 2-550-29522-6

Legal Deposit — Bibliothèque nationale du Québec, 1994

Preface

June 2, 1994

Mr. Jacques Chagnon
Minister of Education
Gouvernement du Québec
1035, rue De La Chevrotière
16^e étage
Québec (Québec)
G1R 5A5

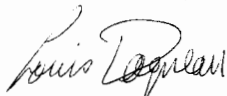
Dear Mr. Chagnon:

The Task Force on Elementary and Secondary School Learning Profiles hereby submits its report, in accordance with the mandate it received from you on March 30, 1994. You requested that we suggest points for discussion that would provide the basis for a public consultation on elementary and secondary school learning profiles. The Task Force believes that this report fulfils this specific mandate as faithfully as possible.

As well, we are pleased to be able to submit this report with the approval of all Task Force members.



Claude Corbo, chairman



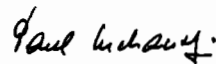
Louis Dagneau



John H. Dinsmore



Fatima Houda-Pepin



Paul Inchauspé



Hélène Simard



Raymonde Touzin

June 16, 1994

Fellow citizens:

It is with great interest that I read the report submitted by the **Task Force on Elementary and Secondary School Learning Profiles**.

This report lays the groundwork for the public debate and discussion we are about to undertake. Our goal will be to determine what knowledge and skills young people should have when they finish elementary and secondary school to be prepared to meet the challenges of the 21st century.

I therefore invite all Quebecers who have young people's interests at heart to share their vision of how we can build a society that is able to keep pace with ongoing technological change and to preserve and promote humanistic values.



Jacques Chagnon
Minister of Education

Acknowledgments

The Task Force wishes to thank Anna Coia (secretary-coordinator), Silvie Delorme (assistant) as well as Suzanne Pelletier, Germaine Dumontier-Boulerice, and Maud Harvey-Tremblay (secretaries), all with the Rector's office of the Université du Québec à Montréal, for their dedication and hard work in the preparation of this report.

The Task Force is also grateful to Carole Pâquet, revisor at the Division des services linguistiques (DSL) of the ministère de l'Éducation, for her work on the French version of this report. Let it be noted that any linguistic imperfections subsisting in the French version are not her responsibility. Finally, the Task Force thanks Verna Delaney and Lena Day, both translators at the DSL, for their work on the English version.

C.C.

This report is an expression of our confidence in the young people of Québec, who were uppermost in our minds as we composed it.

The members of the Task Force

Contents

Preface	iii
Acknowledgments	vii
Introduction	1
1. The World of the 21st Century	5
2. Outcomes and the School's Roles	13
3. Necessary Learning Profiles	21
Conclusion	39
Appendix 1 Mandate of the Task Force	43
Appendix 2 Members of the Task Force	44

Introduction

A Crucial Question

What should students know upon completion of elementary and secondary school?

Tens of thousands of people in Québec—parents, employers, teachers, other educators, administrators, politicians and students—are asking this crucial question. What should students know? What skills and attitudes should they develop by the time they finish their elementary and secondary school studies? The question is particularly important given the high failure and dropout rates, the poor quality of language skills among students, the difficulty of finding and keeping a job in today's labour market, and the uncertainties of the future. Clearly, it is a question that must be answered.

We need to know what students must know when they leave school for the following reasons:

- To ensure that each student achieves his or her potential
- To ensure that each student is equipped to accept change and adjust to it
- To widen the range of each student's possible career choices

Widespread Concern

The question posed above is being asked not only in Québec, but also in other countries, many of which are already actively engaged in the search for an answer.

The United States:

- In 1984, a report entitled *A Nation at Risk* proposed essential learnings to be achieved by all students emerging from high school.
- In 1992, the Secretary's Commission on Achieving Necessary Skills defined the basic skills needed in order to meet labour market requirements.
- In 1994, the American Congress passed legislation identifying knowledge and skills standards for school graduates (Goals 2000: Educate America Act).

France:

- In 1991, a document entitled *Les cycles à l'école primaire* defined in detail the skills to be acquired at each cycle of elementary school. The same operation was carried out with respect to secondary school.

Canada:

- In 1992, the Corporate-Higher Education Forum published a document entitled *Learning Goals for K-12 Education: To Be Our Best*.
- In 1993, the Conference Board drew up an "Employability Skills Profile."
- Other provinces (e.g., Saskatchewan in 1988) have done or are now doing work in a similar vein.

In Québec, education issues have been much debated for a generation. In the 1960s, the Parent Commission redesigned the education system. Subsequently, the Rioux Commission reexamined education in the arts. In 1979, the ministère de l'Éducation du Québec (MEQ) published a policy statement and plan of action entitled *The Schools of Québec*. However, we are now well into the 1990s and the world is changing at an ever-increasing pace. We must prepare our young people for the 21st century. The question of what we refer to as learning profiles is therefore of crucial importance. In a document entitled *Moving Ahead*, published in November 1993, the Québec Education Minister asks:

“What are young people expected to know when they leave secondary school? What skills and attitudes are they supposed to have developed?”

Instinctively, all Quebecers grasp the importance of these questions. How a society answers these questions has a direct impact not only on its choice of programs, courses and teaching methods, but also on how it chooses to organize its education system and define the role of its schools.

Toward a Public Debate

The question of what young people should know upon completion of their studies is so fundamentally important that it demands public debate and discussion on a broad scale. Responsibility for defining the school's role and determining the education it should provide lies first and foremost with the people of Québec. Although the fast pace of social, economic and technological change makes these tasks more complex, they must nonetheless be addressed.

On March 30, 1994, the Québec Education Minister made known his intention to initiate “a broad discussion to answer the question: what knowledge should young people have acquired by the time they have completed their elementary and secondary school education?”

To launch such a discussion, the Minister mandated a Task Force to “produce a concise document—no more than a few pages—that is accessible to the general public and contains statements that are clearly worded and easy to find” (see Appendix 1 for the Task Force's mandate). In essence, the Task Force was asked to *formulate questions and suggest discussion points which would provide the basis for a public consultation.*

Nature and Scope of this Report

Given its mandate and the relatively short deadline set by the Minister, the Task Force intended this report as a means of *encouraging public debate and discussion on a broad scale.* The Task Force does not claim to have all of the answers nor to take the place of teachers and other education specialists. On the contrary, with their experience and expertise, educators can make an invaluable contribution to this debate.

The Task Force was formed of Québec citizens who, in expressing their thoughts and concerns, wished to speak directly to their fellow citizens on:

- The fundamental issues facing schools as they enter the 21st century
- The fundamental questions relating to the education of young people
- A school project adapted to the requirements of the 21st century

This report should therefore be seen as a starting point—an invitation to examine the issues. It is hoped that it will encourage Quebecers to take a hard look at the fundamental questions and to provide the answers they judge appropriate.

1. The World of the 21st Century

It is always difficult to know which trends in contemporary society are indicative of things to come. There are two erroneous approaches in this kind of speculation. The first is an overly conservative approach that prevents people from seeing changes in society; the second is an overly speculative approach that, in the manner of a science-fiction scenario, portrays a society shaken to its very foundations as a result of changing technology.¹

Children and adolescents attending school today and, even more so, their successors, will live the greater part of their lives in the 21st century. Barring some unforeseen catastrophe, a large majority will live to see the years 2050 to 2075. Our schools must prepare these children and adolescents to meet the challenges of the 21st century.

Predicting the future is always a risky undertaking. Nonetheless, it is possible to outline some of the broad characteristics of the world that today's children and adolescents will confront in the coming century. Indeed, such an exercise is an essential prerequisite for any reflection on the school's role.

One thing is certain: the world of the 21st century will be characterized by constant, ever-increasing, massive and profound change. This will demand of both individuals and societies an enormous ability to be creative, to solve problems and to adapt to a changing world.

It is also reasonable to think that the world of the 21st century will be characterized by three trends that are already part of our daily lives:

- Internationalization and globalization
- Increasingly rapid growth of knowledge and technology
- The increasing complexity of life in society

Inextricably linked as they are, these three trends influence and reinforce one another. Each one suggests (and in some cases demands) action on the part of the school system. Let us examine these trends further, keeping in mind that the importance of the discussion resides not so much in specific details, but rather in the overall portrait that emerges of the world in the 21st century.

(1) Internationalization and Globalization

The irreversible trend toward internationalization and globalization has been experienced by all modern societies. It will continue to affect all aspects of people's lives. In simple terms, this means that a country's development will be increasingly related to that of all other countries. Peoples and societies of all continents will increasingly constitute what is commonly referred to as a "global village." The trend toward internationalization and globalization is reflected in a number of phenomena that have become part of our daily lives.

1. Marcel Rioux, *Rapport de la Commission d'enquête sur l'enseignement des arts au Québec*, vol. 1 (Québec: Éditeur officiel du Québec, 1968), p. 31. [Translation]

-
- The fact that societies are having more and more contact with each other and growing increasingly interdependent marks the end of isolationism.
 - Increasing use of a growing number of means of communications (television, telephone, telecommunications via satellite) as well as a considerable growth in available transportation will greatly facilitate and intensify the movement of goods, services, capital, ideas and people.
 - A systematic expansion of the marketplace will result in the creation of a global market in the context of liberalization of commerce and trade. More and more, geographical regions are forming economic blocs. The North American Free Trade Agreement (NAFTA), which may ultimately result in a free-trade zone encompassing all the Americas, is but one example of this.
 - The liberalization of trade will result in increased competition between countries, but also increased specialization and a greater degree of interdependency. Only the most efficient and innovative producers will find stable outlets for their wares in a global market. As some countries will be more successful than others, the gap between rich and poor countries is likely to grow.
 - Increasingly efficient production techniques will expand the supply of goods and services available on the international market, giving consumers a wider variety from which to choose. To be successful, suppliers will have to be ever more innovative in matters of specialized production techniques, product quality and attention to customers from very different cultures.
 - Trade and the possibility of setting up production facilities anywhere in the world will result in greater movement of capital, populations, ideas and cultural values. Increasingly, a wide variety of cultural influences now penetrate national borders, as social homogeneity gives way to ethnic and cultural diversification. All peoples are bound to enrich their own cultural identities with elements of other cultures imported either through trade or the media. Cultural diversity is changing the growth of nations.

Neither Québec nor any other society will be able to ignore the trend toward internationalization and globalization. All dimensions of human experience—economic, social, political, cultural and spiritual—will change profoundly as societies become increasingly interdependent. Isolationism has had its day: tomorrow's societies will be part of a world in which the day-to-day exchange of goods, services, capital, ideas and values takes place on a world scale. However, since societies do not develop at the same pace, their differences in terms of power, wealth and cultural influence may become even greater than they are today.

Discussion Point 1

Is it not essential that Québec schools place more emphasis on the mastery of linguistic, geographical, historical and cultural knowledge required for life in a society undergoing profound change as the result of internationalization, globalization, and ethnic and cultural diversity?

(2) Increasingly Rapid Growth of Knowledge and Technology

The 21st century will be characterized by the increasingly rapid growth of science and technology. This will profoundly affect all aspects of human existence. In the past, inventions from the steam engine to the personal computer have changed our world and the way we live our lives. These changes will seem almost negligible compared to those resulting from the future growth of science and technology. Man has gained more scientific knowledge since 1900 than in all previous years since his appearance on earth. The cellular phones, video machines and personal computers that have become so much a part of our daily lives in the past ten years attest to the astonishing speed with which technological innovations are taking place.

Predictions of an earthly paradise resulting from the growth of knowledge and technology must be taken with a grain of salt. Realistically, the consequences might be stated as follows:

- Knowledge and technology have already become the greatest asset of societies and the source of their productivity in the context of global competition. They constitute the power of individuals, businesses and societies. New scientific and technological discoveries may at any time drastically change the way goods and services are produced, resulting in a redistribution of wealth and power among societies.
- The rapid growth of science and technology will render techniques obsolete with greater frequency, requiring of both individuals and societies an enormous ability to adapt.
- To remain efficient in their work, individuals will have to learn on an ongoing basis.
- Scientific and technological growth, combined with the trend toward internationalization and globalization, will create new jobs and work practices, the characteristics and requirements of which cannot be predicted with certainty. What we do know, however, is that 50 percent–60 percent in the near future—of all new jobs will require a minimum of 17 years of schooling.

Discussion Point 2

Is it not essential that Québec schools place more emphasis on knowledge of science and technology so that individuals can better understand the impact of both on their lives and on society, and become better able to adapt to the changes they foster?

Of all the technologies that will continue to develop in the next century, the information technologies require special mention. The importance of the personal computer in our daily lives is the most obvious result of the rapid growth that has taken place in this field. The growth of the information technologies will change a large proportion of production activities. People working in all trades and professions will have to use increasingly powerful and sophisticated computers. The information technologies are already becoming the most important of all technologies in every area of economic activity. They have changed not only work practices, but also health services, recreation and education. Other consequences include the following:

- Through the combined use of different technologies, there will be greater access to a total or multimedia information package (quantitative data, text, sound, images, etc.) via increasingly integrated and user-friendly systems. The interactive nature of these systems will create a kind of electronic classroom which users can access whenever they want. The so-called “information superhighway” will become one of the cornerstones of social organization.
- A growing number of job skills will become obsolete as computers perform an increasing number of production and service tasks more efficiently and more cheaply than humans. Automatic tellers are a simple case in point and a sign of more changes to come.
- Work-related activities that do not become obsolete will be transformed. Organizational hierarchies, relations between individuals, relations between businesses and their clients, work methods—all will be profoundly affected by the existence of vast electronic networks and by the possibility of obtaining a total information package. But “telework” (i.e., all work performed outside its traditional setting) is only the first manifestation of a transformation that is just beginning to make itself felt.
- Far from being a simple tool in our hands, information technologies change the way we think and create and have a profound effect on human consciousness. They use a language and logic all their own; they have their own way of thinking and of organizing information. New information technologies will change civilization as much, if not more, than the invention of the wheel, the printing press and the steam engine. The impact on human culture as a whole will be profound.

It is conceivable that we are witnessing an astonishing reversal of social roles. For centuries, the privileged class has been composed of wealthy individuals who have large amounts of leisure time and do not need to work. In the future, privileged individuals may be those who are capable of working in an environment that changes constantly with the development of new technologies. Idleness and poverty may be the lot of those who cannot perform useful and socially valued work.

Given the rapid growth of science and technology, it appears justified to think that competence will be judged on the basis of an individual's ability to acquire new knowledge quickly, to make use of information technologies, to be creative, to solve problems and to maintain good relations with fellow workers. The most fulfilled individuals will be those who, on the basis of their formal schooling, are able to become lifelong learners.

Discussion Point 3

Is it not essential that Québec schools place more emphasis on education that takes into account the realities of information technologies, thus ensuring that students understand these technologies, are able to adapt to their ongoing evolution and are able to use them as easily and efficiently as they use a telephone today?

(3) The Increasing Complexity of Life in Society

The characteristics of society in the 21st century are more difficult to predict than the impact of internationalization and globalization, or of scientific and technological growth. The complexity of social phenomena makes predictions more tenuous. Nevertheless, it is reasonable to think that society will be characterized by ever-increasing complexity.

- Choices will have to be made to maintain the delicate balance between environmental concerns and the demands of economic development.
- Social tensions will be caused by the gulf separating individuals who are able to work and to master new knowledge and technologies from the significant number of individuals who are chronically unemployed.
- Both within and between societies, unequal distribution of wealth will create acute tensions and perhaps open conflict between the “haves” and “have-nots.”
- The population explosion in some parts of the world and the aging and stagnation of the population in other parts will force into existence a new political and economic equilibrium on a world scale.
- Increased communication between peoples will foster the ethnic and cultural diversification of societies. This will be reinforced by immigration, as people decide to leave their country of origin in search of a better life or urged on by economic necessity. Cultural interpenetration and hybridization will require societies to develop new mechanisms to ensure social cohesion.
- With the creation of large economic or political blocs fostering cultural uniformity, national and minority groups will tend to affirm their own identities.
- Democracies will have to face the difficult task of reconciling individual and minority rights with the need for social cohesion and civic responsibility. As well, it will be necessary to find ways of ensuring rational political debate in the face of omnipresent media that bombard the public with images and slogans.

- Sex roles and family and community structures will have to be modified, and even reinvented, as values, ideas and customs change constantly in light of new knowledge and a wide variety of cultural influences.
- Whatever the future holds for the established churches, religious belief and feeling will remain strong. There will be more contact between people of different religious faiths and denominations.
- The rise of radical nationalism and other xenophobic ideologies could trigger more violent confrontations within and between societies, especially where the situation is aggravated by economic inequality.
- A number of factors—economic inequality (whether regional, national or international), exclusion from scientific and technological progress, the breakdown of political ideologies, the complexity of society itself—could foster reactions such as political or religious fanaticism, or radical and even violent rejection of the contemporary world.
- The continuing growth of scientific and technological knowledge will give rise to complex ethical problems related to genetic engineering, artificial creation of life, chemical alteration of physical or psychological states, euthanasia and physician-assisted suicide, the invasion of privacy, and the omnipresence of the media. Individuals in their private lives and societies as a whole will have to confront the difficult and complicated moral choices implied by these issues.

The above considerations represent some of the realities that, in all likelihood, will have to be faced by today's children and adolescents in their roles as parents, citizens and workers from the present to the years 2050 to 2075.

Two additional points should be mentioned. First, it must be remembered that our children and adolescents will also be members of the Québec society of the 21st century. Young Quebecers of different cultural origins will be citizens of a society that is unique in North America, a society that is attached to its identity at the same time as it takes part in the global trends of civilization, a society that is capable of making a unique contribution to the cultural heritage of humanity. In the coming decades, Québec will have to find its place in a world dominated by nations that are powerful in terms of their people, their dynamism and their resources. Our children and adolescents, the adults of the 21st century, will have to regard their Québec heritage as a source of strength and vitality rather than as a handicap. Second, it must be remembered that our children and adolescents, as they attempt to come to grips with the complexities of their society, will be searching for happiness and for values that lend stability to their existence and meaning to their lives.

Consequently, schools must prepare students not only for work but also for the human experience and for their role as responsible, thinking citizens.

Discussion Point 4

Is it not essential that Québec schools give students a sound knowledge of the social, economic, political and cultural characteristics of Québec society, to prepare them for their responsibilities as citizens in a diversified society open to the influences of a complex world?

Schools must contribute to maintaining Québec's position among the most advanced societies in the world and to protecting it from slipping behind and having to constantly make efforts to keep up.

2. Outcomes and the School's Roles

In the 1960s, the general framework of the education system that was to be set up in Québec was defined in the Parent Report. In the late 1970s, after the most far-reaching consultation ever held in Québec in the field of education, the government released a policy statement and plan of action for elementary and secondary education.² Present-day Québec schools bear the mark of the latter document which, notably, defines outcomes and the roles the school must assume. The Task Force considers that, in order to meet the new challenges facing us, these roles have to be recentred around a few essential elements. Furthermore, the debate on the roles to be played by our schools is, in the view of the Task Force, just as important as the debate on learning profiles.

Education and even learning are not the responsibility of schools alone. Families, religious institutions, associations and the media are all involved in various ways. It is not the Task Force's intention here to suggest an ideal division of the roles of these bodies, nor the relationship that schools should maintain with them, but it is important to stress that the achievement of exit profiles is dependent on appropriate entry profiles. *Any education policy must include a policy of preparing children for school from early childhood together with a policy offering support to families as the place where the academic process is complemented and reinforced.*

The roles which will be discussed here are the essential roles that schools must concentrate on, because no other body is in a better position than schools to perform them, and because the learning required in the world of the 21st century will be increasingly reliant on them. Present-day schools must refocus their activities in order to better accomplish these essential roles.

2.1 Ensuring Intellectual Development

The specific role of schools can be summed up as follows: providing the intellectual training which allows students to acquire knowledge. This is why schools were set up, and no other institution can carry out this indispensable task more successfully.

The world of the 21st century will make performing this role even more necessary since

- The mastery of knowledge will be a decisive factor. In order to live in and integrate into society, each person will have to master knowledge of a higher level than in previous generations. Whereas in the 1950s, three years of schooling were sufficient to be considered literate, this level rose to six years in the 1980s and at least nine years in the 1990s. What will it be in the 21st century?

2. Québec, ministère de l'Éducation, *The Schools of Québec—Policy Statement and Plan of Action* (Québec: ministère de l'Éducation du Québec, 1979).

- The production and use of new knowledge by a wide segment of the population will also be a decisive factor. Brain power, rather than raw materials, will constitute a country's main wealth. Brain power is developed in schools, and already schools are being blamed in part for the unsatisfactory performance of the economy.

Schools must therefore concentrate on intellectual training, which is their main role. This cannot be done, however, without calling into question two trends evident in today's schools:

- Schools, especially elementary schools, have been required by parents to carry out roles normally performed by the family.
- The objective of educating the whole person set by the 1979 MEQ policy statement has led to more time being allotted to personal and social development courses within the curriculum with no corresponding increase in the total time available.

Discussion Point 5

At a time when mastery of knowledge by a wide segment of the population has become a decisive factor, is it not essential that Québec schools focus more attention on students' intellectual training?

2.2 Fostering Learning and Instilling the Desire to Learn

The role of schools is to foster learning in students. Teaching in schools is intended first and foremost to encourage learning, and is not an end in itself. The transmission of knowledge requires the active participation of students, who cannot receive knowledge passively as though receiving an object. To acquire knowledge, students must assimilate it, reconstitute it and even reconstruct it. The mastery of knowledge is demonstrated ultimately in its application.

The 21st century will place even greater emphasis on active learning in schools since

- Even today, the learning process is not limited to a single period in our lives: learning has become a lifelong requirement. Schools must develop the skills and attitudes that will allow students to continue learning by themselves. Above all else, schools must instil in students the desire to learn.
- The new information technologies which no school will be able to avoid using will, if they are to be used efficiently, require teachers to concentrate on what students actually learn.

Québec schools are already aware of this new role, and know that they must provide students with the general transferable skills which, in combination with other skills, will allow them to continue learning. This role cannot be accentuated, however, without calling into question three trends evident in today's schools:

-
- The programs are defined by establishing a large number of learning objectives. Since the programs are prescriptive, teachers expend their energy in trying to achieve each objective. They teach, but do students learn? And what do they learn? This design method is deficient in that the resulting programs do not clearly state the basic knowledge that students must acquire and the skills they must master.
 - Subjects are taught with an emphasis on the amount of information provided and on understanding, but the exercises which, alone, will allow students to master essential learning are neglected.
 - Students do not devote enough time to study and assignments. Students cannot assimilate essential learning without devoting more time to exercises and individual work. When learning to swim or to skate, it is not sufficient to merely listen to the instructor: one must practise, practise and practise. The same holds true in school.

Discussion Point 6

At a time when schools do not have a monopoly on access to knowledge and when learning has become a lifelong requirement, is it not important that the essential learning to be acquired at school be specified, and that schools ensure that it is attained by students through methodical, repeated exercises?

2.3 Exposing and Introducing Students to Culture

The learning schools must impart to students is not generated spontaneously, but is rather a product of the work done by previous generations in the various fields of human culture: art, literature, science, technology and lifestyles. Students are introduced to culture at school in order to allow them to better adapt to, and join, a cultural system built up over the centuries—the complex world in which they will have to live. Another goal is the assimilation of culture, allowing students to construct their intellectual and personal identity and in turn innovate and, in some cases, create.

The 21st century will accentuate the need for schools to assume the role of revealing the roots of our present civilization, since

- The rapid growth of knowledge and technology creates an increased need for points of reference by which they can be situated and understood. Schools are the ideal place in which to organize knowledge.
- The internationalization and globalization of exchanges and relationships requires broader knowledge of other cultures, and therefore a better knowledge and understanding by students of their own culture.
- In this new environment, societies that wish to be active members of this exchange network will have to be both innovative and creative, or risk losing their identity. Lack of knowledge of the past can lead to a shallow understanding of the world around us and also to a tendency to reproduce the past, obviously a handicap in periods of rapid change.

The role of schools in exposing and introducing students to culture through the acquisition of existing knowledge must be reaffirmed. Once again, this involves calling into question certain tendencies which, in recent years, have affected Québec schools.

- On the premise that schools must encourage the development of intellectual skills and operations, it has been suggested by some that students can be allowed to avoid contact with the works and achievements of the past, that newspapers have the same worth as the works of renowned authors when learning to read, and that exposure to science can be reduced to what students are able to discover for themselves.
- Similarly, on the premise that schools must develop a sense of innovation and creativity, it has also been suggested that it is sufficient to work toward liberating students' inner energy and that knowledge of the works of the past puts a damper on students' creativity.

In contrast to these attitudes, the Task Force believes that schools cannot neglect the task of introducing students to established culture including, for example, the heritage of literature, past scientific discoveries, and political and social institutions. True learning cannot be achieved by the uncultivated. The objective of developing skills and creativity can only be reached by transmitting established knowledge. Intellectual ability does not develop in a vacuum, and the act of creating is essentially that of re-creating.

Discussion Point 7

In an era that has been marked by the rapid growth of knowledge and technology and by worldwide contributions to development, is it not essential that schools give students the points of reference that will allow them to better comprehend this knowledge and link it to the significant achievements of our common heritage?

2.4 Socializing Students and Preparing Them for Adult Social Roles

Schools ensure the individual development of each person but, whether implicitly or explicitly, they also ensure the socialization of students through group life in a community with different rules from those of the family. Schools also prepare students for the social roles dictated by society.

Schools must prepare students for life and for their role as citizens. The complexity of life in the 21st century will increase expectations in this regard. The three areas that will give rise to the greatest expectations can already be discerned:

- Current upheavals in the economic sector, industrial restructuring, transformations in work organization, and the renewed importance of human capital in all these transformations will require schools to better prepare students for the economic roles of consumer and worker as defined in the new environment.

- The tensions that will be felt throughout society during these transformations and the inequality, especially economic inequality, that will result from them might cause some of the gains made in terms of social democracy to be challenged. More than ever before, schools, through their civic education programs, will have to ensure that the ever-fragile acquisitions of democracy are maintained.
- Individuals and groups will come increasingly into contact with people and institutions from different cultures. Migratory patterns will bring people of highly varied ethnic backgrounds into previously homogeneous communities. These two new realities will require schools to take ethnic and religious diversity into account by providing intercultural education and by helping all students to adhere to a core of common values. This in itself will not ensure successful integration, but integration will be impossible without it.

The task of preparing students for social roles is accepted by Québec schools, although the manner in which schools carry it out, and the shift of emphasis to new areas, have given rise to debate and even controversy. Once again, certain attitudes will be called into question, especially the following:

- Preparing students for life involves the notion of values. Obviously, a certain number of values must be explicitly stated and even taught. Schools typically prepare students for life by providing them with intellectual training, a method of teaching little adapted to the transmission of values. But values can be transmitted through teaching itself, as what goes on in a classroom is far from a neutral relationship. Through intellectual activity, values such as respect for truth, the desire to surpass oneself, the desire to learn, discipline and the ability to take other points of view into account can be transmitted. This is how schools must transmit values.
- Religious instruction has often been used in schools as the preferred vehicle for teaching values. At a time when schools are about to be reorganized along linguistic rather than religious lines, and when the population is becoming increasingly multicultural, we must establish both a new core of common values to be transmitted and a new way of transmitting these values. Religious instruction can no longer be the preferred vehicle. Schools will have to provide civic education geared to all students and promoting, notably, the Charter of Human Rights, tolerance, democratic values, social justice and good citizenship.
- The preparation for life provided in schools must include the development of skills and also of attitudes, which are essential in the performance of social roles. Schools in Québec offer students the possibility of developing the attitudes needed for personal development and group living, but not enough emphasis is placed on the specific attitudes needed to carry out the roles of citizen and worker or economic producer.
- The preparation for life and for adult social roles provided in schools must be carried out mainly through the activities which take place in the school setting. An adequate preparation for the workplace, where operations are now largely controlled by computer systems, involves providing basic knowledge in the language of instruction and mathematics, and developing skills in analytical thinking and problem solving. The attitudes required by the new organization of the workplace—initiative, a sense of responsibility, cooperation, the ability to communicate, and innovation—can be developed through

school-based activities. The skills needed in evolving societies—an aptitude for abstract thought and the analysis of complex situations, the ability to synthesize and put things in perspective, and a feeling for history—all fall within schools' field of expertise.

Discussion Point 8

In an era marked by major upheaval in institutions (the family, politics, the Church), in the economy and workplace, and in relations with groups from different cultures, is it not essential that schools make their own contribution to preparing students for the new social roles of a new world?

2.5 Educating, or Helping Students to Grow and Succeed

Schools are a place of personal development, not only because students progress from childhood to the threshold of adulthood during the time they spend at school, but also because the main school activity—learning—is an essential ingredient in that progress. Schools offer students an opportunity to grow and to succeed, and they must spare no effort to allow all students to achieve their maximum potential.

The 21st century will make this role even more important, since

- There will be a growing need for people, citizens and workers who have developed a sense of responsibility, intellectual curiosity, an innovative spirit and the strength of character needed to respond to challenges.
- More people with higher degrees of learning will be needed. Studying, as we know, is difficult and exacting. Exterior social pressure will no longer be sufficient if students are to persevere in extended studies, and inner motivation will become indispensable. Students must discover the pleasure of studying and the rewards of learning and of overcoming difficulties. They must realize that besides the pleasure one is given, another, more satisfying form of pleasure exists: the pleasure one has earned.
- Schools, which have always been an instrument of social promotion, will be required to stop excluding certain students by failing them or by neglecting to ensure their integration into the workplace.
- People whose spiritual and ethical qualities have been developed will be required. In Western countries, the collapse of certain ideologies and changes in the way religious institutions influence behaviour have led to the disappearance of a framework governing our actions, meaning that greater attention must be paid to the personal exercise of ethical judgment and to the spiritual dimension of each person.

Québec schools have not neglected this role, but, if it is to be fully realized, changes will have to be made to certain aspects of school ideology and organization:

- Only too often, the teaching methods developed in schools see children only as people with needs. They are indeed that, but they are also people who are anxious and proud, and who want to surpass themselves whatever the effort

required. Children are driven by desire—the desire to grow and the desire to succeed. This is what schools must target. Student motivation must be supported and reinforced.

- Schools offer too many similar pathways which do not take into account the fact that learning may be attained in various ways according to the personality and aptitudes of students. Intellectual capacity is not evenly distributed, and to deny that some students will have to struggle to meet common objectives is tantamount to hiding one's head in the sand, glossing over the question of difference and encouraging failure. Making teaching more democratic does not necessarily involve a single pathway and identical criteria for success for all students.
- Schools must not allow their practices to lead to the development of a mentality of failure. A student who has not obtained a secondary school diploma has not failed, but has simply not yet completed his or her studies. The student's transcript should be marked "incomplete," which implies that the student has the possibility of completing his or her studies at a later time. It is important to realize that some students will be able to meet the final objectives of the secondary level only with difficulty. Schools should not let these students leave without having done everything in their power to provide them with the learning they need to go on to higher education, or with the vocational training they need to enter the labour market.

Discussion Point 9

At a time when the academic success of all students is an important factor in successful integration into the work force, is it not essential that schools offer young people of varying inclinations, aptitudes and talent a variety of pathways which together better respond to their differences?

*
* * *

The Task Force was not mandated to determine the conditions needed to allow schools to carry out more effectively the roles they have been assigned. However, the Task Force does consider it necessary to make some general observations. These have already been formulated, whether in this report or elsewhere. Let us state them once again.

- Teachers, at the present time, are not allowed the leeway they need to act as true teaching professionals. Schools, a creature of the State, have all the characteristics of technocratic organizations: ever-present standards and rules, a division and allocation of tasks, and strong central powers which determine both what is to be taught and how it is to be taught. This kind of straitjacket reduces teachers to operational staff mainly concerned with covering the material. It stifles their initiative and also, it would seem, their vocation. A better vision of the essential learning to be imparted and more transparent programs geared to the attainment of that learning will give teachers the leeway they need to practise their profession.

- Organizational structures often throw the best-laid plans awry. The organization of our schools, especially at the secondary level, is not adequately adapted to the nature of students at that age. They are looking for models. They need to identify with a group and they need to be recognized and listened to. Anonymous groups and a succession of courses taught by subject specialists who are concerned with teacher's guides and repeated reforms of the way in which their subject is taught do nothing to create an environment in which students can receive challenging, quality instruction. This organizational model hinders the formation of significant school teams and the creation of communities in which educational projects centred on the teaching of students can emerge.
- The emphasis placed on intellectual development should in no way oblige schools to forego extracurricular activities in the sports, artistic and cultural fields. On the contrary, these activities create an enjoyable setting which supports student motivation and complements intellectual development.

Briefly, in the opinion of the Task Force,

- Schools must, before all else, ensure the intellectual development of their students.
- Schools must foster learning and instil in students a desire to learn.
- Schools must expose and introduce students to culture.
- Schools must socialize students and prepare them for adult social roles.
- Schools must educate students, i.e., encourage their growth and success.

3. Necessary Learning Profiles

Based on the type of world that today's youth will likely inhabit in the 21st century, and the role of schools as previously described in this report, the Task Force would like to suggest some discussion points that it hopes will be helpful in establishing the essential learning profiles for the elementary and secondary levels.

3.1 Clarifying Some Important Points

The Task Force would like to clarify some important points regarding the nature and scope of its work on the learning profiles:

- (1) The Task Force proposes its discussion points to foster the widest possible public debate.
- (2) The goal is not to be original simply for the sake of originality. The Task Force has drawn extensively on ideas already proposed in Québec and elsewhere.
- (3) The Task Force has attempted to clearly and concisely identify the abilities children and adolescents should possess when they leave elementary and secondary school. Appropriate clarifications and changes will be made based on the results of the public consultation.
- (4) The role of the Task Force is not to examine the school subjects within the programs or to develop course outlines. *Its role is to examine school subjects from the perspective of the abilities they develop in students and to identify the major areas of learning to be found in elementary and secondary education.* Some areas of learning correspond to a specific subject or discipline, some overlap several disciplines, while yet others relate to all disciplines.
- (5) The Task Force is aware that children and adolescents do not all have the same talents and skills, and that they do not all learn at the same speed. It believes that diversification of the programs taught in school should perhaps be considered. Nevertheless, learning profiles must be established for the great majority of students. The means of attaining these profiles, and the extent to which they must be attained, must be adapted for those students who are following different learning paths and whose learning rate is different.
- (6) The Task Force is also fully aware that the success of elementary and secondary education depends on many conditions:
 - The competence of teachers, their motivation and the conditions in which they practise their profession
 - Teaching methods
 - The organization of the education system and of the schools
 - The climate in each school
 - The financial, human and material resources allocated to the education system

- Students' physical and psychological health, their parents' financial situation, their preschool background and their readiness to start school, the support they receive from their families, their family situation (single-parent family, two-parent family, original or blended family), their living conditions, and the physical setting in which they live and study
- Students' motivation and interest with respect to their studies and the factors that favour or inhibit these dispositions

The Task Force has not examined the conditions needed for educational success, not because it is unaware of them or underestimates their importance, but because this whole area goes beyond its mandate. It is up to parents, and, even more importantly, the political and administrative authorities in charge of the education system, to implement and maintain conditions conducive to educational success.

In addition, in the opinion of the Task Force, once the learning profiles and skills that schools must foster have been agreed upon, standards will have to be established regarding the attainment of these profiles and skills so that, among other things, the success of students' schooling can be evaluated.

Once again, it should be reiterated that the Task Force's mandate is not to radically change the school system, but to prepare a report that will be useful for the purposes of a public consultation. This explains the clarifications presented above and the suggestions that follow.

3.2 The Major Areas of Learning

Given that schools must help prepare today's children and adolescents for the demands and realities of life in the 21st century, the Task Force submits the following point for discussion, which identifies the major areas of learning on which elementary and secondary schools must focus all of their efforts and energy.

Discussion Point 10

Elementary and secondary schools must focus on six major areas of learning to ensure that children and adolescents develop the skills they need for life in the 21st century.

(1) Methodology

Given that the schools cannot teach everything and that all individuals must have the skills they need to continue learning throughout their lives, in addition to subject matter knowledge, it is important for students to acquire methods that will enable them to learn, reflect, observe, analyze, synthesize, think clearly and logically, reason, judge and organize their work. These methodological skills are not acquired independently of the school subjects but rather within each school subject. They imply the development of:

- An inquisitive mind
- The desire to learn

- The desire to go beyond what is said and done
- The desire to form a personal opinion

The development of these attitudes requires a stimulating classroom environment and appropriate and repeated practice.

(2) Language

Language is central to all forms of communication. All teaching and learning rely on language as their vehicle and all of the various roles we play in society involve the use of language. Therefore, the development of language skills must be a concern in all school subjects but more particularly in language of instruction and second language courses. Spoken and written language, like any other kind of language, can only be mastered through repeated practice. The language skills to be developed mainly relate to reading, writing, speaking and listening.

(3) Mathematics

Computing, measuring, estimating and problem solving are skills we use daily in modern society. To understand charts and statistics, it is essential to know how to read and interpret quantitative information in all of its forms. Also, to cope with situations that call on their knowledge, students must have a very good understanding of mathematical concepts. This understanding is acquired in math courses but also in all of the school subjects. The sciences, more particularly, provide students with opportunities to expand and apply their mathematical knowledge. Mathematics, like any other kind of language, can only be learned through repeated practice.

(4) Life in Society

Human beings are social creatures who live in a given place over a certain period of time and who, as citizens, have rights and responsibilities. Schools must prepare students for life as members of a society by giving them points of reference that will help them understand society and how it works and also bring them to share its values. This is essential in a complex world characterized by diversity. Students can be initiated to life in society through courses that focus on it more specifically, such as history, geography, economics and civic education. However, the development of social skills must be a concern across the curriculum. The values emphasized in the classroom and in the school must favour the development of the attitudes needed for life in society. Before they can be taught, democracy, rights, freedom, equality, justice and equity must be experienced in the school, i.e., in the relationships that exist between the members of this small community.

Discussion Point 10 [Continued]

(5) Science and Technology

The omnipresence of science and technology is now a fact of modern life. Where, in the past, new technologies were developed independently of science, today, scientific discoveries and technological progress are interdependent. Scientific knowledge is essential in order to understand technology. Moreover, the information technologies, the most recent of a long series of technological advances, are changing all aspects of human activity. Advances in science translate into constant technological innovation. As science and technology are playing an increasingly important role in our daily lives, students must be given the keys that will allow them to understand them and their impact on society. Students will be introduced to science and technology mainly in science-related subjects, although other subjects, such as history, may provide helpful insights.

(6) Physical Education and the Arts

Human beings interact with the world around them via their bodies, which they must know, understand, develop and exercise in order to ensure their health and well-being. Physical education fosters the acquisition of skills and attitudes that are transferable.

The arts bear witness to the history and progress of humanity. They provide students with ways of exploring and expressing their feelings and of stimulating their imagination and creativity. They also constitute an almost universal way of communicating and of discovering and experiencing balance and harmony.

Physical education and arts education are therefore among the major areas of learning to be studied in school.

These are the major areas of learning on which schools must focus in order to develop the skills required to meet the demands of the 21st century.

3.3 Learning Profiles for the Elementary Level

The discussion points presented by the Task Force are designed to help identify the skills that students should possess by the end of elementary school. For the purposes of broad public debate, it has not been deemed necessary to stipulate specific skills for each cycle of elementary school.

Each subject in the elementary school curriculum should develop specific skills. However, there are also certain general skills applicable to all areas of knowledge that should be developed through all subjects at all levels.

The Task Force believes that kindergarten should help elementary schools achieve learning profiles and foster the acquisition of essential skills. Furthermore, the Task Force reiterates the importance of preparing children for school from early childhood and of offering support to families as the place where the academic process is complemented and reinforced.

The Task Force is presenting eight discussion points (E-1 to E-8) for the elementary level.

Discussion Point E-1

By the end of elementary school, students should have acquired the following **TECHNICAL AND METHODOLOGICAL SKILLS**:

- The ability to write letters and figures clearly
- Basic knowledge of computers for word processing and data accessing
- The ability to manage their time and effort using a progress sheet or date book
- The ability to use a library (to find, use and validate the information they need)
- The ability to memorize (vocabulary and spelling, short poems and texts, multiplication tables, etc.)
- The ability to produce neat, clear, well-organized written assignments commensurate with their knowledge
- The ability to analyze what they see and hear in the media with a critical mind

Discussion Point E-2

By the end of elementary school, students should have acquired the following **ORAL AND WRITTEN SKILLS IN THE LANGUAGE OF INSTRUCTION**:

- The ability to read silently and out loud; to summarize, reconstitute or explain what they have read, orally or in writing, and to answer pertinent questions; to locate information in a book using the table of contents, index, headings and sub-headings
- The ability to write using appropriate vocabulary, proper spelling, and correct basic grammar
- The ability to write personal texts (of an expository, narrative or descriptive nature); to write documents such as book reports and letters to relatives or friends; to answer questionnaires
- The ability to express themselves orally, either to answer questions or make presentations, using complete, properly constructed sentences and appropriate, specific vocabulary
- The ability to use a dictionary efficiently to broaden vocabulary and verify spelling; the ability to use a grammar book effectively to ensure correct usage

Discussion Point E-2 [Continued]

In addition,

by the end of elementary school, students should have acquired the following **SKILLS IN THE SECOND LANGUAGE**:

- The ability to read and understand texts appropriate to their age group and understand audiovisual productions aimed at their age group
- The ability to write simple texts
- The ability to carry on a conversation on topics relating to everyday life

Discussion Point E-3

By the end of elementary school, students should have acquired the following **MATHEMATICAL SKILLS**:

- The ability to recognize whole numbers, decimals and fractions; the ability to express them in letters or numbers; an understanding of the components of a number and the use of decimal points
- The ability to carry out the four basic operations and to use the basic units of measurement
- The ability to perform simple calculations in their heads, and to estimate whether the results obtained with the use of a calculator are approximately accurate
- The ability to recognize and process the information required to solve a problem, and to explain how they arrived at their answer
- The ability to recognize and draw common geometric shapes, and to state the basic characteristics of those shapes
- The ability to apply mathematical concepts, and to measure space, mass, weight and time, in simple everyday situations

Discussion Point E-4

By the end of elementary school, students should have a **BASIC KNOWLEDGE OF THE WORLD**, including the following spatial and temporal concepts:

Spatial concepts

- The ability to identify and describe the solar system and the location of the earth within it; the seasons; the climates; the basic features of the globe; the continents, oceans, and larger countries of the world; the ethnic and cultural diversity of humankind; the concept of humankind being a unified whole despite that diversity

- The ability to describe the physical and political geography of Québec and Canada: natural regions, climatic conditions, composition of the population (including Amerindians, Inuit, cultural communities), political divisions (provinces, capitals, cities)
- The ability to use basic geographical tools such as maps, atlases, globes, encyclopedias, etc.

Temporal concepts

- The ability to identify and describe the four major periods of our history— Precolumbian America, New France, British rule, and the Confederation— as well as their chronology
- Basic knowledge of: the most important men and women in our history; the characteristics of the four major periods of history, and the objects associated with those periods; the population; economic development through agriculture, industrialization, and the harnessing of natural resources
- The ability to give an account of Western civilization since 1492, to understand the major periods, and to give the dates of major events and the order in which those events occurred
- The ability to use the tools of historical study: calendars, chronological tables, biographical dictionaries, etc.

Civic Education

The basic geography and history education described above should also include a grounding in **CIVIC EDUCATION**, including:

- Knowledge of terminology relating to political systems: parliament, government, elected representative, minister, federation, province, democracy, citizen rights, freedoms and responsibilities, etc.
- Awareness of major political symbols such as flags and political and judicial institutions
- A sense of citizenship
- The ability to behave according to consciously chosen values based on dialogue, tolerance, respect for other people and their rights, rejection of racism and sexism, and respect for democratic decisions and the operating methods of groups and institutions
- An introduction to democratic practices (e.g., the election and operation of a student council)

Discussion Point E-5

By the end of elementary school, students should have a **BASIC KNOWLEDGE OF NATURAL SCIENCE AND TECHNOLOGY**, including:

- The ability to recognize and describe physical phenomena occurring in everyday life: condensation, boiling, combustion, radiation, electricity and magnetism, heat, gravity, etc.
- The ability to recognize and describe biological phenomena occurring in human life (ingestion, digestion, elimination, perspiration, breathing, scarring, etc.) and in plant and animal life; this should include an understanding of how natural life forms fit into the overall environment; basic knowledge of how to maintain their physical and psychological health
- The ability to describe and efficiently use everyday technical objects (e.g., refrigerator, toaster, weigh scales, thermometer, humidifier, bicycle pump)
- The ability to describe and efficiently carry out everyday technical procedures (e.g., food preparation, cooking and conservation; tool maintenance and cleaning; administration of simple medications such as ointments and sunscreens)
- The ability to use a microcomputer, identify its main components, and utilize it for word processing and data accessing
- The ability to describe and reproduce classic scientific experiments using objects used in everyday life

Discussion Point E-6

By the end of elementary school, students should have received sufficient education in **THE ARTS** to have:

- The ability to use simple art techniques (e.g., drawing, painting, collage, engraving, printing, sculpture) and to produce personal and collective works on themes inspired by their own experiences
- The ability to explain their own creative process and appreciate works of art
- The ability to participate in musical activities individually and in a group (e.g., to play a repertoire of songs and rounds accurately, and to accompany simple songs on an instrument)
- The ability to analyze simple musical works, recognize major musical works and their composers, and distinguish the major musical periods and genres

Discussion Point E-7

By the end of elementary school, students should have received sufficient **PHYSICAL EDUCATION** to have:

- The ability to adopt behaviours and habits conducive to good health and continued physical growth
- The ability to participate in a variety of physical and athletic activities according to their particular preferences and capabilities and to maintain their health and physical fitness
- The ability to show good sportsmanship in their attitudes and behaviours when participating in athletic activities or other group activities

Note on Moral and Religious Education

Certain special considerations are involved when examining moral and religious education at the elementary level. This facet of students' education must be examined in the light of two major sociocultural considerations:

- The transmission of religious faith and values and the teaching of religious traditions are the responsibility of parents and religious institutions.
- Language is increasingly becoming the deciding factor when organizing and grouping schools that must meet the challenge of integrating students from a diversity of ethnic and religious backgrounds.

The Task Force therefore subscribes to the idea of non-confessional schools which would recognize the existence of a religious and ethical dimension in human experience and would provide elementary students with instruction on basic morality.

Discussion Point E-8

By the end of elementary school, students should have a **MORAL EDUCATION** providing them with:

- The ability to identify the values they have learned from their particular background and the values of the society in which they live
- The ability to critically examine how they fit into our complex world, and their relationship to others in that world
- The ability to critically evaluate their own behaviour and that of others
- An ethical sense on the basis of which to develop the attitudes required to live in society (frankness, honesty, solidarity, responsibility, etc.)

Given the age of elementary students and the corresponding responsibilities of parents, the Task Force believes that it is up to parents and religious institutions to establish the content of the religious education they wish to provide to their children.

3.4 Learning Profiles for the Secondary Level

In this section, the Task Force suggests discussion points which are intended to help identify the skills students should have by the end of secondary school in the six major areas of learning.

Unlike elementary school (which leads to secondary school), secondary-level education can lead students to one of two distinct possibilities: going on to college studies, or entering the labour market. Students may therefore follow very different paths depending on which of these two different avenues they intend to take. The Task Force is also aware of the division of secondary school into two cycles, and of the debate on the appropriateness of setting up a separate and different certification system for each cycle. Finally, the Task Force recognizes the need to diversify the programs offered in the second cycle of secondary school and is in favour of such diversification.

However, the Task Force has decided not to take into account the two different paths (college studies or labour market) in establishing the learning profiles, for the following reasons:

- (1) The mandate of the Task Force is not to reorganize the schools completely, but to prepare a report to stimulate public debate on what students should know by the time they finish school. This public consultation will allow any necessary adjustments to be made.
- (2) All young people attending secondary school will be living in the same world in the 21st century, and, as members of the same society, they will be subject to the same demands. They will need to have as many skills as possible and a common foundation of skills before they leave secondary school to pursue their respective career or academic paths.
- (3) Students entering the labour force directly after secondary school will have to upgrade their skills to meet the changing demands of the economy. These students must therefore master certain basic skills as thoroughly as possible in order to survive and prosper in the 21st century and to remain full-fledged citizens in a complex and changing world. They must therefore do particularly well in their secondary school studies and develop their potential as fully as possible during that period. Once common learning profiles have been established, the next step will be to implement those programs and teaching methods most likely to ensure that young people going on to the labour market will successfully complete their secondary studies. It will be necessary to harmonize these programs and methods with both the requirements of technical and vocational education and the needs of students in individualized paths for learning.

The following discussion points (S-1 to S-7) are therefore being presented with a reminder that they will have to be adapted to take into account the two different avenues open to students leaving secondary school.

Discussion Point S-1

By the end of secondary school, students should possess the following **METHODOLOGICAL SKILLS**:

- The ability to identify, describe and analyze a problem, propose a solution, and determine the validity of that solution
- The ability to find, examine, use and validate various sources of information they need to refer to, including print materials (books, periodicals, newspapers, dictionaries, encyclopedias, etc.), and visual and computerized sources; the ability to find their way around a library, museum, or reference centre and to use information technologies to locate information
- The ability to set objectives and priorities, to create a setting conducive to study, to develop study habits, and to follow a predetermined work plan
- The ability to understand and carry out instructions in the various areas of learning, to plan and organize (alone or with others) the steps required to complete an assignment, to carry out those steps properly, and to meet the established objectives by the prescribed deadline
- The ability to make the effort required to complete various types of assignments or to prepare for various types of exams (oral and written)
- The ability to think in a clear and organized fashion, distinguishing facts from opinions, concepts from facts, proof from assertions, hypotheses from verified facts, causes from conditions, necessary conditions from sufficient conditions, causes from outcomes or effects, etc.
- The ability to use inductive and deductive reasoning, to identify errors in reasoning, in their own thinking and that of others and to change their position when there is evidence that such a change is justified
- The ability to use critical thinking when assessing the relevance and value of what is presented by the media
- The ability to analyze their own creative and thinking processes, and to determine the conditions under which those processes will be most productive

Discussion Point S-2

By the end of secondary school, students should possess **FLUENCY IN THE LANGUAGE OF INSTRUCTION**, including:

READING SKILLS

- The ability to pick out the ideas in a text, describe how they are logically organized, and make an accurate and comprehensive summary of them
- The ability to understand messages conveyed through means other than written text (sounds, symbols, diagrams, pictures, gestures, mime)

Discussion Point S-2 [Continued]

- The ability to recognize different levels of language, types of writing, and literary genres, and describe the methods and objectives of each level or genre
- The ability to read at a speed appropriate to the nature of the text and the reading objectives
- The ability to understand unfamiliar words, based on the context
- The ability to place literary works in the appropriate historical context, analyze their main characteristics, and appreciate them, distinguishing their own opinions from those of the author
- The ability to summarize and discuss a certain number of unabridged literary works

WRITING SKILLS

- The ability to develop or choose ideas to write a text on a given subject, by drawing on their own knowledge or doing the necessary research
- The ability to structure a text appropriately (introduction, development of ideas, transition, conclusion), to organize information and ideas in a logical sequence of coherent paragraphs, and to write using a style and a level of language appropriate to the topic and the readers
- The ability to write using correct vocabulary, spelling, syntax, grammar, punctuation, and sentence structure
- The ability to write texts conveying information or knowledge in an accurate, succinct manner that readers will understand
- The ability to write a critical essay on an author's work

LISTENING AND SPEAKING SKILLS

- The ability to understand the ideas conveyed in an oral presentation or discussion, and summarize them out loud in a coherent, organized fashion
- The ability to ask clearly formulated questions, and discuss ideas with another person or a group in a relevant, comprehensible and coherent manner
- The ability to answer questions out loud using full sentences that are clear, concise and well-constructed
- The ability to participate in a structured debate using clear, logical arguments and reasoning
- The ability to make well-organized oral presentations in clear, accurate language without reading from a prepared text, and orally communicate the results of a research project

By the end of secondary school, students should also possess **FLUENCY IN THE SECOND LANGUAGE**, including:

- The ability to read texts intended for the general public (newspapers, news magazines, instruction manuals for household tools or appliances, information documents published by governments or companies), as well as contemporary literary works written for the general public
- The ability to write texts relating to everyday life (e.g., letters, job applications, service requests) without difficulty and using correct grammar and style
- The ability to accurately absorb the content of a film, sports report, news report or public affairs program
- The ability to hold a coherent conversation for information, personal or work purposes

Discussion Point S-3

By the end of secondary school, students should have **MATHEMATICAL SKILLS**, such as:

- The ability to perform with ease calculations in the four basic operations using natural numbers, decimals, fractions, percentages, averages, and the rule of three
- The ability to use a calculator and estimate the approximate results of a calculation to detect possible errors
- The ability to take measurements in metric as well as imperial units with ease and switch easily from one system to the other
- The ability to estimate and intuitively grasp measurements of space, mass, weight and temperature
- The ability to accurately use mathematical knowledge related to whole numbers, fractions, decimals, ratios, proportions, percentages, roots, and powers
- The ability to formulate a problem in mathematical terms and, conversely, interpret the parameters of a formula as representing the elements of a mathematical object (number, geometric figure)
- The ability to solve algebraic and geometric problems by constructing figures, doing translations, and using deductive reasoning
- The ability to use appropriate problem-solving methods and instruments (calculations by hand, trial and error, calculator, computer, etc.) with ease
- The ability to interpret and produce charts, graphs, relations and functions
- The ability to use elementary concepts in the areas of statistics and probabilities

Discussion Point S-4

By the end of secondary school, students should have a **BROAD GENERAL KNOWLEDGE OF THE WORLD**, enabling them to situate themselves in space, time and society.

Spatial Concepts

- The ability to fully describe the geographical characteristics of Québec and Canada (climate, natural regions and relief, bodies of water, population, etc.) and their impact on human life
- The ability to fully describe, using various examples from different geographical environments in the world, the relationships between the physical world, plant and animal life, and human societies
- The ability to describe the major geographical regions of the world, and locate (on a blank map) the continents, the larger countries, the oceans and major bodies of water, the main climatic features, the big cities, and the major types of ecosystems
- The ability to describe the major areas of the world (developed countries and developing countries)

Historical Concepts

- The ability to name the major events in the history of the Western world and place them in proper chronology
- The ability to fully describe the major events in the history of Québec and Canada
- The ability to fully describe the ideologies and the political, economic and social changes that have influenced the history of the Western world in the 19th and 20th centuries, and to show how these changes contributed to shaping today's world
- The ability to identify the ethical problems that have arisen in human history: major conflicts, ideological battles, debates about war and peace, colonialism, effects of the industrial revolution, North-South inequalities, etc.

Social and Cultural Concepts

- The ability to describe the social relationships that exist within and between groups, economic mechanisms (the marketplace, price setting, market globalization, relationships between business and the marketplace), the economic and social role of the State, the changes that have taken place in the organization of work, the role of financial institutions (banks, credit unions, etc.); the ability to explain and use concepts such as "interest rate" and "inflation"
- The ability to describe how political institutions in Québec, Canada and other democratic societies function; the ability to describe the values on which they are based (freedom, human rights, the primacy of the law, etc.)

- The ability to describe the major religious traditions (including the Christian tradition, which shaped Québec society), as well as other major traditions that ethnic and cultural diversity have brought to Québec

Social and Civic Education

Instruction in the geographical, historical, social and cultural realms should reinforce a **SOCIAL AND CIVIC EDUCATION** consisting in:

- The ability to make ethical judgments about personal and social situations in modern life, and to establish the criteria upon which to base these judgments
- The ability to determine and recognize responsible types of behaviour in relationships with others, as a spouse, parent, friend, co-worker, etc.
- The ability to identify and evaluate the possible consequences a proposed action will have both on an individual person and on a group of people
- The ability to describe the basic provisions of the Charter of Human Rights and Freedoms and to identify behaviours that comply with the Charter or contravene it
- The ability to determine responsible types of behaviour as a participant in the economy, a consumer of goods and services, and a user of public services
- The ability to determine responsible types of behaviour as a citizen and a member of a society characterized by growing ethnic and cultural diversity
- The ability to give a general description of the judicial system and its impact on citizens' lives

Discussion Point S-5

By the end of secondary school, students should have sufficient learning in **SCIENCE AND TECHNOLOGY**, including:

- The ability to grasp the basic concepts required to understand and explain physical phenomena such as mixtures, inertia, force, gravity, heat and its effects, electrical energy, electromagnetic induction, high-energy particles, propagation of vibrational phenomena, and the compression and expansion of gases
- The ability to grasp the basic concepts required to understand and explain chemical phenomena such as the properties of acids, bases and salts, the classification of substances based on the elements, the composition and formation of substances, and catalysis

Discussion Point S-5 [Continued]

- The ability to grasp the basic concepts required to understand and explain phenomena related to human life (such as the digestive, sensorimotor, respiratory and reproductive functions), the cellular functions of living beings (DNA, genetic code, enzymes, energy metabolism), and the interdependence of living beings and their environment (photosynthesis, carbon cycle)
- The ability to use scientific concepts to explain technological products and processes such as airplanes, rocket engines, automobiles, production and transportation of electrical energy, use of radioactivity, x-rays and gamma rays, lasers, microprocessors, design of musical instruments, photography, telecommunications equipment, manufacture of aluminum and special types of steel, batteries and electrochemical generators, fertilizers, compound materials, cloning, genetic engineering, intensive agriculture
- The ability to describe the most widespread applications of computers in everyday life: management, scientific calculations, data bases, simulation, office automation, robotics, teaching, image processing
- The ability to use software such as spreadsheets, project management programs, simulators, electronic directories, educational software, word processing programs
- The ability to carry out experimental procedures: observation, identification and checking of variables, formulation of hypotheses, use of experimental protocols, interpretation of results
- The ability to verify the validity of a model used to explain the findings of observation and experimentation
- The ability to establish relationships between basic scientific principles (in physics, chemistry, biology) and human activities in the areas of safety, health protection, environmental management, environmental protection, work organization
- The ability to adopt responsible behaviours to maintain personal health (hygiene, nutrition, sexuality, physical fitness)

Discussion Point S-6

By the end of secondary school, students should have sufficient instruction in the area of PHYSICAL EDUCATION to have:

- The ability to maintain good physical fitness (cardiorespiratory fitness, strength, endurance, weight control, motor skills)
- The ability and desire to maintain good health, which requires an understanding of how the human body works

- The ability and desire to develop more specific physical skills (swimming, outdoor activities, physical conditioning, individual sports, team sports, etc.)
- The ability to exhibit sporting behaviours such as team spirit, self-control, observance of rules, discipline and perseverance

Discussion Point S-7

By the end of secondary school, students' ARTISTIC DEVELOPMENT should be evidenced by:

- The ability to express their feelings and to stimulate their imagination and creativity
- The ability to perceive and express meaningful musical qualities veiled by sounds, melody, rhythm, tone, harmony, form, etc.
- The ability to recognize the components of the language of music
- The ability to express themselves by singing in a choir or playing an instrument
- The ability to appreciate the expressive qualities of the great masters
- The ability to represent their inner world in a personal way and to find solutions to given artistic problems
- The ability to experiment with more complex artistic techniques and processes and to express their inner world and feelings in visual art productions and concepts
- The ability to learn about past and present art works and appreciate them in a personal, objective way
- The ability to be critical of the various cultural products they are offered and to make appropriate choices, in keeping with their resources and interests

*
* * *

Note on Moral and Religious Education

As was stated earlier regarding the elementary level and for the same reasons, the Task Force subscribes to the idea of non-confessional schools which would recognize the existence of a religious and ethical dimension in human experience. Such schools would provide moral education in the first, second and third years of the secondary level and opportunities to study the religious phenomenon in the fourth and fifth years (see Discussion Point S-4, p. 34). Religious instruction could be offered in the fourth and fifth years in the form of elective courses.

Conclusion

Québec society places great value on three major accomplishments that it enjoys today:

- A high standard of living, collective wealth, and an extensive network of educational, cultural, health and leisure institutions
- A democratic political system based on respect for individual freedom and support of human rights
- An identity that is unique in North America

These assets, which are justifiably cherished by Québec society, cannot be maintained without considerable effort. The internationalization and globalization of human activity, especially economic activity, will expose Québec to fierce competition from other societies. If Québec society is to maintain its standard of living and its network of institutions, it must find ways to restructure its economy and increase its production of wealth. The development of science and technology will bring both advantages and challenges in terms of Québec's ability to produce wealth, maintain its democratic political system, and preserve its identity. In addition, ethnic and cultural diversity will require that new efforts be made to ensure harmonious integration.

The quality of education systems and the ability of societies to develop their intellectual resources will have a profound effect on their future. In order for Québec society to maintain its standard of living, remain competitive on the international market, and preserve its democratic political system and unique characteristics, it must be able to rely on the intellectual resources of all of its members. It must also be able to count on their ability to produce, innovate and create, on their sense of civic responsibility, and on their respect for democratic values.

To prepare Québec's young people for the demanding world of the 21st century, schools will have to put more emphasis on essential learning and intellectual development. They will have to provide a stimulating environment that will be a positive factor in increasing students' ability and desire to learn. They will have to expose students to culture, prepare them for the social roles of adult life, and enable them to judge situations and behave responsibly. In short, they will have to educate students and foster their success. They will have to dedicate themselves to this role, which is specifically theirs, and take full advantage of the support and collaboration of families, social institutions and community organizations. If Québec schools do not make a commitment to attaining very demanding learning outcomes at both the elementary and secondary levels, Québec society will fail to meet the immense challenges of the 21st century.

APPENDICES

Appendix 1

Mandate of the Task Force

The mandate of the Task Force is to define the learning profile students finishing elementary or secondary school are expected to have, i.e., *the integrated core of skills, knowledge and attitudes each student should have mastered by the end of the two main stages of basic instruction.*

In *drawing up* its proposals, the Task Force will take the following guidelines into account:

1. Discussion will be centred on the tasks that schools are specifically responsible for carrying out, unless Task Force members feel a need to situate the schools' role in relation to that of other places or providers of education.
2. Knowledge will receive as much attention as skills.
3. Learning outcomes related to cultural education will be defined in addition to those dealing with personal development.
4. The proposals will be broken down according to the cycles of elementary and secondary education if the Task Force feels it is appropriate to be this specific.

In *presenting* its proposals, the Task Force will take the following guidelines into account:

5. A concise, short text will be produced—no more than a few pages—that will be accessible to the general public and contain statements that are clearly worded and easy to find.
6. It will be borne in mind that, following the public consultation, the learning profiles will provide guidelines for reviewing the subject-by-grade time allocation at both the elementary and secondary levels and, if necessary, for adjusting curriculum objectives and standards and the sequence in which subject content is taught. In short, the learning profiles will be the blueprint for the educational plan of the basic school.
7. It will be taken into account that the elements of the profiles may eventually form part of a legislative text.

The Task Force will submit its proposals to the Minister of Education no later than May 20, 1994. The Minister will distribute them immediately and will initiate a far-reaching public consultation, the details of which will be announced later this spring.

Appendix 2

Members of the Task Force

Claude CORBO has been the rector of the Université du Québec à Montréal (UQAM) since 1986. He joined UQAM in 1969 as a professor of history of political thought in the department of political science, and went on to become vice-dean of humanities (1972-1974), registrar (1974-1978), dean of resource management (1978-1979), vice-rector (1979-1981) and vice-rector for academics and research (1981-1986) before being appointed rector. Mr. Corbo holds a doctorate in philosophy from the Université de Montréal, and, among other activities, has chaired the international advisory committee of the Montréal Biodome and the ministère de la Sécurité publique task force on relations between the police force of the Montréal urban community and the black community.

Louis DAGNEAU has taught history and economics to secondary-level students for almost thirty years. Employed by the Commission scolaire de Chambly from 1965 to 1992, he now teaches for the Commission scolaire de l'Eau-Vive. He holds a master's degree in history from the Université de Montréal, and has lectured at Cégep Édouard-Montpetit and at the Université de Montréal. Mr. Dagneau has also been active on school committees, parents' committees and union organizations.

John H. DINSMORE has been president of the Corporate-Higher Education Forum since 1987. He has held various positions as a high-ranking official in the Québec civil service, in particular at the ministère de l'Industrie et du Commerce where he was Associate Deputy Minister from 1973 to 1975 and Deputy Minister from 1975 to 1977, and at the ministère de l'Éducation, where he was Associate Deputy Minister from 1970 to 1973. More recently, Mr. Dinsmore has been president of Pétromont, from 1979 to 1986, and chairman and chief executive officer of Marine Industries from 1977 to 1979. John H. Dinsmore, who trained as an engineer at McGill University and the Centre d'études industrielles in Geneva, is a former president of the Order of Engineers of Québec.

Fatima HOUDA-PEPIN works as a consultant in intercultural education. She lectures at Université de Montréal on intervention problems in multiethnic settings and has also taught at UQAM. Mrs. Houda-Pepin chaired the advisory committee on intercultural and inter-racial relations of the Executive Committee of the City of Montréal from March 1992 to March 1994, and has also been a member of the advisory committee on inter-ethnic and race relations of the Human Rights Commission, the intervention committee on race-related violence, and the advisory committee on cultural communities' access to health and social services. Fatima Houda-Pepin has completed coursework toward a doctorate in political science at the Université de Montréal. She holds a master's degree in library and information science from McGill University, a master's degree in political science from the University of Ottawa and a bachelor's degree in political science from Université Laval.

Paul INCHAUSPÉ has been the director general of Cégep Ahuntsic since 1983, after holding the positions of assistant director, and then director of educational services at the Cégep du Vieux-Montréal. After studying at the doctoral level in philosophy and sociology, Mr. Inchauspé taught at various post-secondary educational institutions in France and Québec. He has been a member of the Conseil supérieur de l'éducation since 1988 and chaired the Commission de l'enseignement supérieur from 1989 to 1993. He was also a member of the Conseil des collèges from 1979 to 1983.

Hélène SIMARD is currently a sports and cultural reporter for the radio network of Radio-Canada. She is completing her term as vice-chair of the Conseil permanent de la jeunesse. She sat on the council from 1991 to 1994 and acted regularly as the council's spokesperson. Mrs. Simard won a gold medal in basketball at the 1992 Paralympics in Barcelona and is a member of the committee monitoring Québec City's candidacy for the 2002 Winter Olympics. Mrs. Simard holds a bachelor's degree in communications with a major in journalism and minors in sociology and political science.

Raymonde TOUZIN was director general of the Commission scolaire Chutes-de-la-Chaudière from 1985 to 1994. She holds a bachelor's degree in education and a master's degree in public administration, and taught in secondary schools for nine years before becoming vice-principal and then principal of Campus I in Sainte-Foy and assistant director general of the Commission scolaire de Tilly. Raymonde Touzin has been a member of the Catholic Committee of the Conseil supérieur de l'éducation and currently sits on the board of directors of Université Laval. She is also a former president of the board of directors of Cégep François-Xavier-Garneau.

