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Teacher training

Orientations
Professional Competencies

NEW DIRECTIONS FOR SUCCESS

Québec

Teacher Training

Orientations

Professional Competencies

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Québec's education system is currently undergoing a series of sweeping changes, essentially intended to improve the quality of instruction and to increase graduation rates. The changes at the school level, like those affecting Québec society as a whole, have focused increasingly on the professional autonomy of teachers.

For this reason, the guidelines for elementary-school and secondary-school teacher training programs contained in this document centre on the concept of professionalization. Although significant changes have already been made in the field of teacher training over the last ten years, I would like to invite the university community to go even further. Teacher training programs must prepare future teachers to accomplish their duties as professionals, for the benefit of all students in Québec, and this reference framework for the teaching profession based on professional competencies constitutes a step in this direction.

The document I am releasing today is the result of a broad consultation process that involved various partners in the education system. It constitutes the official MEQ guide for teacher training in the field of general education.

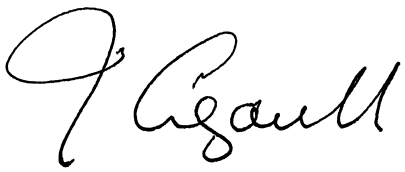
I have asked the Comité d'agrément des programmes de formation à l'enseignement (or CAPFE, the committee responsible for accrediting teacher training programs) to review the current training programs and to examine the new programs submitted in response to the document *Teacher training – Orientations – Professional competencies*. I will ask the Committee to ensure that all the programs it recommends for teacher certification purposes comply with the MEQ guidelines and provide for the development of the professional competencies targeted.

I will insist that the Committee pay special attention to the measures contained within the teacher training programs to ensure the quality of the language of instruction, so that Québec society can count on future teachers having attained a high degree of competency during their initial training. The same focus on language quality will apply to future teachers of second languages.

In addition, to guarantee the coherence and professional character of all training programs, I will ask the Committee to ensure that responsibility for teacher training is assigned to a single authority. This will promote concerted action between the education faculties or departments and the other university faculties or departments responsible for specific subject areas, and an effective partnership between the university community and the school system. In this way, I believe that we will be able to train teachers to meet society's expectations in terms of education.

I am confident that all the stakeholders, and the universities in particular, will respond to my call to unite their forces to train a new generation of professional teachers. I would like to take this opportunity to thank them all for the quality of their submissions during the province-wide consultation process.

Minister of State for Education
and Youth



FRANÇOIS LEGAULT

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INTRODUCTION

Today's political, social, demographic, economic and cultural realities have forced Québec to reflect on the mission and organization of education. The Estates General on Education, a large-scale public consultation process launched in the spring of 1995, provided a diagnostic assessment of the state of education in Québec.

At the end of its proceedings, the Commission for the Estates General on Education attempted to clarify the aims of the education system and recommended that the mission of the education system be redefined in terms of three main goals: to instruct, to socialize and to provide qualifications. The Commission also identified a number of priority areas for the future of education in Québec.

Following the publication of the Commission's final report, *Renewing Our Education System: Ten Priority Actions* (Government of Québec, 1996), the Ministère de l'Éducation (referred to in this document as the MEQ) announced the broad lines of the reform it was about to launch. All of Québec society, not just the education community, was urged to join in efforts to raise graduation rates at all levels of education. Published in 1997, the plan of action for the reform of the education system, *A New Direction for Success*, charted seven major lines of action: providing early childhood services; teaching the core subjects; giving more autonomy to schools; supporting Montréal schools; intensifying the reform of vocational and technical education; consolidating and rationalizing postsecondary education; and providing better access to continuing education (Ministère de l'Éducation 1997: 1). In 1997, the MEQ also published an educational policy statement that set out the changes needed in Québec's elementary and secondary schools.

This working paper on teacher training is an outgrowth of the reform process. Although major changes have already been made in the area of teacher training over the last decade, the programs offered to future teachers must take into account the transformations under way throughout the education system. Some of the lines of action proposed as part of the reform have significant implications for initial teacher training. There is a need to bring teacher training programs into line with the changes affecting the system as a whole, in order to adapt them to the new realities that will define the world of education in coming years.

The proposed adjustments to teacher training programs are not the reflection of a systematic evaluation of reform efforts over the last decade, but rather of a desire to ensure that teacher training remains responsive to the changes taking place in Québec schools. Such responsiveness should allow teacher training programs to produce new generations of teachers who will meet the educational needs of society in relevant, critical and creative ways.

In this document, the MEQ establishes the orientations for teacher training, the core competencies student teachers are expected to have acquired by the end of their training, and the exit profiles for teacher training programs. The setting of these guidelines is only a first step to be followed by the development of programs by the universities, the accreditation of the programs by the Comité d'agrément des programmes de formation à l'enseignement (CAPFE), and the recognition of teacher certification.

The document covers teacher training programs for preschool and elementary education, general secondary education, arts education, physical education and health, second language education and special education.

The orientations, core professional competencies and exit profiles presented here are based on the guiding principles of the reform and on recent studies, research and pilot projects in the field of teacher training. The analyses and recommendations contained in the many briefs and opinions submitted by Québec associations, institutions and organizations, together with the comments made by individuals in both the university community and the school system, proved to be a major source of inspiration and reflection. The MEQ's only goal in submitting this document is to ensure that prospective teachers acquire the training they will need to practise their profession, while respecting the prerogative of the universities to design their own programs and training structures. In this way the MEQ remains faithful to its primary mission, which is to ensure, together with all partners concerned, high quality education for all students in Québec.

Chapter 1

Changes in Teaching Practices

1 CHANGES IN TEACHING PRACTICES

Teaching has, for a long time, been approached from an abstract viewpoint, as though teaching involved only the formal dispensation of sterile knowledge to disembodied students in a non-social, non-historic context. The actual situation, though, is completely different. Teachers play a major role in society, and their work is subject to a range of internal workplace pressures and external societal pressures that influence their role, their target audience, namely their students, and the subject matter taught. The classroom, far from being a closed system free from outside influences, is intrinsically moulded and shaped by a series of influences that define its nature and its operations. The work of teachers today has undergone considerable change, and reflects new pressures that present specific challenges to teachers and teaching institutions.

Without giving an exhaustive, in-depth account of all the changes affecting society and the education system, it is important to outline those that affect teachers specifically and, as a result, the educational institutions that provide teacher training.

1.1 Increased Autonomy for Schools

A significant feature of contemporary societies is the transformation of the role of the state. Not very long ago, at the time of the Quiet Revolution, the state was central to all spheres of society, whereas in recent years its importance and function have come under increasing scrutiny.

In Québec, the way in which the role of the state has been transformed is reflected in the growing trend towards decentralization, in which local authorities are granted new powers and responsibilities. Governing boards, introduced by the amendments to the *Education Act*, are the most obvious example of this trend in the world of education.

The increased autonomy given to schools relies, in particular, on the professional autonomy of the teaching staff. Teachers are required to collaborate actively with other members of the school team and the education community. In some areas, the legislative framework even assigns teachers exclusive responsibility. Specifically, in each school, teachers help define the educational project, the student supervision policy, the approach used to implement the basic school regulation and the guidelines for enriching or adapting programs of study. They are also given a say in decisions about rules of conduct and safety measures, the time allocation for each subject, the program planning of educational activities, and the student services to be offered. Lastly, teachers can make proposals concerning local programs of study, new instructional approaches, the selection of text books and instructional materials, evaluation standards and procedures, and the rules governing the placement of students and their promotion from one cycle of elementary school to the next.

Clearly, the scope of the professional competencies teachers will now be required to hold following the education reform has been extended considerably, and goes well beyond their work in the classroom. With the establishment of school governing boards, teachers are now called upon to take on new roles, prompting them to open up to the community.

1.2 A New Mission for Schools

The consultations and debates held during the Estates General on Education led, in particular, to a redefinition of the mission of the schools. To this end, in order to promote educational success for as many students as possible, the MEQ, in its 1997 educational policy statement *Québec Schools on Course*, defined the "sphere of activity" of schools in terms of three missions: "provide instruction with renewed conviction, socialize, in order to learn how to live together better, and provide qualifications through a variety of options." The various actions taken as part of the curriculum reform process clearly affect the role of teachers and, as a result, the professional competencies that they must develop during their initial training.

Essentially, the new programs of study are based on a concept of learning that is part of the socio-constructivist school of thought and that places students at the very heart of the learning process. Each student becomes the principal agent of his or her learning. This type of approach affects the traditional role of the teacher; instead of transmitting knowledge, the teacher becomes more of a guide, supporting students as they construct their knowledge.

The competency-based approach used in the new programs of study, along with the redefinition of school organization in terms of learning cycles, also have an impact on the role of the teacher. In order to develop students' competencies, teachers must work in collaboration with other members of the teaching team or with the teachers who teach other subjects to the same group of students. The cycle-based model implies that teachers monitor student progress in cooperation with other members of the teaching team and of the school staff. This approach will require teachers to review their relationship to the different types of knowledge: subject-specific knowledge, the knowledge contained in the school program, and the competencies students are expected to develop. It also encourages school staff to pool their professional expertise and decision-making responsibilities and to work as part of a team.

The new approach to education ensures that special attention is paid to each student. A more accommodating form of education is needed, in particular for students with social maladjustments, learning disabilities or handicaps. The integration of many of these students into regular classes affects all teachers, and they must develop a competency enabling them to adapt their teaching methods to the characteristics and needs of all students.

The educational needs of adult students must also be taken into account by the education system. The work undertaken to implement the ministerial plan of action and to ensure access to continuing education targets the first nine years

of schooling as the immediate priority. This universal basic education "will improve the ability of adults to participate actively in the social, economic and cultural life of society and will form the basis for a life-long learning process" (Ministère de l'Éducation 2000: 1; our translation).

1.3 Increasing Diversity Among Students

In terms of demographics, Québec's population is becoming more diversified. Historically, the student body in Québec was made up of French Canadians, English Canadians, and Native peoples. However, immigration patterns over the last two centuries have considerably changed the makeup of the student body. Today, students in the school system have over 150 different mother tongues, many of which do not belong to the same language family as French. All the major religions are also represented. Although this level of diversity is mainly found in the Greater Montréal area, ethno-cultural, linguistic and religious diversity is present throughout the entire education system and is a feature of a variety of situations. It would no doubt be more appropriate to start using the term "student bodies", since the plural better reflects the differences in the culture, learning, motivation and operating systems of the various student groups.

Similarly, another feature of contemporary society worth noting is the emergence of plurality at all levels. The cultural diversity of Québec society brings schools face to face with a wide range of origins, customs and traditions, moral and spiritual values, and even political and philosophical viewpoints.

Schools, like the society of which they form a part, must now take diversity into account, deal with different points of view, values and behaviour patterns, and promote understanding, an open-minded approach to difference, and a new social cohesiveness. This presents a direct challenge to teachers, since they must be able to understand the new realities in order to welcome students from a wide range of cultural backgrounds and use an understanding of their points of reference to facilitate the acquisition of a new culture.

1.4 Changes in the Family Unit

Families themselves have undergone change. In particular, families are no longer based exclusively on marriage, are less stable than in the past, and are increasingly either single-parent or blended families. The number of families in which both parents are wage-earners is also increasing. These changes bring with them a series of psychological and social consequences that have an influence on schools. The clearest example of the changes that have occurred within the family is the expectation that schools will now perform tasks formerly reserved for the family. In particular, schools touch on moral and civic education, sex education, road safety, consumer affairs, before and after school daycare, nutrition in underprivileged areas, and the prevention of violence and alcohol and drug abuse.

Similarly, changes in approaches to parental authority and the greater expectations parents place on their children mean that teachers, like the other members of the school staff, are increasingly required to offer their students guidance, advice and support. This is in addition to the traditional role of schools, linked to the acquisition of knowledge, the development of general skills and the integration of learning. Schools must seek agreement with parents, in an individual and a structural way, on procedures that are consistent with the roles and responsibilities of each party.

Moreover, it is not just in families that the relationship with authority has undergone change. At school, teachers sometimes experience difficult situations with their students, which is why the whole question of class management has taken on primary importance. The gap between permissiveness and authoritarianism needs to be filled with newly developed relationships at school, thereby ensuring that learning and education take place. This new relationship with authority calls in a complex way on the ethical aspects of a teacher's work and the various factors connected with class management.

1.5 Changes in the Job Market

The wide-ranging, fast-paced changes in the job market clearly indicate that a higher level of initial training will be required in order for people to function as active members of society and obtain employment. These changes have a direct impact on the role, mission and operation of schools.

First, businesses are positioning themselves to face the challenges of globalization and the new knowledge-based economy. The initial training provided by educational institutions no longer guarantees that graduates will have all the qualifications they need throughout their working life. Continuing education will become a necessity for all adults, as part of a life-long learning process. Second, the widespread introduction of new technologies in several sectors of society has had a major impact on the level of schooling required to hold a job. Finally, a reduction in the workforce, resulting from demographic patterns, is sure to add to the increased pressure to integrate new technologies into the working environment. Given this situation, not only is the focus on the school's mission to instruct and socialize students, but also on providing them with qualifications.

In particular, it should be noted that Québec businesses have difficulty recruiting qualified personnel in the areas of science and technology. Although secondary-level Québec students obtain good results in national and international tests, fewer than 20% graduate from high school with the prerequisites needed to register for scientific and technical courses at the college level.

1.6 The Fragmentation of Knowledge and New Learning Paths

It is no longer possible for a single person to master, as in previous eras, all current knowledge. The speed at which new knowledge is produced, its specialization and its fragmentation make it impossible to instill encyclopedic knowledge in people. This does not mean, however, that we should limit ourselves when it comes to developing fundamental reference points for students to understand and make critical judgments about a changing society and how to adapt to it. In this regard, there is a direct involvement of the schools.

The cultural content of school programs and a cultural approach to teaching must enable students to get their bearings in life. For this reason, it is important to expose them to the diversity of the heritage in various cultural sectors, and give them access to the major achievements of humanity. By progressively gaining an in-depth view of the subjects they are taught, they will not only acquire the knowledge relating to particular fields, but will also be able to establish links between them. In this way, they will gain a better understanding of the world they live in and be able to take their place as critical, creative and responsible citizens.

Schools no longer have a monopoly on the transmission and dissemination of knowledge. The rapid development of communications tools has dramatically increased access to information and affected the traditional role of schools as the primary location for learning. It is clear that other knowledge sources and access modes (such as television and, more recently, home computers) have become rivals for the teaching profession, and have even called into question the pertinence and relevance of some aspects of teaching. However, despite the real contribution that technology can make toward learning and teaching, there is a risk that its attractive, superficial aspect as entertainment will work against the development of organized thought, solid cultural grounding and the maintenance of a critical distance. This is an area in which teachers have an important role to play.

Moreover, the presence of adult students in the education system has led educational institutions to take into consideration the learning acquired outside the official school environment. The various situations experienced by adults in their personal and professional lives are often an important source of learning, and this experiential or prior learning deserves to be recognized officially within the school system.

1.7 New Approaches to Education Research

Another major element also deserves attention: the change in the approach to education research. From its former state as a decontextualized product with no relation to the classroom, with results that were difficult to transfer into actual teaching practice, research has progressively come to focus on the real situations in which teachers work. The results can have real didactic and pedagogical relevance.

From the early 20th century until the mid 1950s, education research took place outside the classroom. For example, various types of questionnaires were used to highlight the qualities of an effective teacher, and the results achieved by students were analyzed and used to gauge the effectiveness of various teaching methods. However, the research did not include any genuine observation of classroom realities or documentary support concerning the teaching/learning process, meaning that the results were of little use in actual practice (Medley 1972).

Changes began to appear in the mid 1950s, when classroom observation systems were established. By recording, for example, the frequency of a particular type of teacher behaviour, research began to be based on an actual observation of what was happening in the classroom. However, although this type of research enjoyed great popularity for a time, it was no more useful in practice, since the research was limited to an observation of behaviour patterns and was not linked to student learning (Rosenshine 1971).

In the early 1970s, several researchers questioned whether the teacher made any difference in the students' learning process. In other words, was there a "teacher effect"? (Durand 1996). This concern was at the core of the "process/product" research movement. To answer the question, it was necessary to conduct research in the classroom and observe teachers' behaviour patterns with a given group of students. The researchers also had to relate teacher behaviour (the process) with the performance achieved by students on standardized tests (the product). Process/product type research opened up new perspectives, in which research findings began to appear more relevant to teachers, and thus helped to reduce the gap between theory and practice.

In the early 1980s, the publication of several reports in the United States provided even greater impetus to education research. According to the members of the Holmes group (1986), the professionalization of teaching necessitated job codification, in other words research whose findings could be reinvested in teaching practice. More classroom research is now being conducted, and the summaries of research findings that are being published now are genuinely relevant and useful in teaching. They will clearly help the movement to professionalize teaching.

1.8 Adapting Teaching Training

In recent years Québec society has been marked by a series of changes that have revealed new problems and new needs. Schools, which have felt the repercussions of these changes, have seen both their mission and their operation called into question. To better face these new realities, the education system has had to conduct an in-depth examination of its orientations and practices, and the current reform is an attempt to take the corrective action required.

The changes that have occurred in society have created new tensions and brought about a major redefinition of the work of teachers. They must now

develop high-level professional competencies that can no longer be acquired by trial and error, but rather must be learned systematically as part of a training process designed to produce cultured professionals.

Chapter 2

General Orientations

2 GENERAL ORIENTATIONS

This orientation document is designed to bring teacher training into line with two key concepts: professionalization and a cultural approach to teaching.

Given the proliferation of statements on the concept of professionalization, it is important to clarify its meaning from the outset. Professionalization has two aspects: professionality and professionalism. Professionality is the process undertaken to develop the competencies that make an occupation a profession: the organization of professional knowledge, ongoing professional development, individual effectiveness and efficiency, the sharing of expertise between group members and the codification of practical knowledge. Professionalism is the process undertaken to gain social and legal recognition for the status of those who practise a given profession.

After presentation of this concept, former definitions of professionality are discussed. Over time, the face of teaching has changed several times, and thanks to professionalization a new legitimacy is now emerging. The makeshift teachers of the period prior to the 17th century and the craftspeople-teachers of the following three centuries were replaced by the scientific teachers of the 20th century. As we move into the third millennium, and given the new features of the work they perform, teachers are best described as professionals.

The section on professionalization ends with a discussion of a new model for professionality in teaching, designed to give meaning to the teacher training process by aligning it with six dimensions: the competencies required in the new educational context, the complexity of the teaching task, the integration of training with real-life teaching, polyvalent training, the links between training and research, and partnership and concerted action.

The section on the cultural approach to teaching deals with the concept of culture in two ways: culture as an object, and culture as a relation. Culture as an object has two dimensions: first, a descriptive dimension covering primary culture, in the anthropological sense, and secondary culture, which refers to human works and achievements; and second, a normative dimension, which covers the social choices made in a given time and place to define the attributes of a cultured individual formed by the schooling process. Culture as a relation covers the building of a relation with the world, a relation with others and a relation with oneself. The section includes an examination of the role of the teacher as a cultural broker; the teacher becomes the inheritor, critic and interpreter of objects and knowledge or, in other words, a person who builds relations. The section on the cultural approach to teaching ends with a discussion of the meaning that should underlie the training of a cultured teacher.

2.1 Professionalization

2.1 Professionalization

2.1.1 Professionalization as a concept

The concept of professionalization refers to two related processes. The first is internal and refers to what has been called "professionality"; the second is external and refers to what Bourdoncle (1991) calls "professionalism". The processes are at the same time different from and complementary to each other (Lang 1999).

2.1.1.1 Professionality

The first aspect of professionalization concerns the development and consolidation, by a group of individuals, of the competencies required to practise a profession. In long-established professions, the competencies are based on, but not limited to, the knowledge base of the field concerned, which are the resource on which action is founded. The professionalization process breaks away from traditional university training, in the sense that providing training in a given academic subject and providing training in the competencies of a given profession are no longer seen as being the same thing. University training therefore contains an unresolved tension, between the scientific logic that underlies its classical mission to further the advancement of knowledge, and the professional logic that underlies the objective of training individuals to practise at a high level in a given sector of activity. The first meaning given to professionalization, as an internal process designed to build professionality, covers several dimensions.

The organization of specific professional knowledge

Professionalization requires the organization of the knowledge, skills and attitudes that are specific to the occupation concerned. The resources used to achieve this in themselves constitute professionality, which is made up of all the characteristics of a profession that are a concentrated and rationalized form, to whatever degree, of the knowledge and skills deployed in professional practice. "Professionalization, insofar as it concerns the construction of a profession, refers to practical mastery and a certain degree of rationalization of the work process" (Lang 1999: 29; our translation).

Ongoing professional development

Individuals trained to practise a particular profession do not become skilled practitioners the moment they finish their training. Rather, they progressively acquire experience and ongoing professional development over the years and, in certain cases, achieve a level of expertise. Professionalization is a dynamic, continuous learning process; given the complexity of the situations and the continually-changing professional context, it is a process that is never completed.

Individual effectiveness and efficiency

The professionalization of an occupation also involves ensuring that individual practitioners reach a specified level of competence and know how to act correctly. Professionalization, at the individual level, means being able to assemble and combine knowledge, attitudes, techniques and strategies (tactics) to perform specific tasks. In addition, it requires thrift: professionals do not necessarily have all the time or all the financial and material resources they need. They act within a network of constraints, and must design realistic solutions to deal with the problems they encounter.

The sharing of expertise

Professionalization requires a sharing of professional expertise among the members of the group. Not only knowledge and skills are shared, but also an ethical attitude and a shared way of approaching and dealing with situations. This shared, or common, culture can be seen as a professional code that expresses the values, beliefs, attitudes and work-related representations of the group.

The codification of practical knowledge

Professionalization relies on transmissible knowledge, in other words codified practical knowledge that can be transmitted by training. Professionalization is based on a rationalization of the work process that states explicitly, and therefore makes visible and public, the tacit knowledge and skills shared by practitioners. This codification makes it possible to acquire the same knowledge and skills through a training process.

2.1.1.2 Professionalism

Professionalization also has a second meaning, which is social and external and refers to the claiming of a distinct social status as part of the division of labour in society.

Social and legal recognition

In this sense, professionalization refers to the strategies used by a group of individuals to gain recognition from society for a specific, complex and hard-to-acquire set of qualities that give them a form of monopoly over a particular activity and also a form of prestige. This second process has been called "professionalism" by Bourdoncle (1991); it covers all the strategies used by the group to change the status of their activities, giving them exchange value for use in acquiring material or symbolic privileges.

Formerly, the sociology of the professions posited a linear professionalization process based on the standards and models of the established liberal professions. Contemporary sociology has shown that the professionalization process does not actually involve making an occupation comply with fixed ideal standards, since those standards are only valid for the older professions and do not reflect the trajectory of the other occupations that have been professionalized. Rather, professionalization is a dynamic, individual strategy to

socially position a constantly-evolving occupation. This dynamic view of the process does not mean, though, that any group can gain professional status simply by setting up a long training process or by proclaiming itself a profession. As pointed out by Chapoulie (1973), recognition of professional status is linked to the dominant ideology of a society at a given point in time and, currently, given the primary importance of science in human activities, the determination of professional status is based on the so-called scientific standard of knowledge (Lang 1999). This is why the rigorous codification of the work process has strategic importance and underlies the second meaning of professionalization, referred to as professionalism.

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Professionalization is a process that results in the construction of a social identity. Both sides of the process, internal and external, are irreducible but interrelated. Social recognition cannot exist unless the occupation is codified, and codification must include a strategy to obtain professional status and recognition for the value of the service provided, in order to gain a measure of professional monopoly. The transmission of codified practices during initial training is part of the professionalization of the occupation and contributes towards its social recognition.

2.1.2 Former types of professionality

Teaching has been subjected to constant, varied pressure, both within the world of education and in the broader context of society, and has undergone progressive changes that define various types of teaching.

2.1.2.1 Makeshift teachers

In Europe, before the 17th century, when school education had not yet been formalized and was restricted to a small segment of the population, knowledge of the subject-matter taught was the only requirement for being a teacher. Anyone who could read, for example, could teach reading and set up as a schoolmaster without any other form of preparation. Clearly, teaching had not yet been organized and was defined by a random series of personal initiatives, and there were no other requirements apart from knowledge of the subject being taught. Student groups were not large and teaching could often be conducted as a form of tutoring. Teacher training did not exist, and indeed was not required. Teachers taught as they themselves had been taught, using the centuries-old tradition of a logical progression from the simple to the complex.

2.1.2.2 Craftspeople teachers

The first attempts to provide teacher training began to emerge in the 17th century, apparently because the combined effects of the Protestant Reformation, the Catholic Counter-Reformation, and a new focus on children and delinquency in major cities emphasized the need to educate the children of the working class and establish schools (Gauthier and Tardif 1996). However, the increased

numbers of children requiring schooling created problems for teachers. The basic method in use, at least in small schools, was "tutoring", where the teacher called each child in turn to the front of the class. This became impossible with an increase in class sizes, and a new method was needed. How could larger groups be taught? The teachers of the time came up with an original solution: teaching must be based on a method, and method is found in Nature. At the time, though, Nature was seen as a supernatural entity, a perfectly ordered Nature established by the Creator. We must follow Nature, said Comenius, but a Nature as perfectly regulated as a clock.

The approach to teaching that began to emerge was founded on an ordered vision of the world, with one important extra ingredient: the tips and tricks of the craft suggested by the best teachers were recorded in the earliest teaching manuals. The tips and tricks were consistent with a vision of the world based on total control of the students, who had to be civilized, educated and christianized.

The entire school system was based on this ideology in which everything had its place: control of time, space, movement, posture, reward, punishment, presence, and the group (simultaneous instruction). The system was found in both Protestant and Catholic institutions, at the primary and secondary levels as, for example, in the colleges of the Jesuit order.

It is important to mention two important facts. First, there was a growing awareness that knowledge of the subject taught did not necessarily make a good teacher, even if it remained a fundamental requirement, and that other types of knowledge were needed to teach well. Second, it became clear that this knowledge could be taught. At the time, the knowledge was mainly imparted through apprenticeship with an experienced master. This formalization of teaching gave rise to a specific professional model: traditional pedagogy. This workmanlike, uniform way of teaching, which can still be seen today, spread throughout the Western world and even beyond, especially through the influence of various religious communities.

2.1.2.3 Scientific teachers

In the late 19th century and early 20th century, traditional teaching, centred on teachers and total control over students and teaching content, began to be criticized. The new ideal was to establish a new type of professionality, based on a new pedagogy. Two elements became determining factors: the growing importance of science in discussions about teaching, and the need to promote a child-centred form of pedagogy.

The combined effect of these two factors, a focus on science and on children, allowed one subject to dominate the debate during the entire 20th century: psychology. Psychology was both a science and a way to study children, their needs and their development. The first university chairs of pedagogy began to appear in France in the early 20th century, with pedagogy defined as the science of education. The intention at the time was clear: to make pedagogy a science, and to make pedagogues scientists. The arguments put forward in support of this Copernican revolution focused on the fact that the pedagogical tradition had

flaws that science could correct. For example, Claparède, the founder of the Jean-Jacques Rousseau Institute in Geneva, stated that classroom applications could be deduced from scientific knowledge about the laws of child development. Just as the reference discipline, psychology, was subdivided into many different schools, a wide range of pedagogical models emerged. They can be roughly grouped into two categories, experimental and experiential, depending on whether the focus is on the scientific dimension or on meeting the needs of the child. The first category includes the positivist model, of which behaviourism is the most prominent example, while the second class can be associated with humanist psychology and its derivatives.

Québec lagged behind developments in Europe and the United States in the early part of the century, undergoing its own revolution in the late 1960s when the faculties of education were established. Although in a slightly modified form, scientific ideology was still the dominant force in at least two areas. First, it was considered important to give future teachers a more university-oriented, scientific training, in other words one that required more advanced work in specific academic subjects. This brought about the demise of Québec's normal schools. Between 1970 and 1990, the universities were left more or less free to design their own programs with the result that teacher training was often swamped by subject-specific concerns, with fragmented courses that had little relation to each other or to the occupation of teaching. In addition, the courses deliberately steered clear from the tips and tricks formerly taught in the normal schools. Training in psychopedagogy was often given by instructors from the field of psychology who were not necessarily aware of teaching concerns, based on the general assumption that knowledge of certain psychological theories would eventually filter down to teaching practices. It was implicitly posited that teachers would automatically transfer their knowledge to classroom situations.

However, during the 1970s and 1980s, it became apparent that the notions taught in pedagogy and didactics courses were not actually being transferred to the classroom. Scientific utopianism had failed, just like the model of professionality put forward to displace traditional pedagogy. This failure affected the way in which many people began to view teacher training. First, it helped reinforce the idea that teaching could only be learned through direct involvement and trial and error, rather than on the basis of university research. Second, it provided support for the contention that the main requirement for teaching was knowledge of the subject taught, and that pedagogical concerns were of minor interest and could be reduced to experience, a passion for teaching or an individual gift.

In the early 1990s the MEQ launched a major reform of teacher training programs. The urgent need for reform was recognized by all players, and the reform was intended to make the act of teaching a professional act. Teacher training needed to be rethought, and a new approach to training programs and approaches, and also to research objectives and methods, was required.

2.1.3 A new model of professionality: the professional teacher

The teacher training reform that began in 1993 stipulated that autonomy and responsibility, two characteristics of the professional teacher, could only be based on initial training that prepared teachers to "use their ability for critical thinking and for making an active contribution to the development of knowledge about teaching practices" (Ministère de l'Éducation 1992: 13; our translation).

The reform of the education system undertaken in the 2000s will place even greater emphasis on the professional autonomy of teachers. As mentioned above, increasing diversity in the student population, growing social problems and the tensions created by technological change and the globalization of the economy place intense pressure on teachers as they teach their students. Their work is made harder by social responsibilities and dilemmas which they can no longer resolve within a classroom setting (Messing, Seifert and Escalona 1997). Multilateral collaboration agreements must be implemented. Levels of authority and responsibility must be harmonized to re-centre teaching, teacher training and education research on common goals. Teacher training, in particular, must take the actual conditions in which teaching takes place into account and place more emphasis on classroom action, in particular through reflexive analysis. With regard to research, more studies must, among other things, focus on objectives closely related to professional practice and must produce results that can be integrated into teacher training programs.

It is important to note, however, that professionalization is a working hypothesis that raises a number of issues, whether epistemological, political, institutional, economic or social. It is a new departure in the field of education, as reflected in the relative lack of data on actual experience. As stated by Lang, "there is no finalized model today to describe the deliberate development of professional practice, but rather a series of questions about the knowledge and competencies required that are accessible through training" (Lang 1999: 199; our translation). What is clear, however, is that professionalization is not just a concern in Québec, and has taken on an international dimension (Tardif, Lessard and Gauthier 1998). There is a need in various countries to examine this issue and make changes to training programs. It is therefore appropriate to look at various aspects of the new professionality model in the Québec context, in order to direct training programs intended to forge a new professional culture.

2.1.3.1 Competencies to match the new requirements

The new approach to education increases the need to professionalize the act of teaching. The reform of the education system introduces several elements that will affect the role of teachers and the nature and significance of the competencies required to teach. Briefly, these elements are: increased autonomy for schools, an approach to learning that places the student at the heart of the learning process, a competency-based approach to the design of teacher training programs, multi-year cycles in schools, and the policy of adapting schools to the needs of all students.

The increased autonomy of schools and the active involvement of teaching staff in governing boards mean that their pedagogical action extends beyond the classroom, and requires them to work as part of a team. Their professional expertise is required at several levels in the provision of educational services.

The new conception of learning that gives students primary responsibility in the learning process requires teachers to use new pedagogical approaches and ways of dealing with students. Teachers must adapt their teaching methods to the rate of progress of each student; they must focus on student-learners in order to redefine their relationship to knowledge and facilitate its acquisition.

Competency-based programs of study, and cycle-based school organization, require teachers to perform some tasks differently and to develop new competencies. Teamwork with colleagues who come into contact with the students in the cycle or teach other subjects will become especially important in developing and evaluating competencies over periods longer than one school year.

The new social and educational context requires recognition for the interactive nature of teaching work (Tardif and Lessard 1999). Unlike specialists in a particular field (chemists or physicists, for example), general education teachers do not work with inert materials but with living and social subjects. Students today are no longer docile beings subjected to the teacher's authority; they resist the teacher's influence, and always want to do something else, or do it differently or at another time: "The teacher's knowledge no longer, in the eyes of students, gives him or her an unconditional right to exercise intellectual authority and obtain their attention, trust and obedience. Dislodged from their pedestal, teachers must, day after day, earn the credit and influence they formerly enjoyed automatically" (Joxe quoted in Lang 1999: 129; our translation).

Since the role of the teacher and the context of teaching have changed, new resources (knowledge, skills, attitudes) are required to practise the profession. Certification in a given subject is no longer the sole qualification needed in order to be considered competent to teach: "The academization of training is not sufficient to promote the model of the professional teacher" (Lang 1999: 168; our translation). To qualify, teachers must acquire the more complex competencies that underlie the new professionality.

2.1.3.2 The complexity of the teaching act

The new professionality differs from the positivist paradigm of professional practice, defined as the application of scientific theories to the solving of technical problems in a controlled environment. Teaching is characterized by ambiguity, fuzziness, complexity, uncertainty and indeterminacy. A technicist approach to problem resolution will fail. Rather, the focus must be on construing the problem in order to deal with it: "There has been an essential shift in the intellectual foundation of teaching: interpretational and procedural methods are tending to replace the prescriptive methods of the former model; psychology has even lost its status as the sole reference point outside actual practice, to multidisciplinary approaches to practice and the development of a

'research language in a classroom setting'" (Lang 1999: 172; our translation). Technicity is necessarily limited, and professionals cannot avoid using their judgment in a given situation and calling on a range of resources (Gauthier et al 1997).

Given that teaching professionals act to solve problems over which they have a limited degree of control and that offer uncertain solutions, their responsibility cannot be based on the students' learning results, but rather on the criteria of whether or not they have implemented the best possible means, in the context, to encourage students to learn. Teaching professionals cannot be held solely responsible for their students in all situations. Just as a physician is not the only person responsible for the recovery of a patient, a teacher is not the only person responsible for the success of a student. The clear standard of the practical result (or desired response), which defines what is expected of a technician who has full control over all the variables of a process, is replaced, in the case of professional teachers who have only limited control over the constraints affecting the outcome, by the ethic of responsibility (Lang 1999:171). The reform of the education system, by emphasizing the exercise of professional autonomy by teachers within both the classroom and the school, places even greater demands on their responsibility.

2.1.3.3 The integration of training with real-life teaching

The proposed professionalization of teaching is intended to promote integrated training. Training future teachers does not just mean exposing candidates to a set of unrelated courses, with no links to professional practice. Connecting courses together involves more than juxtaposition; ensuring that the various components of a program are studied concurrently in the same year does not guarantee that the related knowledge will be integrated.

This is why greater emphasis must be placed not only on a better integration between theoretical and practical courses, but also between practical courses and the actual conditions in which future teachers will practise their profession. For example, knowledge of the teaching subject must be related to the program content taught in schools. Educational situations must be set up to allow knowledge to be applied and to allow prospective teachers to develop professional competencies such as, for example, designing learning situations for students. The competency must also be applied in a real-life classroom context, during placements. This will require university specialists to carry out more fieldwork to help students develop competencies during their placements. However, since the last teacher training reform, it has been noted that very few university teachers have actually become involved in practical training. According to Lessard (1996:10; our translation):

> "The relatively low involvement of university teachers in supervising placements causes problems, and challenges our ability to implement truly integrated professional training. How can work on psycho-pedagogical and didactic skills be effectively carried out in a university setting if no direct

> links are made with training activities in the school environment? How can truly practical didactic training be designed if the trainer does not go into the field, in other words an actual classroom, with the students at some point during the training process? How can a reflexive approach to teaching be instituted if theoretical training–dispensed in the universities–is dissociated from practical training–dispensed by experienced practitioners? How can progress in pedagogy be achieved if we remain at a distance from the constraints and context of actual teaching practice?"

Professionalizing training is firmly grounded in actual practice. It implies a kind of integrating alternation (Malglaive 1994) that allows a connection to be made, at the same time and not within separate training processes, between knowledge-based training and skills-based training, in a real-life context. It differs from the approach based on juxtaposition that involves dispensing practical training after training in the teaching subject, or the model based on applying the relation between the knowledge dispensed and the teaching placements.

The increased importance assigned to practical training is one of the most positive aspects of the teaching training reform undertaken in the early 1990s. However, the organization of practical training requires a considerable effort on the part of both the universities and the schools involved. In some schools, the ability to receive placement trainees with certain training profiles has reached a critical limit, while other schools would like to receive more students. Without challenging the goals of practical training, it appears appropriate to introduce more flexibility into the educational activities linked to practical training, and into the ways in which they are organized and supervised.

Universities and schools have been asked to increase their involvement in partnerships in order to find a solution that will allow practical training to be retained as an essential component of teacher training. In this connection it is important to examine, among other things, the range of activities, organization and supervision models and placement venues that will help to ensure that all future teachers receive practical training.

2.1.3.4 Polyvalent training

One of the underlying principles of professional training is polyvalence. Professionals are expected to have developed various competencies that allow them to perform a variety of duties and tasks and take charge of complex professional situations.

For teaching professionals, polyvalence must reflect the nature and range of the competencies to be developed, the professional environment in which they will be exercised, and the areas of teaching practice that must be mastered.

Reference framework for competencies

In this document, the reference framework for competencies in the teaching profession is based on twelve professional competencies. To practise their profession, teachers must have mastered the set of competencies to varying degrees, depending on whether they are new or more experienced teachers.

Because teacher training involves the development of a range of competencies linked to various professional functions, it can be seen as polyvalent training. For example, designing teaching/learning situations, guiding groups of students through activities, evaluating learning, adapting their teaching methods to specific student needs, managing a class group, working in collaboration with the school team, parents and partners, and making a commitment to their own professional development, are all activities that require teachers to apply a wide range of competencies in various professional situations.

Teaching environments

Furthermore, the competencies required for day-to-day teaching can be exercised in a variety of contexts. While some teachers work with young children, others teach teenage and even adult students. Many teachers work with students with learning disabilities, social maladjustments or handicaps, or teach in underprivileged socioeconomic environments or in multiethnic areas. Clearly, the teaching profession requires an ability to adapt teaching methods to match different levels of education and school populations and the needs of various individuals and groups. This range of contexts is, when properly addressed, one of the characteristic features of polyvalent training programs.

Subject areas

The competencies involved in teaching also relate to the resources (knowledge, skills, attitudes) associated with each subject area. A teacher can be active in several subject areas. For example, at the preschool and elementary levels, teachers teach almost all the subjects in the curriculum. Secondary and specialist teachers can either teach in a single subject area or in several areas. To be polyvalent, teaching training must also take these aspects into account.

2.1.3.5 Links between research and teacher training

Professionalization helps create links between research and training. When responsibility for teacher training was transferred from the normal schools to the universities, research in the field of education was practically nonexistent (Gauthier et al. 1997). Although some psychology-based research was carried out, often in a decontextualized, laboratory setting, very little research took into account the complexity of the classroom reality. The same is true of research into teacher training, which only began to develop when responsibility for teacher training was transferred to the universities.

However, the situation has changed enormously over the last 30 years, and research approaches have matured in university faculties of education. More research, carried out in a more rigorous way and with greater emphasis on real-

life teaching situations, is being conducted, with the result that professional teaching knowledge is becoming increasingly codified. The work of teachers can be described, analyzed and compared, and related to student learning. We can now better understand the nature and relevance of certain teaching practices that promote student learning. We know, for example, that classroom management is a variable that has a particular influence on learning, and that experience-based knowledge has its limits. To assist professionalization, research into teaching practices and also into training approaches must be a priority, and the results must be reinvested in the training of new teachers.

2.1.3.6 Partnership and concerted action between administrative bodies and individuals

The professionalization of the teaching profession requires the establishment of partnerships between various groups, often with their own objectives and their own problems. The major changes that occurred during the recent reform of teacher training, and the need to improve collaboration between schools and universities to allow the successful implementation of placement schemes have, in some cases, resulted in the development of continuing partnerships and the establishment of collaborative structures between schools and those responsible for placements in university faculties of education. However, a genuine partnership must go beyond the existing level of collaboration between the university and school staff responsible for organizing placements and supervising teachers. A genuine partnership must be based on a shared vision of professional teacher training, and on the definition and sharing of the roles in the process to the benefit of all concerned. The partnership cannot be developed without the involvement of the various administrative bodies and networks, university teaching staff (including teaching staff in other subjects who help train future school teachers), and experienced practitioners. In order to train teaching professionals, the university community must have more opportunities to experience real-life teaching firsthand, just as the school community must go beyond the isolated implementation of new teaching practices and conduct more systematic research and reviews of new practices.

Professionalization requires concerted action within the universities. It affects the teaching staff involved in a variety of training programs in faculties of education and other faculties. A cultural approach to teaching cannot be implemented in schools and in teacher training programs unless the groups responsible for the programs are able to call on the active, ongoing participation of teachers from other subject areas when selecting and arranging content to relate to programs at the school level. For this reason, professionalization will result in training programs that are designed differently. The fragmentation of teacher training programs, which has often been criticized, was detrimental to the establishment of a common culture and shared identity (Lang 1999; Raymond 1998).

Already, several university faculties (medicine, engineering) have proposed integrated training models that draw on classical subjects in a different way. Interesting new approaches have also been suggested by various other faculties involved in teacher training. These approaches deserve our attention, but it is

possible to go even further. Formerly, professionality was founded almost exclusively on academic knowledge; the new professionality is based more on professional knowledge. This is why it appears essential to distinguish between the training of a chemist, for example, and the training of a chemistry teacher. The goal is not to deny the importance of knowledge of the teaching subject, but rather to ensure that it is included in a new way in training programs for professional teachers of the subject concerned. The subject-matter taught must be recentred in terms of its depth, scope and relevance to relate to course content at the school level. Again, this does not mean that the subject-matter taught should be limited to what is included in the school program; instead, the subject-matter selected for inclusion in the teacher training program should be re-evaluated from the standpoint of professionalization, and completed with elements relating to the history of the subject, its epistemology and its relationship to other subjects, which are all elements required by the cultural approach to teaching introduced by the reform of the education system. On this basis, in Québec, the ability to teach would not be based solely on knowledge of the teaching subject, although it would be closely tied to that knowledge (Lang 1999; Tardif, Lessard and Gauthier 1998). From this point of view, training in the teaching subject must henceforth be related to the practice of the teaching profession and to the place occupied by the subject concerned in the school curriculum. According to Lang (1999: 178; our translation):

> "Professionalizing training is designed to build an 'ability to teach', in other words a professional culture that integrates knowledge, action outlines, and attitudes; it is intended to overcome the traditional separation between academic, methodological, didactic, practical and other training; it attempts to combat the juxtapositions and disjunctions that are traditional in teacher training programs, between various institutions (universities, trade schools, placement locations, work locations), functions (knowledge production and dissemination, identity and ability construction, etc.), stakeholders (teacher-researchers, 'institutional' instructors, on-site instructors, peers), evaluation methods, and so on. It necessarily involves confrontations between stakeholders whose institutional positions, competencies and concerns differ; professionalizing training attempts to create new links between traditional sources of training."

2.2 Teaching From a Cultural Perspective

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In the educational policy statement Québec Schools on Course (1997a), the MEQ stressed, in particular, the cultural dimension of the reform. In order to raise the cultural level of the school curriculum, the document proposed that "to ensure the teaching of cultural content in subject-matter, it will be set out explicitly in the revised programs of study" (1997a: 13). The document also stated that "these subjects will be taught from a cultural perspective" (1997a: 13). This "cultural perspective" will affect the role played by teachers in complex, far-reaching ways, and by extension will also affect the providers of both initial and continuing teacher training programs. What exactly is a "cultural perspective"? And what are the consequences for teacher training? In order to answer these questions, we must first examine the scope and meaning of the word "culture".

2.2.1 The concept of culture

Any attempt to clarify the meaning of the word "culture" quickly leads to a large number of definitions. Kroeber and Kluckhohn itemized an extended semantic field, listing no fewer than 160 different definitions of culture between 1871 and 1950 (Simard 1995), and this does not even take into account the proliferation of discussions of culture over the last 40 years. Although the range of definitions can be initially bewildering, the concept of culture can, in fact, be dealt with quite simply.

2.2.1.1 Culture as an object

First, when represented as an object, culture can be understood in a descriptive sense to mean a construct, or in a normative sense to mean a desired object.

The descriptive sense: primary culture and secondary culture

The concepts of primary and secondary culture as defined by Québec sociologist Fernand Dumont delimit two meanings of the word "culture" when considered as a construct. For Dumont, "primary culture is a given. Mankind relates to a familiarity of meanings, models and shared ideals: plans of action, customs, a whole network of meanings that allow us to spontaneously recognize our place in the world and in the home" (Dumont 1968: 51; our translation). In this sense, primary culture is a construct that is assimilated by osmosis, and has a collective, anthropological meaning that corresponds to the lifestyles, behaviours, attitudes and beliefs of a given society. This conception of primary culture, also called "sociological" culture, refers to "the set of characteristic features of the lifestyle of a society, community or group, including those aspects that can be seen as the most everyday, the most trivial or the most 'inadmissible'" (Forquin 1989: 9; our translation).

When culture as an object is defined in a descriptive sense, it can also be understood differently. It acquires a meaning of distance, of a second way of regarding reality, in other words what Dumont calls secondary culture: "When I speak [...] I take responsibility for a certain gap between the primary meaning of the world as disseminated in the praxis of my collective context and a secondary

universe in which my historical community has attempted to give itself, as a horizon, a coherent explanation of itself" (Dumont 1968: 41; our translation). Secondary culture refers to the set of works produced by humanity in order to comprehend its own place in the world.

For Dumont (1968: 41; our translation), culture contains both the first and the second meaning: "The distance and the two poles that define it are what we must understand by the concept of "culture", which is constituted by two opposing federations of symbols, signs and favoured objects, from which the world takes its form and meaning for a community of conscience." In the descriptive sense, culture as an object includes the world that we bear within us by a more or less conscious process of impregnation, and the meaning that we give to the world by distanciation.

The normative sense: the cultured individual

Culture as an object can also be viewed from another perspective, in which case it takes on a desired, or normative meaning. In this situation, culture refers to the ideal of the cultured individual we should all strive to become. Globally, we can refer to "the set of dispositions and characteristic features of a "cultured" mind, in other words the possession of a wide range of knowledge and cognitive skills" (Forquin 1989: 9; our translation). The contemporary form of humanism open to the sciences, as promoted by the Parent Report, includes the ideal of the cultured person. Several public debates oppose different conceptions of the cultured individual, and also focus on the meaning to be given to the expression "general knowledge".

Schools maintain close ties with both the descriptive and the normative perspectives of culture viewed as an object. As organizations located at precise points in space and time, schools form part of the primary culture. In addition, as institutions devoted to an understanding of the world, schools are a genuine centre for cultural integration, a circle of secondary culture (Dumont 1971). Finally, as a site for work on and the promotion of a particular type of secondary culture objects that have been deemed desirable, schools aim to instill the dispositions and qualities of a "cultured" mind. In other words, culture is simultaneously the source, substance and ultimate objective of schools (Forquin 1989). The definition of a cultured individual is not, of course, an objective process, but rather a normative one. The question must be debated by society as a whole, which must select the objects of secondary culture that will enter into the desired make-up of the cultured individual. Some people will propose a return to great classical culture, some will emphasize the importance of science, and others will opt for a corpus that is more in harmony with contemporary culture–and other solutions are also possible.

2.2.1.2 Culture as a relationship

The proposal to introduce a "cultural perspective" into education requires us to continue our exploration beyond the viewpoint of culture considered as an object. It is suggested that teachers change their relationship to knowledge, or in other words teach differently (Montférier 1999). The hypothesis put forward by

Charlot (1997) appears to us to offer a promising explanation to clarify what is meant by a "cultural perspective". For Charlot, knowledge, which we can call "culture", is not merely an object of understanding but first and foremost a relation. This hypothesis affects teachers directly.

According to Charlot (1997: 91; our translation), "analyzing our relation to knowledge means studying the individual who is required to learn, in a world shared with others: the relation with knowledge is a relation with the world, with oneself, with others." This conception of a triple relation with knowledge is interesting because it opens up the possibility of considering culture not as a disembodied object of knowledge, that students acquire or fail to acquire, but as a relation with the knowledge to be constructed. From this standpoint, the goal is not to draw up an inventory of cultural objects to be mastered, nor to evaluate the quality of those who possess or do not possess them, but rather to see the action of culture in the school as the building of a relationship, in other words the establishment of a "set of situations and relations into which the student enters to establish a relationship with culture" (Charlot 1997: 84). The relationships with the world, with oneself and with others constitute three inter-related dimensions that allow culture to emerge (or not to emerge) in the school. From this point of view, "reconciling school and life through culture" becomes the essential task of the teacher (Montférier 1999: 12; our translation).

The relationship with the world

Individuals are separate from, but in a constant relationship with, the world. The world forms a part of each individual. Children are not empty vessels, but are the inheritors of the world and the bearers of a constellation of meaning. Individuals do not apprehend the world as it is; rather, the world is already permanently present in them, through the categories of language by which they are constituted. Individuals also interiorize various representations of class, sex roles, standards of conduct, inclinations, etc., that colour their whole being. Their personal trajectory and the particularities of their context will also help to transform them. For a given individual, a particular event, person, or place may be significant, whereas for another it will have no meaning. This is why culture can be considered as a relationship with the world and has significance only in the way in which the world is experienced by the individual (Zakhartchouk 1999). In a mass teaching context, in which students display a wide range of characteristics, culture is experienced differently by each individual. For example, cultural practices concerning the type of music listened to by teenagers in a given group (rap, techno, etc.) can differ widely from those of the music teacher, trained in classical music.

The relationship with oneself

Our relationship with knowledge, or culture, is also a relationship with ourselves: it includes a dimension of identity. As mentioned by Dumont (1997: 154; our translation), "self-discovery is possible only through the action of culture." Access to the self can never be obtained intuitively and immediately. Self-knowledge is always an understanding founded on the culture and history that bear it. To understand oneself means to understand oneself through culture, through a horizon made up of signs and meanings (Simard 1999).

However, it is possible either to recognize oneself in the world proposed by the school, or else to feel like a stranger. Learning becomes significant for an individual who is able to create links with his or her context, concerns, and points of reference. Through learning, students progressively build up an image of themselves. If success at school allows certain students to reinforce their self, failure leads other to seek meaning and a refuge elsewhere, where they do not feel excluded. The various competencies that students acquire, inside and outside the school, allow them to negotiate a form of "distinction" (Bruner 1996). Success or failure can lead some students to become renegades, because they no longer recognize themselves in their community after integrating the values of the school, or to leave school, because they live more intensely and harmoniously in their community in terms of their relationship with themselves (Dubet and Martucelli 1996).

The relationship with others

The relationship with knowledge is also a relationship with others. The self is always in a relationship with others, and the identity dimension is linked to the relational dimension. Understanding a mathematical theorem means integrating knowledge (relationship with the world), feeling intelligent (relationship with self), and also gaining access to a world shared with other people possessing the same knowledge (relationship with others) (Charlot 1997: 85). If a student, in a particular year, feels that he or she is getting on well in mathematics with a particular teacher, but hates mathematics the following year, the explanation can probably be found in this triple relationship, according to which a class becomes interesting or boring, as the case may be, depending on whether or not a relationship with the world (mathematics), a relationship with others (the teacher) and a relationship with self (success or failure) are properly established.

In short, we cannot examine the role of culture in schools without also considering the relationship with culture: "If knowledge is a relationship, then the value and meaning of knowledge come from the relationships that are implicit in, and inducted by, its appropriation. In other words, knowledge has meaning and value only with reference to the relationships it implies and that it produces with the world, with oneself, and with others" (Charlot 1997: 74; our translation). If culture is a relationship, then the important question for teachers becomes education and the transformation of this relationship within the school. Although every teacher, too, has a relationship with the world, an identity relationship and a relationship with others, the relationships can differ greatly from those of the individual students entrusted to the teacher's care, who also have a particular vision of the world, of themselves and of their teacher. The teacher's task will be to create, through the mediation of cultural objects, a relationship with each student so that a new relationship with the world is formed and the students become cultured individuals.

2.2.2 The role of the cultured teacher

Teachers are given, by society, the task of instructing and educating, in other words of forming cultured individuals (if culture is seen as a desired object) who will maintain a new relationship with culture, that is to say, with the world, with

themselves and with others. Teachers are the bearers of culture (primary and secondary), they are part of a relationship with the world, with themselves and with others (students, other teachers, the community), and they seek to bring students to distance themselves from the primary culture in order to gain access to the desired form of secondary culture.

However, culture as an object and our relationships with culture are no longer what they used to be. They have changed gradually over time, to the point where the role played by the teachers of tomorrow has been entirely transformed.

For a long time, the task of a teacher was to transmit a relatively stable and unified heritage of knowledge, values and conduct. Through schools, the community was able to form children in accordance with an image that corresponded to a shared ideal (normative culture). The model was highly coherent, and schools ensured that it endured and was efficiently transmitted by exercising systemic and systematic control over their student population. The nature of the heritage transmitted by schools was not questioned and, although there could be a gap between the school (secondary culture) and the surrounding community (primary culture), the proposed cultural ideal, rooted in a long tradition, was considered valid by the majority. There was a kind of symmetrical relationship between the culture proposed in the school and the culture to which the members of society aspired. Teachers reflected the culture and values promoted by the community. As the official holders of a culture valued by all, teachers could easily use their power and prestige to ensure that its content was transmitted.

Over the years, this world has collapsed. Primary culture is no longer homogeneous. With mass education and the transformation of society, the composition of the school population has been modified and students no longer share the same heritage. Secondary culture has also undergone a radical transformation. There is no longer one single form of knowledge that allows a comprehension of the world; the number of subject areas has increased, each offering a new way of seeing reality. In addition, the quantity of available knowledge has multiplied exponentially. Within a given subject area, interpretations are increasingly coming into conflict. The period of the all-encompassing explanation has come to an end (Lyotard 1985). There is no longer a consensus on normative culture. The great humanist culture has seen its hegemony called into question, just as the consumer-based, banalizing vision of culture, in which everything is of equal value and is dissolved in the prevailing culture, is constantly criticized. And this has consequences for the role of teachers as the agents of cultural transmission, in other words their relationship to culture, or the world, their relationship with themselves and their relationship with others. In short, there “is no longer a unanimous cultural stockpile, a delimited set of knowledge and models of conduct of which teachers are the respected holders and confident transmitters, for which they feel responsible for the society that surrounds them, and which they represent by their profession” (Dumont 1971: 53; our translation). Their relationship with the world, formerly so stable, continues to evolve given the proliferation and transient nature of new knowledge and conflicting interpretations as to what constitutes valid culture. Similarly, the image reflected by students, parents and society is changing;

lastly, the teachers' universe is no longer necessarily shared by their students, placing them in an unbalanced situation in terms of identity.

If teachers can no longer rely on a relatively uniform primary culture, no more than on a unitary, permanent secondary culture, or on a generally valued normative culture, then how can they define their role as cultural agents? In other words, what will the function of tomorrow's teachers be in terms of the mission of instruction and education they are expected to pursue? Zakhartchouk (1999) defines their function in general terms as a "cultural broker" with reference to the brokers who help negotiate obstacles, accompany a journey or reach new destinations. In short, teachers are seen as helping students to construct meaning by establishing new relationships with themselves, with the world and with others.

In a forward-looking article, Dumont (1971) indicated several interesting reference points. For Dumont, the teachers of tomorrow have to be inheritors of culture, critics and interpreters. However, he stated that this vision would be hard to implement, largely because of the ambiguous relationship we maintain, as a society, with our origins, as though, for the last 30 years, we had been trying to live in a present shorn of its past. As it turned out, the guidelines he set out in 1971 to face a new, complex, shifting context were never successfully incorporated into school practices and teacher training programs. The education policy statement published in 1997 by the MEQ reaffirmed the cultural school proposal and brought it back onto the agenda, suggesting that teachers become cultural brokers, in other words the *inheritors*, *critics* and *interpreters* of culture.

2.2.2.1 Teachers as inheritors

As inheritors, teachers belong to the world that forms them and with which they maintain a relationship that progressively forges their identity. The world is not made up solely of the primary culture (languages, customs, lifestyles) from which it stems but also of a distanciation from it (secondary culture). Teachers, like students, are inheritors. They must establish a distance between themselves and their world, and understand the origin, nature and limits of their representations. Teachers must make students aware of their inheritance, as though it were doubled. To achieve this, teachers must take stock of the distance that separates them from the relationship with the world inherited by their students. If there is no shared, unifying synthesis, teachers must re-establish a form of continuity to re-weave meaning into the cultural fabric that is torn between their world and the world of their students. As cultural brokers, their role involves restoring continuity and creating transitions: continuity between the present and the past, continuity between knowledge and the world, continuity between forms of knowledge and continuity among human beings (Simard 1999). The teachers of tomorrow must have a sense of origin and understand where the modern world comes from. They must make links between the various types of knowledge that circumscribe the world. They must also understand how an interpretation of the world is constructed, and must have penetrated the epistemology of the subjects they teach. They must understand what is essential in a human being, despite the differences existing among individuals.

2.2.2.2 Teachers as critics

As critics, teachers have learned (and will continue to learn throughout their careers) how to distance themselves from their primary culture, and also from their secondary culture. However, to be critics, they must first know what they have inherited, which will enable them to unmask the assumptions and prejudices of their primary culture. They must also know that knowledge is a construct and that, as a construct, it is limited, transitory and replaceable, but nevertheless essential for establishing continuity and positioning themselves in the world. They know, from studying consumer culture, that disparate, interchangeable data have never sufficed to make a culture. They know that intellectual education is not synonymous with cultural acquisition.

2.2.2.3 Teachers as interpreters

As interpreters, teachers are responsible for transposing culture. As brokers of meaning, they form part of the world they interpret and, in turn, seek to make it relevant for others. This is why teachers select, on the basis of the group of students concerned, the elements of heritage they consider to be indispensable and pertinent for those students. They are a sort of hermeneutist or decoder, both for the subject they teach and for their group of students, to help them travel into new spaces. Pedagogy, as an interpretational activity, is based on what the hermeneutists formerly called *subtilitas* (Simard 1999), in other words less on technique and more on tact, less on geometry and more on subtlety, less on method and more on flexibility; in short, it is based on judgment and sensitivity.

2.2.3 Training cultured teachers

The concept of the cultured teacher, acting as a cultural broker and the inheritor, critic and interpreter of culture, can be used to orient discussion and action in a particular direction, in particular concerning teacher training approaches. In fact, we should aim for a point in the future when we are able to say that teacher training includes a kind of “professional conditioning”, not in the common negative sense, but in the sense that future teachers will possess cultural training that sets them apart from ordinary citizens and from other professionals. To provide this training, we will not only have to determine a specific culture as an object, but also develop a particular relationship to culture among future teachers, a kind of shared awareness among teaching professionals.

Training cultured teachers obviously involves equipping them with various objects of culture and different types of knowledge essential to their cultural training. These objects of culture will relate, first, to various subject areas: languages, science and technology, the arts, the social sciences and personal development. They will also relate to pedagogical and didactic knowledge, such as approaches, methods, means and techniques linked to teaching/learning, to evaluation and to class management.

Nevertheless, however essential this subject-related, pedagogical or didactic knowledge is, it will not be sufficient to ensure that the learning is transmitted to the students. Future teachers must be taught to regard their subject from the perspective of a professional.

The teaching profession cannot afford to ignore the relationship with others, in other words students, parents and the community; we cannot train teachers as though their profession involved only knowledge, while considering the presence of others as a negligible factor.

Furthermore, every concept or piece of knowledge has a history which, when known by the students, can either anchor or block their understanding (Giordan 1994). The most probable negative consequence of denying the relationship between students and knowledge will be resistance, exclusion or student drop-outs, since students will not recognize their place in the teacher's world. This is why it is important, in the process, to provide future teachers with cultural training, to make them aware of the importance of the relationship of students with objects of culture. For this reason, teachers will not only have to understand their subject, but will also, according to Shulman (1987), have to possess a pedagogical knowledge of their subject, in other words take others, and therefore students, into consideration as they teach object of culture. The development of a truly pedagogical culture, i.e. one that is linked to the work of the teacher but also to the students, must be considered as an essential element in the training of future teachers.

It would be wrong, as in certain types of new pedagogy, to focus solely on catering to the needs of students, and to ignore the fact that they carry the ideological content of a primary culture from which they must be distanced. Training teachers also involves preparing them to take on the role of cultural broker. They must be trained to bring students to new shores, guiding them critically and helping them get their bearings in the world.

As pointed out by Lussato and Messadié (1986), culture makes us more intelligent by complexification; it helps us see better, comprehend nuances, and better diagnose reality; it is a sort of matrix for understanding the world, oneself, and others. In addition, culture gives us extra possibilities for inventing solutions; it gives teachers new tools that allow them to intervene more effectively.

Let us be quite clear, though: we are not talking here about quiz culture or high-brow culture, but culture as a kind of *sensitivity* that allows us to define a relationship with the world, with ourselves and with others. Without this sensitivity to relationship, culture could be as formal and academic as the most sterile of techniques, and lead to exclusion. This is why we need to do more than add "culture courses", or to include cultural objects, however essential, in a program to develop a cultural perspective for teaching. It is important for a sensitive relationship to culture to be set up by teacher training providers, in other words a sensitivity to their own role, a sensitivity to student teachers, and a sensitivity to the tasks that these future teachers will perform. This sensitivity must be present in all the courses of the teacher training program. This is the

challenge posed by an integrated form of teacher training that gives culture the space it is due.

In light of the above, it is fitting to end with a quote from Javeau (1974:52; our translation):

> "A redefinition of culture! Will I be the one to propose a new definition? I hope not! But, speaking of culture, I cannot help becoming a little lyrical. I would like to say that, sociology, ethnology and cultural anthropology notwithstanding, culture is this: something that is pleasing to the heart of man. Culture can be as simple as breathing: this is the first thing we must learn or re-learn. Culture is not a medal you wear on your chest, but something nourishing deep in your body."

Chapter 3

Professional Competencies

3 PROFESSIONAL COMPETENCIES

Competencies, or more specifically professional competencies, have been selected as the central element of teacher training, in keeping with the new emphasis on professionalization.

The first section of this chapter deals with the concept of professional competencies. A great deal has been written on this subject over the last few years, and recent research has been used to orient not only professional training in general, but also professional training in the field of teaching in particular. As the literature presents a wide range of views on the topic, it is necessary to highlight certain key points. It should be noted that the concept of professional competencies as defined here is based on work in different fields. Research and partnerships will be required to clarify its meaning in the area of teacher training. Generally, a professional competency is applied in a real-life professional setting; follows a progression from simple to complex; is based on a set of resources; is based on the ability to mobilize resources in situations requiring professional action; involves a successful, effective, efficient, recurrent ability to act; is part of intentional practice; and is a project, an ongoing pursuit.

The second section presents the reference framework for professional competencies in the teaching profession, specifying, for each core professional competency, a competency statement, the meaning of the competency, the features of the competency and the level of mastery student teachers are expected to have attained by the end of their initial teacher training.

3.1 The Concept of Professional Competencies

3.1 The Concept of Professional Competencies

Much has been written on the subject of competency over the last ten years, and the concept is clearly one of great interest to researchers. The literature offers a large number of definitions covering a wide range of dimensions, sometimes based on different or even opposing theoretical foundations. As pointed out by Minet, cited in Minet, Parlier and de Witte (1994:16; our translation), "… Indeed, there is no single acceptance of the term. Definitions differ according to the interlocutor, the standpoint taken and the use of the notion of competency, to the point of being sometimes incompatible."

"Knowing a concept means knowing its power, in the sense that a concept is a conceptual tool for solving a certain number of problems" (Rey 1998: 203; our translation). The concept of competency is a relatively new approach that structures the vision of teaching. It offers excellent potential and the issues are important, but the possibilities for misuse are numerous. It is therefore important to clarify its meaning. To define the concept it must be addressed in a variety of ways from a variety of standpoints.

First, it is possible to give a negative meaning to the concept of competency, by concentrating on the dangers to be avoided–for example, over-specification and empty formulas or generalities. The first danger is technicism, meaning that ideas and action may be locked in through excess precision. Indeed, there is no point replacing lists of knowledge and skills by a competency framework if the framework in question is simply a new way of describing the same, much criticized approach it was supposed to replace. "Teaching by objectives, which reduced learning to the realization of a set of behavioural objectives, led to such a level of fragmentation that the students were no longer able to understand the meaning of what they were being asked to do, and it was by no means certain that the set of behaviours learned actually coincided with the objectives they were supposed to constitute" (Rey 1998: 32; our translation). This type of approach would be a change of terminology, not a fundamental change of perspective. Formulating competencies therefore means, first and foremost, adopting a higher level of abstraction than simply listing the behaviours, performances and skills to be mastered.

The second danger is that competencies may be formulated in such general terms that they mean nothing and do not guide thinking and action in any particular direction. In such a case, competency statements are simply a series of empty formulas that offer no direction whatsoever for the preparation of training programs, and no support for training providers. Those responsible for formulating teacher training competency statements must therefore think in terms of defining the type of professional to be trained.

Another way of enhancing our understanding of the concept of competency is to consider what it is not. The competency-based approach is controversial in that it contradicts the conception of teaching and program formulation as the transmission of compartmentalized knowledge. In the new approach, the players must truly work together as a team to prepare programs of study. Thus, the

competency-based approach resists an exclusively formal and abstract vision of teaching. A competency is always a competency for action: "A sum of knowledge has never been a competency for action" (De Witte cited in Minet, Parlier and de Witte (1994: 31; our translation).

3.1.1 The features of the concept of competency

A certain number of features have been identified in the literature, and some are extremely important in understanding the concept of competency.

3.1.1.1 Competency exists in a real-life setting

Every action or thought occurs in a context. The presence or absence of context cannot therefore be used as a means of distinguishing between competency and skill. However, a context can be described in terms of its similarity to the actual professional situation, and the criterion of similarity can be used to discriminate between competencies and skills. Unlike skills, which can be applied in a situation where only a certain number of variables are present (for example, in simulations or laboratories), competencies are contextualized, in the sense that all real-world constraints enter into play. Le Boterf (1997) draws a distinction between competencies and skills based on the presence or absence of a set of real action variables; otherwise, the terms are virtually synonymous. Competencies are exercised in a professional situation, whereas skills are actions that take place in a controlled or, to some extent, artificial context.

3.1.1.2 Competency follows a progression from simple to complex

By using the actual context as a distinguishing factor, it is possible to remove an ambiguity that pervades the work of many authors who claim that competencies are more general than skills. Rey (1996), for example, states that behaviour-competencies are on the same level as skills. "Being able to classify given names in alphabetical order" (Rey 1996: 28) is a behaviour-competency–in other words, a skill. A competency can therefore be situated at the same level of simplicity as a skill, just as a skill can be situated at a high level of complexity and require lower-level skills for its application. The distinction between competency and skill appears to lie more in the presence or absence of a real context that involves all the variables of the professional activity. From this standpoint, the argument to the effect that competencies are *a priori* complex and skills simple is hardly a sufficient basis for distinguishing between the two. However, in the case of initial teacher training competencies, an intermediate level would appear to be needed, in order to avoid long lists of competencies or competency statements that are so general as to be of no use in guiding action.

3.1.1.3 Competency is based on a set of resources

Competent people identify and use resources in a context of action. The resources in question may be knowledge, skills, attitudes and other more specific competencies applicable to certain circumstances. It is important to remember that competencies are not simply personal resources. Personal resources can be found in an individual's environment–for example, coworkers, resource people, a peer network, data banks and specialist literature. While competent people use these resources, their competency depends on more than that. Competency is not just a particular knowledge, skill or attitude, but is expressed when an individual uses those resources in order to take action.

Moreover, while a skill can easily exist without the knowledge on which it is based, a competency necessarily requires knowledge of the action taken. A bricklayer who is able to carry out certain actions but is unable to recite the underlying knowledge can be described as skilled, but not as competent. Just as knowledge does not guarantee skill, skill does not guarantee professional competency. It is impossible to overestimate the importance of knowledge in competency. We describe teachers as *inheritors* precisely because they draw on this reservoir of knowledge. We describe them as *critics* because they are able to step back from this knowledge, classifying and organizing it to suit their own needs.

3.1.1.4 Competency is based on the ability to mobilize resources in situations requiring professional action

While individuals must possess knowledge, skills and attitudes in their pool of resources in order to be considered competent, competency also requires an additional element, namely a context. A skilled person is able to mobilize resources, whereas a competent person is able to do so within a given time and space, and not just in simulated or controlled situations. The requirement of context means that competent people, in the heat of the action, must be able to recognize the demands and constraints of the situation, identify the available resources and take action by incorporating, combining and orchestrating those resources in a way that is relevant to and effective for the situation at hand. Competency therefore lies in the ability to construct, not to apply. The ability to act in the heat of the moment requires judgment, presence of mind and shrewdness. Teachers can therefore be described as *interpreters*, in that they read a situation in a certain way, give it meaning and, where necessary, adapt, invent or improvise to deal with it.

3.1.1.5 Competency is part of intentional practice

Competency as a performance allows individuals to achieve objectives considered desirable. Teachers are responsible for helping students to develop certain competencies and for instilling in them certain knowledge, skills, values and attitudes that society regards as vital if they are to be free, behave well in society and practise a trade or profession. "Competency can be more than a set of objectively observable movements; it is also an action on the world, defined by

its social or technical utility–in other words, it has a practical function" (Rey 1998: 34; our translation).

3.1.1.6 Competency is demonstrated as a successful, effective, efficient, recurrent performance

A competency is a potential for action through which problems specific to a given family of situations can be identified and solved. In a real world context, a competency manifests itself as a successful, effective, efficient and immediate performance. A competency is also applied recurrently in different situations, thus showing that the skill is stable. The effectiveness and efficiency of a competent individual are not the result of chance and are not temporary.

Competent people act efficiently, in other words in accordance with expected standards. However, there are many different ways of achieving goals. A number of methods can be used, some more effectively than others. An expert's efficiency can be regarded as a kind of ideal. However, the real efficiency of a competent individual is not necessarily comparable to that of an expert. A competent individual is someone who is able to mobilize resources in the heat of the moment, as a true professional would reasonably have done in similar conditions. The performance threshold must therefore be established not on the basis of an expert model, but according to what a professional could reasonably be expected to do in the same circumstances. Clearly, then, newly graduated teachers must not be expected to perform at the same level as expert or experienced teachers, but at a level that could reasonably be expected of a person just embarking on a career as a teacher.

Competent action is also efficient and immediate, as well as successful. The competency has therefore been mastered sufficiently for the action to be taken quickly and with a certain economy of means.

3.1.1.7 Competency is a project, an ongoing pursuit

As previously mentioned, competencies follow a progression from simple to complex. At the highest level of complexity, there is no real end to the proposed goal. For example, nobody has ever definitively and totally achieved the competency of critical thought. A competency, unless extremely general, should therefore be regarded as a work-in-progress, more of an ongoing pursuit than an achievable goal.

3.2 Core Professional Competencies for the Teaching Profession

3.2 Core Professional Competencies for the Teaching Profession

Teacher training directed towards professionalization and a cultural approach to teaching is based on a framework of twelve core professional competencies.

Each competency statement is accompanied by a general description of the meaning of the competency and its features. A level of mastery is also established for each competency. The features relate to the professional actions implicit in teaching, rather than the subject-specific, pedagogical and didactic knowledge required. Although such knowledge is essential as a foundation for the competencies, the MEQ feels it is up to each university to stipulate the knowledge required when developing its training program. The features associated with each competency should therefore be regarded as guidelines for the selection of knowledge objects in the preparation of teacher training programs.

While the competency statements and related features apply to all teachers regardless of their experience, **the level of mastery refers to what can reasonably be expected of a newly graduated teacher**. In this respect, the competency framework does have some limitations. The current literature on continuing education or workplace training tends to concentrate on the professional practices of experienced teachers. Research involving new teachers is fragmented and incomplete, and often tends to focus on deficiencies rather than what they are actually able to do immediately after initial training. At the same time, the competency standards established by various task forces and commissions have not yet been verified by empirical observations and assessments of new graduates in the workplace. Further research is clearly required to help define what can realistically be expected of newly graduated teachers.

It should be noted that the framework suggests no particular weighting for the various professional competencies or teacher training programs. Parameters such as this could eventually be set by the *Comité d'agrément des programmes de formation à l'enseignement* (or CAPFE, the committee responsible for accrediting teacher training programs) if it feels they would be appropriate.

Lastly, the twelve professional competencies have been grouped together to form four categories in the diagram shown on the next page. The competencies are interdependent, in that they must be connected if they are to produce a professional teacher. Similarly, they must be implemented in an interactive as opposed to a linear fashion. They are therefore not an ordered set of operations, but steps that have an impact on one another and that change as the elements involved are taken into consideration.

Professional competencies

Foundations

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.

Teaching act

3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.

Social and educational context

7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.

Professional identity

11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

COMPETENCY N° 1

COMPETENCY STATEMENT
To act as a professional who is inheritor, critic and interpreter of knowledge or culture when teaching students.

MEANING

The cultural approach to teaching is one of the two general orientations of this document. Culture must therefore permeate all core professional competencies for teachers. As a result, many competency features contain explicit references to the cultural aspect. However, to highlight the importance of cultural knowledge (both subject-specific and curriculum-related) in the field of education, it is also useful to look at how this basic goal of teacher training can be expressed even more explicitly in a professional competency.

It has often been said that everything related to culture occurs outside schools–for example, in museums, at the theatre, in performance venues, and so on. Clearly, such places are excellent sources of cultural expression, but they are not the only ones. Schools, as secondary cultural venues, also provide excellent cultural education for their students. It is often during the long period spent at school that students progress from primary culture to secondary culture. Schools therefore play a major role in developing cultural awareness.

Secondary culture is obviously present in program contents. Programs propose different standpoints that enable students to understand various facets of the world and distance themselves from their primary culture. However, culture is much more than the content selected by the school. Teachers cannot provide appropriate support for learning activities if their knowledge does not extend beyond the limited content indicated in the program. If this were the case, they would teach mechanically, slavishly following textbook or program content. They could not expand upon the official content or create situations tailored specifically to the context of their class. In other words, they would not be able to adapt their teaching to the group in order to make the learning significant for their students.

The danger of technicism in teaching lies precisely in this aspect; teachers with insufficient knowledge of the subject matter or objects are unable to understand or relate content elements, either in their lesson planning or in their actual teaching, to help the students establish links between elements of knowledge and hence give meaning to their learning.

Technicism has its reverse side, namely academism. Here, teachers who have access to a wide range of knowledge do not themselves establish links between elements of that knowledge, their own secondary culture and the secondary culture of the students they

are teaching. The title of a book written in French by Saint-Onge (1993), which translates as *I Teach, But Do They Learn*? is directly relevant to this problem; in academism, the role of the teacher is merely to transmit information, as though knowledge of a content automatically means the students have acquired learning. If the students do not understand, or if they do not transfer their learning to other contexts, it is therefore their own fault. The teacher's knowledge becomes a necessary and sufficient condition for teaching. This unfortunately widespread vision of the profession clearly has some significant deficiencies. It is for this reason that the notion of "cultured teacher" involves not only knowledge by the teacher of the secondary culture objects in programs and beyond, but also–and especially–the teacher's ability to create a new relationship with culture for the students. It is undoubtedly here that the challenge of the profession lies. Teachers, even if they have access to university-level knowledge, must be able to structure that knowledge for a specific audience, namely their students.

There is therefore a gap between technicism and academism–the space in which the teacher works–that needs to be explored. While technicians of teaching do not have the cultural knowledge required to connect elements of knowledge, academics are unable to relate to others and create significant teaching/learning situations.

Although subject-specific knowledge and program-related knowledge is clearly important to the act of teaching, very little empirical research has been done to show its impact on the practice of teaching (Grossman 1991a and 1991b; Shulman 1986a and 1986b; Byrne 1983). This central aspect of the pedagogical act that Shulman (1986a) refers to as the *missing paradigm* is still neglected by researchers in the field of education. Even so, some studies have shown how the teacher's subject-specific and program-related knowledge can affect teaching practices. The primary impact appears to be "in the teacher's mind" and hence on specific professional activities such as planning, goal selection, content and activity selection, freedom from basic textbooks, the type of examples used, links with everyday problems and with other fields, other programs and other levels, and the design of evaluation (Martineau and Gauthier 1999).

FEATURES

- ☛ Situates the discipline's basic benchmarks and points of understanding (concepts, postulates and methods) in order to facilitate significant, in-depth learning by students.

Teachers, if they are to play their role as brokers of culture (Zakhartchouk 1999), must be able to structure secondary cultural knowledge, both university-level and school-level, within programs in such a way that students are able to understand it. At the same time, they must support the students as they learn. They must be able to situate the contribution of university-level knowledge to the understanding of subject-specific program content, so as to establish links between subject-specific knowledge and school-level knowledge. At the same time, school-level knowledge or subject-specific program content become resources that are used to help the students develop competencies. For this to be possible, teachers must act as inheritors–in other words, they must understand and translate fundamental benchmarks, concepts, postulates and methods. These points have all been confirmed by research on the subject-specific and program-related knowledge of teachers and its contribution to their teaching practice.

A number of researchers (Wilson and Wineburg 1988; Hashweh 1985; Leinhard and Smith 1986) have shown that the level and quality of knowledge of the subject's substantive (concepts) and syntactical (methods) structure have an impact on how teachers present their material to their students, in particular with regard to didactic planning and content selection. These same authors also note that teachers whose original training is least related to the content they are required to teach are also those that tend to follow textbooks most slavishly. Reynolds *et al.* (1988) report similar results, stating that the teachers with the soundest backgrounds in their subjects are also the most likely to distance themselves from textbook content structures and adopt the most flexible approaches. Lastly, Hashweh (1985) showed that the teacher's knowledge of the subject may have an impact on the quality of the examples used and the explanations given, and on the teacher's critical attitude to the basic textbook.

It is also important to note that an accumulation of subject-specific knowledge does not necessarily mean a coherent understanding of the discipline (Wilson and Wineburg 1988). Just as a pile of bricks does not constitute a house, an accumulation of unrelated knowledge does not constitute an integrated, flexible understanding of the subject, and certainly does not facilitate learning by the students.

Some researchers have found a difference in the way a given subject is taught, depending on the teacher's knowledge of the program. Carlsen (1988), for example, showed that, when teachers are less familiar with program content, they are more inclined to adopt an approach focused on individual assignments, and to control discussions and monopolize classroom time. They also tend to limit opportunities for questions from the students. Grossman (1990) pointed out the importance of teachers being familiar not only with the horizontal themes at a given program level, and the links between those themes, but also with their vertical links to what the students have learned in previous years, and what they will learn in the future.

If teachers are to adopt a cultural approach to teaching, or teach subjects from a cultural standpoint, they must have a more extensive subject-specific knowledge of the elements they will be teaching in the program. Their understanding must go beyond a simple accumulation of the facts to include structured points of reference that will help the students form their own links between elements of knowledge. Such an approach requires not only mastery of program content elements, but also horizontal and vertical integration of those elements.

☛ Adopts a critical approach to the subject matter.

The secondary culture inherited by teachers enables them to understand the world and make it significant for their students. It also allows them to take a critical approach to their subject matter and to the course content. A critical approach means that teachers may judge the statements contained in their subjects and programs, and estimate their impact in the classroom context.

University-level disciplines and school programs are dependent to some extent on the people who develop them. They are cultural products situated in a historical context. In this respect, scientific disciplines cannot be regarded as unchanging, objective elements that express reality as it truly is. Instead, they are social constructs with their own

history, evolving controversially within schools of thought. They show reality not as it truly is, but as they construe it. The same applies to school programs, which also change over time and are the subject of debate. In this respect, neither university-level knowledge nor school-level knowledge can be regarded as truths that are independent of the academic or social contexts in which they were created (Tom 1997 and 1992).

It is for this reason that cultured teachers must not limit their role simply to transmitting content produced outside themselves, as though such content were neutral. Not only must they appropriate that content and understand its structure, but they must also grasp its limits and understand the conditions in which it emerged. In this respect, teachers must be able to make a critical reading of both the subject matter and the program.

Cultural teaching requires an understanding of the genesis and epistemology of the subject matter. In the classroom, teachers must implement teaching/learning situations that allow diverse groups of students to understand subject-specific contents in order to develop competencies that they will subsequently be able to apply in a variety of contexts. This goal of competency development often means that teachers must establish links between their own subjects and other subjects, adopting what amounts to an interdisciplinary approach. Within a teaching team, teachers must therefore be able to identify the contributions of different subjects to the solution of a given problem. They situate their own subjects, with their own specific methods and questions about reality, but are also open to other subjects with their own requirements and methods.

☛ Establishes links between the secondary culture set out in the program and the secondary culture of the students.

Teachers who play the role of cultural interpreters for their students establish links between the secondary culture set out in the program and the secondary culture of the students, in order to facilitate the students' quest for meaning.

To do this, teachers must try to understand the connections established by the students with the program's cultural objects. They apply teaching/learning situations that allow the students to become aware of their primary culture and of their prejudices with regard to the cultural objects. They then link this heritage from the students' home environments to social agents (family, media, advertising, leisure, etc.) and to the acculturation process, in order to identify continuities and ruptures in the meanings proposed by the subject-specific content, thus clarifying their understanding of the students' relationship with that content. This enables them to estimate the types of bridges required to ensure that the program content broadens the students' existing points of reference. By considering the "other"–in this case, the students–teachers are able to address teaching and learning from a cultural standpoint.

Instead of adopting pedagogy focused exclusively on the students' needs and closed off to the surrounding world, teachers must listen to their students in order to find points of entry from which to build bridges to the program's cultural content. They identify issues or human challenges in the students' remarks and questions concerning their everyday lives. They transform these questions into springboards or pretexts, initiating searches for information, other points of view or other subject-specific or social measures that will

provide answers. They link the students' remarks to works from the scientific and cultural heritage by encouraging exploration of the social and historical origins, features, language, codes, methods and viewpoints that these works have passed on to subsequent generations.

As proposed by Zakhartchouk (1999), cultural mediation by teachers is essential in allowing students to attach everyday objects to the themes, texts and products of the scientific and cultural heritage. This type of mediation is then combined with attentive listening and shrewdness, cunning or even diversion of the students' remarks to identify challenges that push them towards a search for reference elements in the social space. By encouraging the students to step back from their culture of origin and from everyday cultural consumer objects, teachers are able to highlight common points and elements shared with the subject-specific work or social practices proposed in the program.

Cultural mediation by the teacher, in a dynamic balance between rupture and continuity, ensures that languages and codes regarded by the students as unfamiliar or even difficult and worrisome are made accessible and meaningful. Teachers must bear in mind what the students "already know", and must also use everyday practices (leisure, consumption, health, media consultation, etc.) and the products (objects, texts, interpersonal relations) that they engender to anchor, motivate and direct the students to learn new languages and codes, thus transforming those practices into learning goals and new applications.

The students can also be given access to unfamiliar elements by identifying and critically analyzing the economic, historical and social aspects of the media and consumer products they use. The origins of certain programs, characters and popular games, their themes, production issues and history, manufacturing technologies, the extent of and reasons for their popularity and their marketing parameters all offer an interesting basis for a study of the evolution of cultural productions and the social contexts in which they exist, from different subject-specific standpoints.

☛ Transforms the classroom into a cultural base open to a range of different viewpoints within a common space.

Teachers work with their students to build a "classroom culture", common reference points, an identity, values, means and communication methods that are shared and valued by all students. To do this, they encourage the students to express and listen to their points of view and sources, and help them establish a common understanding. When this occurs, the teacher identifies the sources of misunderstanding or conflict and considers their meaning and individual and collective scope (inside and outside the classroom) with the students. Teachers could, for example, invite students to describe situations from different standpoints, or put themselves in the shoes of other students. They can then help the students to highlight their differences and understand the contribution those differences make to the quality of learning and classroom life. They link these discussions to social situations in which different individual contributions lead to understanding, pleasure, discovery and achievement.

Teachers must also maintain a critical attitude to everyday "facts". This means considering them from other standpoints, encouraging the students to critique them,

working with the students to find ways of addressing questions raised during discussions and defining the limitations and potential of the available knowledge.

☛ Casts a critical look at his or her own origins, cultural practices and social role.

Cultured teachers are aware of their origins and progress, and of the influences that have shaped their identity and cultural practices. They assume their own culture and recognize both its potential and its limitations. They critically examine their own cultural practices and take action to enrich and diversify them. This "stepping back" from themselves and their own acculturation makes them aware not only of differences among their students, but also of the many influences that have shaped them.

The teacher's role is not limited to didactical and pedagogical learning-related issues. As social players, teachers are also core elements in certain social, political, economic and organizational issues that have an impact on their classes and affect both their role as teachers and their behaviour towards the students. The decisions they make on a daily basis are not just educational in nature; they also have a social, political and economic meaning. It is for this reason that teachers cannot play their role properly unless they think about these aspects of what they do. They must establish a relationship between ideas, pedagogical forms and cultural history, and between social procedures for instruction, education and socialization. They identify ideologies in past and present educational forms, and consider the relationship these ideologies have with the structural elements of society.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

By the end of his or her initial training, the student teacher should be able to:
✔ *Understand the subject-specific and program-specific knowledge to be taught, so as to be able to promote the creation of meaningful links by the students;*
✔ *Exhibit a critical understanding of his or her cultural development and be aware of its potential and limitations;*
✔ *Exhibit a critical understanding of the knowledge to be taught, so as to be able to promote the creation of meaningful links by the students;*
✔ *Establish links with the students' culture in the proposed learning activities.*

COMPETENCY N° 2

COMPETENCY STATEMENT
To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.

MEANING

While the family is an essential source of elementary oral language skills, schools have an important role to play by introducing students to written language and teaching standardized oral language (Lebrun and Préfontaine 1999). In the complex modern world, the level of skill acquired in the family context is clearly insufficient for individuals to obtain employment or integrate into society. The language of instruction must therefore be the main focus in schools, where it must be learned and perfected (Task Force on Curriculum Reform 1997).

However, the need to learn language goes well beyond simple social and economic considerations, because language is basically an object of and dependent on culture. Indeed, "undoubtedly because we communicate better by mastering it well, but first and foremost because the mother tongue (or language of instruction) is not just a means of communication, it is also a heritage that keeps us up to date. We learn it so as to be able to communicate, of course, but we learn it mostly so that we can become aware of ourselves as individuals and attain, if not literary creation, at least personal thinking, itself a form of expression of freedom" (Task Force on Curriculum Reform 1997:48; our translation). This position is similar to that expressed by the Conseil supérieur de l'éducation (1987), which viewed language not only as an instrument of communication but also as an important introduction to culture and a key to the principal fields of knowledge. In this respect, language is the best possible vehicle for entering into contact with the world, with others, and with oneself.

Thus, all teaching staff, not just those for whom language is a specialty area, play a central role in improving the quality of the students' written and spoken language. The requirement to speak and write correctly is therefore applicable to all teachers, not just specialists in the language of instruction, because "all elementary and secondary teachers are, in their own way, language teachers" (Lebrun and Préfontaine 1999: 67; our translation). All future teachers must therefore be able to express themselves well both orally and in writing (Ouellon and Dolbec 1999).

What does "expressing oneself well" actually entail? Ouellon and Dolbec (1999: 6; our translation) note that "good quality language is language that gives access to all facets of knowledge and to the broadest possible range of communication opportunities, a language that allows individuals to express their thoughts clearly and add shades of meaning, both orally and in writing." Opinions are very divided on this subject, ranging

from the most intransigent form of purism to laxism and misuse (Simard 1990). Ouellon and Dolbec (1999) agree with the middle road taken by Simard (1990), who defined good quality language as language that allows individuals to communicate easily, both orally and in writing, with other people speaking the same language, and that is marked by the linguistic characteristics specific to given societies. Such characteristics are exhibited mainly as differences in pronunciation and vocabulary (Moreau 1999).

It is also useful to go beyond the requirement for quality that may be valued by a linguistic community, in order to situate the requirement for linguistic competency within the inherent characteristics of a teacher's work. Teachers are expected to use language professionally. Indeed, they are first and foremost models and references for their students (Lebrun and Préfontaine 1999). In their spoken language, they must be able to distinguish between the familiar register and the correct register, and be able to move easily between standard spoken language and standard written language, to support the students in their learning. They have the extremely delicate task of evaluating and correcting the language of their students without putting them down or stigmatizing them (Brent 1999). "Rather than limiting themselves to the say/don't say model, why do teachers not take advantage of what their students already know to help them achieve informed mastery of linguistic variations and realize just how powerful the tool of language really is?" (Verreault 1999: 36; our translation). Teachers must also be able to use the right terms, provide easy-to-understand explanations, ask clear questions and give precise instructions to their students, in both the course content and in their classroom activities. A number of authors have noted that the most effective teachers use language economically and functionally, in that they are able to communicate their thinking in a prompt, clear and understandable way to their students (Gauthier *et al.* 1997). It should be remembered that, for a teacher, the term "professional use of language" does not involve the same level of mastery as for a language professional such as a writer, linguist or grammarian. The teacher's linguistic competency need not be of the same level as that of a specialist, but it must be greater than that of the ordinary citizen and include specific usages distinguishing it from that of other professions. Introducing youngsters to language and culture is a specialized task unique to the work of teachers.

FEATURES

☛ Uses appropriate language when speaking to students, parents and peers.

While teachers must consider the spoken language of their students, they are not members of the students' social group. As adults mandated by society to instruct and educate students, teachers are not expected to speak in the same way as their students, even if they are aware of their linguistic variation. On the contrary, if teachers accept the presence of a kind of code in the language of their students, through which the students achieve self-recognition, they should "raise student awareness of the fact that the perfectly normal words (they use) can be criticized, and if they use those words in official contexts, they may be judged negatively by some people" (Verreault 1999: 36; our translation). However, it is important not to take up a position in favour of language quality at the expense of variety: "(such a position) should take into account the distinction between natural language use and the ability to adjust linguistically to different communication situations" (Ouellon and Dolbec 1999: 18; our translation).

Generally speaking, individuals tend to express themselves more correctly in official situations (Ostiguy and Tousignant 1993). It is for this reason that the oral and written communications of teachers at school must correspond to what might reasonably be expected of a body of teaching professionals. Similarly, while some more educated people (such as teachers) can use more popular or familiar language in unofficial communication contexts, or among themselves, they must nevertheless be capable of using more cultivated language, not belonging to the general range of language, in their professional context (Verreault 1999).

☛ Observes rules of grammar and stylistics when writing texts intended for students, parents or peers.

As pointed out by Ouellon and Dolbec (1999), teachers must not only have a theoretical knowledge of the rules of written language, but should also put those rules into practice whenever they write texts. Here, they play an important role as models for their students, and not just when they correct assignments. Texts written for parents also provide visible evidence of linguistic proficiency, and many parents, with good reason, are particularly sensitive to this aspect.

Language teachers are not the only ones to be affected by language quality. Quality is the responsibility of every teacher, regardless of the subject matter taught. The school team must make a concerted effort to ensure that the language of instruction is a constant concern for all students.

☛ Is able to take up a position, support his or her ideas and argue his or her subject matter in a consistent, effective, constructive and respectful way during discussions.

The current reform allows teachers and the school team much more freedom in making pedagogical choices. Teachers will be asked to explain and justify the actions they take in their classrooms and in the school. They must be able to argue the meaning and relevance of their choices with students, other teachers, school management, parents and partners in school projects and student services. As a result, they must have access to a number of language resources, including the ability to build and structure a detailed description of their practices and foundations; the ability to explain their practices in clear and precise language, taking into consideration the characteristics of their interlocutors; the ability to highlight the values and aims on which their practices are based by showing how they are expressed in classroom activities and the effects they generate; and lastly, the ability to use notions and arguments drawn from professional literature, along with research data, to support their choices (see Competency 3). In discussions, teachers must also be vigilant, detecting common expressions and terms whose meaning may vary according to the experience and origins of group members. They must ensure that such differences are brought to light and that the group develops common meanings and reference points.

☛ Communicates ideas concisely using precise vocabulary and correct syntax.

According to Ouellon and Dolbec (1999:18), teachers must acquire a more extensive vocabulary and a more varied syntax so as "to be able to satisfy a wider range of needs and communication situations" (our translation). This is all the more important if we consider the diversity of school resources in a context where, for many students, the language of instruction is not their mother tongue.

In teaching, certain terms must also be used accurately. If teachers use imprecise or inappropriate terms, they may cause their students to misunderstand certain elements. They can also do much to facilitate learning by using concepts, metaphors, examples and analogies in a relevant way. Shulman (1987) emphasized this point by popularizing the concept of pedagogical knowledge of the subject matter, a term that refers to the teacher's ability to use language accurately in order to help the students to learn.

☛ Corrects the mistakes students make when speaking and writing.

All teachers must pay attention to the quality of their students' written and spoken language. However, they must demonstrate judgment in this respect. As pointed out by Brent (1999: 125), Québec's teachers face a dilemma: should they apply a pedagogical language standard based on that of the middle or upper classes–a standard that is defined elsewhere and is too far removed from regular language use in Québec, or should they opt for a pedagogical standard based on popular language use in Québec? According to Brent, a middle line between these two extremes would be more acceptable. It is important to remember that students also face a dilemma in terms of linguistic standards, as they are forced to choose between the language used in their home environment and by their peers, and the language that represents the school's official and often puristically-oriented linguistic variety. Brent (1999) states that when teachers negatively evaluate their students' speaking and writing abilities, they may trigger or enhance the linguistic and perhaps even the cognitive insecurity of the students in question, and he suggests that this may be a factor in Québec's high drop-out rates. Thus, while it is important to correct the mistakes students make when writing or speaking, teachers must exercise their judgment in this respect.

At the same time–and this applies to all the elements relating to this competency–language teachers cannot be held entirely responsible for ensuring that the students' language quality improves. This is a responsibility that is incumbent on the school as a whole.

☛ Constantly strives to improve his or her own oral and written language skills.

Reading quality texts can help teachers to discover a wealth of examples that they can use in their teaching. There are also many reference works available, including grammar books and dictionaries, that are essential resources for teachers. However, to be able to refer to these tools and use them appropriately, teachers must have an adequate basic mastery of their language. They may have forgotten a rule or exception, and can use these tools to avoid making mistakes that will be propagated by their students. However, if they do not have a good basic knowledge, they will not know they are making a mistake.

Consequently, teachers must be well enough versed in their language to be able to use these resources properly. Even so, acquiring linguistic competency is an ongoing task that can never be considered complete.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

While linguistic competency is an important element in many professions, it is vital for teachers. Indeed, teachers, regardless of the subjects they teach, use language in all their activities in order to help their students learn. They are constantly on display as models for their students. Even newly qualified teachers should therefore demonstrate good quality written and spoken language.

At the end of his or her initial training, the student teacher should be able to:
✔ *Master the rules of oral and written expression so as to be understood by the linguistic community;*
✔ *Express himself or herself with the ease, precision, efficiency and accuracy expected by society of a teaching professional.*

COMPETENCY N° 3

COMPETENCY STATEMENT
To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.

MEANING

The learning conveyed in a program of study needs to be designed from a socioconstructivist perspective in which the student is the main player in the learning process. The curriculum reform, by making student learning the focus of the act of teaching, "reasserts the most essential elements of the profession, strengthening and supporting them" (Bisaillon 1994: 13; our translation). Designing teaching/learning situations is one of the most fundamental of these elements.

Designing means creating meaningful, open situations that allow the students to progress towards mastery of the end-of-cycle competencies and of complex learning spread over more than one year. The competency-based approach focuses on the process leading to learning, integration of learning and the development of complex intellectual abilities. Unlike more traditional situations where the teacher is the most active participant in dealing with the learning objects, this type of approach requires the use of meaningful, open learning situations where students are involved in processes that call on their prior representations and learning, illustrate the limits of that learning, and force them to manipulate and master new information in order to identify and solve a problem, perform a task, produce a result or carry out a project. The planning process should focus on the ultimate goal of mastering competencies. As pointed out by Jonnaert and Vander Borght (1999: 49), "Competency and situation are inseparable: a competency is always dependent on the situation it helps solve" (our translation).

In this type of approach, the goal of the pedagogical team in planning lessons is to achieve an inventive, collaborative form of practice based on a different logic than ordered learning for mastery of out-of-context knowledge or fragmented objectives (Gather-Thurler 2000; Tardif 2000). In many respects, such a practice requires the implementation of new relationships with the different types of knowledge (including university-level knowledge, subject-specific program content and the students' own preexisting knowledge and representations) involved in teaching/learning situations. It is by developing these different relationships with knowledge that teachers are able to implement the cultural approach to teaching that underlies the reform. The cultural approach involves the players (students and teachers) in exchanges of ideas drawn from the different cultural heritages they represent, leading to the emergence of new relationships with the self, with others and with the world. Teachers, aware of their position as inheritors, interpreters and critics of the legacy from their own primary and secondary cultures, must, when thinking about learning situations that are meaningful for the students, consider the

relationships with knowledge that the students have previously developed through family socialization and prior educational activities. The creation of learning situations that are relevant for a given group of students therefore triggers a whole new dynamic, "a veritable maelstrom of knowledge and information" (Jonnaert and Vander Borght 1999: 122; our translation).

A dual review of relationships with university-level knowledge

The first review of the relationship with university-level knowledge deals with the links to epistemology and subject genesis. Initial and continuous teacher training has rarely been designed to include good epistemological training. This is somewhat surprising, given the extent and complexity of research into the thinking processes and content of teachers (Gauthier, Desbiens, Malo, Martineau and Simard 1997; Raymond 1993; Elbaz 1991, 1983; Clark and Peterson 1986). Although thought to be essential in teacher training, university-level knowledge has long been considered a set of truths independent of the academic and social contexts from which they emerged (Tom 1997, 1992).

A cultural approach to education involves, among other things, an understanding of the secondary cultures of subjects, and especially of their creation[1], the elements of their view of the world, and the processes used to construct an interpretation, whether artistic, literary, mathematical or scientific. Decoding the heritage of a subject-specific culture goes beyond simply knowing about its concepts, notions and central principles. It requires an understanding of the epistemological postulates and methodological rules underlying its world view. Such an understanding allows individuals to establish a critical distance from knowledge–a distance that is needed to appreciate the potential, limitations and temporary, ever-changing nature of that knowledge. By relativizing contents, contexts and university-level knowledge construction methods, teachers are able to build a freer relationship with the field's experts. This new relationship allows them to ask questions, exercise judgment and think up new ways for students to apply expertise in learning tasks requiring the use of "scientific" knowledge.

The second review of the relationship with university-level knowledge concerns the link between that knowledge and the program's subject-specific content. The very nature of the term "subject-specific content"[2] suggests that such content is drawn mainly from scientific fields or university-level knowledge built by specialists in the field. However, when preparing a program, university-level knowledge must be selected, reconstructed, reformulated and reorganized according to the school's socially-assigned purposes. In addition, programs always include knowledge drawn not from scientified fields but from "social reference practices" (Jonnaert and Vander Borght 1999; Fourez 1998; Fourez, Englebert-Lecompte and Mathy 1997; Caillot 1996; Lenoir 1993; Martinand 1986), as well as knowledge drawn from the school itself (Lenoir and Hasni, to be published) and considered important by the program designers.

1. Fourez (1998: 35; our translation): "The paradigm of a discipline is a set of presuppositions and standards, which make it possible to construct representations of the world as the discipline sees it. The knowledge produced is therefore standardized. The paradigm of a discipline–and hence its view of the world–are the result of a historical invention, a stabilization and an institutionalization of certain approaches … The birth of a paradigm can be analyzed as an event of history."
2. Ministère de l'Éducation (2000: 6; our translation) "Subject-specific content includes the data, notions, facts, concepts, rules, laws, strategies and principles specific to each subject. The elements of subject-specific content are presented by category and are selected on the basis of the competencies, capacities and skills the students must develop."

Another aspect of the cultural approach lies in an understanding and appreciation of the distinctions between scientific discipline and school subject, or between university-level knowledge and school-level knowledge, along with their complex interrelationships (Jonnaert and Vander Borght 1999; Fourez 1998; Fourez, Englebert-Lecompte and Mathy 1997; Lenoir 1993; Lenoir and Hasni, to be published[3]). This distinction is necessary to be able to situate the nature of the program's subject-specific content; resources must be developed and applied in order to develop competencies. After the Estates General on Education, such resources came to be regarded as essential, based on an analysis of social practices, educational traditions and debates on the type of educated, cultured individuals that schools should produce (Ministère de l'Éducation 1997).

A review of relationships with subject-specific knowledge in the program

Subject-specific knowledge is no longer selected for its own qualities, but for its links with other types of knowledge. It helps the students to develop and exercise competencies that become resources to be acquired and applied in solving significant problems in their personal and social lives. This vision of subject-specific program content calls into question a form of instruction "focused on memorization of specific knowledge without regard for the situation in which it might be applied" (Legendre 2000: 2). Teachers whose goal is to develop competencies among their students will look at subject-specific program content from a completely different standpoint. They will ask themselves if that content could be reapplied in other educational situations and in the students' lives outside school. If so, they will identify such situations and consider the role and contribution of the subject-specific knowledge. For example, will it serve as a basis for decisions? Will it represent a phenomenon or object? Could it be used to communicate with different audiences? Could it be used to consult experts? Will it give access to new resources? Will it allow the students to take part in debates at school, in the community or in society? Can it be used to design and produce texts? Will it serve to bring the students closer to individuals or groups with which they are not familiar? Will it help dilute their prejudices? Or, on the contrary, will it simply become inert knowledge once the performance measure has been applied? Even before a bridge is constructed between the content and the students, teachers must reinterpret the subject-specific knowledge and link it to situations both inside and outside the school in which it can be reapplied.

A review of the relationship with the students' preexisting knowledge

As stated by Legendre (2000: 1; our translation), "the notion of competency is not, in itself, socio-constructivist or cognitivist." Indeed, this notion has given rise to several technicist derivatives reminiscent of programs that were designed on the basis of fragmented learning objectives that had no meaning for students and could not be transposed into situations in their personal lives or subsequent academic lives. A combination of the competency-based approach and a student-focused conception of learning means that the conceptions and characteristics of the students themselves must

3. The analysis by Lenoir and Hasni (to be published) highlights four conceptions of the relationship between school subject and scientific discipline. First, "a school subject is an extension of the original scientific discipline, or at the very least it results directly from that discipline" (p.11, our translation). Second, the school subject is regarded as a product and a social issue; in this case, "society–or a segment of it–defines the nature and content of school subjects" (p. 14, our translation). Third, the school subject is defined as a historical product of the school: "a school subject" (the authors cite school grammar and the historical characters encountered at school) is "the result of a production by the school" (p.16, our translation). Fourth, a school subject emerges "from interactions between society, the school and scientific information" (p.18, our translation). Such relationships are considered in the curriculum development process, a process to which very few teachers have direct or indirect access, even though it determines a large part of the orientation and organization of their work.

be considered when designing teaching/learning situations. Teachers clarify their understanding of the relationships the students maintain with the course content. Do they have conceptions related to the content? Have they been brought into contact with the learning situations or objects? What type or what method of understanding did they develop as a result? How does this comprehension differ from the features of the knowledge to be acquired? In carrying out this assessment of the legacy of the students' primary culture, teachers must also develop an understanding of their own primary culture and, in particular, the methods used to assimilate the profession and the position of the students that marked their own socialization. A critical reading of their own primary culture and educational socialization will enable them to understand its limitations and assess the distance separating them from the students and the students' representations and practices with regard to the learning objects. To identify common ground and create learning situations, teachers must not only measure the distance between preexisting knowledge and program knowledge, but also understand the complexity of the steps and processes involved in developing competencies.

The large number of possible relationships with dynamic, constantly shifting knowledge clearly shows the strong didactic component of this competency (Jonnaert and Vander Borght 1999; Perrenoud 1999). In creating learning situations, the pedagogical team is constantly faced with the question of meaning: the meaning of a competency, the meaning of the program's subject-specific content in competency development, the relationships between program content, university-level knowledge and relevant social practices, the students' preexisting significations that may be meaningful for the students in the learning process, in their relationships with one another and with the teacher, and later, in the situations in which the subject-specific content will be applied. Instead of relegating the subject-specific content to the background, as some authors have suggested, the creation of meaningful teaching/learning situations involves identifying the origins and role of the content, situating it in relation to other information, and reinterpreting it according to the students being taught.

FEATURES

- ☛ Bases the selection and content of teaching sequences on data drawn from recent didactical and pedagogical research.

While teachers cannot be held responsible for their students' learning, given the number of other people involved, they are responsible for the methods they use to instruct and educate those students (see Competency 12). They must therefore be able to show that they have used the best methods for the context. To do this, they must refer to educational research data. In the last twenty years, didactical and pedagogical researchers have developed a base of professional knowledge for teachers that includes fundamental concepts (e.g. the notions of educational motivation, cognitive and metacognitive strategies, representation, epistemological obstacles and didactic transposition) and identifies potentially useful practices and effective actions (Jonnaert and Vander Borght 1999; Gauthier et al. 1997; Reynolds 1989). Teachers can work with the teaching team to update their knowledge of these concepts and practices, and then select and adapt those that are relevant to the context.

- ☛ Selects and interprets subject-specific knowledge in terms of the aims, competencies and subject content specified in the programs of study.

This feature of the competency applies first and foremost to the planning of a student learning cycle. The teaching team identifies the competencies to be developed by the students during the cycle, together with the subject-specific content to be acquired and applied in building those competencies. It then examines the contribution of university-level knowledge to the understanding of the program content, establishing links between the fields of knowledge, cross-curricular competencies and sectors of life experience in which the competencies will be situated. It follows the learning progress made by students within the cycle, and helps develop proposals for the application of the program organization, adaptations to the program and time spent per subject. These proposals are discussed and then approved by the governing board.

It then applies to the planning of a learning situation. Teachers analyze the subject-specific content, making sure they understand its meaning as well as its origins and ramifications, so that they can situate it in relation to the notions, concepts, principles and methods of a given field of knowledge. As explained by Fourez (1998: 37; our translation): it is a matter of "distinguishing between the development of an island of rationality concerning a situation (the theoretical time at which knowledge is built and the answer to the question: What is it about?) and the action project (the time for action and practice)." In the process of creating a learning situation, it is therefore relevant to consider the subject-specific content in depth, in order to understand its meaning, scope and links to other knowledge, and in particular its links to subject-specific cultures or visions or even codified social practices[4].

4. As pointed out by Vander Borght (1996: 265-266; our translation) for science teaching, this leads teachers to realize that the words selected to describe knowledge in programs of study and subsequently in the classroom actually convey ideologies: "A representation of the sciences that is still widespread today and that appears in programs of study is one that we can describe as empiricist. < It considers that scientific theories are the product of a quasi-algorithmic method of observation-hypothesis-experimentation-verification-law (Bernard 1865), operating in a vacuum, which must be applied cyclically to everything around us in order for us to learn more things. It means that the research activity becomes an operation of discovery without risk of a reality in itself. (Mathy and Fourez 1990). > […] Students may thus believe that a 'scientific' reading of the world will allow them to understand the world in its globality and in its entirety … Another representation of the sciences, described as constructivist < refocuses the debate on the theory building process permitting scientists to instil order locally in a field (Mathy and Fourez 1990) > and links theory building to human projects. Where the empiricists said: < this is how the world is >, the constructivists would tend to say: < in a situation such as this, we feel it would be interesting to represent the world like this >. […]. There is not just one single scientific discourse, but several possible discourses, all linked to the teaching of the sciences. An empiricist view of science could suggest that the job of the scientist is to identify < the nature of things as they are >. A person with a knowledge of < all things scientific > , i.e. an expert, would have the power of knowledge over a person with no such equivalent knowledge. Accordingly, any discussion with the experts would be difficult … Students educated using a constructivist view of science could gain a better understanding and establish their distance from expert opinions–in other words, they would learn how to < use the experts properly >."

- ☛ Plans teaching and evaluation sequences taking into account the logic of the content to be taught and the development of learning.

Teachers work with the members of the teaching team to establish the order in which the content will be addressed, to ensure that learning situations incorporate previous learning that is required to carry out a project, address a problem or begin a task, and prepare students for subsequent learning situations. There is no one best sequence–it depends on the field of learning, the interlocking and ranking of notions and contents, and the elements the students themselves bring to a learning situation (see Competency 3). Moreover, the approach taken (problem situation, cultural production, technical task, research or project) may sometimes result in changes to the initial sequence if there is a need to address content required specifically for the task at hand but not included in the original plan.

Planning also includes evaluation mechanisms. The teaching team designs the features of situations and the criteria that will be used to ensure that the learning has been acquired at the end of the cycle. It also establishes the points during the cycle at which the students' learning will be tested so that both the school and the parents can be informed of the progress made.

For formative evaluation, the teachers build their learning situations to include items, steps and strategies that provide feedback (from the situation itself, from other students or from the teacher) for the student on his or her progress, allowing adjustments to be made where necessary. The data are used to review the activities and define the types of resources used and developed by the students. The teachers shape their subsequent activities on the basis of these results.

- ☛ Takes into account the prerequisites, representations, social differences (i.e. gender, ethnic origin, socioeconomic and cultural differences), needs and special interests of the students when developing teaching/learning situations.

If program proposals are to be transformed into learning objects and situations, they must be interpreted according to the stock of knowledge conveyed by the student, and sometimes by the school, with regard to that learning. Jonnaert and Vander Borght (1999: 104; our translation) wrote that "the teacher must experience an epistemological rupture from the reference knowledge and from his or her own information on that knowledge, to be able to take into account the students' conceptions and their theories regarding that knowledge." However, it is not a question of testing what the students already know through prerequisites or questions to the class on previous lessons. Taking into account the students' conceptions and theories means being aware that their experiences inside and outside the school may have caused them to construct their own conceptions and explanations relating to the course content and situations, and also to various aspects of the world (consideration of their relationship with the world). By exploring the students' representations, teachers are able to develop a pedagogical knowledge of the subject matter (Shulman 1987, 1986), in other words to anticipate the paths, challenges and learning tasks required to guide the students towards a richer and more complex understanding of the tools and knowledge within the field of learning.

In most cases, students will not, if questioned, automatically deliver their ideas on a learning object. Teachers must create situations that will allow them to observe and explore the students' conceptions. The path required to construct more complex knowledge will emerge from an exploration of how the students address particular tasks and explain what they do. This *in situ* exploration shows the concrete, dynamic aspect of this feature of the competency, anchored in the students' own situation. Teachers must also remember that students' conceptions will vary, and should ensure that they act not only to update those differences, but also, through comparison, to initiate a destabilization that will be followed by a sequence of measured, structured challenges. They must try to shake the viability of the students' conceptions, placing the students in situations where those conceptions no longer apply, where they are overcome by the phenomena that occur or by the elements the students observe. In doing this, teachers play the role of mediator between the students' conceptions and the knowledge to be taught, triggering and supporting the learning processes required to satisfy the demands of the situations created (Jonnaert and Vander Borght 1999).

The stock of knowledge conveyed by the students also includes the provisions and values received from their family environment and social roots. This stock conditions their motivation, how they address learning situations, the effort and persistence they are willing to invest, as well as the type of stimulation and organization of information to which they react. Teachers prepare a range of *cultural mediation strategies* that build *bridges* between students, between teacher and students, and between students and learning objects, "while refusing demagogy to please or the confusion of values" (Zakhartchouk 1999: 118; our translation). In terms of communication, teachers must ensure that the legibility of written messages, the formulations of concepts and instructions, and the conditions in which information and ideas are received and exchanged in the classroom, serve as indicators to the students that they have access to the educational discourse. To do this, teachers must look critically at the textbooks, exercise notebooks and other written material used, so as to identify features (presentation style, terms used, resources proposed, etc.) that might exclude certain students. They then prepare methods of addressing unfamiliar elements gradually, based on what the students already know. They identify the most eloquent expressions of the students' proclivities. They try to identify where their interests, opinions and preferences come from, seeking levers that can be activated to trigger their curiosity, raise questions, initiate research, encourage the production or testing of different explanations or identify the consequences of different individual and collective attitudes. In other words, teachers must combine pedagogical cunning and seduction, "using commercialism as a paradoxical cultural stimulant" (Zakhartchouk 1999: 118; our translation), to divert the students' intentions towards an exploration of cultural objects from the collective heritage.

☛ Selects diverse instructional approaches that are suited to the development of the competencies targeted in the programs of study.

The competencies targeted in the programs of study vary tremendously. In addition to the subject-specific competencies associated with the five fields of learning, there are also "competencies of an intellectual, methodological, personal and social nature, as well as competencies related to communication that target the development of the whole person and act as a springboard for the reapplication of learning in many other situations"

(Ministère de l'Éducation 2000: 13; our translation). The goal of reapplying classroom learning, which teachers use as a guide when selecting and structuring learning contents, is also a core element in the selection of instructional approaches. By considering the list of cross-curricular competencies and aspects of life in which classroom learning will be reapplied, teachers are able to construct a number of situations in which the content to be taught is used for different purposes–for example, to exploit information, solve problems, exercise critical thinking or apply creative thinking. By anchoring their search for approaches in aspects of life experience (Ministère de l'Éducation 2000) relevant to their students, teachers broaden their repertoire of approaches and consolidate the depth and extent of the students' learning. They encourage and supervise projects that the students can continue outside school, with people and resources available in the community. As much as possible, teachers should call on resource people with professional or other employment, who apply the knowledge and attitudes they want their students to learn. Where it is essential for the students to learn a specific code, symbol, term or procedure, and where that learning requires exercises, memorization or rote learning, teachers must diversify the issues, methods of presentation and context for such exercises, for example by transforming them into challenges or tests appropriate to the age and characteristics of the students.

☛ Anticipates obstacles to learning posed by the content to be taught.

In many disciplines, the notion of obstacle to learning is inseparable from the need to consider the students' conceptions when planning learning situations. Where teachers adapt their objectives to their students' conceptions of the objects to be learned, they identify elements that will become obstacles to new learning. Here, the term "obstacle" should not be construed as meaning an element present in the student that must be removed, corrected or destroyed. It is the starting block at the beginning of the learning situation. It is unavoidable. Teachers transform their aims into objective-obstacles (Martinand 1986), in other words into obstacles that the students will overcome to obtain access to certain knowledge. By identifying obstacles, teachers are able to review the features of the course content and its relations with other notions, and then simplify the steps and constraints to be introduced into the learning situations. At the same time, they must plan interventions that will encourage the students to compare and evaluate their knowledge at different stages of the task or project. Such interventions, aimed at the students' metacognitive competencies, change the meaning assigned to mistakes in the learning process: "Teachers pay attention to mistakes, accept them as a worthy step in the effort to understand, give the learner the means of becoming aware of them, of identifying their source, and of overcoming them (Perrenoud 1999: 34; our translation).

☛ Plans learning situations that provide opportunities to apply competencies in different contexts.

In a program directed towards the mastery of competencies, the conditions in which those competencies are acquired must resemble the conditions in which they are used (Legendre 2000). In planning learning situations, teachers must link the target competencies to different situations in everyday and professional life, and identify contexts or practices in which they can be applied. They identify the cognitive and metacognitive steps and strategies that are required on a regular basis (e.g. research and

evaluation of data) and design complex tasks in which those steps can be implemented in different ways. They prepare situations in which the students can trace, identify, apply and adapt their learning to suit different tasks. They explain how information and other resources can be used in different situations, and organize ways for the students to test, observe and discuss them.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

Where instruction is directed towards the acquisition of competencies, the wealth and complexity of the relationships to be established with the knowledge means, first and foremost, that student teachers will experience a veritable epistemological rupture during their initial training (Jonnaert and Vander Borght 1999), especially with regard to the university-level knowledge transmitted as part of that training. It is not a question of excluding that knowledge, but of learning to direct its contribution with a view to ensuring the acquisition of competencies (intellectual, methodological, personal and social) by anchoring that knowledge in aspects of modern life. Basically, new teachers must learn how to place the students' relationship with knowledge at the centre of their concerns, and to develop a complex, critical understanding of program building and program consistency.

By the end of his or her initial training, the student teacher should be able to:
✔ *Develop appropriate and varied teaching/learning situations involving a reasonable level of complexity that enable students to progress in the development of their competencies;*
✔ *Build these activities into a long-term plan.*

COMPETENCY N° 4

COMPETENCY STATEMENT
To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.

MEANING

The program of study describes the teacher's role as that of mediator between the student and the knowledge taught, based on a socio-constructivist and constructivist approach to learning: "Teachers must first stimulate, motivate and demand the best of their students, and second, guide and encourage them throughout the learning process" (Ministère de l'Éducation 2000: 6; our translation). When viewed through the prism of classroom ecology (*a fortiori* the school cycle) and the program aims, especially harmonization of learning with competencies and inclusion of the cultural dimension, teachers clearly need a keen understanding of the goals pursued and a firm control over classroom activities if they are to be able to fulfill this role.

The term "pilot" refers to the ability to establish and maintain a given direction, take calculated risks in the midst of uncertainties and constraints, and map out the students' learning path. It also refers to the teacher's task of giving direction, opening doors, arranging obstacles and reference points, and reorienting or sometimes structuring the steps and detours taken by the students. This competency is certainly not limited to controlling or managing classroom time or resources, but includes the judgment that directs the teacher's attention towards indicators of an imbalance in the students' conceptions–indicators that tell them they should be triggering and organizing learning processes to create new balances.

This competency also allows teachers to "make the classroom a place of culture" (Zakhartchouk 1999: 91; our translation). Teachers help their students to decode their world with new forms of logic which, when used, they measure[5] and map out based on the challenges accessible to them. They show students how to enjoy research, encourage them to ask questions and help them discover the limitations of preconceived answers. They alternate reassurance with questioning, aware that the fact of distancing students from their initial references will generate uncertainty, discomfort and sometimes a different identity. They allow time for students to learn to enjoy the experience of acquiring new competencies before starting the process all over again.

5. With regard to the use of the Internet to bring culture to life in the classroom, Zakhartchouk (1999: 99) cites Joël de Rosnay who regards the teacher's mediating role as that of an "information dietician who builds information into knowledge and knowledge into culture. In other words, into practices that give meaning to what people do in their lives and in their professions. This is the art of tomorrow's teachers: helping navigators of these new waters to integrate knowledge into cultures and cultures into practices. Otherwise, information is just something you click on and therefore useless."

FEATURES

☛ Creates conditions in which students can engage in meaningful problem situations, tasks or projects, based on their cognitive, emotional and social characteristics.

This feature is divided into three separate components. **On the cognitive level**, teachers present situations that trigger an imbalance–in other words, situations that the students cannot address or solve directly. Such situations will include one or more obstacles that will only be removed if they carry out certain tasks or operations (Jonnaert and Vander Borght 1999). Teachers help their students to reactivate their knowledge and competencies, consolidating them if necessary, by demonstrating their use and limitations. With the students, they build one or more representations of the goal to be achieved or the potential results of the steps to be taken. They help the students to draw up a mental map of the strategies required to carry out a task, solve a problem or complete a project. This "problematization" of the situation makes it comprehensible; it allows it to be formalized, classified, and attached to specific codified knowledge (Winograd and Flores 1989, cited in Le Boterf 1999) or a relevant conceptual framework (Jonnaert and Vander Borght 1999). By ensuring that the problem situation can be reframed, the teacher directs the students towards the relevant information they will need to find or process, and helps them anticipate the results of their actions.

This feature also involves **stimulating the students' motivation to learn**. Teachers trigger student motivation first by helping them construct the meaning of the situations proposed. While a situation may appear devoid of meaning at first, a meaning quickly becomes evident when the teacher is able to analyze it with the students, illustrating its power and wealth in terms of the resources it allows them to master and the reference elements it allows them to share with others. In identifying the elements of the problem situation within a network of concepts under construction, the teacher makes it possible to draw links between the task to be carried out and other everyday situations in which the same concepts will be brought into play. He or she also convinces the students that they will be able to solve the problem, showing them the resources available, reviewing similar procedures used in the past, encouraging them to speak of methods that are familiar to them and rich in information, so that the students feel they are in control of the use of their own knowledge.

The feature also includes an **organizational component**. Teachers establish a framework that includes communication of expectations, task distribution, definition of roles, workplaces and methods of using resources and time.

☛ Provides students with the resources they need to take part in the learning situations.

Learning situations that are rich and open to the world require a range of organized resources, both documentary and, in some cases, human. Teachers combine their teaching material with the resources from everyday life or popular culture, the media or advertising, to trigger unusual mixes and induce culture clashes. They show the students the different sources of consultation for given projects or tasks, and teach them how to obtain relevant data, especially if the tasks involve the use of CD-ROMs, hyperlinks, databases, libraries, music libraries or image and videoclip banks on the Internet (see Competency 8). They identify students whose difficulties with the task are related to the

way the information is formulated or presented, and suggest other possible formulations or paths.

- ☛ Guides students in selecting, interpreting and understanding the information provided in the various resources and in understanding the elements of a problem situation or the requirements of a task or project.

The large amount of data available can hinder the progress of students and make them lose sight of the purpose of what they are doing. Teachers must work with the students to reformulate problem data or project requirements (see Competency 1). They highlight the aspects of the task that require research and the use of information. They help the students to identify the features of important data and, in particular, encourage them to base their work on "the relevance of signs in relation to the objective and the action" (Le Boterf 1999: 164; our translation). They moderate debates among the students on the source and relative value of the data consulted, question unsupported opinions and open the door to verification. They compare effective and ineffective procedures and relate them to the objectives of the activity. They ask the students to explain and justify the data consulted, retained or rejected, while encouraging strategic diversity.

- ☛ Supports student learning by asking questions and providing frequent and relevant feedback to promote the integration and transfer of learning.

In addition to providing feedback designed to help the students adapt their actions, correcting mistakes and adapting their instructional methods (see Competency 5), teachers also work on the thinking processes involved in a learning situation. They help the students to recognize the contexts and conditions in which certain knowledge is used, and to examine families of situations for which that knowledge is appropriate (Legendre 2000). They encourage the students to identify other similar steps, both intellectual and methodological, that they take in other fields of learning or in their everyday lives, and explain their similarities and differences. They use or help identify examples of procedures or competencies that are common to several disciplines or several professional activities, by linking them to the steps the students are currently learning.

- ☛ Encourages teamwork.

The ability to encourage teamwork (i.e. to form subgroups, assign, distribute and supervise tasks, settle conflicts or operational problems, etc.) does not give a complete picture of the meaning of this component. Indeed, the meaning is derived initially from the concept of competency discussed earlier, and from the statement in the program of study for preschool and elementary education: "A competency is based on the effective application and use of a set of resources" (Ministère de l'Éducation 2000: 10; our translation). Such resources are simultaneously those held by an individual and those present or available in that individual's learning or work environment (Le Boterf 1999). From this standpoint, the students in the class are also resource people who can be used in the learning activity. They possess knowledge, experience and skills that can contribute to the progress and efforts of the other students. Teachers share in the "copilot's" task of

conducting activities according to the progress made by the students in their learning[6]. When formulating a situation as a problem and preparing paths to solve it, they help the students to identify, coordinate and distribute tasks and responsibilities fairly, effectively and in a balanced way among the members of the class or group.

The meaning of teamwork is also derived from the reform's socio-constructivist and constructivist orientations. Not only can we suppose that the students will be resources for the class, but we also want them to convey different conceptions of the learning objects or steps required. Thus, far from being solely responsible for shaking the viability of those conceptions, the teacher is able to identify students with different conceptions and then encourage them to compare and justify those conceptions, creating cognitive imbalances that trigger cooperative efforts to seek out, verify or extend the knowledge base. Thus, "teachers will avoid … imposing their own point of view, proposing their own knowledge as the sole reference … Teachers may take a truly critical attitude and systematically question the statements made by different members of the student group … They may also highlight the diversity of views and compare them to the view of students in other groups. In this approach, no student conception has a status that is different from that of the other students. They are all questioned equally." (Jonnaert and Vander Borght 1999: 348; our translation). Cooperative, so-called active pedagogy (i.e. pedagogy that encourages teamwork) also allows for a critical examination of the cultural origins of the students' conceptions, and the subject-specific content.

LEVEL OF MASTERY REQUIRED BY END OF INITIAL TRAINING

By the end of his or her initial training, the student teacher should be able to:
✔ *Guide students, through appropriate interventions, in carrying out learning tasks;*
✔ *Lead the students to work together in cooperation;*
✔ *Detect teaching/learning problems that arise and use the appropriate resources to remedy them.*

6. See the concepts of "devolution" and "counter-devolution" in the field of didactics (Jonnaert and Vander Borght 1999).

COMPETENCY N° 5

COMPETENCY STATEMENT
To evaluate student progress in learning the subject content and mastering the related competencies.

MEANING

In a program of study focused on competency development and based on a socio-constructivist vision, learning evaluation is characterized by its objectives, by its relationship with the learning process, by the means used to interpret the results of summative evaluations, by the methods used and by the underlying values. These characteristics serve as a basis for the definition and functions of learning evaluation proposed in the Evaluation Policy (Ministère de l'Éducation 2000a), and also for preparing the meaning of the related teaching competency.

The program's training targets, i.e. competencies, are complex abilities involving the integration and transfer of learning acquired in a range of situations both inside and outside the classroom. Although the competencies are the objects of the evaluation, they are not directly observable. Acquisition of a competency must be inferred from the student's performance in a number of tasks requiring the exercise of certain aspects of the competency. The student's performance provides information that allows the teacher to construct and support a judgment on the student's progress in developing the competency. In other words, it is not the performance itself that is evaluated. Instead, the performance becomes an indicator that fuels the teacher's judgment of the student's level of mastery of the competency[7]. The relationship of inference between performance and competency constitutes a dual challenge for the teaching team, which must construct evaluation tasks and situations that require the use of the competency's various dimensions and also generate performances that express those dimensions adequately.

Evaluation is now a part of the learning process, and takes place on a daily basis in the many interactions between students and teachers, students and other students, and students and situations. The learning support function overrides the certification function, which is reserved for key times at the end of a set of processes (D'Amour 1996; Aylwin 1995). It involves the students actively, and must be carried out in such a way that the students gradually become independent, able to take charge (with support from the teacher and other students) of the processes that allow them to judge their own performances. Regardless of whether the program's cross-curricular competencies are intellectual, methodological, personal or social in nature, or connected with

7. It is important not to confuse competency and task. According to Aylwin (1995: 25), many program designers say that they establish competency-based programs, when in fact they persist in listing the tasks to be completed by the end of a school term. A competency is a set of knowledge, skills and attitudes that is acquired gradually and forms an entity that is so complex that the performance of a task involving that competency gives only a very partial idea of its acquisition.

communication, students must acquire the ability to evaluate the quality and accuracy of their own work, interactions and activities (Ministère de l'Éducation 2000b).

Summative evaluations are interpreted on the basis of criteria setting out anticipated performance features. Student performances are compared not with those of other students, but with the types of results that are anticipated, known, proven over and over again, and illustrated during the learning process. The teaching or program team devises the evaluation situations and contexts, and describes the aspects of the students' performance, along with the criteria, that will be the focus of the summative evaluation.

The task of evaluating the level of mastery of a competency also involves methods and instruments that reduce the importance of measurement and enhance the importance of observation and judgment on the part of the teacher. Students are placed in situations designed to activate the resources required to implement a competency, while the teacher observes their actions and work, and identifies and retains indicators so as to give feedback, trigger adaptations and support the students' motivation and efforts. If they are to observe students in learning situations, teachers need tools that allow them to describe the features of the students' performances.

Lastly, in exercising all these dimensions, the evaluation competency has a strong ethical component. Teachers must constantly exercise their judgment, decide between what is legitimate and what is not, with regard to both their expectations and the indicators they intend to use as manifestations of the dimensions of a competency (Hadji 1997). They must be aware of their own representations of the competencies they wish the students to develop, and must be able to assess the sources of differences between their own representations and those of the students or their community of origin. Rather than confirming the teacher in a position "superior" to the student being evaluated (Hadji 1997), such differences provide an opportunity for teachers to think about the value of the progress they want the students to make, and the ways in which to achieve it. In measuring the students' capacities, teachers must associate those capacities with their own reflections, negotiating the meaning of the criteria used and illustrating their importance in social or classroom practices of significance to the students.

FEATURES

- ☛ Gathers information as students are engaged in a learning situation in order to identify their strengths and weaknesses and to review and adapt his or her teaching accordingly to help them progress.

Once the students are engaged in a learning situation, teachers observe them and question them in order to see what they are doing, correct any misunderstandings regarding the instructions and ensure that they have correctly selected or interpreted the data they need to carry out the tasks. The students' attention must be directed towards the relevant aspects of the situations or performance, so that they can regulate their actions and plan or revise their steps. Teachers must provide feedback on the cognitive (accuracy of information and cognitive strategies, appropriateness of the metacognitive strategies), emotional (quality of effort, ability to succeed, relationship with learning or school) and social (openness, cooperation, participation) aspects of the performance required by the task or situation at hand. Depending on the students' progress, teachers

then adapt the components of the situation, or review and extend unconsolidated learning that is necessary for the task. They must obtain or ensure that the students have access to self-monitoring learning methods (checklists, correction grids, exercise keys, mutual correction, examples, diagrams, interactive tutorials, etc.) so that they have as much control as possible over their activities (Louis 1999[8]; Tardif 1998; Pôle de l'Est 1996). Lastly, the teachers must document their information sources (diary or logbook, student production files, paper or electronic portfolios, observation grids, checklists, etc.) so that they are able to monitor the students' progress in their learning and projects, and be able to base their judgments on how well the students have mastered the competencies.

☛ Takes stock of the learning acquired by students in order to assess their mastery of the related competencies.

The review of learning takes place at the end of a cycle and addresses the competencies the students were to have acquired during that cycle. Evaluation allows teachers to make decisions on each student's learning path (enrichment or specific support measures) and to inform parents on the progress made towards the acquisition of the end-of-cycle competencies (Ministère de l'Éducation 2000a). The review of learning is unlike other forms of evaluation that take place during the cycle (report cards) and is designed to judge the development of competencies and help the students, parents and teachers involved to select the next step in the learning path.

The teaching team that has supported the student throughout the two-year period at the elementary level is responsible for the end-of-cycle review. To fulfill this responsibility coherently and well, the team members must agree on the final situations that will be used to judge the various aspects of the competencies. The team selects or develops problem situations that reflect the family of problems related to the competency, ensuring that those situations will allow them to judge the knowledge structure, skills and attitudes selected at prior planning stages (see Competency 3) and that are as typical as possible of the significant everyday situations or classroom and social practices experienced by the students[9]. Teachers indicate and describe the criteria on which their judgment will be based, and for each criterion, they establish distinct performance levels (Houle, Ménard and Howe 1998). The results of this process are set out in the form of tools to be used by the evaluators to collect the data on which the learning review will be based. The teachers inform the students of the criteria and performance standards, and provide them with numerous practice opportunities throughout the cycle, so that they fully understand what is required.

The members of the teaching team use the information gathered from student performances during integrative tasks to construct qualified judgments on how well the

8. Louis (1999: 115-116) states that self-monitoring methods must stimulate the student's thinking on and assessment of his or her learning and the processes implemented during that learning … it is not the same as self-assessment or self-marking, which consists in assigning a grade or letter, contrary to the meaning of self-monitoring.
9. Even if it is difficult in the classroom to create the truly authentic situations for evaluation purposes proposed by Wiggins (1989) (Louis 1999; Pôle de l'Est 1996), the teaching team must try to create situations that are as authentic as possible by giving the students problems that incorporate many of the features of a task carried out in a real-world situation–for example, task complexity, time allowed, access to resources, the possibility of interacting with the evaluator or repeating part of the task, knowledge and discussion of performance criteria.

competencies have been acquired. Given the multidimensional aspect of each competency, it is probable that individual students will not have mastered all its features equally. Teachers contribute to the decisions made regarding a student's path in the next learning cycle, and provide their colleagues with information on the aspects of each competency that need to be reviewed.

☛ Designs or uses tools to evaluate student progress and mastery of competencies.

First, teachers base their competency evaluation tools on an understanding of the main differences between the criteria to be fulfilled and those used in traditional evaluation exercises. For example, traditional evaluation emphasizes the accuracy of fragmented, out-of-context knowledge and compliance of the methods used with those taught. When evaluating a competency, teachers must judge how well the student has read the problem situation, how effective the proposed solutions are, whether the student has used his or her knowledge pertinently in the situation, and how well his or her justifications fit in with the cognitive and metacognitive strategies used (Pôle de l'Est 1996). Such differences are reflected in the choice of the tools to be designed or adapted–a choice that automatically eliminates any methods that would amplify learning integration problems: mosaic learning, classified learning, surface learning, difficulties in structuring and communicating thinking, etc. (Bizier 1998).

Teachers support student progress by means of different observation or assessment grids and checklists, the complexity of which varies according to the time and learning objectives (cognitive, emotional and social). They identify observable elements with which they associate descriptive, graphic or numerical scales allowing them to record their observations (Louis 1999). They inform the students of the content of these grids or lists, showing them how to use them to guide their learning, offer feedback to classmates, or examine the work produced from documents seen inside or outside the classroom. They change the elements and scales to reflect the students' reactions, any difficulties encountered by the students in understanding or using the tools, and the contexts in which the tools are applied. They use simple but complete statements to situate the students' performance levels. Occasionally they may use methods that emphasize the handling and memorizing of information or processes, for example when entering a field that requires familiarity with specific terms as a prerequisite for more complex activities.

When evaluating competency acquisition in cooperation with the teaching team, teachers must use methods that allow them to measure the complexity of the student's performance and ensure that learning has been integrated and transferred. Such methods include case studies, projects, integrated situations, simulations, role-playing, laboratories, portfolios and so on. They involve a range of instruments (tests, observation or assessment grids, various productions, commented self-evaluation, etc.) relating to the different aspects of the competency expressed in different contexts. Anticipated performances are placed on a scale ranging from unacceptable to solid, stable mastery of the competency. Teachers involve the students in the competency evaluation process, for example by asking them to select the work that best illustrates the progress made during the cycle, and to make comments using the pre-established performance criteria and thresholds. They then judge the student's ability to identify his or her progress, support an interpretation with elements from his or her file, and undertake the next steps in the competency development process.

☛ Communicates expected outcomes to students and parents and provides feedback on student progress and mastery of competencies using clear, simple language.

The descriptions of the second and third features have shown that the teacher's communication of the evaluation criteria and performance levels is part of an integrated learning evaluation process. Teachers provide their students with numerous opportunities to use self-evaluation methods and express their understanding of the expected outcomes. They provide the students with simple tools (sheets, tables, diagrams, scales) in group activities that rapidly provide information on the progress of group or class projects. They also involve parents in the evaluation process. When communicating with parents, and especially when submitting interim report cards, teachers must give a qualified assessment of the child's progress in acquiring the competencies, emphasizing aspects of the competency that the child has mastered well and those that require further effort from the three partners, i.e. the child, the parents and the teacher. They describe any difficulties encountered by the child by referring to performances observed in different contexts, propose methods by which the parents can help the child, and also invite the parents to propose their own methods at home.

☛ Works with the teaching team to determine the desired stages and rate of progression within the cycle concerned.

In teaching directed towards competency development, the pace and desired progress are established when the teaching team plans the learning cycle (see the first feature of Competency 3).

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

By the end of his or her initial training, the student teacher should be able to:
✔ *Detect the strengths and weaknesses of the students in a learning situation;*
✔ *Identify some of the adjustments required in his or her teaching on his or her own;*
✔ *In cooperation with colleagues, design evaluation materials, interpret the work of students in terms of their mastery of the competencies, and develop tools for communicating with parents;*
✔ *Inform the students of the results of a diagnostic evaluation process and inform parents and members of the teaching team of the corrective intervention strategy elements envisaged.*

COMPETENCY N° 6

COMPETENCY STATEMENT
To plan, organize and supervise a class in such a way as to promote students' learning and social development.

MEANING

Planning, organizing and supervising a class, often referred to by the somewhat limited expression "class management", involves a set of separate professional activities that, together, make up the practice of teaching. While many interactive professions are based on one-on-one relationships, teachers must form a relationship with a group of students, whom they lead towards mastery of cognitive learning while ensuring that they understand and comply with social standards. The collective and public nature of daily classroom life demands some important skills and places a heavy burden of professional responsibility on teachers. Those who are unable to "hold" a class soon lose credibility in the eyes of their colleagues, superiors, parents and even the students. Many studies of teaching effectiveness also suggest that ordered, harmonious classroom operations comprise the variable with the greatest individual impact on student learning (Gauthier, Desbiens, Malo, Martineau and Simard 1997: 177). Thus, the ability to implement and maintain an effective, harmonious group operation in the classroom, based on the learning to be acquired, is a vital competency for teachers. The requirement to organize group life is all the more demanding in that teachers must, at the same time, be able to establish and maintain a harmonious interpersonal relationship with every individual student.

The planning, organizing and monitoring of a class affects many aspects of classroom life, including the structuring of the physical environmental, how teaching materials are used, student movements, transitions between activities, the rules and methods of school work, the methods used to supervise students, and disciplinary measures (Gauthier *et al.* 1997; Legendre 1993). The wide range of possible learning activities thus means that teachers must anticipate, implement and monitor the specific organizational methods and interactions required in each case.

Needless to say, it takes many years to build this competency, which teachers say is adjusted regularly as they come into contact with new situations and more difficult groups of students (Huberman 1989). It will also be redefined in the longer term by various aspects of the curriculum reform, including the organization of teaching into learning cycles and more extensive use of learning projects, problem situations and information and communications technologies in the classroom.

Indeed, teachers will be expected to organize and supervise several subsets of students engaged at the same time in different learning tasks with varying requirements, paths and end points, sometimes alone, sometimes working with colleagues. Different methods for

organizing cooperative student groups will be planned, implemented and evaluated, depending on the quality of targeted learning and how well the students are able to work together.

FEATURES

☛ Develops and implements an efficient system for running regular classroom activities.

This component involves a systematic approach to regular activities and interactions in the classroom (speaking, asking for help, settling down to work, moving around during and at the end of activities, distributing material, using textbooks, handing in assignments, etc.). Efficient classroom operations require careful planning and implementation from the very beginning of the school year. Planning allows teachers to anticipate and prevent operational problems that may, among other things, generate inattentive behaviours among the students. It is a question of introducing the students to rules and procedures so that time, materials and energy are not wasted, tasks are completed appropriately and all class members show respect for their peers. This involves explanations, repetitions, practice sessions, modelling and discussion of the consequences of different student behaviours (Evertson 1989; Doyle 1986). Teachers who implement their own "systems" must also adapt their planning to suit the groups for which they are responsible. They must therefore build an environment in which most of the operational parameters are stable and foreseeable, so that the students feel secure and believe that expectations can be met.

☛ Communicates clear requirements regarding appropriate school and social behaviour and makes sure that students meet those requirements.

"The success and behaviour of students are influenced by the messages they receive concerning what is expected of them" (Gauthier *et al.* 1997:185; our translation). Such messages are communicated explicitly and implicitly, in words but also through the teacher's nonverbal behaviour. Clear communication of requirements and expectations is therefore not limited to the statements and explanations given to the students. It involves consistency between what is done and what is said, i.e. an ability to perceive contradictory messages sent to students, identify the sources of the contradiction, deliberately select the values to be conveyed and realign words and actions accordingly. Other steps are also required to ensure that the students understand and fulfill expectations, including reformulating those expectations, breaking them down into steps if necessary, encouraging appropriate manifestations, demonstrating the positive consequences of such manifestations, and reprimanding inappropriate manifestations as quickly as possible.

☛ Involves students on an individual or a group basis in setting standards for the smooth running of the class.

Instruction on citizenship and democratic institutions is an important component of the program organization resulting from the curriculum reform. Many teachers and schools have already introduced mechanisms that allow students to participate in classroom

and/or school life. The school council or class council are the best-known examples of this.

Clearly, the creation of institutions such as these in a class or school is not an automatic process, especially when their powers extend to content and standards of schoolwork, not just disciplinary problems and extra-curricular activities. Given the many different types of personalities involved, the relationship between students and school-level knowledge may be very different or even nonexistent (Perrenoud 1999). Collective discussion of the links between the program and the meaning students give to schoolwork is needed to enable the students to acquire individual and collective power over their learning and over classroom life.

The competency of involving students in classroom life involves listening and sharing, so that the students gradually learn to set common objectives and define common methods. It also involves the ability to reach consensuses or agreements with the students concerning acceptable working situations and conditions, and working with the students to adapt those situations and conditions, solve conflicts, share tasks and responsibilities, and decide on any retributions if a member of the class fails to comply. This component is complementary to the planning and implementation of efficient classroom operations, in that it brings students into the process, thus allowing them to observe aspects of group life that would be inaccessible if the teacher were to take a less open approach.

- ☛ Develops strategies for preventing inappropriate behaviour and dealing effectively with it when it occurs.

Given the diversity of students, teachers are much more likely to have students in their class who do not fit school cultural standards. Research suggests that teachers must demonstrate a desire and an ability to act when the rules are broken (Gauthier *et al.* 1997: 182). This requires, first, an ability to recognize inappropriate behaviour quickly and to interrupt it as discreetly as possible before it disrupts or interrupts classroom activities. If the behaviour persists, teachers must analyze the situation and decide whether or not to apply specific measures to a particular student, discuss the situation with the class as a whole, review their system so as to prevent recurrent disturbances, or a combination of the three.

- ☛ Maintains a classroom climate that is conducive to learning.

A climate that is conducive to learning derives from a set of activity control actions aimed at maximizing the students' investment in their learning. Teachers must use their observation, analysis and evaluation skills at the same time, to ensure that their activities are consistent with the program and take immediate corrective action if necessary (Nault 1994). The speed with which teachers are able to detect and react to events, and their ability to manage several events at once, help maintain alertness within the group and ensure that objectives can be achieved. Research into effective teaching summarizes the main aspects of "active supervision", i.e. supervision to ensure that the class remains engaged in learning tasks, as follows: attention and vigilance with regard to group activities; constant evaluation of student behaviour in relation to the planned procedure;

and evaluation and correction of the speed, pace, fluidity and duration of events (Gauthier *et al.* 1997).

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

Research into professional integration of teachers and the experience of the teachers involved suggests that both trainees and beginner teachers tend to experience difficulty in establishing and maintaining order in the classroom (Gold 1996; Raymond 1993). This competency often appears to be the Achilles' heel of young teachers, one of the principal sources of their sense of incompetence (Martineau and Corriveau, to be published). This is hardly surprising, because even experienced teachers can have problems with difficult groups that frustrate their longstanding action programs (Huberman 1989).

In most of the teacher training programs reviewed in the last decade, theoretical and practical training on class management is an important component. However, it is also a recent development, and is insufficient to identify the competencies that can realistically be expected of new graduates. In addition to the hesitation resulting from the recent nature of the programs, there is now the question of their application following the curriculum reform which, as we have seen, is likely to redefine the boundaries of this competency by introducing a more collective orientation.

Perrenoud (1999) believes that, at the end of their initial training, new teachers should be able to control a traditional class, whereas the development of competencies related to the decompartmentalization of class management resulting from the learning cycle structure would be the province of experienced teachers. This somewhat ambitious proposal does not take into account research findings on early teaching experiences or the comments of experienced teachers on the development of competencies throughout their careers. The management of a traditional, non-decompartmentalized class continues to be a challenge throughout a teacher's career, especially if we consider the nature of the students themselves; groups now tend to be highly diversified due to the integration of students in difficulty into regular classes. Expectations concerning the level of control at the end of initial teacher training should therefore be revised downwards, concentrating on the development of basic competencies that will be extended and refined as the teacher's career progresses.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

By the end of his or her initial training, the student teacher should be able to:
✔ *Introduce and maintain routines that ensure the smooth running of regular classroom activities;*
✔ *Identify and correct organizational problems that hinder the smooth running of the class;*
✔ *Anticipate some of the organizational problems that hinder the smooth running of the class and plan measures to prevent them;*
✔ *Establish and apply methods that can be used to solve problems with students who exhibit inappropriate behaviours.*

COMPETENCY N° 7

COMPETENCY STATEMENT
To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.

MEANING

The school adaptation policy adopted following the Estates General is harmonized with this reform and proposes several paths of concern to all teaching staff, whether they work with students with learning disabilities, social maladjustments or handicaps in regular classes, or with special classes in regular or special schools.

The first path highlights the importance of preventing failure and dropping out, and of acting quickly when difficulties come to light. All teachers must develop and exercise competencies with a view to identifying students at risk and acting quickly to deal with difficulties that could, if they persisted or became worse, compromise the students' educational progress.

The second path defines the adaptation of educational services as the primary concern of everyone working with students with learning disabilities, social maladjustments or handicaps (Ministère de l'Éducation 1999: 20). Teachers must gather, use and incorporate specific information on the needs of students in difficulty in their "preactive", "interactive" and "postactive" tasks (see Competencies 3, 4 and 5) so as to adapt the program, the teaching methods and the teaching materials to the students' different paths. Teachers must also coordinate their actions with those of other players providing adapted services for students, both inside and outside the school. Lastly, the players must organize and monitor different educational paths for the students.

The third path involves the organization of educational services for students with learning disabilities, social maladjustments or handicaps, based on an individual evaluation of their abilities and needs. Such services must be available near their place of residence. Priority must also be given to integrating the students into regular classes. If teachers are to contribute to the development of such services, they will need specific knowledge of how at-risk students function in different learning situations and in the general classroom environment. In other words, they must be able to identify the students' progress and observe in detail their reactions to different situations. At the same time, teachers must be able to communicate their observations to the parents and other players, so that any action proposed can be coordinated with coherent, realistic, identifiable objectives.

The fourth path requires all players to create a veritable educational community with a student in difficulty and his or her parents, and to act in partnership with the organizations working with that student. The challenge here is to develop accountability

in students whose development may have compromised their ability to cooperate with and trust adults, and to believe in their own chances of success. By preparing and monitoring teaching plans, teachers help establish indicators of success that are significant to the student and his or her family, encourage the student to commit to the learning process, and generate concerted action on the part of everyone involved.

The school adaptation policy encourages all school partners to establish avenues of action for students at risk, especially those with adjustment difficulties, whose numbers have grown in recent years as a result of economic and social problems, including unemployment and poverty. The teaching staff help implement collective measures so as to understand the situation of the students, meet their needs and guarantee their security and quality of life at school.

FEATURES

- ☛ Facilitates the educational and social integration of students with learning disabilities, social maladjustments or handicaps.

The program or cycle teaching team identifies the needs and abilities of the students in difficulty under its authority, and works together to organize teaching and monitoring methods. The team members agree on the program adaptations and evaluation strategies required for these students, and maintain regular contact with the parents so as to obtain their support and coordinate their actions. Teachers must ensure that students in difficulty have access to assistance and tools (tutoring, individual assistance, technical support, adapted equipment) and know how to use it. If necessary, they negotiate an individual contract with a student and his or her parents, to enable that student to catch up, consolidate learning or set objectives suited to his or her progress. Depending on their roles and support tasks, teachers pool their observations of the behaviour and progress of these students and adapt their teaching accordingly.

The teaching team also ensures that the other students are welcoming of and understanding towards students in difficulty, both in regular classes and during extra-curricular activities. The teaching team must be constantly on the lookout for manifestations of prejudice or attempts to segregate these students, interrupting any such incident as quickly as possible, identifying the mechanisms and preconceived ideas at issue and clarifying the consequences for the target student and the class in general.

- ☛ Consults resource people and parents to obtain relevant information on the needs and progress of students with difficulties.

Teachers obtain information on the educational paths of their students in difficulty, the measures already taken and the educational and specialized services provided. They consider the steps taken and efforts made by parents and the social organizations consulted by parents, and if necessary attempt to obtain information that will lead to a better understanding of the student's needs and capacities and the conditions conducive to his or her success and integration. They seek to identify precisely where the educational, developmental, intellectual, social or emotional delay is situated, so that they can target their teaching. They question the meaning, base and scope of any diagnoses

made, especially those with social connotations (e.g. a diagnosis of mental impairment) and carefully scan for signs of any social stigma to which the student may be subjected. They work with the other members of the teaching team to establish and plan proficiency activities that help them learn more about the needs of students in difficulty, and to develop appropriate teaching methods.

☛ Proposes learning tasks, challenges and roles within the class that help students to progress.

Although the fact that they are responsible for students in difficulty may require teachers to work individually with certain students in order to provide specific forms of support, generally speaking that responsibility is exercised in interactive contexts where students must work together to perform tasks. Students in difficulty must also be placed in conditions that allow them to develop competencies related to communication, teamwork and information processing. Many such students, especially those at risk, do not necessarily take part in educational tasks, often because of their accumulated delays in reading and information processing. With such students, teachers must ensure that the conditions in which tasks are carried out are conducive to concentration and attention by organizing the work space, removing distractions, reducing noise, or seeking help from the other students to explain instructions and procedures. Teachers must give the students time, remind them of similar tasks performed in the past, and provide them with indicators so that the proposed task becomes accessible, allowing the students to reapply prior knowledge in new contexts. Often, teachers must also show students the advantages of using effective strategies, and the disadvantages of inappropriate strategies. Where possible, teachers use interactive tutorials containing learning loops that consolidate prior notions, break tasks down into steps, illustrate different ways of proceeding with the task and provide frequent feedback on the actions taken. For teamwork, teachers ensure that students in difficulty are given tasks and roles to play, and that their contributions are sought after and acknowledged. If necessary, they remind the class of the communication rules it adopted to ensure a healthy and productive working climate, and take immediate action if a member of the team breaks those rules.

☛ Participates in developing and implementing individualized education plans.

The school adaptation policy requires schools to develop individualized education plans for all students with learning disabilities, social maladjustments or handicaps (s. 96.14 of the Education Act). When a student arrives in a school and in a learning cycle, the cycle team, after discussing the student's profile and the parents' needs and perceptions, helps set realistic objectives and establishes measures designed to prevent future failures. The team ensures that the roles of the various people concerned are defined and coordinated, and that steps are taken to adapt the education plan. In monitoring the plan, the teaching team ensures that everyone involved is informed of the competency reviews of students in difficulty, along with the problems experienced at a given stage. Depending on their role and the type of support they have given, the teachers explain their teaching, comment on the student's reactions and suggest adaptations to the plan, whether in terms of the objectives or the measures required for the next step, or both at once. They also explain the type of support and additional contribution required from parents, and adapt their understanding of the student's situation and progress according to the

information given by the parents. If necessary, they propose specialized services for the student and his or her parents, to help achieve success and integration at school.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

At the end of his or her initial training, the student teacher should be able to:
✔ *Cooperate in the development and implementation of individualized education plans designed for his or her students.*

COMPETENCY N° 8

COMPETENCY STATEMENT
To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.

MEANING

"The exponential growth in knowledge, the speed with which it is renewed and the explosion of technological innovations has led to the creation of a "knowledge-based society". To live comfortably in such a society, individuals need more knowledge and must constantly be able to acquire new knowledge" (Task Force on Curriculum Reform 1997: 14). The availability and convergence of computer networks now provide all the school's partners with extensive access to knowledge. However, the overabundance and uneven quality of the information available on these networks, together with the speed at which it is created and changed, mean that not only must it be processed and classified, but it must also be considered from a critical standpoint. In addition, network access changes how students and teachers learn, communicate and work: "A person who adheres to a network culture is someone who does not work alone, who uses collective resources and who has acquired a reflex of updating his or her knowledge by seeking out recent resources … someone who shares his or her knowledge and resources …, who builds with others" (Arcouet 2000: 9; our translation).

The current reform places students at the heart of the learning process and gives priority to the integration of students with learning disabilities, social maladjustments or handicaps. It is therefore necessary to use a range of learning and evaluation methods. By giving students more independence in the knowledge construction process, information and communications technologies (ICT) can make a valuable contribution at this level. Similarly, the reform emphasizes the cultural content of the program and proposes a cultural approach to instruction. In such a context, the networks can become a window to the world for students and teachers alike, providing access to other cultural or knowledge objects. The potential offered by ICT in learning and instruction, combined with the role they play in society, means that they are essential components of today's schools. Given their threefold mission of instructing, socializing and qualifying, schools must allow students to acquire the ICT-related methodological competencies they will need for their future social and professional lives.

Because of the presence of ICT in schools, teachers now need specific competencies, including familiarity with the networks, mastery of network production and communication tools and knowledge of their potential for student learning, instructional management strategies and professional development strategies. They also need new behaviours and new attitudes; teachers must seek out information to understand and

resolve situations, share information, be open to other methods, adopt a critical stance, be willing to present their teaching practices publicly, and so on.

The numerous possibilities offered by ICT will achieve their full instructional potential only if teachers are able to exercise firm control over the content of activities and ensure that they allow the students to develop the target competencies. This suggests that the teaching competencies required in the ICT field are related more to how ICT tools and other resources are used in teaching strategies than to advanced technical knowledge of the computer environment. For example, teachers do not necessarily need to be able to develop educational software; however, they do need to be able to make a critical analysis of existing software and adapt it to their students' needs.

Thus, knowledge of current software (word processing, databases, spreadsheets), E-mail and information network use (navigation, search, cooperative working techniques) should allow teachers to be more effective in many aspects of their instructional management strategies, including saving and filing teaching material, grouping and compiling information on student progress, and so on.

Lastly, unlimited access through computer search engines to information banks, research networks and teacher networks clearly multiplies the sources of, opportunities for and methods of professional development. Opportunities for continuing education no longer depend on physical proximity or on the presence of an educational institution in the neighbourhood. By joining electronic "teachers' rooms" and visiting theme-based teaching sites, taking part in working, discussion or support groups and creating collaborative educational projects on-line, teachers are able to receive comments on and contributions to their practices from colleagues engaged in similar research and problem-solving efforts.

FEATURES

- ☛ Exercises critical judgment regarding the real benefits and limitations of ICT as teaching and learning resources, and regarding the social issues they raise.

Some authors have suggested that ICT will facilitate the paradigm shift from instruction-focused schools to learning-focused schools currently being triggered by the educational reforms in many countries (Perrenoud 1999; Barone, Berliner, Blanchard, Casanova and McGowan 1996). The interactive features of telecomputing, software and educational software are certainly capable of engaging student interest, but what exactly do they contribute to learning? How do they make the learning process more active? How do they complement traditional pedagogy? Teachers must be vigilant and carefully assess the impacts of ICT on their students and on their own work. They must be able to distinguish the applications that allow them to carry out otherwise inaccessible complex learning tasks (for example, simulations of scientific experiments involving large numbers of different parameters) from those that occupy the students but do not produce significant learning. Teachers must also be on the lookout for inequality or social exclusion resulting from the resource access difficulties of certain students or the class or school as a whole. On a broader scale, "they know that the battle lines have been drawn on the subject of network use, between those who would submit to a consumerist market logic and those who would make it a tool for knowledge and culture as well as a space for freedom; and between those who seek to incorporate it into a vertical logic with the source of

information at the top, and those who are fighting to preserve the horizontal logic of exchange (Zakhartchouk 1999: 99; our translation). While welcoming the open approach to the world allowed by ICT, teachers must also be able to understand the educational, didactic, cultural and social issues at stake. Indeed, informed teachers will realize that ICT are not, of themselves, generators of innovative educational change. They serve the behaviourist, cognitivist and constructivist approaches equally well, and they are conducive to individualistic confinement as well as more to cooperative forms of teaching. The nature and quality of teaching and learning will therefore depend on the epistemological orientations used to structure ICT use (Aubé 1996).

☛ Assesses the instructional potential of computer applications and networking technology in relation to the development of the competencies targeted in the programs of study.

A number of sites currently offer educational resources incorporating ICT, and some have been designed specifically with certain fields of learning in mind. Many such resources have been developed by teachers or school teams. They therefore have the advantage of having been tested, and can be discussed with other teachers. Teachers wishing to incorporate ICT in their teaching and learning activities can explore these sites regularly, to identify resources appropriate to their own fields. Over time, the teaching team can build and maintain an activity bank to help students with their learning or to support other educational practices.

Other commonly used resources were not designed for instructional purposes, and must be evaluated in relation to the target learning. As shown by Désilets (1998) for word-processing correctors, the most commonly used software packages do not give useful feedback on the reasoning or intellectual processes that come into play in a learning task. Although tools such as these can support school work, teachers must direct their use towards the competencies targeted in the program of study. Educational software, for its part, must be evaluated carefully to see how it breaks down the content and learning or problem-solving steps, and to see what traces it leaves of decisions made by the student, operations carried out and data handled. Beyond these more technical aspects, teachers must also judge the value of the tools and select those that best allow for the development of the intellectual and relational competencies targeted in the program.

ICT effectiveness also depends on the teacher's capacity to establish instructional needs and impose requirements on equipment performance, so as to eliminate items that are attractive but non-formative. This component is closely linked to competencies 3 and 4, since it involves the relationship the teacher maintains with the knowledge to be taught, his or her mastery of the training program and his or her representations of the students' relationships with the competencies to be mastered and the knowledge to be applied.

☛ Communicates using various multimedia resources.

If there is one area in which ICT can contribute significantly to a renewal of instructional practices, it is the area of cooperation (Secrétariat à l'autoroute de l'information 2000). Traditionally, teachers have often worked alone in the classroom. However, the education reform and the social context of the third millennium require teamwork, exchanges of

ideas with coworkers, parental participation in school life and an open approach to the community.

E-mail, discussion groups, theme-based networks and data or image banks allow for hitherto impossible forms of cooperation. For example, they extend the scope of school correspondence, since individuals can work together on shared projects even when they are not physically in the same location. In addition, it is now possible to communicate with parents by E-mail, or to coordinate projects involving students located in different regions or countries.

When designing their learning activities, teachers must allow for the use of information networks and E-mail. In doing so, they must select the sources and population groups with whom they wish to make contact, based on specific objectives. They must also structure and guide interventions so that the students remain focused on their learning, maintain the data they send and receive in an appropriate way, and evaluate it both critically and ethically. If the students are to consult experts on-line, they must learn to target and refine their questions, and to formulate them in appropriate, clear terms, so that the information they receive is relevant, easy to understand and usable. Given the nature of virtual communication, where message comprehension does not follow the implicit standards of personal communication, teachers must be very precise in terms of the quality of language used (see Competency 2).

☛ Uses ICT effectively to search for, interpret and communicate information and to solve problems.

ICT can be of significant assistance to teachers and students as they search for data on a given problem situation. They can access a vast amount of information via the networks. Again, their search must be targeted, and the information must be analyzed critically and converted into resources that can subsequently be used to solve problems, create new objects and communicate with different audiences. In fact, such resources must be objects of secondary culture, helping the students to understand and interpret the world.

Information and communications technologies impose new demands on the teacher's operational system, how he or she structures collective teaching, teamwork, individual work in the classroom, and homework. Not only do they make it possible to explore and illustrate content that was previously difficult to access or for which the data were difficult to compile, but they also allow the students to be actively involved in learning tasks and projects that they can pursue on their own. However, there is also a significant chance that they will lose their focus or fall captive to applications designed simply to attract or distract. To attenuate this possibility, teachers must look at what the students have done or interrupt their work, identify the pitfalls, provide search advice and put them back on the right track by proposing indicators, questions or tips that will help them become more critical and strategic. They model different data evaluation and classification methods based on the task and the goals of the learning project

☛ Uses ICT effectively to build networks that facilitate information sharing and professional development with respect to his or her own field of teaching or teaching practice.

Given the tremendous potential for communication and the vast amount of data available, it is vitally important to develop criteria governing the selection of professional development resources. Teachers can use these networks to work with other teachers, pool their expertise and thus help train colleagues and new graduates. There is good reason to believe that the "communication" aspect of ICT has been largely underutilized so far, in favour of the "information" aspect (Aubé 1999). Yet, ICT are ideal for exploiting what is known as "collective or distributed intelligence", by bringing together the work and reflections of individuals with similar interests but located in physically separate locations. In the coming years, these emerging virtual communities have an excellent chance of becoming one of the most fertile sources of intellectual refreshment and continuing education. Collaborative practices such as these are becoming increasingly common in the scientific community, and new software is constantly being developed to facilitate them. It is therefore vital for teachers, through their initial training and subsequent professional development, to be able to join networks of like-minded colleagues, contribute to their activities and benefit from the information they provide.

☛ Helps students to familiarize themselves with ICT, to use ICT to carry out learning activities, to assess their own use of ICT, and to exercise critical judgment regarding the information they find on the Internet.

In developing this competency, new teachers must also learn to help their students become "computer literate", i.e. able to use ICT in a productive, integrated way for their own purposes. This means not only using the technologies to learn, communicate and solve problems, but also to develop a structured, critical judgment, in particular with regard to the risks of social alienation and disinformation. Clearly, such learning is best conveyed through the example set by teachers who use these tools on an everyday basis in a critical and productive way, and who model this critical function in the presence of their students.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

By the end of his or her initial training, the student teacher should be able to:
✔ *Demonstrate critical judgment regarding the real benefits and limitations of ICT as teaching and learning resources;*
✔ *Demonstrate a general understanding of the possibilities offered by ICT (and the Internet in particular) for teaching and learning, and know how to integrate ICT in a functional manner into teaching/learning activities, when appropriate;*
✔ *Use ICT effectively in different aspects of his or her intellectual and professional life: communication, research, information processing, evaluation, interaction with colleagues or experts, etc.;*
✔ *Effectively transmit the ability to use ICT to his or her students in order to support the collective construction of learning in a well-structured, critical manner.*

COMPETENCY N° 9

COMPETENCY STATEMENT
To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.

MEANING

The third line of the educational reform plan of action provides for greater independence for schools (Ministère de l'Éducation 1997b) and creates the governing board, composed of teachers and a range of partners who work together to achieve the school's mission.

A provisional review of the first year of governing board operations suggested that some members have found it difficult to understand the nature of their new powers and to situate the roles of both the members and the other administrative bodies (Gouvernement du Québec 2000). Follow-up in 1999-2000 highlighted the need for training to help members understand and become familiar with the *Education Act*, and to provide the skills they need to work in partnership.

When teacher training programs were revised in the early 1990s, the university-school partnership for in-service training was created or reinforced, and special projects were instituted. The results of these initiatives have been impressive. Coordination structures have been created (or strengthened) at every step in the in-service training organizational structure: regional in-service training coordination tables, networks of associated schools, in-service training offices, "multi-category" program committees, in-service training development committees composed of university representatives, teachers and school managers, and in-service training committees in schools. Schools and universities alike are governed by memoranda of understanding covering information circulation methods and the procedures used to recruit teachers and associate teachers, place student teachers and distribute in-service training in schools. These structures have, in turn, generated mechanisms and methods that have led to a hitherto unparalleled level of involvement by teachers and school managers in the planning, application and evaluation of in-service training. These cooperative agreements have generated some innovative initiatives, such as educational experiments in school communities, common training for supervisors and teachers with supervisory duties, and shared development of in-service training guides and evaluation mechanisms. Associate teacher recruitment methods have been standardized, and some schools have introduced a more collective supervisory structure for student teachers and in-service training. Student-teacher placement methods have also been rationalized, and now generally take into account both the training path and the number of student teachers in the school. Supervisory training has been given to most associate teachers, although it did vary in terms of number of hours, depth and methods. Training participants submitted suggestions, most of which have been applied by the university staff concerned in reviewing the organization and structure of in-service training. These tighter forms of cooperation have also enhanced the

contribution made by teachers to university courses, acknowledging the value of practitioners' knowledge in the training process. The curriculum reform promotes the consolidation and enhancement of partnership initiatives, which will contribute to the development of new competencies for school teaching staff and university teachers alike.

As pointed out by Perrenoud (1999: 91), we are currently witnessing "emergent functions" that require transformations of identity on the part of the various partners, along with the construction of new competencies. In creating closer, more public contacts with parents and the community, teachers must voice their opinions and are propelled towards roles that include but exceed their usual concerns regarding the students in their class. It is a change of identity that requires teachers gradually to adopt a community perspective and accept collective responsibility for the educational services given to the families served by the school (Corrigan 1994; Corrigan and Udas 1996).

However, changes of identity do not take place overnight. Relocalization and redefinition of the roles and actions of teachers "lead to a significant questioning of their culture, especially since outsiders do not necessarily accept the parameters and come into the school with their own views on teaching and their place in society" (Raymond and Lenoir 1998: 79; our translation). Alongside this cultural transition, confusion exists due to the diversity and apparently anarchical nature of the new forms of solicitation, and to the overriding sense of being under threat.

Research over the last ten years into the implementation of partnership initiatives involving different social groups and schools has concluded that partnership is an unstable but fundamental notion, "an object that is constructed over time, not like a definitive model that is established once and for all, and it is this instability that characterizes it" (Berger and Langouët 1995: 366). The partners' competencies will therefore be constructed as they become familiar with their mandates, roles and functions.

FEATURES

- ☛ Collaborates with other members of the school staff in defining orientations, and developing and implementing projects related to educational services in areas falling under the responsibility of the school.

School-level cooperation requires a certain amount of decentring with respect to the functions and roles in everyday classroom activities. Thinking at the school level means entering into the school's history and culture, i.e. appreciating its legacy and projecting its development in the longer term. The teachers who sit on the school council know their school well. They are able to convey the culture and values that unite its members. They clarify, explain and defend the choices and practices that incarnate those values. Cooperation by the teaching staff therefore requires this capacity to demand, assert and support collective values in debates on school projects. If conflicts or misunderstandings occur, compromises or options representing steps in the right direction must be negotiated. Involvement in the development of projects requires similar competencies to that of teamwork: the ability to contribute according to one's experience, clarify project objectives for the students, prepare strategies and stages for projects, clarify and locate the necessary resources and unofficial leaders and, lastly, agree on project evaluation

methods with the other players. Involvement in project implementation means insisting on a fair division of tasks, monitoring projects with the people responsible and with the students, making suggestions, providing partners with information, requesting and considering their opinions and deciding on a change of direction where appropriate.

☛ Informs parents and encourages them to become actively involved.

- With respect to their child's success

"Engaging in a dialogue with parents is a question of identity, relationship with the profession, conception of dialogue and of sharing tasks with the family, much more than a question of competency" (Perrenoud 1999: 109; our translation). Parents and teachers each have strong representations of the responsibilities and territories attached to their status, and these representations translate into relationships with the school that are inscribed in their respective life histories. Informed teachers know they cannot presume that all their students' parents will share their vision of the school or the children, or that the parents' conceptions will be similar. For example, some parents will disapprove of homework, while others regard homework as a kind of indication of the quality of the school attended by their child (Gauthier, Desbiens and Martineau 1999: 34). Cooperation with parents requires a sharp awareness of these different views–differences that are related to the parents' roles, status and life histories, and especially to their cultural background (Lang 1999). Teachers must also be able to communicate with parents in difficult or conflictual situations. They solicit the parents' views, take their perceptions into account, support their assessments or judgments of the facts and work with them to identify common ground that will enable the two parties to coordinate their actions at home and at school.

Competencies in the rapport with parents must also be exercised against the ever-shifting, multi-hued backdrop of family dynamics. This complex situation may promote ritualization of communications with parents through official meetings, circular letters or sporadic report cards, which sometimes discourages parents from becoming personally involved in life at school.

Cooperating with parents involves informing them about the program of the cycle, year or step, explaining expectations regarding homework and clarifying the classroom and school code of conduct. Teachers communicate their expectations regarding the amount and type of work that students must do at home, and tell the parents how they can support their children. With regard to the program, teachers provide accessible, structured points of reference, explaining and giving reasons for classroom codes and rules and asking parents to cooperate in reinforcing those rules with the students. Many teachers communicate this information at start-of-term group meetings, and again during the school year if necessary. They prepare and structure such meetings to be clear and effective, leaving time for parents to ask general questions. They use individual meetings with parents to clarify how and in what area the parents can support their own child. If the child has specific problems, the teacher works with the parents to see how each party can best help, and where necessary suggests consulting the school's special services (Vazan 1998).

- With regard to school life

Parents can participate in school life in a variety of ways, not just through the governing board. For example, they can act as resources in class, accompany the students on educational outings, or take part in cultural, sporting or community activities. In addition to general communications via the students or in circular letters, teachers try to involve parents who have specific resources or fields of interest, by acknowledging and validating their contribution to a given project and to the school's pursuit of its objectives.

☛ Coordinates his or her actions with those of the school's various partners.

Coordinating actions with the school's partners begins within the teaching team for the cycle or step (see Competency 10). Coordinating actions with so-called disciplinary specialists, i.e. special education teachers and the school's other professional resources, presents a particular challenge in that it often involves differences in status and workload. The principal challenge of the curriculum reform is to achieve consistency within a context open to a much higher level of interdisciplinarity. Teachers can involve the specialists in the planning, application and evaluation of projects, thus promoting their integration in the school (Tardif and Lessard 1999). Coordination with special education workers is more demanding at the primary level, since these resource people often work in the classroom or for a few hours a week outside the classroom. It requires a great deal of flexibility and sharing of information. The special education workers may feel dependent on the class teacher and feel that they have no space of their own (Tardif and Lessard 1999). It may be possible to avoid these pitfalls by negotiating coherent, well-structured teaching plans that stipulate the parties' respective contributions.

☛ Supports students involved in the administrative structures of the school or in school activities or projects.

The purpose of a school, in addition to its mission of instruction and qualification, is to teach students to live together in harmony, to acquire democratic values and to become responsible citizens (Ministère de l'Éducation 1997a). Students can be taught these things in a variety of ways, for example by participating in the school's management structures (school council, governing board for second cycle secondary students) or by participating in school activities or projects. In addition to a strong belief in the students' ability to learn responsibility, teachers will need the capacity to moderate, support and structure the steps and tasks to be built into projects if they are to supervise students in school activities in such a way that responsibility is developed in a secure and lucid manner. Teachers must promote listening, respect and tolerance so that the students are able to accept their differences, help one another and become resources for one another.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

When questioned during their first year of teaching, new graduates from the Bachelor's degree in secondary education (1994-1998) said they were fairly satisfied with the knowledge acquired concerning the school resources and services available to students.

They also thought their training had helped them to understand the interactions and cooperation required between teachers and other members of the school staff. On the other hand, they were significantly less satisfied when it came to establishing appropriate relationships with parents (Bureau du recensement étudiant et de la recherche institutionnelle de l'Université du Québec 2000b). In contrast, employers did not observe any significant difficulties in the new teachers' interactions with school partners (staff and parents) (Bureau du recensement étudiant et de la recherche institutionnelle de l'Université du Québec 2000a). The young teachers said they had taken part in school-level activities, both with their colleagues and with students. However, almost none had taken part in meetings with parents.

Although it is important to remember that more than half of all new teachers do not have stable employment (part-time and replacement positions), these data suggest that, at least for young teachers in secondary schools, contacts with parents are extremely limited, during both initial teacher training and their first year of teaching. In the current reform, special attention should therefore be given to the development of competencies related to the relationship with parents.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

By the end of his or her initial training the student teacher should be able to:
✔ *Situate his or her role in relation to that played by other internal or external resource persons;*
✔ *Adjust his or her actions to the educational objectives of the school and contribute to the attainment of these objectives by becoming personally involved in school projects;*
✔ *Start building a trusting relationship with parents.*

COMPETENCY N° 10

COMPETENCY STATEMENT
To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.

MEANING

The curriculum reform provides for teachers to participate actively in the implementation of the program of study. Given that only 75% of teaching time will be covered in the program, teachers will need to make curriculum choices–in other words, make decisions regarding the content to be addressed in the other 25% of the time. They will also be responsible for selecting their own methods, strategies and approaches for implementing the program (Task Force on Curriculum Reform 1997). At the same time, given that instruction will be organized in multi-year learning cycles, the students will also be overseen by teaching teams that will coordinate the teachers' actions.

The ability to work as part of a team is therefore one of the aspects characteristic of the new trend in the teaching profession. Teamwork, or "collective professionalism", is a goal that must be achieved. It has become necessary as a result of the malaise that developed as the teaching profession became reduced over the years to a set of isolated, individual actions (Bisaillon 1993). The teacher's judgment was confined to the classroom, restricted to an increasingly limited set of objects and constituting, over the years, a kind of "private jurisprudence that remained secret and hidden from other teachers" (Gauthier, Desbiens, Malo, Martineau and Simard 1997: 232; our translation). Continuity and consistency in teaching, both within the same year and from one year to the next, is necessary to foster success and prevent students in difficulty from dropping out.

Many teachers already work as part of a team, depending on the class or subject matter. Others appear to be in favour of a form of organization and timetable that would allow them to do so. Collaboration between teachers is constructed differently, depending on the educational level. At the primary level, the teaching teams are vital resources through which teachers can recharge their creative batteries, exchange ideas, material and practices, and find support, and where newcomers can get to know their colleagues. At the secondary level, the department acts as the reference group, conveying behavioural standards and the parameters of professional identity. It helps teachers to maintain their standards when dealing with reluctant students, and makes many of the decisions concerning learning content distribution, textbooks and the development and use of teaching materials (Tardif and Lessard 1999; Glatthorn 1998).

However, under the reform, the type of curriculum-related decisions made by teachers and the fact that several teachers must work with the same set of students means that even more intensive decompartmentalization of subject matter, task sharing and

collaboration is required. Working together to achieve student learning means agreeing on coherent curriculum, educational and pedagogical choices, adapting teaching to suit the students, and agreeing on the cycle exit profiles and the steps in the competency mastering process. Beyond the current discourse in favour of interpersonal skills, tolerance and empathy towards others, this competency includes the ability of teaching team members to build common goals, meanings and strategies applicable to the students for whom they are collectively responsible.

FEATURES

- ☛ Recognizes instances where cooperation with other members of the teaching team is required in order to design or adapt teaching/learning situations, to evaluate student learning or to promote the mastery of competencies by the end of the cycle.

A team is not necessarily effective simply because its members do everything together. Sometimes it is better to delegate or have members work in small groups or individually. The members of a teaching team must be able to judge which type of cooperation is best for the task or problem at hand. Sometimes, a simple exchange of resources or materials will be enough. At other times, the whole team will have to work intensively to make structuring decisions, such as establishing an exit profile, agreeing on evaluation content for a given step or selecting a textbook for use by the students. Some projects can be carried out by a few members of the team, while the others work more closely to help students in difficulty. This means that the team members must be familiar with their individual and collective resources and apply them fairly to ensure that the students have the best possible support and are able to master the competencies by the end of the cycle.

- ☛ Develops and organizes a project appropriate to the objectives to be attained by the teaching team.

Projects are complex activities that call on several competencies, depending on when they are carried out–for example, setting objectives, establishing and implementing a plan of action, identifying resources and assessing their impact. Building and implementing projects as part of a team calls on the same competencies, but in a team context. Thus, team members must begin by agreeing on the vision of the project and the issues at stake. If possible, they must also clarify and standardize their understanding of the project. Establishing a plan of action involves dividing and coordinating tasks and leadership, identifying and using resources, setting a timetable and allowing for verification and adaptation if necessary. Clear, effective communication between team members is vital throughout the project. The team must have the information it needs to decide whether to stay on the same course or change direction. Team members must have good observation, judgment and analytical skills; as they exchange ideas on student behaviour, they will need to check the perceptions of their colleagues, make a series of micro-decisions and adjust their actions to take into account significant details of student reactions. Evaluating the project means agreeing on criteria, working together to judge its value and agreeing on how to reinvest it. Clearly, the depth of these competencies will vary according to the context–for example, a specific teaching activity or an element of life at work (Perrenoud 1999). Independently of project objectives, cooperation between team members means that each individual must be free to speak, make proposals and listen to

what his or her colleagues have to say, contribute resources, take responsibility, clearly establish his or her limits and requirements, carry out tasks and report to others.

- ☛ Cooperates in an active, ongoing manner with the teaching teams working with the same students.

Research into teaching has revealed many different forms of educational cooperation. Cooperation does not usually involve a colleague's presence in the classroom (Acker 1999; Tardif and Lessard 1999). However, generally speaking, cooperation seems to be desired more than it is practised and sustained by teachers in different educational activities (Tardif and Lessard 1999: 420). Hargreaves (1994) pointed out that many forms of cooperation between teachers are the result of administrative pressures, a phenomenon he describes as "forced collegiality". According to Perrenoud (1999), forming a teaching team to work with the same students is the most demanding element of the cooperative competency.

Major curriculum reforms are in fact excellent opportunities to apply, share and renew the competencies of school staff. By forming teaching teams and task forces, it is possible to anchor orientations and changes in the history, values and resources of team members. The innovations proposed allow the members, both individually and collectively, to reinterpret their experience, review the progress that can be used to support the change, and realistically assess the steps required to implement the change gradually. It is on the basis of such reinterpretations and reviews that the team will construct its path towards the type of cooperation it needs to make students jointly responsible.

Teamwork requires a set of procedures and methods that will enable the group to function and persist–for example, timetables, agendas, a clear description of the types of decisions required, task distribution methods and monitoring mechanisms. A healthy team dynamic also requires several communication and psychosocial competencies: adopting a collective viewpoint or "decentred posture" (Perrenoud 1999: 82) that places the group's objectives and interests above individual interests; selecting and regulating types of leadership appropriate to the tasks to be carried out; making sure all members are heard; listening carefully and observing the reactions of other members; checking one's own interpretations of the other members' reactions; and identifying and countering resistance.

In addition to the competencies and know-how related to group operations, it is also necessary for teachers to reposition themselves with regard to the attitudes that form part of the teaching culture–for example, the tendency to work alone, to consider the class as one's personal territory, and to consider one's teaching choices as being mainly the result of personal preferences. Collective responsibility for students means that teachers must be prepared to exchange ideas on a sustained and daily basis concerning practices, meaning, the reasons for their actions and, in the longer term, the construction of common aims and meanings.

☛ Helps build consensus, when required, among members of the teaching team.

Consensus depends on the existence of shared aims and meanings and healthy conflict resolution. Shared meaning is particularly important in teaching. Teachers have usually been accustomed to working alone, and their educational vocabulary, while apparently identical to that of other teachers, will gradually have become associated with their own unique practices, beliefs and feelings. Discussions on classroom materials, coursework and individual practices, collective development of practices and, eventually, mutual observation or team teaching can provide concrete reference elements on which to build and anchor shared meanings.

Differences of opinion, conflicts and occasional crises are a fact of life for groups that work together over long periods. Such situations require interpersonal skills including the ability to listen, respect for others, and the ability to exchange ideas in such a way that every member is sure of being heard. Appropriate conflict resolution involves anticipating conflicts, i.e. identifying different positions and resistance, clarifying them and taking them into consideration. The parties to the conflict must clearly indicate the boundaries they are unwilling to step over and the types of contributions they are willing to make. The group must remain focused on the task, redefining it if necessary to avoid personality conflicts or grudges that are better expressed in other contexts.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

Teacher training programs, as revised in the 1990s, increased the opportunities for new teachers to work as part of a team, and provided them with more ways of doing this in the professional context. For example, in many in-service training sessions several student teachers are assigned to the same teacher, a situation that requires the student teachers to work together when planning their teaching activities and observe one another's classroom performances (Desrosiers and Gervais 2000). Student teachers are also asked to take part in the everyday activities of the teaching teams (planning days, special projects, help with homework, etc.), all of which require some form of cooperation. The competencies developed during in-service training deserve to be reinforced and evaluated on a systematic basis.

By the end of his or her initial training, the student teacher should be able to:
✔ *Contribute to the work of the teaching team in an effective manner;*
✔ *Provide constructive criticism and make innovative suggestions with respect to the team's work.*

COMPETENCY N° 11

COMPETENCY STATEMENT
To engage in professional development individually and with others.

MEANING

The policy documents relating to the teacher training reform of the 1990s (Ministère de l'Éducation 1992, 1994, 1996, 1997a) include a range of competencies related to continuous professional development in what are referred to as the "complementary" competencies. Among other things, the documents state that renewal, analytical and critical thinking skills are necessary if teachers are to adapt to changing social and professional situations and new professional developments.

However, given the major shifts introduced by the education reform, schools need to develop a collective professional development culture (Ministère de l'Éducation 1997b). The increasingly important role played by the teaching teams in selecting teaching methods and materials, evaluating student competencies and coordinating teaching on the basis of end-of-cycle aims requires more coherence in professional development efforts. The application and extension of the school team's educational expertise will be easier to achieve in a context of collective responsibility where upgrading, development and educational experimentation are focused on shared goals.

The new teaching roles in special projects related to the curriculum reform may become an important growth mechanism, allowing for the acquisition of new competencies. If teachers are made individually and collectively responsible for planning, implementing and evaluating real educational projects, this changes the *raison d'être* for the steps taken and the issues at stake. Teachers adopt the teaching elements from such projects because of the effects they are able to create. Indeed, many teachers would like to see a diversification of roles and an opportunity to exercise concrete new responsibilities with colleagues and other partners (Comité d'orientation de la formation du personnel enseignant 1997). They would like to use their competencies elsewhere than in the classroom, and reinvest ideas from discussions in their classroom activities.

Many teachers have criticized the ineffectiveness of professional development composed of poorly coordinated workshops scattered throughout the school year. Occasional presentations of educational training activities unrelated to the situation in the classroom, with no follow-up, hardly provides the support and climate that teachers need if they are to take the risk of innovating (Raymond 1998). In many environments, the concept of professional development for teachers has evolved. Standard, compulsory professional development *à la carte* is giving way to new types of activities that allow the teachers themselves to contribute, to a much greater extent, to their own training (Brossard 1998). There is general agreement that it takes time for cooperative initiatives

with colleagues and other partners to be built and become productive (Lieberman 1995; Raymond, Butt and Townsend 1992; Anders and Richardson 1991). Partnership agreements with universities for continuing education and collaborative research projects with a real impact on classroom activities are therefore for the medium to longer term. If teachers are to engage in a personal and collective professional development process, they must first be open to the concept of ongoing evolution over time.

FEATURES

☛ Takes stock of his or her competencies and takes steps to develop them using available resources.

The challenges of the reform and the range of resources available may become insurmountable obstacles for teachers who try to do everything at once or feel dispossessed by a change that many have described as a paradigm shift. However, a change in educational policy helps hone and develop expertise, rather than destroy it. The professional development process is based on existing competencies, and projects teachers into areas that they have not yet explored in detail, while maintaining a certain balance between what is familiar and what is new, the effort required and the support available. Whatever form the activity takes (case histories, inventories, retrospective reviews, professional autobiography, development plans), and regardless of the support used (e.g. building a portfolio (Goupil 1998), using a database, consulting professional and scientific literature, contributing to the work of professional associations), the analysis is first and foremost "an exercise in professional lucidity" (Perrenoud 1999: 155). It looks behind actual knowledge to see how learning occurs, what resources are needed by members of the teaching team, and what resources must be made available. The analysis should also allow teachers to identify the disciplinary knowledge that needs to be updated, and to distinguish between the new knowledge needed to understand the reform and operate longer term educational projects that require a variety of means (work teams, visits to other schools, cooperation from outside resource people, consultation of data banks, technical and electronic tools, networking, financial support) and that must be divided into several steps.

☛ Discusses the relevance of his or her pedagogical choices with his or her colleagues.

Professional development by peers is often described as an essential condition for pedagogical change and the transfer of expertise in the workplace (Brossard 1998; Gordon and Nicely 1998; Ouellet 1998; Conseil supérieur de l'éducation 1995). Career teachers talk about the central role of their colleagues in their professional development. Discussions centring on the relevance of pedagogical choices are only possible if teachers are willing to break through the isolation often imposed by an organization of work that confines them within the boundaries of the classroom. Time and space must be set aside and structured for such discussions. Training by peers also requires teachers to set aside their normative-prescriptive relationship with their own practices and those of other people. Discussing the relevance of a choice means explaining it and describing in finely-shaded detail the data that underlie it, rather than justifying and defending it. (Vermersch 1994). Before teachers can explain their practices to colleagues, they must be able to see the aspects that are not fully addressed in the heat of the moment–aspects that often

require a second look, or verification in a classroom setting of things that were previously taken for granted. When such explanations are given to colleagues who are sympathetic but not too accommodating, the underlying arguments can be developed, formalized and gradually reconstructed (Gauthier and Raymond 1998; Anders and Richardson 1991). Discussion and sharing of practices can lead to the creation of common visions.

☛ Reflects on his or her practice (reflective analysis) and makes the appropriate adjustments.

Reflective analysis goes beyond the current mental activity and discussion of ideas that underlies any professional practice, and involves a desire to learn **methodically** from experience and to change one's practice from year to year (Perrenoud 1999: 154). Thinking methodically means developing a framework, a process, tools and methods to target the objects being analyzed, select relevant information and evaluate the reasons for and impacts of certain actions based on clearly identifiable indicators. For example, if a teacher decides to build a portfolio to document changes in his or her practice, this does not mean simply opening a file in which to store documents used in class. A portfolio is "structured, selective and includes documents illustrating the teacher's thinking" (Goupil 1998: 38; our translation). The teacher's thinking emphasizes the process that led to the development of the practice or competency in question. Structured, documented thinking is therefore oriented towards work taken from and anchored in classroom life (student assignments, activity plans or sequences, lists of resources, etc.), and is fuelled by conceptual and practical contributions (material obtained from a training session, classroom observations by a colleague, material obtained from the Internet, comparison of experiences with other colleagues in a discussion group, etc.). It acts in tandem with action in the classroom, supports competency reviews and allows subsequent professional development activities to be undertaken.

☛ Spearheads projects to solve teaching problems.

Many of the professional development strategies that have emerged in recent years call into question the image of the teacher as a receiver, consumer and transmitter of knowledge produced by others (Cochran-Smith and Lytle 1999; Schoonmaker, Sawyer and Borrego Brainard 1998). The notion of reflexive practitioner proposed by Schön (1994) is one of an independent professional able to think during action and to generate knowledge from his or her own actions. Projects in the classroom or in the school are important levers for the development of professional knowledge. For teachers, they are also an excellent forum in which to exercise their professional independence. They select the competencies they wish to improve, decide on how they will do this and manage the negotiation between their own development priorities and the limitations and possibilities of the working context. The classroom becomes a place of research, producing data that, when examined carefully using different resources (video training, practical arguments, research data, etc.), can help improve practices

- ☛ Involves peers in research related to the mastery of the competencies targeted in the programs of study and to the educational objectives of the school.

The reorganization of student training into structured multi-year cycles aimed at the mastery of end-of-cycle competencies raises a number of important questions concerning the pedagogical approaches most favourable to the mastery of competencies and the integration of learning. Each school will select its own reform implementation targets and strategies based on its own history and the competencies of the people who teach a given subject or the students in a given cycle. It will only be possible to identify and explain the impacts of these choices if the teaching teams engage in research-action-training or collaborative research procedures with a view to documenting, analyzing and understanding the practices being developed. Leadership must be exercised and numerous resources deployed if colleagues are to commit personally to such procedures. This involves setting specific targets, aiming for goals accessible in the medium term and identifiable in the classroom, creating new roles (project leader, advisor, resource identification officer, idea promoter) and working structures that allow for task sharing, establishing training needs, consulting or involving colleagues from another school or outside resource people, agreeing on the indicators of competency development for team members, and circulating the results of such procedures to colleagues, parents, professional associations and school boards.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

While experienced teachers have usually built up a directory of resources to help orient their professional development, newcomers often find it difficult to establish priorities among all the events and requests that seem to need urgent responses. At the secondary level, many young teachers are faced with difficult professional integration conditions (teaching several subjects to students at different levels and in unruly groups). Survival becomes more important than the pleasure of starting a career and finally having their own students.

The teacher training reform of the early 1990s, and especially the increase in the number of in-service training sessions, did much to counter the violent "reality shock" that caused many young teachers to leave the profession (Gold 1996). Training teams are therefore invited to strengthen supervisory procedures aimed at introducing young teachers to reflexive thinking and helping them take charge of their professional development.

By the end of his or her initial training, the student teacher should be able to:
✔ *Identify, understand and use available resources (research reports and professional literature, pedagogical networks, professional associations, data banks) related to teaching;*
✔ *Identify his or her strengths and limitations, along with his or her personal objectives and the means of achieving them;*
✔ *Engage in rigorous reflexive analysis on specific aspects of his or her teaching;*
✔ *Undertake research projects related to specific aspects of his or her teaching.*

COMPETENCY N° 12

COMPETENCY STATEMENT
To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

MEANING

Professionalism is a state or attitude developed by a person as part of a professional socialization process, by which he or she accepts the common standards shared by the professional group. Teachers are expected to exhibit professionalism, i.e. to comply with the generally accepted procedures and standards of the profession (Bourdoncle 1991).

If they are to exhibit professionalism, new teachers must commit themselves in their actions–in other words, they must hold the conviction that the students under their authority can be educated (Meirieu 1989). Professional teachers are therefore expected to demonstrate professional awareness, i.e. a form of commitment, an obligation of diligence (Ministère de la Culture et des Communications 1998) that leads them, within the bounds of their professional supervisory duties, to take care of the students entrusted to them.

According to Lang (1999), when professional autonomy increases, the teacher's responsibility is engaged more strongly. Professional autonomy therefore refers to the individual's ethic of responsibility. In the context of the current reform, which gives teachers and the school team much more autonomy and independence of action, it will be vital for teachers to justify their actions and answer for what they do in the classroom or at school. As professional resource people mandated by society and enjoying substantial autonomy, teachers must therefore be able to argue their decisions publicly. They must be able to explain and justify the significance and relevance of their choices if necessary, with their colleagues, with the school management, with parents and with students. Between the obligation to submit to the demands of another person on the one hand, and a closed attitude to influence on the other, there is space for a discursive competency that must be developed by any professional providing a public service.

This ethical competency refers to what some people call the "discursive ethic trend" (Jeffrey 1999). In the classroom, the competency "evokes the capacity to construct a moral position, to discuss that position, to describe a moral problem, to implement rules for healthy discussion, to seek out the principles and values that form the basis of the legislation that governs us, to work on accepting and acknowledging all individuals regardless of their differences, to think about the best form of government, the best justice, the ritualization of violence, to regard propriety, rules of conduct and social standards as problems, to seek to justify decisions, and to question issues relating to obligation and constraint" (Jeffrey 1999: 85; our translation).

The discursive ethic is therefore closely related to culture, in that it requires knowledge of human beings, societies and cultures in order to understand the moral problems that may arise in the classroom. It seeks to develop quality arguments that go beyond common sense, and to implement frameworks conducive to democratic discussion, the creation of fair standards and the preparation of policies at the service of the common good (Jeffrey 1999).

FEATURES

☛ Understands the values underlying his or her teaching.

Teaching is a job in which an adult exercises influence over other people, i.e. the students (Fourez 1990). It is a moral craft (Tom 1984), a profession saturated with sometimes contradictory values. As Perrenoud (1993) asked: Should we give priority to the needs of a particular individual or group? Respect individual identities, or change them? Prioritize differences or eliminate them? Commit personally or remain neutral? Impose our will to be more effective or negotiate at length, even if this leads to incomplete action? Sacrifice the future or the present? Emphasize knowledge or socialization? Insist on structured thought or expression and creativity? Promote active pedagogy or mastery? Like all the students or demonstrate sympathy and antipathy? Future teachers must think about their values and the prejudices underlying their actions, and carefully observe their impacts on the students' individual and collective well-being. Reflexive analysis, supported by structured steps, appears to be appropriate for this purpose.

☛ Manages his or her class in a democratic way.

A class is like a micro-society, exhibiting the same tensions as society itself (violence, racism, sexism, etc.). Students will not be able to solve their differences spontaneously and democratically, and must therefore learn to build and use attitudes and behaviours that do not lead to exclusion. Teachers can, for example, use the class council and a cooperative approach to help the students settle classroom conflicts in a democratic way.

☛ Provides students with appropriate attention and support.

The definition of "professional" cannot be reduced to a set of external behaviours or competencies exclusive of personal commitment. On the contrary, "a professional is a person who is able to apply his or her subjectivity and personal identity in his or her professional life" (Le Boterf 1997: 25; our translation). In this respect, society and more specifically the parents who entrust their children to a teacher expect that teacher to be solicitous (Meirieu 1991) and to exhibit the same level of care and diligence towards his or her charges as would normally be exhibited by any professional resource person in similar circumstances. The duty of diligence, as opposed to the notion of negligence, in the exercise of professional duty is therefore an important part of professional ethics.

☛ Justifies his or her decisions concerning the learning and education of students to the parties concerned.

Teachers cannot be held responsible for the outcome of their students' learning because so many people have been involved in the process before, at the same time and after them, and the context in which they work may well compromise their success. It is therefore difficult to place sole responsibility for classroom learning on the shoulders of the teacher. However, it is reasonable to expect teachers to accept responsibility for the methods they use to instruct and educate their students. They must therefore be able to demonstrate that they have applied the best possible means for the context. Thus, professional responsibility is impossible without reference to research data and the teacher's ability to conduct projects in the classroom and document the progress made and results achieved.

☛ Respects the confidential nature of certain aspects of his or her work.

In their work, teachers come into contact with personal information entrusted to them by parents or students. If they are not aware of the need to respect the confidentiality of that information, they may succumb to the temptation of disclosing some or all of it in non-work-related situations. Teachers therefore have an obligation of discretion and reserve in the use of personal information concerning colleagues, students or the families of students.

☛ Avoids any form of discrimination toward students, parents or colleagues.

In a pluralist society such as ours, there is a broad range of values and views. The classroom or school is a kind of centre that brings together students of different origins, with different mother tongues, belonging to different religions, races, social classes and so on. Teachers have a particular role to play in this respect; they must counter situations conducive to discrimination or exclusion and implement mechanisms to ensure respect for equity and differences, especially differences related to origin.

☛ Situates the moral conflicts arising in class with reference to the major schools of thought.

If they are to analyze the moral problems that occur in a classroom (sex, violence, drugs, etc.) and discover ways of addressing them, teachers must apply specific cultural knowledge, otherwise they risk reproducing prejudices leading to different forms of exclusion. Moral positions have changed over time, and have an impact on how problems are analyzed and which solutions are proposed. It is therefore vital for teachers to be able to situate moral problems with reference to the major schools of thought (philosophical, historical, social, political, psychological), understand their prejudices, make informed choices and assume those choices both personally and publicly.

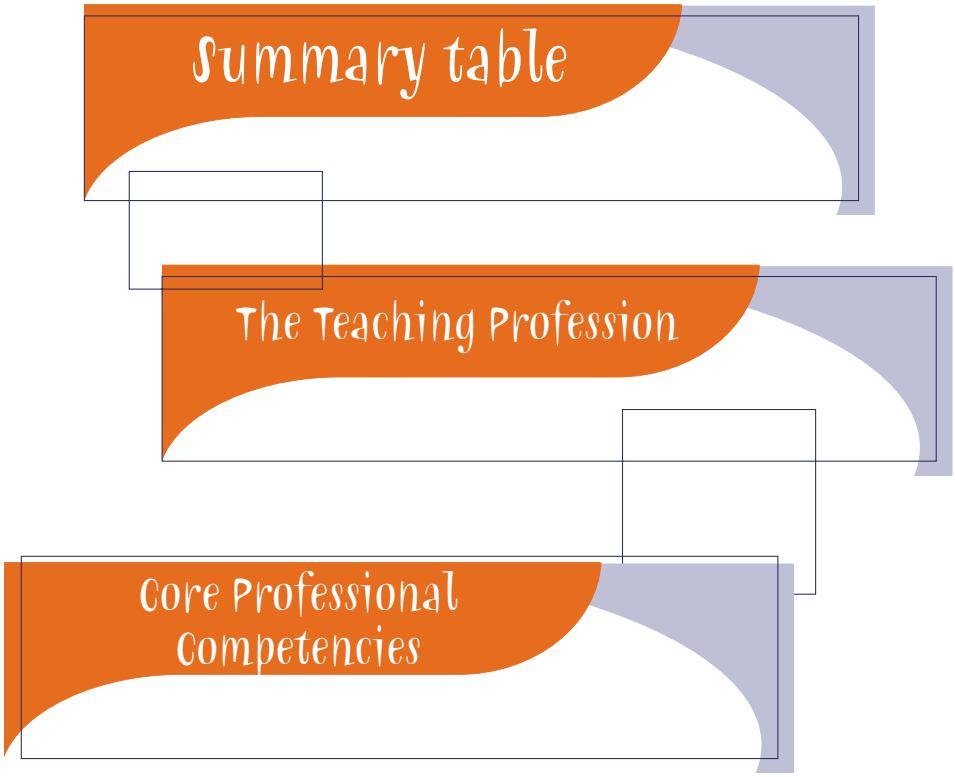
☛ Demonstrates sound judgment in using the legal and regulatory framework governing the teaching profession.

Teaching is governed by a legal and regulatory framework. The Education Act sets out the obligations and rights of teachers, and the collective agreement stipulates rules relating to the labour contract. Accordingly, teachers must perform their duties in compliance with the demands of the regulatory framework governing their profession.

LEVEL OF MASTERY REQUIRED BY THE END OF INITIAL TRAINING

Although teaching is a moral craft (Tom 1984), the moral competency has often been neglected in teacher training. In a pluralist society where different views abound and where relationships with authority have changed substantially, it is important to emphasize this aspect in schools and in teacher training.

By the end of his or her initial training, the student teacher should be able to:
✔ *Demonstrate sufficient responsibility in dealings with students that one can recommend with no reservations that a class be entrusted to his or her care;*
✔ *Answer to others for his or her actions by providing well-founded reasons.*


Summary table
The Teaching Profession
Core Professional Competencies

COMPETENCY Nº 1

To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.

FEATURES

- Situates the discipline's basic benchmarks and points of understanding (concepts, postulates and methods) in order to facilitate significant, in-depth learning by students.
- Adopts a critical approach to the subject matter.
- Establishes links between the secondary culture set out in the program and the secondary culture of the students.
- Transforms the classroom into a cultural base open to a range of different viewpoints within a common space.
- Casts a critical look at his or her own origins, cultural practices and social role.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- understand the subject-specific and program-specific knowledge to be taught, so as to be able to promote the creation of meaningful links by the students;
- exhibit a critical understanding of his or her cultural development and be aware of its potential and limitations;
- exhibit a critical understanding of the knowledge to be taught, so as to promote the creation of meaningful links by the students;
- Establish links with the students' culture in the proposed learning activities.

COMPETENCY Nº 2

To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.

FEATURES

- Uses appropriate language when speaking to students, parents and peers.
- Observes rules of grammar and stylistics when writing texts intended for students, parents or peers.
- Is able to take up a position, support his or her ideas and argue his or her subject matter in a consistent, effective, constructive and respectful way during discussions.
- Communicates ideas concisely using precise vocabulary and correct syntax.
- Corrects the mistakes students make when speaking and writing.
- Constantly strives to improve his or her own oral and written language skills.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- master the rules of oral and written expression so as to be understood by most of the linguistic community;
- Express himself or herself with the ease, precision, efficiency and accuracy expected by society of a teaching professional.

COMPETENCY N° 3

To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.

FEATURES

- Bases the selection and content of teaching sequences on data drawn from recent didactical and pedagogical research.
- Selects and interprets subject-specific knowledge in terms of the aims, competencies and subject content specified in the program of study.
- Plans teaching and evaluation sequences taking into account the logic of the content to the taught and the development of learning.
- Takes into account the prerequisites, conceptions, social differences (i.e. gender, ethnic origin, socio-economic and cultural differences), needs and special interests of the students when developing teaching/learning situations.
- Selects diverse instructional approaches that are suited to the development of the competencies targeted in the programs of study.
- Anticipates obstacles to learning posed by the content to be taught.
- Plans learning situations that provide opportunities to apply competencies in different contexts.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- develop appropriate and varied teaching/learning situations involving a reasonable level of complexity that enable students to progress in the development of their competencies;
- Build these activities into a long-term plan.

COMPETENCY Nº 4

To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.

FEATURES

- Creates conditions in which students can engage in meaningful problem situations, tasks or projects, based on their cognitive, emotional and social characteristics.
- Provides students with the resources they need to take part in the learning situations.
- Guides students in selecting, interpreting and understanding the information provided in the various resources and in understanding the elements of a problem situation or the requirements of a task or project.
- Supports student learning by asking questions and providing frequent and relevant feedback to promote the integration and transfer of learning.
- Encourages teamwork.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- guide students, through appropriate interventions, in carrying out learning tasks;
- lead the students to work together in cooperation;
- Detect teaching/learning problems that arise and use the appropriate resources to remedy them.

COMPETENCY Nº 5

To evaluate student progress in learning the subject content and mastering the related competencies.

FEATURES

- Gathers information as students are engaged in a learning situation in order to identify their strengths and weaknesses and to review and adapt his or her teaching accordingly to help them progress.
- Takes stock of the learning acquired by students in order to assess their mastery of the related competencies.
- Designs or uses tools to evaluate student progress and mastery of competencies.
- Communicates expected outcomes to students and parents and provides feedback on student progress and mastery of competencies using clear, simple language.
- Works with the teaching team to determine the desired stages and rate of progression within the cycle concerned.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- detect the strengths and weaknesses of the students in a learning situation;
- identify some of the adjustments required in his or her teaching on his or her own;
- in cooperation with colleagues, design evaluation materials, interpret the work of students in terms of their mastery of the competencies, and develop tools for communicating with parents;
- Inform the students of the results of a diagnostic evaluation process and inform parents and members of the teaching team of the corrective intervention strategy elements envisaged.

COMPETENCY Nº 6

To plan, organize and supervise a class in such a way as to promote students' learning and social development.

FEATURES

- Develops and implements an efficient system for running regular classroom activities.
- Communicates clear requirements regarding appropriate school and social behaviour and makes sure that students meet those requirements.
- Involves students on an individual or a group basis in setting standards for the smooth running of the class.
- Develops strategies for preventing inappropriate behaviour and dealing effectively with it when it occurs.
- Maintains a classroom climate that is conducive to learning.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- introduce and maintain routines that ensure the smooth running of regular classroom activities;
- identify and correct organizational problems that hinder the smooth running of the class;
- anticipate some of the organizational problems that hinder the smooth running of the class and plan measures to prevent them;
- Establish and apply methods that can be used to solve problems with students who exhibit inappropriate behaviours.

COMPETENCY Nº 7

To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.

FEATURES

- Facilitates the educational and social integration of students with learning disabilities, social maladjustments or handicaps.
- Consults resource people and parents to obtain background information on students with difficulties (needs, progress, etc.).
- Proposes learning tasks, challenges and roles within the class that help students to progress.
- Participates in developing and implementing individualized education plans.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- Cooperate in the development and implementation of individualized education plans designed for students under his or her responsibility.

COMPETENCY Nº 8

To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.

FEATURES

- Exercises critical judgment regarding the real benefits and limitations of ICT as teaching and learning resources, and regarding the social issues they raise.
- Assesses the instructional potential of computer applications and networking technology in relation to the development of the competencies targeted in the programs of study.
- Communicates using various multimedia resources.
- Uses ICT effectively to search for, interpret and communicate information and to solve problems.
- Uses ICT effectively to build networks that facilitate information sharing and professional development with respect to his or her own field of teaching or teaching practice.
- Helps students to familiarize themselves with ICT, to use ICT to carry out learning activities, to assess their own use of ICT, and to exercise critical judgment regarding the information they find on the Internet.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- demonstrate critical judgment regarding the real benefits and limitations of ICT as teaching and learning resources;
- demonstrate a general understanding of the possibilities offered by ICT (and the Internet in particular) for teaching and learning, and know how to integrate ICT in a functional manner into teaching/learning activities, when appropriate;
- use ICT effectively in different aspects of his or her intellectual and professional life: communication, research, information processing, evaluation, interaction with colleagues or experts, etc.;
- Effectively transmit the ability to use ICT to his or her students in order to support the collective construction of learning in a well-structured, critical manner.

COMPETENCY Nº 9

To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.

FEATURES

- Collaborates with other members of the school staff in defining orientations, and developing and implementing projects related to educational services in areas falling under the responsibility of the school.
- Informs parents and encourages them to become actively involved.
- Coordinates his or her actions with those of the school's various partners.
- Supports students involved in the administrative structures of the school or in school activities or projects.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- situate his or her role in relation to that played by other internal or external resource persons;
- adjust his or her actions to the educational objectives of the school and contribute to the attainment of these objectives by becoming personally involved in school projects;
- Start building a trusting relationship with parents.

COMPETENCY Nº 10

To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.

FEATURES

- Recognizes instances where cooperation with other members of the teaching team is required in order to design or adapt teaching/learning situations, to evaluate student learning or to promote the mastery of competencies by the end of the cycle.
- Develops and organizes a project appropriate to the objectives to be attained by the teaching team.
- Cooperates in an active, ongoing manner with the teaching teams working with the same students.
- Helps build consensus, when required, among members of the teaching team.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- contribute to the work of the teaching team in an effective manner;
- Provide constructive criticism and make innovative suggestions with respect to the team's work.

COMPETENCY Nº 11

To engage in professional development individually and with others.

FEATURES

- Takes stock of his or her competencies and takes steps to develop them using available resources.
- Discusses the relevance of his or her pedagogical choices with his or her colleagues.
- Reflects on his or her practice (reflective analysis) and makes the appropriate adjustments.
- Spearheads projects to solve teaching problems.
- Involves peers in research related to the mastery of the competencies targeted in the programs of study and to the educational objectives of the school.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- identify, understand and use available resources (research reports and professional literature, pedagogical networks, professional associations, data banks) related to teaching;
- identify his or her strengths and limitations, along with his or her personal objectives and the means of achieving them;
- engage in rigorous reflexive analysis on specific aspects of his or her teaching;
- Undertake research projects related to specific aspects of his or her teaching.

COMPETENCY Nº 12

To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

FEATURES

- Understands the values underlying his or her teaching.
- Manages his or her class in a democratic way.
- Provides students with appropriate attention and support.
- Justifies his or her decisions concerning the learning and education of students to the parties concerned.
- Respects the confidential nature of certain aspects of his or her work.
- Avoids any form of discrimination toward students, parents or colleagues.
- Situates the moral conflicts arising in class with reference to the major schools of thought.
- Demonstrates sound judgment in using the legal and regulatory framework governing the teaching profession.

LEVEL OF MASTERY

By the end of his or her initial training, the student teacher should be able to :

- demonstrate sufficient responsibility in dealings with students that one can recommend with no reservations that a class be entrusted to his or her care;
- Answer to others for his or her actions by providing well-founded reasons.

Chapter 4

Exit

Profiles

4 EXIT PROFILES

The new curriculum currently being implemented in Québec's schools groups subjects into five subject areas, each of which is designed to be integrative. This important element of the reform, along with the difficulties created by the current exit profiles and the need to define teaching on the basis of actual school needs, has led the MEQ to define new exit profiles for future teachers.

The new exit profiles are based on the five subject areas. The profiles specify the professional competencies that future teachers are expected to possess once they have completed their initial training, the teaching contexts in which they are expected to work and the subjects they are expected to teach, which correspond to the subjects listed in the basic school regulations.

This chapter defines exit profiles for each of the bachelor of education degrees currently awarded through the teacher training programs offered by Québec's universities, namely:

- the bachelor of education program in preschool and elementary education;
- the bachelor of education program in general secondary education;
- the bachelor of education program in arts education;
- the bachelor of education program in physical education and health;
- the bachelor of education programs in second language instruction, French as a second language and English as a second language;
- the bachelor of education program in special education.

4.1 Exit Profiles Based on Subject Areas

4.1 Exit Profiles Based on Subject Areas

Before defining the exit profiles for each type of bachelor of education degree, it is important to stress that the Québec school curriculum is based on five subject areas, each of which covers a number of subjects or fields:

- languages:
  English or French language arts; French or English as a second language; a third language
- mathematics, science and technology:
  mathematics, science and technology
- arts education:
  visual arts, music, drama and dance
- social sciences:
  history, geography and citizenship education; history and citizenship education; geography; understanding of the contemporary world
- personal development:
  physical education and health; ethics and religious culture; moral education; Catholic moral and religious instruction; Protestant moral and religious education

The teacher training exit profiles have been designed to match the subject areas, especially for the bachelor of education program in general secondary education, the bachelor of education program in arts education, the bachelor of education program in physical education and health, and the bachelor of education program in second languages.

Over the last decade, “dual subject” degrees, in other words degrees that qualified teachers to teach two subjects, were the main focus of teacher training programs for secondary-level education because they were considered to offer several advantages. The “dual subject” approach seemed to be an ideal way of developing the general culture of future teachers, and of reducing the number of teachers with whom students came into contact, leading to the development of more sustained relationships. Another objective was to highlight the links between subjects to assist student development. It was also expected that prospective teachers would have a better chance of finding a teaching job.

It is now possible, with hindsight, to make the following observations. The application of the “dual subject” approach resulted in a large number of exit profiles, many of which were hard to justify in terms of links between the two subjects concerned. These exit profiles, which lacked links between the two subjects and often lacked links with the content of the related school programs, led to concern over the quality of the subject-specific training dispensed to teachers. In addition, they made the organization of university-level teaching training programs more complex and, in some cases, made it difficult for student teachers to complete placements. The ability of schools to accommodate student teachers is limited where specific subjects are associated with several different training profiles.

In addition, many secondary-level teaching positions are single-subject positions, and a relatively small number of teachers are assigned teaching duties in two subjects. MEQ data from September 1998 on teacher assignments shows that, across all subjects, 66% of teachers teach only one subject. In “French, language of instruction” and “mathematics”, 75% and 76%, respectively, of teaching is dispensed by single-subject teachers.

Based on these results, and the needs created by the new curriculum, it is clear that secondary education teacher training exit profiles must be reviewed and realigned with the subject areas. By concentrating teacher training on single subject areas, the MEQ hopes to consolidate the subject-specific knowledge required to teach professionally and to promote the reinforcement and integration of knowledge, which will now be more interrelated.

However, the consolidation of subject-specific knowledge must be part of an overall approach to the teaching of the subject concerned. Teacher training must allow future teachers to make links between subject-specific knowledge, program content at the school level, and the competencies students are expected to develop. The Québec Education Program must be used, nonrestrictively, as a template to determine the relevance, scope and depth of the subject-specific knowledge provided as part of teacher training programs.

In addition, teacher training must be part of a broader, interdisciplinary approach that allows the contribution made by each subject to the understanding of a given situation to be understood. Future teachers will work in pedagogical teams with the ultimate goal of developing students’ competencies, come into contact with other specific subject areas, and be required to contextualize them in teaching/learning situations that have meaning for the students. In the current context, interdisciplinarity is a necessity. However, as pointed out by the Conseil supérieur de l'éducation (2000: 35; our translation), the context “in no way reduces the need for various types of knowledge, which must still be acquired and even mastered, since it requires an ability to interrelate, integrate and use knowledge in various types of situations to understand, explain or solve problems.” Teacher training must allow future teachers to cast a critical eye over their own subject area.

In this way, the teachers of the future will be better equipped to play the role of inheritors, critics and interpreters and to integrate the cultural dimension into their teaching.

Lastly, the establishment of exit profiles based on subject areas should make it easier to organize teacher training programs at the university level, implement training activities designed specifically for future teachers, and organize student-teacher placements.

4.1.1 The bachelor of education program in preschool and elementary education

Under the *Education Act*, the Government is responsible for establishing a basic school regulation for preschool, elementary and secondary education, setting out the nature and objectives of educational services and an organizational framework.

At the preschool level, "the purpose of preschool education services is to promote the overall development of children by helping them to acquire the attitudes and competencies that will facilitate their success as students and as individuals" (Éditeur officiel du Québec 2000b:1). The basic school regulation does not prescribe compulsory subjects at the preschool level.

At the elementary level, "the purpose of elementary instructional services is to promote the overall development of students and their integration into society through basic learning, which will contribute to the progressive development of their autonomy and will prepare them for the level of learning required in secondary school" (Éditeur officiel du Québec 2000b: 1). The basic school regulation prescribes the compulsory subjects taught at the elementary level: language of instruction, second language, mathematics, science and technology, the arts, history, geography and citizenship education, physical education and health, moral instruction or religious and moral instruction.

In recent years, preschool and elementary school teachers have taught most of the subjects specified in the basic school regulation to a single group of students. An exception is made for the subjects traditionally recognized as specialities, such as the arts, physical education and health, and second languages, which are generally taught by specially trained teachers. However, the reality of the education system in certain communities means that elementary school teachers sometimes have to teach even these specialist subjects. The *Education Act* states that "every teacher has a right to refuse to give moral and religious instruction of a religious confession on the grounds of freedom of conscience" (Éditeur officiel du Québec 1998: 6).

A sound basic training in all subjects is thus required to teach at the elementary level. The teacher training program must consolidate and complete, if necessary, the subject-specific knowledge of the student teachers. The emphasis placed on certain subjects in the timetable highlights the importance of certain types of learning. The language of instruction and mathematics are two subjects that are considered to be fundamental if students are to continue their education. Similarly, science and technology must receive particular attention in teacher training programs. Québec schools must ensure that more students are attracted to these subjects in order to meet the needs of society, and elementary education plays a key role in this respect. It would be appropriate for the universities to establish methods to diagnose the needs of student teachers as soon as they begin their course and, where necessary, to complete their training.

The consolidation of subject-specific knowledge as part of the teacher training program must be designed to meet the teaching needs of those subjects at the elementary level, interdisciplinarity and teaching from a cultural perspective.

The teacher training program must also introduce the subjects considered as specialized subjects, namely the arts, second languages and physical education and health, and more importantly show how they contribute to students' overall development.

Bachelor of education degree in preschool and elementary education

For the granting of a bachelor of education degree in preschool and elementary education, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to offer the educational services provided for preschool education and to teach all the subjects prescribed in the basic school regulation at the elementary level, with the exception, in most case, of the specialist subjects.

The bachelor of education program in preschool and elementary education should consolidate the subject-specific knowledge acquired for each subject, and introduce future teachers to arts subjects.

4.1.2 The bachelor of education program in general secondary education

In the youth sector, "the purpose of secondary instructional services is to further the overall development of students, to foster their social integration and to help them determine personal and career goals. These services complement and reinforce the basic education received by students so that they may obtain a Secondary School Diploma or other occupational qualifications and, as the case may be, pursue postsecondary studies" (Éditeur officiel du Québec 2000b: 1).

In the adult sector, "the purpose of instructional services is to help adults acquire the theoretical or practical knowledge that will enable them to achieve their learning objectives" (Éditeur officiel du Québec 2000a: 1).

The new exit profiles will be based on the five subject areas, but will also have certain particularities as explained below.

4.1.2.1 The "languages" subject area

The "languages" subject area covers the following subjects listed in the basic school regulation:

- the language of instruction
- a second language
- a third language

Special teacher training must be provided for future teachers of second and third languages.

In the curriculum reform, mastery of the language of instruction is considered indispensable, since it is part of the general heritage and gives access to the other areas of learning. For this reason, the language of instruction ranks first in terms of time allocation in the secondary level compulsory subject-time allocation.

The "language of instruction" exit profile is a single-subject profile leading to the granting of a bachelor of education degree in general secondary education. As mentioned above, this is based on the importance assigned to this subject in the reform. The subject-specific knowledge taught as part of the teacher training program must be designed to meet the needs of teaching the subject at the secondary level, interdisciplinarity and teaching from a cultural perspective.

In addition, this single-subject exit profile leaves universities free to adapt it to the needs of a specific community. By taking more advanced special education courses, future teachers will be qualified to teach other student clienteles, in addition to students with learning disabilities, social maladjustments or handicaps (see Competency 7), such as adult students in Cycle One or Cycle Two secondary education, and youth-sector allophones.

The ability to teach the subject to youth sector students in Cycle One and Cycle Two secondary education will, however, continue to be the main component of the teacher training program in this area.

Bachelor of education degree in general secondary education, language of instruction profile

For the granting of a bachelor of education degree in general secondary education, language of instruction profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subject of language of instruction, as provided for in the basic school regulation, in both cycles of secondary education in the youth sector.

In addition, the teacher training program should prepare future teachers to meet requirements related to the adaptation of teaching to differentiated classrooms or to communities or groups with special needs.

The ability to teach the subject to youth sector students in Cycle One and Cycle Two secondary education will, however, continue to be the main component of the teacher training program in this area.

4.1.2.2 The mathematics, science and technology subject area

The mathematics, science and technology subject area covers the following subjects listed in the basic school regulation:

- mathematics
- science and technology

In the curriculum reform, mathematics is considered to be essential to the daily functioning of individuals in society. Mathematics ranks second in terms of time allocation in the secondary level compulsory subject-time allocation.

The "mathematics" exit profile is, like the language of instruction profile, a distinct, single-subject profile leading to a bachelor of education degree in general secondary education. As for the language of instruction, the subject-specific knowledge taught as part of the teacher training program must be designed to meet the teaching needs of the subject at the secondary level, interdisciplinarity and teaching from a cultural perspective.

In addition, this single-subject exit profile leaves universities free to adapt it to the needs of a specific community. By taking more advanced special education courses, future teachers will be qualified to teach other student clienteles, in addition to students with learning disabilities, social maladjustments or handicaps (see Competency 7), such as adult students in Cycle One or Cycle Two secondary education, and youth-sector allophones.

The ability to teach the subject to youth sector students in Cycle One and Cycle Two secondary education will, however, continue to be the main component of the teacher training program in this area.

Since mathematics constitutes a distinct, single-subject exit profile, science and technology constitutes a second, distinct exit profile leading to the granting of a bachelor of education degree.

The science and technology exit profile covers a broad range of knowledge. The teacher training program should not be designed as a patchwork of courses from various subject areas, but should instead be developed with a view to training future teachers of an integrative subject, namely science and technology, who will work with fellow teachers to develop student competencies. The subject-specific knowledge for the teacher training program must be designed to identify the contribution made by science and technology to the understanding and resolution of various problems. The program must also link the subject to other subject areas and promote teaching from a cultural perspective.

The teacher training program must be designed to take into consideration, in the additional training provided, the fact that scientific subjects are often taught as electives in Cycle Two secondary education.

Bachelor of education degree in general secondary education, mathematics profile

For the granting of a bachelor of education degree in general secondary education, mathematics profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subject of mathematics, as provided for in the basic school regulation, in both cycles of secondary education in the youth sector.

In addition, the teacher training program should prepare future teachers to meet requirements related to the adaptation of teaching to differentiated classrooms or to communities or groups with special needs.

The ability to teach the subject to youth sector students in Cycle One and Cycle Two secondary education will, however, continue to be the main component of the teacher training program in this area.

Bachelor of education degree in general secondary education, science and technology profile

For the granting of a bachelor of education degree in general secondary education, science and technology profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subject of science and technology, as provided for in the basic school regulation, in both cycles of secondary education in the youth sector.

The universities will be responsible for defining the teacher training program to take into consideration, in the additional training provided, the fact that the subjects are often taught as electives in Cycle Two secondary education.

4.1.2.3 The social sciences subject area

The social sciences subject area covers the following subjects listed in the basic school regulation:

- history and citizenship education
- geography
- understanding of the contemporary world

The "social sciences" exit profile is another profile that leads to the granting of a bachelor of education degree in general secondary education. The range of subject-specific knowledge that needs to be covered in the teacher training program is extensive. Following their initial training, social sciences teachers must be able to teach history and citizenship education, geography, and understanding of the contemporary world to students at the secondary level. The subject-specific knowledge covered by the teacher training program must be selected with this in mind, and in order to prepare future teachers to teach the subjects at the secondary level. The future teachers will be required to work with fellow teachers to develop students' competencies. The subject-specific knowledge included in the teacher training program must reflect the objectives of interdisciplinarity and teaching the subjects concerned from a cultural perspective.

Since the program content at the secondary level must be used as the template to determine the scope, depth and relevance of the subject-specific knowledge included in the teacher training program, the relative importance assigned to history and citizenship education in the basic school regulation must be taken into consideration in designing the teacher training program.

History and citizenship education is part of the curriculum for the first four years of secondary education, and its time allocation corresponds to fourteen credits. Geography is part of the curriculum in Secondary Cycle One, with six credits. Understanding of the contemporary world is part of the curriculum in Secondary V, and its time allocation corresponds to four credits.

Bachelor of education degree in general secondary education, social sciences profile

For the granting of a bachelor of education degree in general secondary education, social sciences profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subjects of history and citizenship education, geography, and understanding of the contemporary world, as provided for in the basic school regulation, in both cycles of secondary education.

The teaching of history and citizenship education will, however, continue to be the main component of the teacher training program in this area.

4.1.2.4 The personal development subject area

The personal development subject area covers the following subjects listed in the basic school regulation:

- physical education and health
- ethics and religious culture
- moral education
- Catholic moral and religious instruction; Protestant moral and religious education

Physical education and health is covered by a separate bachelor of education degree.

Ethics and religious culture is a new program of studies at the Secondary Cycle Two level, and its time allocation corresponds to two credits. Moral education, Catholic moral and religious instruction/Protestant moral and religious education, or a local program of studies approved by the Minister, is part of the curriculum in Secondary Cycle One; the time allocation corresponds to four credits.

The orientation of the ethics and religious culture program is to "encourage students to share their thoughts on ethical attitudes and on the various spiritual, religious and humanist options that have marked and continue to mark the history of civilization" (Ministère de l'Éducation 2000b: 12; our translation). Given this orientation, a level of complementarity exists between this program and the history and citizenship education program, and it could be part of a possible "social sciences" profile.

The Catholic moral and religious instruction/Protestant moral and religious education programs are part of the range of choices offered in Secondary Cycle One. However, because of the wide range of possible moral, religious and spiritual outlooks, individual schools may establish a local program of studies on ethics and religious culture, or an ecumenical program on Christian traditions.

Although the three programs, ethics and religious culture, moral education, and Catholic moral and religious instruction/Protestant moral and religious education, are part of the same subject area, a separate teacher training program covering this subject area requires caution. The time allocation for these subjects is relatively limited, and the professional duties of the teachers concerned will be particularly exacting because of the range of programs and the number of students taught during a given year.

For this reason, the MEQ, after consulting its partners, has decided to define two distinct teacher training exit profiles for the personal development subject area. The universities should, in the interest of the future teachers concerned, try to integrate the subjects of history, citizenship education, moral education and ethics and religious culture around a common pole, and could decide to offer optional or supplementary training in denominational moral and religious

education as part of their initial teacher training or professional development programs.

As for the other exit profiles, the subject-specific knowledge included in the teacher training program must reflect the teaching needs of the subject at the secondary level, interdisciplinarity and teaching from a cultural perspective.

Bachelor of education degree in general secondary education, personal development profile

For the granting of a bachelor of education degree in general secondary education, personal development profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subjects of ethics and religious culture and moral education, as provided for in the basic school regulation, in both cycles of secondary education. Catholic moral and religious instruction/Protestant moral and religious education must be offered as an elective as part of the program.

Bachelor of education degree in general secondary education, social sciences and personal development profile

For the granting of a bachelor of education degree in general secondary education, social sciences and personal development profile, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach the subjects of history and citizenship education, ethics and religious culture, and moral education, as provided for in the basic school regulation, in both cycles of secondary education.

Catholic moral and religious instruction/Protestant moral and religious education may be offered as an elective as part of the program. The teaching needs of history and citizenship education will, however, continue to be the main component of the teacher training program in this area.

4.1.3 The bachelor of education program in arts education

The arts education subject area covers the following subjects listed in the basic school regulation:

- visual arts
- music
- drama
- dance

Arts education is compulsory for all students, from the first year of elementary school to the second year of secondary school. The MEQ, in its 1997 policy statement, suggested that schools centre their arts education on music and the visual arts, although it specified that "this decision is not intended to prevent schools with an established tradition of teaching dance or drama from continuing to do so if they so desire" (Ministère de l'Éducation 1997b: 21).

This direction given to the school system must be taken into consideration in designing teacher training programs in arts education, since it can be assumed that schools will require more music and visual arts teachers. However, the freedom given to the school system also suggests that there will be a demand for drama and dance teachers.

Each subject in the area of arts education can constitute a separate exit profile for teacher training programs. However, universities that wish to respond to specific needs within the school system may offer an exit profile based on two arts subjects. Whatever the design of the teacher training program, it should prepare future teachers for work at the preschool, elementary and secondary levels.

As for all the teacher training exit profiles, the subject-specific knowledge included must reflect the teaching needs of the subject at the secondary level, interdisciplinarity, and teaching from a cultural perspective. The universities must specifically verify the subject-related aptitudes of all candidates applying for admission to an arts education teacher training program.

Bachelor of education degree in arts education

For the granting of a bachelor of education degree in arts education, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach one of the arts subjects listed in the basic school regulation at the preschool, elementary and secondary levels. The universities may design teacher training programs that include a second arts subject.

The universities must specifically verify the subject-related aptitudes of all candidates applying for admission to an arts education teacher training program.

4.1.4 The bachelor of education program in physical education and health

The physical education and health program is compulsory for all students from the first year of elementary school to the fifth year of secondary school.

The physical education subject area, which includes a "health education" component, constitutes a distinct teacher training exit profile. The program should prepare future teachers for work at the preschool, elementary and secondary levels.

As for all the teacher training exit profiles, the subject-specific knowledge included must reflect the teaching needs of the subject at the secondary level, interdisciplinarity, and teaching from a cultural perspective. The universities must specifically verify the subject-related aptitudes and predisposition of all candidates applying for admission to a physical education teacher training program.

Bachelor of education degree in physical education and health

For the granting of a bachelor of education degree in physical education and health, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach physical education and health, as provided for in the basic school regulation, at the preschool, elementary and secondary levels.

The universities must specifically verify the subject-related aptitudes and predisposition of all candidates applying for admission to a physical education and health teacher training program.

4.1.5 The bachelor of education programs in second language instruction, French as a second language or English as a second language

In Québec, the school curriculum targets the acquisition of second and third languages. The needs of the schools in terms of second language instruction vary widely, depending on whether the students involved are in the youth or adult sector, in a French-language or English-language school.

For students in the French-language youth sector, the curriculum specifies that English as a second language must be taught from the second cycle of elementary school to the end of secondary school. For students in the English-language youth sector, the curriculum specifies that French as a second language must be taught from the first cycle of elementary school to the end of secondary school. In addition, schools are encouraged to set up immersion programs. The curriculum also provides for the introduction of a third language as an elective in Secondary Cycle One.

For adult students, various second-language services are available, including English as a second language and French as a second language. Other services are also offered to facilitate the integration of allophones into Québec society while preparing them for further studies or entry into the job market.

To meet the wide range of possible needs, the universities should design flexible training options for each of the two teacher training programs leading to the granting of a bachelor of education degree. Each program should have a common core that prepares future teachers to teach either English as a second language or French as a second language to youth-sector students at the elementary and secondary levels. In addition to the common core, other courses should be designed to meet the range of needs expressed by the school community. The following specific needs should be noted:

- intensive second language instruction at the elementary level
- advanced second language instruction at the secondary level, in the youth sector
- third language instruction at the secondary level, in the youth sector
- second language instruction in the adult sector
- second language instruction as part of the services offered to allophones, in both the youth and adult sectors

As for all the teacher training exit profiles, the subject-specific knowledge included must reflect the teaching needs of the subject at the secondary level, interdisciplinarity, and teaching from a cultural perspective. The universities must specifically verify the subject-related aptitudes of all candidates applying for admission to a second or third language teacher training program.

Bachelor of education degree in French as a second language or English as a second language.

For the granting of a bachelor of education degree in French as a second language or in English as a second language, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely:

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to teach either English as a second language or French as a second language, as provided for in the basic school regulation, at the preschool, elementary and secondary levels of youth sector education. In addition to the common core, the programs should prepare future teachers to meet the specific needs of the school community.

The universities must specifically verify the subject-related aptitudes of all candidates applying for admission to a second language teacher training program.

4.1.6 The bachelor of education program in special education

According to the training model selected for special education, initial teacher training in special education had to prepare future teachers to work with students with social maladjustments, learning disabilities or handicaps, at the preschool, elementary and secondary levels. In addition, the teacher training program had to prepare future teachers to provide support for students maintained in regular classes or to take charge of a special class in a regular or special school.

The teacher training program in special education, like all the other programs, lasted four years, and covered the development of a broad range of skills. It included, first, activities designed to develop the competencies needed by all teachers who have responsibility for a class. Next, it included activities to accentuate the development of competencies for adapting teaching methods to students with special needs, in close collaboration with the school team and with the parents concerned. Last, it had to prepare future teachers to perform a role separate from that of classroom teacher, namely to provide support for students maintained in regular classes, whether in a classroom under the responsibility of another teacher or outside the classroom.

Was it realistic to expect that such a broad range of competencies could be developed in an undergraduate-level university program lasting four years? This question certainly merits being asked at this time.

The 1998-1999 annual report of the committee in charge of accrediting teacher training programs, the Comité d'agrément des programmes de formation à l'enseignement (1997: 5; our translation), describes some of the difficulties encountered by universities in attempting to meet the overwhelming demands of the MEQ: "After studying the programs concerned in 1996-1997, the committee concluded that none of the proposals made could receive full accreditation as six-year programs. The members made their decision after observing that the universities were unable to meet all the requirements of the document on teacher training in special education." It was observed at the time that in most cases the proposed programs prepared future teachers to take charge of a special class without including enough elements to allow intervention with secondary-level students. However, the real-life situation in schools is completely different.

4.1.6.1 Special education for youth sector students

The Policy on Special Education (Ministère de l'Éducation 1999b) is based on the key idea underlying the reform of the education system: to target success for as many students as possible, with success having different meanings depending on the abilities and needs of different students. The general orientation of the special education policy is to help students with handicaps, social maladjustments or learning disabilities succeed in terms of knowledge, social development and qualifications (the three components of the school mission).

To implement this basic orientation, the policy proposes six lines of action, some of which affect the way teacher training programs in special education should be designed. For example,

> "Recognizing the importance of prevention and early intervention" (Ministère de l'Éducation 1999b: 16)

This line of action has two main aspects: creating an environment conducive to learning and success for all students, and recognizing the first manifestations of problems and intervening quickly.

> "Making the adaptation of educational services a priority for all those working with students with special needs" (Ministère de l'Éducation 1999b: 18)

The policy supports the adaptation of services (educational pathways, programs, teaching materials). For teachers, this means adapting their teaching methods. Diversified teaching/learning situations, and the use of a range of pedagogical and teaching approaches, are some of the many ways in which teaching can be adapted.

> "Placing the organization of educational services at the service of students with special needs by basing it on the individual evaluation of their abilities and needs, by ensuring that these services are provided in the most natural environment for the students, as close as possible to their place of residence, and by favouring the students' integration into regular classes" (Ministère de l'Éducation 1999b: 20)

The Policy states that services must be organized on the basis of an evaluation of the abilities and needs of individual students, and the *Education Act* prescribes the preparation of an individualized education plan designed to meet student needs. The Policy also stresses the importance of integrating special-needs students in regular classes:

> "Creating a true educational community, starting with the child and the parents and continuing with outside partners and community organizations working with young people, in order to provide more consistent intervention and better-coordinated services" (Ministère de l'Éducation 1999b: 23)

In connection with this line of action, and in keeping with one of the basic orientations of the reform, the Policy considers each student to be the main author of his or her own success. It also relies heavily on the competencies of teachers in cooperating with the school's partners, and with parents above all. Parents play an essential role in the educational community, and their contribution must be recognized. Teachers must also cooperate, however, with other players in the education system: fellow teachers, other school staff members, the governing board and community organizations.

The Policy on Special Education clearly lays the emphasis on prevention, adaptation and integration. It is no longer exceptional for students with special needs to be part of a regular class, especially in elementary schools, as demonstrated by MEQ data from 1997-1998.

For the public sector as a whole, special-needs students make up 12.4% of student enrollment; 11.2% of students have social maladjustments or learning disabilities, and 1.3% have handicaps. Students with social maladjustments or learning disabilities therefore account for 89.8% of all special-needs students; most (66.7%) have learning disabilities, followed by students with social maladjustments (19.3%).

Concerning the integration of special-needs students in regular classes, the data show a large gap between the preschool and elementary level and the secondary level. The regular class integration rate for special-needs students shows a marked decrease between elementary school and secondary school. For example, the integration rate for students with mild learning disabilities or social maladjustments is 98.7% and 74.4%, respectively, at the elementary level, but drops to 56.1% and 39.5% at the secondary level. Similarly the integration rate for students with a physical handicap or a moderate intellectual disability drops from 74% and 25% at the elementary level to 53% and 4% at the secondary level.

Although the data on graduation rates are more complex, a longitudinal study of the 1990 cohort provides some indications. The highest success rates in the youth sector are recorded by students with a mild motor impairment or an organic impairment (39.8%), a visual impairment (40%), a hearing impairment (31.6%), or mild learning disability (21%). Many youth sector students who fail to obtain a diploma are found in the adult sector, including students with a social maladjustment (43.2%), psychopathological disorder (42.9%), severe learning disability (42.2%) or mild learning disability (30.4%).

Given this situation, **all future teachers, whatever their exit profile, must be better prepared to intervene with special-needs students**. The reference framework for the professional competencies future teachers are expected to acquire following teacher training includes a competency concerning the adaptation of teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps (see Competency 7).

However, following consultation with the partners concerned, it is still necessary to offer undergraduate-level university training specifically in special education. The program must meet various needs:

- support for students integrated into regular classes, at the elementary and secondary levels
- supervision of groups of students in a special class, in a regular or special school, at the elementary and secondary levels

4.1.6.2 Special education for adult sector students

The ministerial plan of action for the reform of the education system, A New Direction for Success (Ministère de l'Éducation 1997) defines providing better access to continuing education as one of its lines of action to ensure success for as many students as possible, in particular by guaranteeing access to continuing education services that meet the range of needs of adult students.

As part of the implementation process for the plan of action, a consultation document entitled Toward a policy on lifelong learning (Ministère de l'Éducation 1998) targeted a sound basic education (nine years of schooling) as an immediate priority: "Society as a whole–and the education system in particular–must face up to its responsibilities regarding individuals who, for whatever reason, have been unable to reach the levels of education that are today considered to be a minimum." (Ministère de l'Éducation 1998b: 15). In adult education, basic education is considered to be the minimum education that every adult must possess in order to live and function in a continually-changing society, and to pursue further educational goals.

In order to define what services should be offered, it is important to bear in mind that basic education has been defined as "corresponding to the development of basic competencies such as reading, writing, oral expression, arithmetic and the use of information and communications technologies, along with other competencies such as logical reasoning, problem resolution and decision making" (Ministère de l'éducation 2000a: 7; our translation).

In addition, it should be noted that the basic adult general education regulation specifies that the following instructional services are to be provided:

- pedagogical support
- literacy
- preparation for secondary education
- Secondary Cycle One
- Secondary Cycle Two
- social integration
- sociovocational integration
- francization
- preparation for vocational training
- preparation for postsecondary education

4.1.6.3 Teacher training

In light of the above, training programs must be designed to take into account the special education needs of youth sector and adult sector students. However, because of the wide range of needs observed, no single four-year program leading to a bachelor of education degree in special education can cover the entire field. Although several different programs must be designed to meet the range of needs observed and to allow the universities to respond to all MEQ requirements, they must share certain features:

- they must focus on the development of the professional competencies required for pedagogical interventions, in other words the competencies that characterize the teaching profession;
- they should prepare future teachers to intervene mainly in the area of the language of instruction and mathematics; although future teachers should have a general knowledge of the objects of learning in the various subject areas of the curriculum, and be familiar with the Québec Education Program, their training in the so-called "essential" subjects, namely the language of instruction and mathematics, should be reinforced;
- they must allow future teachers to specialize in interventions with elementary level students **or** with secondary level students in the youth or adult sector, mainly in basic education **or** with handicapped students.

Teacher training programs leading to the granting of a bachelor of education degree in special education must be designed to train teachers specializing in pedagogical interventions with special-needs students, for whom an "adapted" form of teaching is more beneficial. Emphasis should be placed on the resolution of problems in real-life classroom situations.

Bachelor of education degree in special education

For the granting of a bachelor of education degree in special education, universities will be required to offer a teacher training program that provides future teachers with professional competencies specific to the teaching profession, namely :

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
2. To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.
3. To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.
4. To pilot teaching/learning situations that are appropriate to the students concerned and to the subject content with a view to developing the competencies targeted in the programs of study.
5. To evaluate student progress in learning the subject content and mastering the related competencies.
6. To plan, organize and supervise a class in such a way as to promote students' learning and social development.
7. To adapt his or her teaching to the needs and characteristics of students with learning disabilities, social maladjustments or handicaps.
8. To integrate information and communications technologies (ICT) in the preparation and delivery of teaching/learning activities and for instructional management and professional development purposes.
9. To cooperate with school staff, parents, partners in the community and students in pursuing the educational objectives of the school.
10. To cooperate with members of the teaching team in carrying out tasks involving the development and evaluation of the competencies targeted in the programs of study, taking into account the students concerned.
11. To engage in professional development individually and with others.
12. To demonstrate ethical and responsible professional behaviour in the performance of his or her duties.

The teacher training program should prepare future teachers to apply adapted pedagogical interventions in working with students with social maladjustments or learning disabilities at the elementary or the secondary level for the youth sector and adult general education sector, or with handicapped students.

The training program should prepare future teachers to intervene mainly in the subjects of "language of instruction" and "mathematics".

Chapter 5

Designing Teacher Training Programs to Promote the Development of Professional Competencies

5 DESIGNING TEACHER TRAINING PROGRAMS TO PROMOTE THE DEVELOPMENT OF PROFESSIONAL COMPETENCIES

The two general orientations and the reference framework for professional competencies presented in this document form the basis for the redesign of all teacher training programs leading to the granting of a Bachelor of Education degree.

The two orientations for teacher training extend the general spirit of the education reform. The first orientation reaffirms the necessity of providing training of a professional type. The second emphasizes the cultural dimension of the training, which must produce cultured teachers. To meet these two main objectives, an approach based on professional competencies has been selected.

To provide more effective support for those responsible for designing and implementing teacher training programs, the following pages outline several points of reference concerning the two general orientations and the competency-based approach. The order of presentation is not hierarchical, since the points of reference relate to each other as parts of the same network.

5.1 Teacher Training Consistent With Professionalization

- Teacher training programs should be designed in a way that is more in keeping with professional logic; in other words, they must allow future teachers to develop the competencies required to actually practise their profession. The logic of the teaching subject should no longer be the dominant force in designing teacher training programs consistent with professionalization.

- Designing teacher training programs in a manner consistent with professionalization involves recognizing the interactive dimension of teaching. Future teachers, whatever the sector or subject area in which they teach, will have to assist and guide students as they construct their knowledge base. Although subject-specific knowledge remains essential, teachers will specialize in teaching a given subject to a group of students, rather than in the subject itself. In addition, they will work in collaboration with the other members of the teaching staff and cooperate with the school team, parents, and various social partners, in attaining educational objectives. From this point of view, it is clear that the teacher training program in a given subject should be different from the program provided for students specializing in that subject, and should take into account the specific professional dimension of teaching.

- Teacher training programs designed in a manner consistent with professional logic should be based on the development of professional competencies; in other words, learning the competencies required to practise the profession.

The competencies are developed through the ability to mobilize certain specific resources in order to understand and solve work-related problems.

One of these resources is subject-specific knowledge, mainly related to the subject area taught. The prescribed program content that future teachers will teach in schools should form the template for determining the scope, depth and relevance of the subject-specific knowledge provided as part of the teacher training program. Similarly, in the *Basic School Regulation for Preschool, Elementary and Secondary Education*, several subjects are grouped together and offer possibilities for integration; this variable too should be taken into account in designing teacher training programs. It is also essential that elements relating to the history and epistemology of each subject be included in the teacher training program.

The resources required for the development of professional competencies also include knowledge of a pedagogical and didactic nature. Various approaches, methods, means, resources and techniques relating to teaching-learning situations, evaluation and class management must be included in the teacher training programs. The new approach to education modifies the roles played by teachers and students with regard to teaching, learning and evaluation, and these points should also be taken into consideration in determining the elements to be included in a training program.

Lastly, several professional competencies require the mobilization of knowledge linked to other aspects of the profession, practised outside the classroom. For example, teachers now have responsibilities on governing boards, and must be able to work with fellow teachers in schools structured by learning cycles and in a manner conducive to the development of competencies by students.

- The design of teacher training programs intended to develop professional competencies requires a more program-based approach and must promote integrated training. Knowledge must be mobilized to develop professional competencies. The emphasis placed on practical training during the last reform of the teacher training process was a step forward, but a dual approach in which theoretical courses and practical training activities are offered in parallel should be avoided. A “program-based” approach avoids program fragmentation and facilitates the integration of all activities. It is based on concerted action and the establishment of a network bringing together teacher training instructors, student teachers and leaders within a “program team”.

- The design of teacher training programs intended to develop professional competencies must have a connection with actual teaching. School placements offer an ideal opportunity to exercise teaching competencies in a real-life context and assess the degree to which they have progressed and been assimilated. It is essential that schools continue to offer student teachers the possibility of experiencing teaching in the field, giving them an opportunity to demonstrate that they have the competencies required to practise the teaching profession.

- The design of teacher training programs intended to train teaching professionals requires a more constructivist approach than an approach based on application or a single teaching subject. Learning how to teach cannot be reduced to the application of technical solutions to practical problems, just as it cannot be limited to mastery of the teaching subject. Teachers cannot be trained without taking into consideration the real-life working context. This means that training mechanisms must be set up to allow future teachers to learn problem setting and find solutions that fit the immediate context.

- The design of teacher training programs in keeping with professional logic must include elements relating to the development of an ethic of responsibility. Future teachers must learn how to present and justify arguments to defend a given position.

- The design of teacher training programs in keeping with professional logic must include elements relating to the development of reflexive thinking. Future teachers must learn various ways to reflect on their teaching practices and find solutions that are appropriate to the complex context of the classroom.

5.2 Teacher Training Consistent With Teaching From a Cultural Perspective

- The design of teacher training programs consistent with a cultural approach to teaching must take into account the cultural role played by future teachers. They must be cultural brokers and become the inheritors, critics and interpreters of culture as part of their teaching duties.

  Concerning culture as an object, the elements of secondary culture considered to be desirable components of the teacher training program must be discussed in each university. In terms of the subject-specific content for each subject area, the content of the courses taught, including their historical and epistemological elements, should be the template for selecting the objects of secondary culture to promote. It is clear that future teachers must master more of the subject than what is prescribed by each school program. In terms of didactic and pedagogical knowledge, the approaches to teaching, learning and evaluation currently applied in schools should serve as guidelines. However, given the special relationship that future teachers will have with knowledge, the teacher training program should allow them to become not only inheritors (reservoirs of objects of secondary culture) but also critics and interpreters of culture.

  Concerning culture as a relationship (to the world, to others and to oneself), it will be important to create a relationship, in each course of the teacher training programs, between the course content, the existing culture of the student teachers, and the practice of the profession, to make the student teachers more effective in demonstrating a living relationship to culture in their own teaching. The focus should be less on adding courses on culture, and more on creating a positive relationship to culture in a range of training activities.

5.3 An Approach to Teacher Training Based on Professional Competencies

- The design of a teacher training program using an approach based on professional competencies has a direct influence on the training process. A competency is the ability to mobilize resources to face the problems that arise in professional practice, and training mechanisms must promote the development of professional competencies. Although a more traditional approach can still be relevant for teaching certain training objectives, contextualized training based on the type of practical situations encountered in practising the profession is the most appropriate form of training to ensure the development of competencies and to make the training program more coherent.

- The implementation of an approach based on professional competencies has a direct influence on the methods used to evaluate learning. Although school placements are the best time to evaluate the degree to which competencies have progressed and been assimilated, competencies can also be evaluated at any point in the training process, outside the closed structure of three-credit courses. The evaluation methods selected must allow a verification of whether a competency has been acquired, and also of whether it has stabilized. The methods may vary, and be based on assignments, tests, logbooks, video analyses, the comments of supervising teachers, and so on.

5.4 Training Organization

- Centralized control over teacher training programs by each faculty of education is important if the programs are to remain coherent and professionally-oriented. Control should be exercised by program committees bringing together members from the faculty of education, other faculties, the teaching community and the student body, all working together towards the goal of professionalization. If teaching is to become professionalized, close collaboration will be required between teacher training providers, not only within the education faculty but also within the other university faculties. In addition, partnerships between the university and the school system must be strengthened and extend beyond the organization of practical training.

- Professionalization will also involve bringing together, within each university, the three spheres of research, training and the profession. Professionalization must be based on research findings, especially findings that analyze the work of teachers in the classroom. In addition, those responsible for training programs should set up systems to gather data on the entry profile of selected candidates, the performance of program graduates, and the training processes employed, to facilitate the exchange of information concerning training programs within the university and with other universities offering similar programs.

- In order to take into consideration the needs and expectations of the school system with regard to teacher training, university faculty members must master the underlying principles of the reform process currently being implemented in Québec schools. It is even more important that they be made aware, or perhaps trained in, the orientations and professional competencies targeted by the reform of teacher training programs. In this connection, those responsible for the training programs should set up a procedure to assess their own training process and offer appropriate training sessions to their staff.

- To design training plans based on the development of professional competencies, human, material, financial and logistic resources, including personal computers and techno-pedagogical support, must be made available for training groups. This is especially important to ensure the success of the approach based on professional competencies.

- An approach based on the development of professional competencies will involve greater flexibility in traditional organizational structures, such as three-credit courses given by instructors working in parallel. The implementation of integrated training activities (such as projects) under the responsibility of teams of instructors working together for an entire semester or longer is one possibility that should be explored.

- An approach based on professional competencies requires a substantial investment in the training provided to future teachers. Although the current trend in the university community is to work towards the development of research activities, instructors can be encouraged to focus on research into teaching practices, thus combining their research and teaching activities. Possible areas of research include analyzing their own training practices, collaborative research, understanding the teaching process, and the like.

- The support provided for student teachers is also an important factor in the successful implementation of an approach based on professional competencies. In some existing university programs based on this approach, such as engineering or medicine, support services are considered as having strategic importance. In particular when projects are the main focus, it is essential for the students' work to be closely supervised.

- The selection of suitable candidates is another area that requires attention. The selection process should go beyond the criterion of performance as indicated in the academic record. Other elements, such as an awareness of various objects of knowledge, the ability to communicate, or experience gained from working with groups of young people, can be taken into account in the selection process. Several universities have already taken steps in this direction. Candidates admitted to the program with weaknesses in certain areas, especially in subjects that are essential for the pursuit of further learning or in the cultural dimension, must be provided with suitable support.

- ☛ The support, training and integration of term lecturers responsible for teacher training are also important, given that the teacher training program requires them to make a personal commitment and also to become integrated within each program team.

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In many respects, the two general orientations and the approach based on professional competencies do not represent a new departure in the field of teacher training. As early as the 1992 reform, emphasis was placed on the professional nature of teaching and the importance of a sound general culture for future teachers. Some university programs have already moved in this direction.

However, it is possible to go much further, which is why documentary support has been provided for the two general orientations, in order to specify their meaning in terms of teacher training with greater precision. Similarly, the approach based on professional competencies has been selected as being the most consistent with the two orientations. In this regard, the present document is intended to open up possibilities for far-reaching changes in teacher training practices.

APPENDIX

Mandate and Consultations

The mandate of the research and writing committee, as defined by the MEQ, was to update the orientations and target competencies for initial teacher training programs in line with the current reform of the education system and the main observations made in connection with teacher training. The mandate covered general education at the preschool, elementary and secondary levels, the arts, physical education, second languages and special education.

In completing their work, the members of the research and writing committee benefited from the input, comments and suggestions of the individuals listed below.

These people agreed to take part in the validation of the first version of the document, entitled *La formation à l'enseignement – Les orientations – Les compétences professionnelles,* which was submitted to them in May 2000. Their recommendations allowed substantial changes to be made, and led to the publication of a provisional version for province-wide consultation. It should be noted that the people whose advice was sought at that stage in the process acted as experts, and that their comments were strictly personal.

During the provincial consultation, held from October 2 to December 5, 2000, over 50 organizations presented a brief or an opinion. The hearings ended with a meeting of the Table nationale de consultation en formation des maîtres; the participating members are listed below.

The following individuals participated in the validation of the original document:

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The following served as members of the Table nationale de consultation en formation des maîtres:

Jacques Bachand, director, Université du Québec
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