

The project development guide provides a range of tools to assist teachers in their task and to understand the objectives for projects submitted under the Québec Entrepreneurship Contest and the Introduction to Entrepreneurship Measure. Teachers are invited to immerse themselves in entrepreneurial cultural and to discover how to make it attractive for their students.

Introduction to Entrepreneurial Culture

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Project Development Guide for Teachers

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Éducation,
Loisir et Sport
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Québec

Introduction to

Entrepreneurial

Culture



**Project
Development
Guide for
Teachers**

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PREAMBLE

This project development guide has been produced with financial support obtained under the three-year action plan of the Youth Entrepreneurship Challenge. It is intended to give teachers the tools they need to help students set up entrepreneurial projects, as defined in the Student Entrepreneurship division of the Québec Entrepreneurship Contest (QEC) and under the Student Entrepreneurship option of the Introduction to Entrepreneurship Measure (IEM).

The guide has been adapted to the context of the education reform. Designed to help teachers develop their students' interest in entrepreneurial activities, enter student entrepreneurship projects in the QEC, and obtain funding for their projects under the IEM, it is generally intended to raise awareness about entrepreneurship and entrepreneurial culture. The pedagogical approaches it suggests are consistent with the Québec Education Program, Québec's vocational training programs, college programs, the QEC and the IEM.

The project development guide provides a range of tools to assist teachers in their task and to understand the objectives for projects submitted under the Québec Entrepreneurship Contest and the Introduction to Entrepreneurship Measure. Teachers are invited to immerse themselves in entrepreneurial cultural and to discover how to make it attractive for their students.

N.B.: This document is intended to complement the Administrative Guide for the Introduction to Entrepreneurship Measure, available at: <www.inforoutefpt.org/entrepreneuriat>. Click on "Documentation" and download the Administrative Guide for the IEP. (This is a PDF file located under the heading "Guide administratif.") It does not replace the Administrative Guide, but is designed to facilitate an ongoing examination of what exactly is meant by entrepreneurial culture, how it is developed, and how it can be implemented through student projects.

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INTRODUCTION

One of the five broad areas of learning defined in the Québec Education Program (QEP) is Personal and Career Planning; in French, this is called *Orientation et entrepreneuriat*, introducing a link with the field known as “entrepreneurship.” The five broad areas of learning correspond, generally speaking, to the major challenges that students should be able to deal with by the time they leave school.

For students, the word “entrepreneurship” is used to describe the process by which they develop their potential and learn to complete projects that have social, cultural or humanitarian value or, as is most often the case, economic value, thereby contributing to individual and collective enrichment. What entrepreneurship and career planning have in common is that they both address the question of how young people will be able to integrate into society, in vocational terms by acquiring qualifications and in entrepreneurial terms by learning to act independently. From this point of view, entrepreneurs are people who define the objective that will determine their own future.¹

Entrepreneurship has now become one of the educational aims of Québec’s education system. In other words, the importance of entrepreneurial values in the schools has been officially recognized.

Nevertheless, the question of how exactly entrepreneurship constitutes an educational value remains. The social and political factors that led to its introduction into the QEP are well known: the need to recruit a new, entrepreneurial pool of workers in a period of population decline; job creation and workforce retention in various regions; the need to adapt to the new

1. According to the apt definition given by Louis Jacques Filion (1999).

economy; increased employability (many organizations require entrepreneurial skills); greater flexibility in dealing with market globalization; and, especially, the creation of prosperity for all.

Beyond its undoubted economic relevance, however, it is important to know how entrepreneurship relates to the concerns of teachers. In other words, are entrepreneurial values grafted on from outside; or do they stem from the underlying logic of the pedagogical approach and the ultimate aims of the educational mission? The answer is yes, in both cases.

Entrepreneurship as an educational value

At this point, it is necessary to make a distinction. In a general way, entrepreneurship may be defined as the ability to innovate in the economic sphere, leading to business creation and the mobilization of material, financial and human resources. In this sense, it is a path followed by only a few members of society. Specific training is available for those who wish to draw up a business plan and launch a business; and workshops exist to instruct potential entrepreneurs in basic management principles.

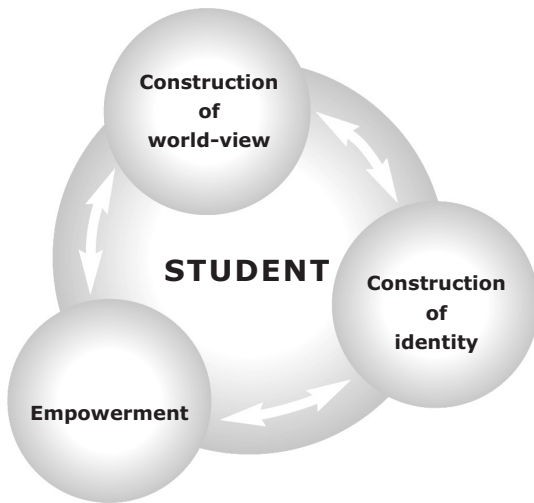
Activities organized in schools—such as the creation of an environmental student enterprise or micro-enterprise, or the organization of a young entrepreneurs' club—can be of interest to a small number of students who feel a personal connection to entrepreneurship. Schools can also launch school-wide projects and thereby become “business schools.” **These approaches are more than just awareness-raising activities.**

In a more general way, however, entrepreneurship can be defined as the set of qualities and attitudes normally associated with the entrepreneurial spirit. If we consider it apart from its more restricted sense, i.e. in its material and concrete aspects, entrepreneurship means a propensity to be enterprising. It is clear that this disposition, with its characteristic features and the conditions conducive to its emergence, constitutes a cultural dimension with an obvious educational value, one that should be available to as many students as possible.

Entrepreneurial culture is made up of qualities and attitudes that reflect a desire to wholeheartedly undertake and successfully see through to completion whatever enterprise one chooses to be involved in; they include independence, creativity, initiative, self-confidence, leadership, team spirit, assiduity, responsibility, solidarity and perseverance. From this point of view, any individual or group activity that brings these qualities into play can be considered educational and suitable for the development of an entrepreneurial spirit.

Similarly, the entrepreneurial spirit and the supporting culture neatly match the major aims of the Québec Education Program, especially the feature referred to as “empowerment.” The Québec Education Program for Secondary School Education, Cycle One (approved in 2004) presents its three major aims in its opening chapter. As shown in the diagram below, educational actions help students to progressively construct their world-view and identity and become empowered. Overall, this corresponds to three functions: knowing, choosing and acting. The resulting dynamic leads to the development of the competencies needed for success, whether they be subject-specific, identity-based or adaptive.

Each of these aims expresses in its own way, the value our society places on independence, and the degree of independence it expects from students. We have come a long way from the time when compliance with standards and obedience of authority were the hallmarks of schools where all instruction was dispensed in a top-down manner. The transformation is not yet complete, but is well under way.



If students are to become more empowered, learning activities must be organized in a way that translates their knowledge into competencies. The entrepreneurial spirit is both a training objective and a pedagogical tool to motivate students.

Entrepreneurial culture is fully compatible, therefore, with empowerment as an educational aim and with pedagogical approaches based on participation, cooperation and project-based learning.

Paul Inchauspé (2004) characterizes the entrepreneurial spirit as follows (Free translation):

To cultivate the entrepreneurial spirit, schools must develop their students' desire to accomplish something for themselves, make a commitment and take on responsibilities, along with a desire for freedom, an acceptance of effort, a will to succeed and the courage to persevere, a sense of teamwork and a spirit of cooperation.

This is quite a program! But surely the values underlying the attitudes behind the entrepreneurial spirit are also the values that a school, in keeping with the logic of its mission to educate, in other words to guide and nurture, should encourage its students to value from an early age, as much or even more so than the value of respect? And surely this is as important, or perhaps more important, than the need to instill in students, as they prepare to join the labour market, the desire to create their own business by giving them the information they need to do so?

This is the challenge that the Ministère de l'Éducation, du Loisir et du Sport (MELS) has decided to take up by encouraging youth entrepreneurship through the Introduction to Entrepreneurship Measure (IEM).

Overview

Before exploring the field of entrepreneurship, it is appropriate here to identify the nature of the terrain and to mark out the path we will follow.

Entrepreneurship—or more properly, the entrepreneurial spirit—basically involves a wish to create change and novelty, to set goals and to complete projects. Defined in this way, it is clear that the entrepreneurial spirit will necessarily draw upon many different personal resources.

These resources are of three types: emotional resources, cognitive resources and interactional resources.²

A) Emotional resources

Emotional resources drive actions. They provide the initial motivation and starting point for the entrepreneurial spirit. Which values, qualities and attitudes drive an entrepreneurial action? What leads a person to make such a passionate commitment, to expend so much energy, and to display such a capacity for work? What learning and experience are needed to develop such self-confidence and a constant need to do better?

By understanding the dynamic underpinning of the entrepreneurial spirit, we are able to take pedagogical action to improve student success and integrate entrepreneurial culture into the life of the school. This topic is dealt with in Chapter One.

B) Cognitive resources

Cognitive resources make it possible to plan actions. Any action that is not a routine or customary activity, but a new departure, any action intended to create something new or to renew something that does exist, in other words any major action, requires creativity and time for its accomplishment.

The cognitive resources mobilized for the entrepreneurial spirit are used to define actions, and to shape the future by designing and implementing a project. An entrepreneurial culture is “project-based.” However, what exactly is an entrepreneurial project? How is it constructed, and what appropriate pedagogical support must be provided? What is a successful project, and how can evaluating be methodologically useful and constitute a reflection on empowerment?

The implementation of a project is an ideal way to mobilize cross-curricular competencies, as discussed in Chapter Two “Cognitive resources.”

2. The field of entrepreneurship has been examined in a large number of studies and research projects, but remains relatively unstructured. Isabelle Danjou (2004) is an exception; she explains entrepreneurship as the mobilization of these types of resources.

3. See the Québec Education Program.

C) Interactional resources

The entrepreneurial spirit also has practical and material aspects. We cannot undertake something alone, with only the energy drawn from our motivation and the intelligence of our vision and project. Implementation involves concrete actions and the mobilization of resources in the community, especially the human resources constituted by people who join the project and become jointly responsible for it.

An entrepreneurial experience depends on the ability of the potential entrepreneur to join with other people in a context of cooperation and leadership, imagination and pragmatism. Since all these qualities cannot be found in a single person, the entrepreneur may enter into alliances or partnerships, or rely on the competencies and complementary skills of other people, whether for the development, management or organizational efficiency of the project.

An entrepreneurial act applies to something concrete in a given environment. It presupposes knowledge, know-how, and experience of a product and a market. In other words, it requires networking, knowledge of the terrain, and integration into the prevailing culture. Interactional resources include the ability to join with others, and to mobilize the community around a project. Where does empowerment come from? Does it come from a so-called “entrepreneurial” personality? Perhaps, instead, it comes from the ability to maintain a specific relationship with the community, one that could be called entrepreneurial, since the community is seen as a source of information, learning, influence, mentoring, and material, financial and human support. The environment as a source of resources, and the school as a model environment, are examined in Chapter Three.

In the conclusion, the aims of an entrepreneurial culture will be allocated to each of the three levels of education, using the same division of emotional, cognitive and interactional resources.

The distinction between the three types of resources meets the need for clarity and order; however, it must be remembered that they are not separated but interwoven in an increasingly complex web.

Creating a taste for entrepreneurship



Entrepreneurship is based on a state of mind, or attitude, that prepares a person for action and for an effective and determined pursuit of a series of goals. Although the notion appears abstract, the dynamic attitude it describes is a phenomenon that researchers have been able to pin down. The field of study known as entrepreneurship contains elements of great pedagogical value, and provides information on what motivates individuals to succeed and seek self-accomplishment.

In general, entrepreneurs simply say that you have to work hard if you want to succeed, without being aware of their special kind of energy. They are active individuals, and are content with a simple explanation because the results seem to prove their point. A setback will only slow them down and direct them toward a more promising option as they regain their self-confidence.

The entrepreneurial experience deserves study on its own merits, as it contains elements of great pedagogical value. Thus it is

not surprising that it has been associated with the educational mission of the Québec Education Program, improves the chances of successfully completing a college program, and enhances career prospects. The entrepreneurial approach, in order to be a focus of study and to become an educational context, must be analyzed to discover its essential nature and dynamics.

~ ~ ~

The first generation of researchers working in the field of entrepreneurship focused on what makes up a typical entrepreneur. At the time, it was believed that entrepreneurship was an innate quality, that people were “born with it” and that its true nature could be discovered by identifying the traits shared by all entrepreneurs.

In 1997, the academic and researcher Louis Jacques Filion¹ drew up an exhaustive list of these shared traits, as presented in the following table.

The qualities that behavioural specialists most frequently identify with entrepreneurs are:

- Innovation
- Leadership
- Daring (taking calculated risks)
- Independence
- Creativity
- Energy
- Persistence
- Originality
- Optimism
- Flexibility
- Resourcefulness
- Self-fulfilment
- Inwardness
- Self-confidence
- Long-term commitment
- Proactivity
- Learning
- Self-affirmation
- Sensitivity
- Trustfulness
- Money as a measure of performance
- Tolerance of ambiguity and uncertainty

The overall impression is that the more we try to establish the precise profile of an entrepreneur, the longer the list of characteristics will get, and everybody will have a different opinion on where the common ground lies. Jacques Filion jokingly remarks that some of these traits are doubtless caused by the entrepreneurial activity itself,

since an entrepreneur who wants to survive in a competitive world has no choice but to be creative and innovative. A person who risks capital will do everything in his/her power to make a business work, and not lose his/her original investment. An entrepreneur's capacity for work is due, then, not to some putative gene for perseverance, but to the personal and financial risks at stake. Entrepreneurs are not victims of their situation, since these are freely chosen. Adversity acts as a stimulant, and the entrepreneur responds willingly.

A recent publication (Rabbior, G., 1997) of the Canadian Foundation for Economic Education contains a similar list of entrepreneurial characteristics:

Characteristics

- A desire to be an entrepreneur
- A belief in one's ability to influence/affect events and outcomes in life
- Self-confidence
- A belief in one's ability to handle most situations
- Self-esteem
- A belief in one's ability to achieve one's goals
- A high level of self-awareness
- Enthusiasm and optimism
- Willingness to act
- Willingness to take initiative
- Strong sense of commitment
- Perseverance
- An interest in change
- Strong motivation/desire to succeed
- Willingness to work hard
- Willingness to learn
- Readiness to learn
- Willingness to seek out relevant knowledge

1. Holder the of the Rogers-J.A. Bombardier Chair of Entrepreneurship at the École des hautes études commerciales, Montréal.

- Willingness to acquire relevant experience
- Capacity to transfer knowledge and experience
- Goal-oriented
- Creativity
- Opportunity-oriented
- Willingness to take risks

In a sense it is difficult to say whether it is relevant to mention all these traits. What is clear is that there are too many for a single person in this larger-than-life portrait. Although some leading figures in the business world do come close, to use them as models would make the concept of entrepreneurship mythical or even heroic, whereas the objective here is simply to facilitate an understanding of entrepreneurial culture and its vast educational potential.

For almost 10 years, the Québec Entrepreneurship Contest has chosen to highlight entrepreneurial values and qualities in terms of successful student approaches, rather than in terms of success in the business field. The contest, along with the Introduction to Entrepreneurship Measure (IEM), encourages students to design and carry out projects that will help them develop entrepreneurial values and qualities.

The main focus is on the following values: creativity, solidarity, responsibility, independence, self-confidence, team spirit, leadership and tenacity. These values can be defined in terms of the attitudes and behaviours through which they are expressed.

The number of values selected reflects the need to set simple, clear guidelines compatible with the other objectives pursued in the schools. While teachers cannot fail to agree with these traits, they might be tempted to view them from their particular educational standpoint. Would it not be better, then, to set guidelines specifically tailored to entrepreneurship, and to use them to encourage students at all educational levels to come up with new projects?

The traits cited are still relevant but, if we are to move ahead, perhaps it is time to ask: Is there a link between them, some common focus that we could use to demonstrate their unity and underlying coherence? What do all these “entrepreneurial” traits and factors have in common? What makes them “cohere”?

If we can answer this question, we will gain access to one of the foundations of entrepreneurial culture. One thing is clear: all these attitudes and behaviours are necessary to meet the goals we are pursuing. Let’s see what happens when we redefine these attitudes and behaviours in terms of the goals they are meant to achieve.²

1. Self-confidence: feeling able to do something
2. Motivation: wanting to do something
3. Effort: willingness to work hard
4. Sense of responsibility: doing what must be done
5. Initiative: taking action
6. Perseverance: finishing what one has started
7. Solidarity: working towards a common goal
8. Team spirit: working with others in synergy
9. Resourcefulness: using knowledge and skills to deal with the unexpected
10. Determination: concentrating on a defined goal

2. Adapted from Dorothy Rich. *Career Mega Skills*, Sundistar Inc., New Orleans, 1999. Creativity, leadership and a sense of organization are not included in the list, since they are competencies, rather than qualities or attitudes.

In fact, entrepreneurial qualities and attitudes are those that make an action effective; in this case, the word “action” is used in a personal, not in a technical or specialized, sense, to denote a person’s ability to achieve fixed goals. This means that everyone should learn, at some point, what emotional disposition is needed to achieve personal goals. In some ways, this is a fundamental disposition, a “basic attitude” that makes people able and confident that they can obtain what they want in life.

This is why a pedagogical approach could help make a significant contribution to an entrepreneurial culture. An “enterprise” is a way of taking effective action to achieve goals set individually or collectively. Since the effectiveness of an action depends on a person’s emotional resources, success depends on willingness and determination.

~ ~ ~

Where does such drive come from? What makes some people demand so much of themselves in attaining certain goals? The entrepreneurial spirit is, in fact, based on the need to succeed, and is demonstrated by:

- the ability to make intense, prolonged and repeated efforts to accomplish a difficult task
- the ability to work with a specific intention towards a difficult goal

The researcher J. W. Atkinson (1993) was the first to point out that the need to succeed creates a desire to undertake projects, in order to experience the pleasures of success.

A large part of the pleasure derives from overcoming obstacles. These are challenges that mobilize personal resources and, if overcome, create intense satisfaction. The author’s studies focused on some of the activities chosen by people who feel the need to succeed: such activities exhibit a medium or reasonable level of difficulty, instead of

being extremely easy or extremely difficult. Atkinson also identified an adaptive process pegged to the level of aspiration: attempting an easier task following a failure, or attempting a harder task following a success.

Thanks to this adaptive capacity, people who possess the entrepreneurial spirit know how to maintain and increase their feeling of personal effectiveness. The need to succeed is apparently unconnected to the fear of failure, which leads people to undertake nothing and to fail to set themselves goals. The links between the power to act and the structuring of personal identity appear more evident.

Yann Forner (1987, 2005) identifies two conditions that are required for people to experience the pleasure of success:

- A. They must give themselves credit for the outcome and must, therefore, be aware that their activities and success are closely related. They must be capable of grasping that the goal was not achieved by chance, luck or for any other reason beyond their control. This is what Rotter (1966) calls the “internal locus of control.” In general, people who believe in their power to act can decide to increase their performance by working harder, improving their approach or acquiring new knowledge and skills, and even by seeking help if necessary. The important point is that they themselves have to be the cause of the hoped-for effect, and must believe in their power to overcome obstacles. This leads to the second condition.

B. Entrepreneurs must plan their actions over time, since no goal can be achieved overnight. This future-oriented perspective enables them to organize the present into an efficient sequence, a link between cause and effect, persevering where necessary and postponing gratification, since the reward may be a long way off.

In discussing the extent to which students can acquire the need to succeed, Yann Forner (2005) concludes as follows:

Encouraging students—or anyone in a training situation—to succeed may lead them to make this impulse their own, but for reasons that have more to do with feelings. The search for the pleasure derived from success prompts action because, over the short term, it generates an enjoyable feeling of pride and because, over the long term, accumulated success develops self-esteem—provided, of course, that two conditions are met: the person must take credit, at least partly, for the success, and he or she must act with the idea that things will take time.

We are now in a position to understand what is behind the entrepreneurial spirit: it is the student's prior success—but success of a particular kind, since it must involve a degree of difficulty sufficient to produce the pleasure associated with accomplishment, as well as a feeling of personal effectiveness. Since the amount of pleasure depends on the degree of difficulty, the feeling of pleasure can be renewed only by a second, higher level of success. In this way, the ideal balance between challenges and competencies keeps moving up a notch. People whose achievements enable them to develop

their potential are self-directed, independent individuals who continually set themselves new goals with the same energy and desire to undertake new things. Such people are said to be “passionate” about what they do.

It is clear, therefore, that students must be helped to experience success, and made aware of the conditions required for effective action, the corresponding attitudes and principles, and the pleasant emotions engendered by reaching predetermined goals.

Deci and Ryan (1987) have found that motivation increases as the feeling of competency grows. In other words, the more able you are, the more willing you are.

Believing that you possess the necessary resources makes you more willing to rise to a challenge and undertake projects.

Only too often in the world of education, we have assumed that motivation is measured by the level of a student's interests. However, interest does not guarantee that a student will persevere. Isolating the factor of intelligence has made it possible to show that motivation is actually correlated with performance. Interest guides choices, but does not lead to success. This is shown by academic results and (well outside the academic context, according to Yann Forner) by the extent of integration into the labour market.

Only too often in the world of education, we have assumed that motivation is measured by the level of a student's interests.

It can therefore be argued that, for reasons that are well known (self-fulfillment and an increased awareness of one's own competencies), the development of entrepreneurial action and the entrepreneurial spirit is spurred not so much by interest but by challenge and the need to surpass oneself (self-competition).

Awareness of one's own effectiveness drives the entrepreneurial spirit. This awareness, according to Bandura (1977), includes confidence in one's own ability to make an effort, draw on cognitive resources and do what is needed to meet the requirements of a situation.

On the basis of this theory, "an awareness of personal effectiveness is acquired through personal experiences, but also through the examples of others: vicarious experience, in other words, observing a similar individual in a given activity, which constitutes an important source of information that influences awareness of one's own effectiveness and, in turn, the adoption of behaviour patterns."³

Vicarious experience offers an opening for pedagogical action. If students come together to complete a group project, they will have to take initiative, propose goals and methods, and work alongside others in complementary tasks; they will have to coordinate their activities, work in a team, offer encouragement, exchange information, manage problems, and agree to make an effort to meet deadlines. Individual students, as resources for themselves and others, will have to test themselves in a new overall situation.

The result will be joint responsibility, a share in the obligation to meet deadlines, and a shared success. The students' self-esteem will increase, and they will look back at their group project and identify its strengths and weaknesses, with possible improvements. Most importantly, they will want to experience the same thing again.

In terms of deciding whether schools can develop the entrepreneurial spirit, teachers who have experience in project-based learning and cooperative teaching will doubtless attest to the impact of individual and collective actions on student motivation and the joy of success.

Entrepreneurial attitudes and qualities, by their very nature, must be developed through action: moreover, doing projects and teaching in a participatory manner are their natural outgrowths. From this point of view, project development reinforces entrepreneurial energies and the desire to learn. The following checklists can be seen as an initial pedagogical application of entrepreneurial culture in its emotional and affective dimensions.

~ ~ ~

Overview

Entrepreneurial qualities (see the table on the following pages):

- Attitudes and behaviour
- Learning: the need to succeed, locus of control, time-based perspective

Entrepreneurial attitudes and qualities, by their very nature, must be developed through action

3. Quoted in *La passion d'accomplir ensemble* (Isabelle Danjou, 2004, p. 167; free translation).

Entrepreneurial qualities

<h3>1. Self-confidence</h3>	
<p>Self-confidence: feeling able to do something</p> <ul style="list-style-type: none"> • Having a positive perception of oneself. • Being proud of one's successes. • Relying on one's aptitudes, abilities and competencies. • Being certain of one's potential. • Expressing one's point of view, even if it diverges from the prevailing opinion. • Recognizing one's strengths and weaknesses. • Accepting and drawing lessons from failure (agreeing to try something a second time). <p>Underlying dispositions or attitudes</p> <p>Self-confidence and internal locus of control:</p> <ul style="list-style-type: none"> – Considering that one can meet personal goals by applying one's competencies and skills. – Observing one's personal effectiveness based on one's experience of success. 	<p>Example of a project⁴</p> <p><i>Computer information manual (2004-2005)</i></p> <p>The students listed all the programs installed on the school's computer workstations and, using the Camstudio program, produced screen captures of all the operations carried out. They then put the images together in a computer information manual to help teachers and students at the school use some little-known tools in the Word program. The judges appreciated the fact that the students had discovered the potential of a program and propagated their knowledge within the school community. The students displayed motivation, perseverance and initiative.</p> <p>Category: Elementary (third and fourth grade) École De La Durantaye, CS de la Rivière-du-Nord Region: Laurentides</p>
<h3>2. Motivation</h3>	
<p>Motivation: wanting to do something</p> <ul style="list-style-type: none"> • Wanting to know more about an interesting subject. • Taking pride in the progress of a project. • Showing initiative, introducing new ideas. • Remaining enthusiastic about a project, and continuing despite encountering obstacles. • Imposing self-discipline and making an effort. • Developing a taste for learning. • Recognizing that the efforts made for a previous project created a feeling of satisfaction. <p>Underlying dispositions or attitudes</p> <p>Motivation and the need to succeed:</p> <ul style="list-style-type: none"> • Setting goals at an appropriate level of difficulty. • Meeting challenges and anticipating the joy of success. 	<p>Example of a project</p> <p><i>Tours of Lac Duparquet (2003-2004)</i></p> <p>Canoe and kayak expeditions for water sports enthusiasts wanting to know more about the islands in Lac Duparquet and their history.</p> <p>The judges appreciated the fact that the student, through her project, had created her own job and developed a niche market in her region. In addition, she had sought specific training and had taken advantage of the resources in her environment. She demonstrated the entrepreneurial values of creativity, independence, self-confidence, leadership and responsibility.</p> <p>Category: Secondary level general education (individuals and small groups) Cité étudiante Polyno, CS du Lac-Abitibi Region: Abitibi-Témiscamingue</p>

4. The projects given as examples in this document were selected from projects entered in the Québec Entrepreneurship Contest, regardless of whether or not they won a prize, since the goal here is to illustrate entrepreneurial qualities.

<h3>3. Effort</h3>	
<p>Effort: willingness to work hard</p> <ul style="list-style-type: none"> • Performing unpleasant tasks with a positive attitude. • Seeking to obtain satisfactory results for oneself and for others. • Adopting a working method to facilitate the project. • Anticipating the satisfaction of work well done. • Recognizing that stars (sports stars, entertainment stars, etc.) have to work hard to be successful. <p>Underlying dispositions or attitudes</p> <p>Effort and the need to succeed:</p> <ul style="list-style-type: none"> • Understanding that the chances of succeeding increase with the effort made. <p>Effort and a time-based perspective:</p> <ul style="list-style-type: none"> • Taking the future into account when doing things in the present. 	<ul style="list-style-type: none"> • Postponing immediate satisfaction for greater rewards later. <p>Example of a project <i>Tiny Treasures (2004-2005)</i></p> <p>The production and sale, by visually impaired students, of 440 jars of preserves and the preparation of seeds for sale in the spring. The students were able to set up a strong mutual assistance and support network to find people to help them succeed in their project. They were also able to overcome additional difficulties and adapt well to the obstacles encountered. As they said themselves, they pooled their strengths to succeed.</p> <p>Category: Elementary (first and second grades) École Jacques-Ouellette, CS Marie-Victorin Region: Montérégie</p>

<h3>4. Sense of responsibility</h3>	
<p>Sense of responsibility: doing what must be done</p> <ul style="list-style-type: none"> • Taking on and completing what was agreed upon by the team, group, organization or oneself. • Accomplishing the tasks assigned, knowing that, if they are not done, there may be negative repercussions for oneself or for the group. • Ranking tasks by priority, and determining the steps required to complete them. • Earning recognition for the ability to complete the tasks for which one is responsible. • Remaining undaunted by challenging tasks and approaching them with confidence, even when it is not clear how to begin. <p>Underlying dispositions or attitudes</p> <p>Sense of responsibility and locus of control:</p> <ul style="list-style-type: none"> • Completing something as a duty after having chosen to do it. 	<ul style="list-style-type: none"> • Mastering a situation after having made a personal choice to face it. <p>Example of a project <i>“Creatives” (2004-2005)</i></p> <p>The production and sale of a range of decorative elements made using recycled materials, to help the victims of a fire in the municipality.</p> <p>To justify their decision, the judges highlighted such elements as solidarity with the community, the scope of the students’ achievements, their learning and accomplishments, and the key role they played at all stages, from the market survey to the preparation of the Contest application and the production of a wide range of products.</p> <p>Category: Elementary (fifth and sixth grades) École Intégrée de Pointe-du-Lac, CS du Chemin-du-Roy Region: Mauricie</p>

5. Initiative

Initiative: taking action

- Transforming a problem into an action that can be undertaken.
- Avoiding being made powerless by a situation.
- Asking questions, exploring different approaches.
- Being enthusiastic, setting an example.
- Playing a leadership role.
- Looking out for opportunities.

Underlying dispositions or attitudes

Initiative and locus of control:

- Believing that taking action increases the chances of success.
- Believing that one can learn from action.
- Believing that it is better to face reality than to ignore it.

Example of a project

Industrial drafting service (2004-2005)

An industrial drafting service for customers planning to manufacture their own inventions. The drawings are first used for the interactive design of the invention with the inventor, and then for its fabrication. The goal is to bridge the gap between design and production. The judges highlighted the creativity, resourcefulness, initiative, independence and organization of the promoter, who was also able to develop a range of contacts with the business community and create a relationship of trust with businesses.

Category: Vocational training and adult education
Centre de formation Rimouski-Neigette
CS des Phares
Region: Bas-Saint-Laurent

6. Perseverance

Perseverance: finishing what one has started

- Demonstrating constancy in what one undertakes.
- Making long-term plans, seeing something through to completion.
- Repeating the same actions until a satisfactory result is obtained.
- Demonstrating an ability to see a project through to completion.
- Overcoming frustration and the problems encountered to pursue the initial objectives despite any obstacles.
- Learning to practise a new sport or play a musical instrument, or taking up a hobby that requires time before any visible results are obtained.

Underlying dispositions or attitudes

Perseverance and a time-based perspective:

- Giving relatively more importance to the future than to the present.
- Applying the fable of the tortoise and the hare to one's own situation.
- Believing that events in life are often predictable (locus of control).

Example of a project

Seeing Bigger (2004-2005)

As part of an "integrated project" for Secondary V students, the instigator of this project decided to relieve some of the difficulties encountered by visually impaired students in regular secondary education at École Jacques-Ouellette, by taking them to spend three days in Ottawa. The objective was to develop their independence, sense of responsibility and social behaviour.

The judges were impressed by the scope of the challenge, the amount of work performed and the tenacity of the young student, despite the difficulties she had to face because of her own visual impairment. She demonstrated a great deal of sympathy and sensitivity to other people. The project was a beacon of hope, and a genuinely enterprising model of entrepreneurship.

Category: Secondary level general education (individual)
École Jacques-Ouellette, CS Marie-Victorin
Region: Montérégie

7. Solidarity

Solidarity: working towards a common goal

- Accepting responsibility for the decisions of the group or organization.
- Sharing goals and working towards them.
- Showing understanding for colleagues.
- Paying attention to the feelings of other people and supporting them when they encounter difficulties.
- Participating in chores willingly.
- Introducing a new member to the group and facilitating his or her integration.

Underlying dispositions or attitudes

Solidarity and the need to succeed:

- Believing that one can be a resource for other people.
- Believing that other people can make a contribution.

Solidarity and locus of control:

- Considering that one can reach one's goals through personal effectiveness and thanks to respectful and cordial relations established with other people.

Example of a project

Thank-you Cocktail Party (2004-2005)

The organization of a cocktail party to thank the municipal businesses and partners that helped young people with their social and vocational integration program. The students prepared a press kit for the media, put together a multimedia presentation on the businesses, partners and students involved, and unveiled a new image of life skills and work skills education.

The judges stressed that the project was well adapted to the students' situations, was likely to have positive spinoffs extending beyond the school, and contributed to the latter's visibility in the community. This project, which focused on the students' extensive involvement and their development of entrepreneurial qualities, took into account the new concept of the guidance-oriented school.

Category: Secondary (ongoing learning)
École d'Iberville, CS de Rouyn-Noranda
Region: Abitibi-Témiscamingue

8. Team spirit

Team spirit: working with others in synergy.

- Acting with other people in a concerted fashion.
- Working with other people having regard for the responsibilities of each person.
- Contributing one's own ideas to a group project.
- Accepting constructive criticism.
- Working towards an objective, while considering the opinion of other members of the group.

Underlying dispositions or attitudes

Team spirit and need to succeed:

- Organizing the activities needed to achieve the stated goals.
- Demonstrating method and organization.

Team spirit and locus of control:

- Being able to influence the operation of the group.

Example of a project

Sacoutimi (2003-2004)

The design, production and sale, by students in individualized paths at Polyvalente Lafontaine, of onion bags, aromatic place mats and flute bags made from recycled jute.

The judges were of the opinion that such an innovative project needed a small, "bright" team. They were surprised by the innovation of the products, and impressed by the quality of cooperative living demonstrated by the project.

Category: Secondary level general education (group)
Polyvalente Lafontaine, CS des Rives-du-Saguenay
Region: Saguenay-Lac-Saint-Jean

9. Resourcefulness

Resourcefulness: using knowledge and skills to deal with the unexpected

- Recognizing that obstacles are a part of daily life.
- Facing up to difficulties.
- Taking the time to think about the best way to solve a problem.
- Anticipating problems that may arise when carrying out a project and planning various solutions.
- Demonstrating flexibility and responsiveness to change.
- Applying the “R system,” where “R” stands for “resourcefulness.”

Underlying dispositions or attitudes

Resourcefulness and internal control:

- Feeling confident at improvising solutions.
- Considering that it is always possible to see and do things differently.
- Being able to react appropriately to an accident, unexpected occurrence, refusal or defection.

- Understanding that there is always more scope to an act than may appear.

Example of a project

Health Centre (2004-2005)

After noting that the school’s exercise equipment was not being used sufficiently, a group of Secondary IV and V students decided to form a cooperative to set up the equipment in a more suitable space. Then, realizing that people in the community did not have access to this type of service, they decided to make the equipment available not only to students, but also to everyone in the municipality. The judges considered that this was a good example of cooperation strengthening the social fabric of the community.

Category: Secondary (group)
École secondaire Vallée-des-Lacs,
CS du Fleuve-et-des-Lacs
Region: Bas-Saint-Laurent

10. Determination

Determination: concentrating on a defined goal

- Concentrating on a predetermined goal.
- Imposing self-discipline.
- Setting out to achieve a goal while controlling adverse affects (stress, emotions).
- Assessing, on an ongoing basis, whether the expected results are being obtained.
- Drawing up a realistic, stimulating set of deadlines.

Underlying dispositions or attitudes

Determination and time-based perspective:

- Making long-term plans, adopting a motivating vision of the future.
- Organizing time effectively each day, in order to focus as much as possible on the goal.
- Knowing that doing the minimum is not enough, that it is important to set priorities and not overextend oneself.
- Being able to overcome fatigue.

Example of a project

Woodworking Exhibition (2003-2004)

An exhibition of woodworking projects completed by graduating students was organized in a shopping mall. The students earned recognition from their families and the general public for the practical application of the knowledge and techniques acquired during their training. In addition, the students set up a Web site to promote the exhibition, and hope eventually to create a portal for current and future graduates. The judges appreciated the quality and scope of the project, as well as the excellent presentation. They were also impressed by the structured approach, and its appealing quality.

Category: Vocational training and adult education
Centre de formation professionnelle de Neufchâtel,
CS de la Capitale
Region: Capitale-Nationale

Foundations of entrepreneurial culture (emotional resources)

Qualities	Attitudes			Manifestation ⁵
	Locus of control	Need to succeed	Time-based perspective	
Self-confidence: feeling able to do something	<ul style="list-style-type: none"> • Considering that one can meet personal goals by applying one's competencies and skills • Observing one's personal effectiveness based on one's experience of success 			<ul style="list-style-type: none"> • Having a positive perception of oneself • Recognizing one's strengths and weaknesses • Relying on one's aptitudes, abilities and competencies • Being certain of one's potential • Expressing one's point of view, even if it diverges from the prevailing opinion • Being proud of one's successes • Accepting and drawing lessons from failure (agreeing to try something a second time)
Motivation: wanting to do something		<ul style="list-style-type: none"> • Setting goals at an appropriate level of difficulty • Meeting challenges and anticipating the joy of success. 		<ul style="list-style-type: none"> • Wanting to know more about an interesting subject • Taking pride in the progress of a project • Showing initiative, introducing new ideas • Remaining enthusiastic about a project, and continuing despite encountering obstacles • Imposing self-discipline and making an effort • Developing a taste for learning • Recognizing that the efforts made for a previous project created a feeling of satisfaction.
Effort: willingness to work hard		<ul style="list-style-type: none"> • Understanding that the chances of succeeding increase with the effort made 	<ul style="list-style-type: none"> • Taking the future into account when doing things in the present • Postponing immediate satisfaction for greater rewards later 	<ul style="list-style-type: none"> • Performing unpleasant tasks with a positive attitude • Seeking to obtain satisfactory results for oneself and for others • Adopting a working method to facilitate the project • Anticipating the satisfaction of work well done • Recognizing that stars (sports stars, entertainment stars, etc.) have to work hard to be successful
Sense of responsibility: doing what must be done	<ul style="list-style-type: none"> • Completing something as a duty after having chosen to do it • Mastering a situation after having made a personal choice to face it 			<ul style="list-style-type: none"> • Taking on and completing what has been agreed by the team, group, organization or oneself • Accomplishing the tasks assigned knowing that, if they are not done, there may be negative repercussions for oneself or for the group • Ranking tasks by priority, and determining the steps required to complete them • Earning recognition for the ability to complete the tasks for which one is responsible • Remaining undaunted by challenging tasks, and approaching them with confidence, even when it is not clear how to begin
Initiative: taking action	<ul style="list-style-type: none"> • Believing that taking action increases the chances of success • Believing that one can learn from action • Believing that it is better to face reality than to ignore it 			<ul style="list-style-type: none"> • Transforming a problem into an action that can be undertaken • Avoiding being made powerless by a situation • Asking questions, exploring different approaches • Being enthusiastic, setting an example • Playing a leadership role • Looking out for opportunities

5. "Manifestations" are statements that can be used to evaluate a project, once completed.

Qualities	Attitudes			Manifestation ⁶
	Locus of control	Need to succeed	Time-based perspective	
Perseverance: finishing what you have started	<ul style="list-style-type: none"> • Believing that events in life are often predictable 		<ul style="list-style-type: none"> • Giving relatively more importance to the future than to the present • Applying the fable of the tortoise and the hare to one's own situation 	<ul style="list-style-type: none"> • Demonstrating constancy in what one undertakes • Applying a long-term vision, take actions through to completion • Repeating the same actions until a satisfactory result is obtained • Demonstrating an ability to take a project through to completion • Overcoming frustration and the problems encountered to pursue the initial objectives despite any obstacles • Learning to practise a new sport or play a musical instrument, or taking up a hobby that requires time before any visible results are obtained
Solidarity: working towards a common goal	<ul style="list-style-type: none"> • Considering that one can reach one's goals through personal effectiveness and thanks to the respectful and cordial relations established with other people 	<ul style="list-style-type: none"> • Believing that one can be a resource for other people • Believing that other people can make a contribution 		<ul style="list-style-type: none"> • Accepting responsibility for the decisions of the group or organization • Sharing goals and working towards them • Showing understanding for colleagues • Paying attention to the feelings of other people and supporting them when they encounter difficulties • Participating in chores willingly • Introducing a new member to the group and facilitating his or her integration
Team spirit: working with others in synergy	<ul style="list-style-type: none"> • Being able to influence the operation of the group 	<ul style="list-style-type: none"> • Organizing the activities needed to achieve the stated goals • Demonstrating method and organization 		<ul style="list-style-type: none"> • Acting with other people in a concerted fashion • Working with other people having regard for the responsibilities of each person • Contributing one's own ideas to a group project • Accepting constructive criticism • Working towards an objective, while considering the opinion of other members of the group
Resourcefulness: using knowledge and skills to deal with the unexpected	<ul style="list-style-type: none"> • Feeling confident at improvising solutions • Considering that it is always possible to see and do things differently • Being able to react to an accident, unexpected occurrence, refusal or defection • Understanding that there is always more scope to act than may appear 			<ul style="list-style-type: none"> • Recognizing that obstacles are a part of daily life • Facing up to difficulties • Taking the time to think about the best way to solve a problem • Anticipating the difficulties that may arise when carrying out a project and planning various solutions • Demonstrating flexibility and responsiveness to change • Applying the "R system" (<i>R= resourcefulness</i>)
Determination concentrating on a defined goal			<ul style="list-style-type: none"> • Making long term plans, adopting a motivating vision of the future • Organizing time effectively each day, in order to focus as much as possible on the goal • Knowing that doing the minimum is not enough, that it is important to set priorities and not overextend oneself • Being able to overcome fatigue 	<ul style="list-style-type: none"> • Concentrating on a predetermined goal • Imposing self-discipline • Setting out to achieve a goal while controlling adverse affects (stress, emotions) • Assessing, on an ongoing basis, whether the expected results are being obtained • Drawing up a realistic, stimulating set of deadlines

6. "Manifestations" are statements that can be used to evaluate a project, once completed.

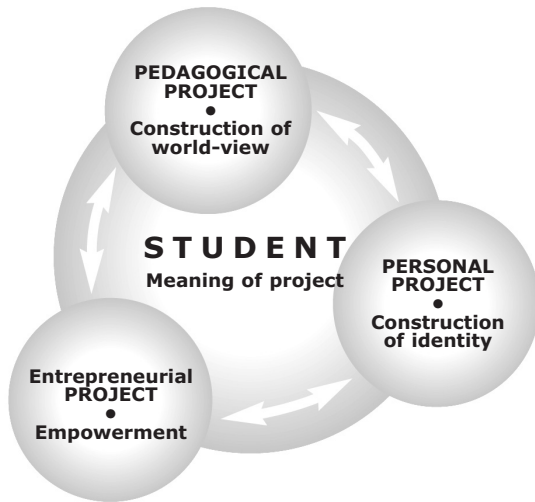
Meaning of project



Our objective is still the same: to establish the relation between our understanding of entrepreneurial culture and current pedagogical ideas and practices. We are now in a better position to comprehend the dual role played by the need to succeed in the desire both to learn and to undertake projects. This fortunate convergence makes it more pressing than ever to promote entrepreneurship and student initiatives. Whether through cooperative teaching, discovery-based learning, differentiated teaching or any other form of participation, students become subjects with the ability to act when they are presented with open situations in which they must make choices, or when they must react to situations that draw on their knowledge and abilities. They become subjects who build their own competencies and become empowered through entrepreneurial action.

This convergence was not foreseen at the outset: pedagogy, in its most current form, shares the project-based approach with the field of personal and career planning.

Unlike pedagogical projects, those of “project-based” entrepreneurial culture seek innovation and change.



Pedagogical projects

According to Piaget, the “project-based method” is based on a natural process, action, which involves pursuing a goal over a relatively long period of time while subordinating everything to its completion. If a project has been initiated by a child and interests him/her, in other words, if it engages his/her whole personality, he/she will have the requisite energy to acquire the knowledge and perform the actions necessary to complete the project (in G. Gosselin, 1994).

Operating on a project basis fundamentally involves a process of research and discovery during which students ask themselves questions and try to answer them individually or collectively. The activity of an entire class may be concentrated on a single project, such as writing and publishing a student newspaper, reconstructing a medieval village or re-creating a day in the life of ancient Rome. Often, grammar rules and a knowledge of geography and history are required. In practice, however, the students will not feel as if they are learning grammar, since they are too busy applying it in order to produce a correctly written newspaper.

“This pedagogical approach,” writes Pallascio (1992; free translation), “is both heuristic, because the subject learns to seek answers to his/her questions; integrative, because it fosters interdisciplinary learning; and foundational, because it is common to all subjects. [It is] also social, because the subject interacts constantly with others....”

Entrepreneurial projects

Entrepreneurial projects must be distinguished from research projects that lead to subject-specific knowledge or learning. Examples of the latter include an investigation that leads to a pooling of information, the opening of a file, the preparation of a classroom demonstration, the highlighting of key issues and a debate on conclusions reached.

Entrepreneurial projects start with the idea of production, of a productive action that creates goods, services or events. The event can be an exhibition, stage show, theme week, arts production, symposium, festival or contest, or anything that the students must prepare and carry through with all the motivation and competencies at their disposal.

Project-based learning =

trying out and understanding concepts and principles by completing projects, in order to make specific acquisitions in the boundless realm of knowledge

Entrepreneurial project =

producing something new, innovating, taking action to produce goods, services or events that are valued in the community because they meet specific needs

Here we see the finest contribution that entrepreneurial culture can make to students’ education by giving them opportunities to influence their economic, social, cultural and community environments. This is why, for the past few years, schools have been offer-

ing students a chance to launch entrepreneurial initiatives.

Examples of these include student businesses launched as part of the “young entrepreneurs” program, micro-enterprises in the field of the environment, student entrepreneur clubs and various types of cooperatives, all of which have been implemented by schools. All these initiatives provide specific training in economics and the rudiments of setting up a business.

Activities to raise awareness about entrepreneurial culture target all students, which is why they are part of and relevant to the general education program. They do not concern only the 10% of students who will go on to become entrepreneurs, but also all students without restriction, since they will all, at some point in their lives, play an active role in various types of innovation and change in their communities.

However, there is nothing to prevent entrepreneurial culture from encouraging a greater number of students to choose to become entrepreneurs because they have taken part in a project, because the field of entrepreneurship will no longer be a mystery but a valid option, and because they will have learned to recognize and develop their own entrepreneurial qualities.

To reach 100% of students, classes should be encouraged to take part each year in the Québec Entrepreneurship Contest and avail themselves of the Introduction to Entrepreneurship Measure. And teachers, for their part, should integrate entrepreneurial culture into their teaching practices.

Entrepreneurial culture may be defined by its use of projects:

- as a way to bring about a desired future
- as a way to organize the future
- as the founding principle of a process of innovation and change

The best way to foresee the future is to prepare for it

The next section will explain the entrepreneurial process. Where does the idea to start a business come from, and what are the stages in making it a reality?

Entrepreneurial culture creates change and innovation. From the moment an initiative is launched in an economic or other context, it must remain proactive, since it goes beyond itself by drawing on resources—especially human resource—in an organization that must innovate constantly.

There is a broad range of literature on the entrepreneurial process. However, a major work by J.-P. Boutinet (1990) presents the most far-reaching and applicable model for projects. We will be using its structure to guide us here.

The best way to foresee the future is to prepare for it

Project foundations and pedagogical support

The entrepreneurial process =
a process of innovation and change + the use of the project as a founding principle

A project, if it is to be a genuine project as understood here, must meet four conditions. It must be:

1. unified
2. singular
3. complex
4. opportune

1. Unity

Overall, it can be said that entrepreneurship means participation. It means developing a project and carrying it out, defining both its goal and the process used to achieve it. The goal delimits the target, and the process to be used to attain the goal gives rise to a program.

The target and the program cannot be separated. The target must be reiterated during the implementation of the program, to make sure it does not get reduced to a mere series of objectives or operations. Launching a project involves both planning and doing. To ensure consistency, the original conception and subsequent actions must be integrated into the continual shifts between reflection and reality.

One major challenge is to integrate design and implementation, which can be unified only through the originator of the project. Younger students will not necessarily be able to find the original target on their own, nor will they necessarily be able to design a workable process of organization and planning.

Note: Innovation and leadership are learned gradually and, by the time they are learned, students will readily recognize business opportunities and be able to set up the necessary organization. Entrepreneurial vision, in its dynamic and structuring aspects, remains the ultimate competency.

Entrepreneurial development

Project unity can be assured only at a late point in the entrepreneurial development process. It involves seizing a business opportunity, devising an innovative response to a problem in one's environment and exercising leadership that draws on material, financial and human resources. Integrating project elements in this way can only be envisaged for students in vocational training, technical training or university who are preparing a genuinely integrated project.

The Québec Entrepreneurship Contest (QEC) and the Introduction to Entrepreneurship Measure (IEM)

At the elementary level and the start of the secondary level, the idea of launching an entrepreneurial project and setting up the necessary organization often comes from a teacher. This is only natural. Ideally, a small project, designed by one person or a small group, could meet the requirement of integration. In the case of a class or student group with 15 or more members, though, the teacher is justified in taking charge because he or she must encourage the students to show initiative and take on responsibilities in order to promote the development of qualities that will make their actions effective. These "ambitious" projects leave room for input from all the students involved.

Despite this, some students manage to design their own projects. This is why the QEM and IEM authorities are entitled to expect projects to be initiated and planned by the students themselves.

Example of a project

School agenda (2004-2005)

Complete design and production of a school agenda by students. After assessing the existing agenda and gathering comments, the students set up various committees to look after drawings and images, marketing, layout, marks and reports, school map, rules and code of conduct, etc.

The judges noted the involvement of students at all levels, and the sense of belonging this generated.

The students examined the existing agenda from a critical standpoint and took the initiative in identifying problems and finding solutions. The project was well structured, and the division of work, responsibilities and roles were well defined.

*Category: Secondary level general education
École secondaire Frenette, CS de la Rivière-du-Nord
Region: Laurentides*

Since projects are unities in themselves, they must include both design and implementation. They call on cognitive integration resources, a notion that covers most of the so-called cross-curricular competencies and, at the college level, is reflected in the core general education component shared by all programs and fosters a triple aim: the acquisition of a shared cultural heritage, the acquisition and development of generic skills and the assimilation of positive attitudes.

2. Singularity

A project idea is not an abstraction, but a basis for planning actions. But a planned action is not the action itself, which must take into account the specifics of the participants, the circumstances of the moment and the material aspects of the place.

The concept of singularity underscores an obvious point: all the students involved in any given project will have their own personal histories, particularities and ways of acting and reacting; and their behaviour and view of the situation will also reflect who they are as individuals. But they will still have to work together. Moreover, they must function in a given context, a specific school. The shape the project takes will thus bear the stamp of these circumstances, and everything that happens will be the outcome of relationships between these individuals and their environment. From this point of view, action, spurred on by the specifics of the environment, is what makes each individual an authentic player.

In short, a project is by its nature a continuously evolving scenario. In addition, it reflects the personality and particularities of each participant, and depends on the constraints of the time and place in which it comes into being.

Entrepreneurial development

The entrepreneurial spirit is meaningless without some experience of the material aspects involved in project implementation. This is precisely what young people today want: to learn in, and through, action. As the painter Magritte wrote on his painting of a pipe, "This is not a pipe." Despite the supposed evidence of our eyes, Magritte was right: his painting was indeed that, a painting. Reality prevailed.

The requirement of "materiality" means that the knowledge and skills called into play by a given situation create a requirement to act and to adapt to it. This introduces the notions of effective action and, especially, spontaneous behaviour. Everything can be used as a subject for reflection and self-discovery, and everything creates a need to improve, acquire competencies and test oneself—because "this is the real thing!" Students must take the risk of facing reality and come away with more confidence in their ability to adapt. This is what creates a feeling of personal effectiveness, and helps them become aware of what they still need to learn.

3. Complexity

A simple activity, a task to be done, a problem with an obvious solution, an action with a foreseeable result—none of these needs to become a project. The following example illustrates this fact. Someone entered a project in the Québec Entrepreneurship Contest and applied for a grant under the Introduction to Entrepreneurship Measure: "We've hired a bus to take a group of seniors to see a folk dancing show." What was the correct response? First, the notion of "project" does not apply here. There is no indication of the goal of the activity, and one has no way of assessing its usefulness. Moreover, there were no uncertainties or any degree of complexity involved. There is no point presenting a project for something that is going to happen the next day; the time line is practically nonexistent, so there is no room for— or purpose in—planning.

If a project can be defined as a vision used to organize the future, it is because the future is uncertain and partly unforeseeable, and this is what gives a project its value. If a project is well designed, reducing the potentially negative effects of certain factors, it will in all probability produce the desired effect.

Complexity and uncertainty introduce tension into a project, mobilizing the cognitive resources of analysis and anticipation, creativity and realism. One of the functions of every project is to manage the indeterminacy of a problem situation made up of various elements, factors and contingencies that combine with one other. The problem with undertaking a project is that it is practically impossible to have all the required information and knowledge at the outset. Projects must be designed to reduce uncertainty, but they can never really achieve this since certain grey areas will always remain. This is why people are said to "launch" a business, career or political venture; it is an admission that there are risks, elements beyond their control, that they are going to leave their comfort zone and will have to keep an eye on the favourable and unfavourable conditions they will encounter.

Entrepreneurial development

Paul Valéry once said that "Things that are too simple are false, things that are too complex are unusable." From this perspective, one can undoubtedly say that the problems associated with any given project are seldom made explicit, since the main focus is on action. Undue complexity or uncertainty must be circumvented by designing projects of a more manageable scope. In all cases, entrepreneurial development depends on the power of words, since it relies on language skills and a business plan.

All action within the context of a project must proceed from a problem or issue and be amenable to recounting, so as to make the project more feasible and practical, and give it greater power and depth. Entrepreneurs must be simultaneously innovators, organizers and leaders, since it is up to them to provide an overview of their projects and present them as a true "visions."

The Québec Entrepreneurship Contest

The Contest helps to make people aware of proper project parameters. Every application must contain the following elements:

– *A description written by the students (summary of the project, what they have learned, the obstacles they had to overcome);*

and answers to the following questions:

- *What was/were the project's goal(s)?*
- *What was the target situation or problem?*
- *How was the work organized?*
- *Was there an action plan (formation of committees, delegation of tasks, production schedule)?*
- *What resources were available? Were other people involved in the project?*
- *What results were obtained?*
- *Why does the project deserve to be one of the winning entries?*

These are some of the points that must be explained to as many people as possible.

Pedagogical commentary

A business plan¹ is used to reduce uncertainty and to deal with complexity by imposing order. However, as a first step, especially at the elementary level, it is often enough to draw up a list of the points of view that had to be taken into account and the number of aspects that had to be planned for. “What was outside my control? What was not planned? What surprised me? If I started over, what would I do differently?”

4. Opportunity

A project starts with an action in mind. It begins to emerge when someone says, “In our current situation, there must be another way to see or to act that can take the form of a project. We could thereby achieve a new state of well-being, a new way of doing things, a new type of freedom. We could take

advantage of a possibility that we can now only imagine.”

An account of a spontaneous project

The project began to take shape when I told my students the date of the information meeting for their parents. One student joked, “Hey, wouldn't it be fun if WE organized the meeting?” All the other kids reacted favourably right away.

Each student chose a topic to deal with. Teams were formed, and the students wrote a text. They planned the evening, sent out invitations and even prepared refreshments. I saw students exchanging information, cooperating, making decisions. It was fun! (Elementary, Cycle Two)

This example shows that a project can emerge from an open environment. The teacher was able to recognize the student's potential in a spontaneous remark; this was taken up and developed by the other students, all sharing the same optimistic vision. Their involvement in the project showed that they thought it was feasible—an original adventure that, here, took the form of a “meeting” different from all the meetings that had gone before.

1. A fictional business plan is not admissible for the Québec Entrepreneurship Contest or the Introduction to Entrepreneurship Measure. The project must have been implemented.

Entrepreneurial development

The ability to seize opportunities is a key element of entrepreneurial culture, and a special kind of relationship with the environment. To create something new that “meshes” with the environment, a person must be truly aware of and concerned about what is happening in his or her vicinity. This begins with a sort of playful originality at the elementary level, becomes an ability to initiate innovative actions at the secondary level, and leads later to the emergence of entrepreneurial projects closely linked to the needs of the community. In cognitive psychology, this is called “problem awareness.”

Pedagogical comment

It is a matter of identifying the starting point, the initial idea for a project. How does a project come into being? Sometimes, for example, a project must be designed to obtain a grant. In this case, should the teacher or the students take the initiative?

In general, teachers prefer projects that are consistent with subject-specific objectives, and do not want to become overburdened with extra work. As a compromise, the students can be left free to choose a project, but one that is in keeping with a theme suggested by the teacher, or within specific time, space and budget constraints.

Whatever the process used, projects must relate to a problem that is clearly identified and understood by all parties.

A true project meets the four conditions given below. The next question is to examine how a project is constructed.

1. Unity

Unity is linked to the people responsible for the project; it develops as the project itself develops. It joins design to execution, and ideas to reality.

3. Complexity

Complexity is linked to the unforeseen, because a project contains many different elements that influence it. It requires analysis, motivation and daring, despite the uncertainty that inevitably remains.

Four fundamental project conditions

2. Singularity

Singularity is linked to the context and to the particularities of the people, time and place involved. It is, so to speak, an embodiment of the project with the entire range of specifics from which it springs.

4. Opportunity

Opportunity is generated by the environment. It requires acute awareness and sensitivity to the problems and needs of the community.

Constructing a project: design and implementation

I. Designing a project

The idea for a project has to come from somewhere. In the case of the students who took the initiative of organizing a meeting for parents, it emerged in a flash and immediately convinced the whole group. This is perhaps the most natural and spontaneous way to proceed, even though the problem situation addressed by the project must be identified later. This is what some researchers call the “intuitive configuration” of a project. Even some ideas for businesses emerge like this: a possibility is suddenly seen as being new and promising. It matches the aspirations of the initiator—“I like this idea”—the initiator’s competencies—“I can do this”—and the resources in the community—“we can manage.”

An intuitive configuration (Bruyat, 1993) appears as swiftly as an opportunity to be seized. It is a sort of “preconception” that triggers something in the entrepreneur’s mind, but sometimes takes years to emerge as an entrepreneurial vision. From this perspective, one can apply a test (by an unknown author), known as the “POP” test. It should be presented to the students just after they have been asked to come up with ideas for a project. It is used to quickly assess a project:

POP test	
P	Is the project Possible, given the resources available?
O	Is the project Original? Was it your idea?
P	Do you have a Passionate interest in the project? Will it be a Pleasure to implement? Will you Persevere until it is completed?

The project design phase will include:

1. an analysis of the current situation
2. an outline of a possible project
3. an outline of the strategy to be applied

The project development phase will include:

4. planning
5. problem management
6. the establishment of evaluation indicators, followed by evaluation

1. Analysis of the current situation

Since the goal is to provoke change, or to create something new in a durable form (a good, service, event), a situation must be found where change is needed. An analysis of the current situation will reveal what needs to be produced, what will fill a gap or correct an imbalance. The problem may be technical or material, social or humanitarian. It may be connected to lifestyle, food or the state of the environment. The fact that the idea for the project is based on the observation and analysis of a given situation guarantees that it will not be considered arbitrary or futile, and that it will have ethical and value and meaning for the community. In short, the entrepreneurial project draws meaning from its implicit mission to improve the quality of life or increase collective wealth in economic, cultural, humanitarian or ecological terms.

The project involves establishing an aim and putting in place a program to bring about a desired outcome. It must be pleasing to the originators, and the analysis of the current situation must meet their needs: What do they want? What are their aspirations, inclinations and values? To become deeply involved in a project, the participants must want it to happen, because it will offer them fulfillment and bring them closer to what they are seeking.

Cognitive resources

Two cognitive resources are called into play by the analysis of the current situation: self-knowledge, and sensitivity to the problem in question.

- Self-knowledge is an indispensable tool for evaluating one’s personal effectiveness, capacity to meet challenges and, more especially, one’s willingness to make the necessary effort and persevere.
- It is also important to be sensitive to the problem situation and to be able to identify the possibilities for change it contains. Creativity must be applied to the situation, in understanding and analyzing it. A project to decorate a classroom is not necessarily creative. A project is creative when it meets a need for innovation, and it is “entrepreneurial” if the creativity it requires is relevant and applied to a situation that needs it.

Pedagogical support

Teachers have two possible approaches: they can ask students to suggest a project, or they can propose one themselves. In each case, however, the project must address a situation that needs changing, make an improvement, or introduce a product, service or event.

- Encourage the students to analyze the target situation.
- Make sure that each student constructs an opinion and exercises critical judgment.
- Make sure that the target result is understood and formulated in a single phrase, individually and collectively.
- Encourage the students to ask as many questions as possible about the ideas underlying the project, the solutions envisaged and the possibilities for action.

- Explain to the students that they must embark upon a process of discovery, that they must create something new and innovate; suggest methods conducive to diversity, originality and smooth functioning.
- Ask the students to debate the relevant issues in small groups, and all together if necessary. Is the project feasible? What ideas would be the most appropriate for dealing with the situation?
- Ask the students to list the resources needed for the project.
- Make sure that the project is “open-ended,” so that each student can find a “niche.”
- If an idea for the project still has to be found, explain to the students that they must embark upon a process of discovery, suggest possible ways of solving the problem in question, and be innovative.
- Lead a class discussion to highlight the most appropriate ideas. What choices should be made? Which option is most appealing? What one is the most promising? Is it feasible? Is it at the right level of difficulty? Is it a manageable challenge? At first sight, is it reasonable to move in this direction?

2. The proposals for pedagogical support for entrepreneurial projects in their development and implementation phases are largely based on a working document by Line Houde, who is responsible for the guidance-oriented school approach at the Commission scolaire de la Capitale.

2. Outline of a possible project

Not everyone is sensitive to the same situations, or to the same aspects of a situation. Goals must be formulated in a way that reflects the values and interests of all participants. The project must suit all the people involved, and take reality into account. This means that a project shared by several different people must be chosen for its general relevance, and that each person must be able to support the parts that concern him or her personally. In other words, all must agree on a common goal expressed as a situation with a range of options that allow participants to identify their own niche and give meaning to their participation.

Pedagogical support

- Encourage the students to identify the qualities or strengths needed to accomplish the tasks involved, and to conduct a self-examination concerning the specific requirements of the project.
- Allow the students to choose tasks on the basis of their interests.
- Suggest that the tasks be posted in the form of job offers.
- Ask the students to apply for a “job” by sending in an application (letter).

3. Outline of the strategy to be applied

Once the goal has been properly defined, the path used to arrive at that goal must be decided. There are no pre-defined paths, but the path must not be totally improvised. How can previously identified obstacles be taken into account, and how can ways be found to overcome them, along with the resistance to change that will inevitably occur? How can the resources, and the solutions that gradually emerge, be taken into consideration? These questions are not defeatist; rather, they express the need to face reality. Once again, the situation must be examined, but from the point of view of a devil’s advocate. The objective is not to get trapped, but to make sure that no insurmountable obstacles will be encountered. The focus, at this stage, is on project feasibility, and it must be addressed strategically: how can the project be protected in all circumstances against unforeseen events and, most importantly, how can the talents of all the resource persons be used to full advantage?

Pedagogical support

- Help students foresee the difficulties they will encounter, and ways to overcome them; prepare them to solve problems and be resourceful.
- Encourage the students to see themselves in roles they will be able to undertake successfully, despite having to overcome certain difficulties.
- Tell the students they will sometimes have to deal with uncertainty.³

3. “Students spend the years from elementary school to university in something akin to a passive relationship with learning. The reference framework of the system is so strongly established they feel anxious when they are suddenly confronted with another system in which not everything has been already clearly defined.” (L.-J. Filion, 1999)

II. Project implementation

Entrepreneurial culture cannot exist without an organizational culture. Project implementation begins by deciding to move forward, and by taking action.

4. Planning

Action cannot commence safely unless it has been correctly planned. “What needs to be done? How should it be done?” are the questions that will provide the new guidelines needed to plan the various phases of the action.

Any project that requires tasks to be allocated, committees to be formed, and teams to be established and coordinated can be used to develop an organizational culture. A leader with a strong sense of teamwork and cooperation is needed for the decisions that have to be made.

Cognitive resources

Entrepreneurship is innovation, but it's also organization, and some people have a special talent for this! A sense of organization is mainly a matter of logistics, meaning the management of operations, deadlines, costs and priorities. Leadership is also required to implement projects by creating and maintaining situations that draw upon the resources of all the players and the organization itself. This is why a stimulating environment is needed, one that encourages communication, rigour, synergy and the commitment that makes everyone a key player, rather than just a passive participant or an extra.

An account from the elementary level

“Even though we belonged to just one committee, we knew what every person had to do. We would present the project to the other students in the school. We would explain everything that was involved, and how important it was to work with others in order to move forward. We also saw the best way to work in order to be effective.” – Student project, elementary level (grade 5).

Pedagogical support

- Allow the students to experience teamwork, and encourage them to identify the roles they can play and become aware of the need to assume their responsibilities.
- Students must learn to work in a team (in a sector corresponding to different tasks) and to take responsibility for the proper operation of their sector (the importance of solidarity and responsibility).
- The project allows students to play a leading role at each stage in the process (responsibility, independence, commitment).
- Ask the students to identify or plan tasks and ideas for intervention.
- The students must plan activities in their respective sectors and identify the materials they will need.
- The students can influence other members of the group and encourage them to take part in the project (leadership).
- At the end of the project, the students must decide which member of their team made the biggest commitment.
- The supervisor can also highlight the work of other students who made outstanding contributions.

5. Problem management

It is important to face facts. Problem management must be applied as the project progresses and the planned tasks are completed, and as problems arise that affect the initial plan. The entrepreneurial experience also includes the need to agree on adjustments and provide assistance to others, applying resourcefulness to counter unexpected events, concrete difficulties, errors and chance occurrences.

The desire to achieve one's goal must be balanced by a critical view of the progress made and recognition of the gap between what was planned and what was achieved. However, this type of control must not become rigid or obsessive, an exaggerated insistence on a perfect match between objectives and results. Two questions must be asked at this point: "How big a gap is acceptable? Do we need the flexibility to adapt the project target to the circumstances?" These questions are often posed in connection with the management of material and financial resources.

Pedagogical support

- Through the successes and difficulties they experience as the project takes shape, the students have an opportunity to develop their self-esteem by taking on responsibilities they can manage and helping each other out.
- From time to time, suggest that the students reduce their stress level by visualizing what remains to be done.
- The students must deal with unexpected events and demonstrate initiative. They must suggest what they consider to be the most appropriate solutions.
- Let the students attempt to resolve difficulties themselves, intervening only if needed.

6. Evaluation and indicators

A project is only truly completed when it has been assessed by its originators and those who took part in it or were responsible for it. Teachers should never underestimate the pedagogical importance of evaluation. If the experience is not examined in detail, the project will be quickly forgotten or seen as merely a "fun" memory. Without looking back at the initial problem, how it was defined and explained, the project itself and the stages in its implementation, how can students learn, draw conclusions and make deductions for the future?

Criteria of effectiveness

"To what extent did the group meet its joint objectives? To what extent did each student act positively and take on responsibility?"

Criteria of efficiency

"To what extent have we made the best possible use of the resources available? What was most useful, and what was least useful, both as a group and individually? Were the competencies of the group put to good use? Did the project implementation create synergy?"

Criteria of coherency

"Given our objectives, did we make the right moves, did we choose the right actions? Did we lose sight of our objectives? Did any of the students provide leadership?"

Criteria of relevance

"To what extent does the completed project appear to have accomplished an important, valid goal? To what extent has the project been seen as having a positive effect in the target community?"

Pedagogical support to promote projects

Evaluation can take the form of a group study of the project's success and the ways in which it could have been improved.

All the participants must define, together, the rules, evaluation criteria and factors to be considered, and the operational and methodological lessons that can be drawn from the experience.

The group study should foster the clearest possible expression of what constitutes project culture and entrepreneurial culture: how does the “art of the project” lead to innovation, novelty and an improved quality of life? Launching a project is a way to shape the future.

Pedagogical support to help make each individual's actions more effective and bring out his/her emotional resources (entrepreneurial qualities)

- To complete their project, the students have to be tenacious and persevere. A way must be found to recognize their strength of character and stamina and the time they devote to the project, perhaps by letting them know that their efforts have not gone unnoticed.
- The completed project should bring the students to assess their contribution and the ways in which they have progressed in terms of personal development and teamwork. They should also have an opportunity to assess the work of their teammates.

For a project to be considered truly a project, four conditions must be met: unity, complexity, singularity and relevance. Similarly, the implementation of a project is divided into six phases: analysis of the current situation, outline of a possible project, outline of the strategy to be applied, planning, problem management and assessment.

Criteria to measure the success of an entrepreneurial project

The basic question remains: what exactly is a successful project?

“A successful project is one that ...” Everyone can finish this sentence in a different way. However, there are a few

indicators that can be used as a practical set of references to guide teachers in their understanding of entrepreneurial culture.

A successful entrepreneurial project is, first, one that is genuinely entrepreneurial and not just heuristic. It must not simply generate knowledge but also actions. This is what distinguishes it from project-based learning. The structure is similar, but project-based learning in itself does not involve undertaking innovative action: it leads, rather, to investigative work and the construction of knowledge. It can, nevertheless, generate a cultural product (such as a theatre play, video report, etc., together with the necessary marketing strategy).

For an entrepreneurial project to be successful, it must also involve an original, unique action. If an action is too long or repetitive (such as collecting recipes for a book or fundraising activities), it quickly loses its appeal—unless, of course, it explicitly tries to renew the approach or depart from tradition. Similarly, if a project splits off into variants based on one and the same intention, procedure or organization, then neither of these variants can be considered a project, since the action is always the same. This would be the case, for example, for a plan that would involve recycling paper to make bookmarks, then greeting cards, then coasters, etc. To be considered entrepreneurial, an action must be innovative and address an economic, community-related or technological problem; it must also satisfy a

Launching a project is a way to shape the future

community need, a need for a more efficient operation or a wish for greater well-being.

A successful entrepreneurial project is also one that mobilizes people. When it brings together a large number of players and participants, attracts outside resource persons, uses the media, and reaches the general population, it can be considered successful. A project mobilizes people when it creates a new product, service or event that has a major impact (see the “balls of wool” project below).

Lastly, a successful project leads to a major achievement, and is remarkable for its effective management of material and financial resources and its mobilization of human resources.

At the level involved here, however, a successful entrepreneurial project must be formative for the students involved and allow them to use their entrepreneurial qualities and competencies, especially their independence and sense of responsibility. The teacher can:

- foster the students’ independence by allowing them to participate as much as possible in all the stages of the project, and to marshal their cross-curricular competencies in an integrating manner
- foster the students’ sense of joint responsibility by the way in he/she facilitates their enthusiasm for the target and their involvement in the program of activities

Example of a project

*Balls of wool for Romania
(2003-2004)*

The project involved the establishment of a knitting workshop to help children in an orphanage in Romania. One hundred and seventy-two students from all levels took part, knitting squares that were then assembled into blankets or scarves for the orphans. The students enlisted the help of

older, experienced women knitters. This association also helped reduce the isolation of the elderly people who took part in the workshop. The judges were delighted, describing the project in the following terms: “A strong dynamic and strong mobilization [of resources], noble objectives, and sound work organization. A fine example of a partnership between the school and the community, an interesting intergenerational element. A striking success, that still generates strong emotions.”

*Category: Secondary level general education
École Joseph-François-Perrault, CS de la Capitale
Region: Capitale-Nationale*

Evaluation can be an enriching activity, especially for younger students. By reviewing their experience, they can learn the vocabulary of entrepreneurship and to name the values and qualities that make action effective and promote commitment. Assessment also provides an opportunity to show the students the links between what they have experienced, on the one hand, and their studies and academic success, on the other.

Evaluation can include questions on the emotional and cognitive resources brought into play, as well as on organizational culture, the experience of joint responsibility and the exercise of leadership in a context of cooperation and interdependence.

An even more rewarding activity would be to ask all the students to tell the story of the project, including what they understood and experienced, the emotions they felt, the challenges that had to be faced, the uncertainty that had to be overcome, the special successes they achieved, their moments of pride and fulfillment and, especially, the conclusions they have drawn from the project.

The story of the project can be recounted, drawn or presented on video; it can generate a musical composition or a stage presentation of a specific event. Other formulas may be used to recall the experience, based in particular on the notion of “multiple intelligences.”

According to the principle of vicariousness, observing the behaviour of someone similar to oneself or the actions of someone with the same characteristics as oneself increases belief in one’s own effectiveness and encourages an entrepreneurial approach and the taking of similar initiatives. In short, entrepreneurial culture becomes contagious if the students who have successfully completed an entrepreneurial project talk about their experience to their fellow students and family. A tour of classrooms and neighbouring schools could be organized to publicize outstanding entrepreneurial experiences.

Entrepreneurial culture becomes contagious if the students who have successfully completed an entrepreneurial project talk about their experience to their fellow students and family

Foundations of entrepreneurial culture (cognitive resources)

Project stage		Quality of action	Suggestions for pedagogical support ⁴ (Each student should be able to ...)	Cross-curricular competencies ⁵ linked to each project stage
Design (aim)	1. Analysis of the current situation	Motivation	Propose a project: – Analyze the target situation and given an opinion – Understand and formulate the goal – Ask as many questions as possible about the suggested project or projects and debate their feasibility – Identify the resources available and the role they can play Explore project ideas: – Begin a process of discovery – Identify possible actions connected to a specific problem – Identify the most appropriate project, that is feasible, promising and of the right level of difficulty	1. Uses information 3. Exercises critical judgment 4. Uses creativity 6. Uses information and communications technologies 9. Communicates appropriately
	2. Outline of a possible project	Self-confidence Determination	– Identify the qualities or strengths needed to accomplish the project on the basis of its specific requirements – Choose tasks on the basis of his/her own interests	5. Adopts effective work methods 6. Use information and communications technologies 7. Achieves his/her potential 9. Communicates appropriately
	3. Outline of the strategy to be applied	Effort Initiative	– Foresee problems – Identify ways to overcome problems – See oneself in roles where one can achieve success by overcoming problems – Face uncertainty; tolerate ambiguity	2. Solves problems 5. Adopts effective work methods 6. Uses information and communications technologies 9. Communicates appropriately
Implementation (program)	4. Planning	Team spirit Sense of responsibility	– Explore working in teams – Identify his/her role – Take responsibility – Play a leading role at certain times – Identify and plan tasks – Propose possible approaches – Plan tasks and obtain materials – Exercise influence within the group	8. Cooperates with others 9. Communicates appropriately
	5. Problem management	Resourcefulness Solidarity Perseverance	– Develop self-esteem by taking on appropriate responsibilities – Anticipate steps in the process to reduce stress – Deal with unexpected events – Demonstrate initiative – Resolve difficulties individually or as a team	2. Solves problems 9. Communicates appropriately
	6. Evaluation		With regard to the project: – Discuss the success of the project as a group, and identify what could have yielded better results – Discover the criteria and important elements to take into account for the evaluation – Draw lessons concerning operations and methodology – Understand entrepreneurial culture and its components With regard to effective action and the emotional resources of each participant: – Evaluate progress and accomplishments from a personal and group point of view – Identify the qualities displayed by teammates – Realize what has been learned and the qualities applied to accomplish actions	3. Exercises critical judgment 7. Achieves his/her potential 9. Communicates appropriately

4. To see all the suggestions, go to the “pedagogical support” sections on pages 38 to 41.

5. See the complete description of cross-curricular competencies and their key features on pages 44 and 46.

The cross-curricular competencies and their key features

1. Uses information

Systematizes the information-gathering process

- Establishes research strategies
- Determines the pertinence of information
- Identifies the value of each piece of information

Gathers information

- Selects appropriate information sources
- Collates information from different sources
- Evaluates the validity of information according to specific criteria
- Makes connections between what he/she already knows and new information
- Distinguishes between what is essential and what is secondary
- Seeks additional information

Puts information to use

- Uses the information gathered to answer his/her questions
- Puts his/her prior learning into perspective
- Uses information in new contexts
- Respects copyright

2. Solves problems

Analyzes the components of a situational problem

- Identifies the context and the main elements of the situational problem and makes connections among them
- Recognizes similarities to situational problems solved previously

Tests possible solutions

- Lists and classifies possible solutions
- Considers the appropriateness of each solution and assesses its requirements and consequences
- Chooses a possible solution, applies it and evaluates its effectiveness
- Chooses and tests another possible solution if necessary

Adopts a flexible approach

- Reviews the steps taken
- Redoes some of them if necessary
- Identifies successful strategies and analyzes the difficulties encountered

3. Exercises critical judgment

Forms an opinion

- Defines the question under consideration
- Weighs the logical, ethical or aesthetic issues involved
- Goes back to the facts, verifies their accuracy and puts them in context
- Explores various options and existing or possible points of view

- Bases his/her opinion on logical, ethical or aesthetic criteria
- Takes a position

Expresses his/her judgment

- Articulates and communicates his/her viewpoint
- Justifies his/her position

Puts his/her opinion into perspective

- Compares his/her opinion with those of others
- Reconsiders his/her position
- Evaluates the respective influences of reason and emotion on his/her approach
- Recognizes his/her biases
- Repeats the exercise if necessary

4. Uses creativity

Becomes familiar with all the elements of a situation

- Defines the objectives and issues involved
- Is open to different ways of perceiving the situation
- Listens to his/her intuitions
- Envisages different scenarios and procedures

Explores

- Accepts risks and unknowns
- Plays with ideas
- Proceeds by trial and error
- Turns obstacles into resources
- Recognizes possible or partial solutions
- Is receptive to new ideas and ways of doing things

Adopts a flexible mode of operation

- Tries out new approaches
- Uses new ideas
- Explores new strategies and techniques
- Expresses his/her ideas in new ways

5. Adopts effective work methods

Considers all aspects of a task

- Assimilates the objective and evaluates its complexity
- Identifies the available resources
- Imagines various ways to carry out the task
- Reflects on the best way to perform it
- Plans how to carry it out

Adjusts his/her approach

- Mobilizes the necessary resources: people, materials, time, etc.
- Adapts his/her work method to the task and context, and readjusts his/her actions as required
- Completes the task

Analyzes his/her procedure

- Examines the procedure used
- Recognizes what was effective and what worked less well

- Assesses the requirements of the task
- Imagines contexts in which the approach could be reapplied

6. Uses information and communications technologies

Uses appropriate technologies

- Carries out various tasks using technological resources
- Evaluates the potential of the available technologies and networks
- Chooses the most suitable tools for the situation
- Applies the interaction, communication and trouble shooting strategies required for a given task

Takes full advantage of these technologies

- Diversifies his/her use of ICT
- Takes advantage of ICT resources and functions in various types of learning
- Recognizes and uses in a new context concepts and processes he/she has learned previously
- Envisages new ways to use them
- Respects the prevailing values and codes regarding intellectual property and privacy

Evaluates his/her use of this technology

- Compares his/her ways of using ICT with those of others
- Recognizes his/her successes and difficulties
- Seeks ways to improve his/her use of these technologies and suggests ways to do this
- Examines the relevance of using ICT by taking into account their contribution to specific tasks

7. Achieves his/her potential

Recognizes his/her personal characteristics

- Identifies his/her feelings, thoughts, values, cultural frame of reference and options
- Identifies his/her strengths and weaknesses
- Assesses the quality and appropriateness of his/her choices of action
- Recognizes the impact of his/her actions on his/her successes and difficulties
- Evaluates his/her achievements and progress

Takes his/her place among others

- Recognizes that he/she is part of a community
- Compares his/her values and perceptions with those of others
- Perceives the influence of others on his/her values and choices
- Expresses his/her opinions and choices
- Respects others

Makes good use of his/her personal resources

- Establishes short- and long-term goals
- Establishes criteria for personal, academic and career success
- Makes the efforts required to achieve his/her goals

- Perseveres in the effort to achieve his/her goals
- Displays increasing autonomy

8. Cooperates with others

Contributes to team efforts

- Assesses the sort of collaboration or cooperation to which a task lends itself
- Participates actively and with a cooperative attitude in classroom and school activities
- Uses differences constructively to attain a common objective
- Plans and carries out work with others
- Carries out his/her task according to the procedure agreed on by the team
- Manages conflict

Uses teamwork effectively

- Recognizes which tasks can be done more effectively by means of teamwork
- Assesses the challenges or issues involved
- Recognizes the benefits of teamwork for himself/herself and others
- Assesses his/her participation and that of peers
- Identifies desirable improvements

Interacts with an open mind in various contexts

- Accepts others as they are and recognizes their interests and needs
- Exchanges points of view, listens to others and respects different views
- Adapts his/her behaviour to the team members and the task

9. Communicates appropriately

Becomes familiar with various modes of communication

- Knows and observes usage, rules, codes and conventions associated with different modes of communication
- Uses their resources

Uses various modes of communication

- Analyzes the communication situation
- Chooses one or more modes of communication suited to the context and purpose of communication
- Identifies modes of communicating suited to the target audience and their characteristics
- Uses modes of communication suited to the situation

Manages the communication process

- Takes into account factors that may facilitate or hinder communication
 - Adjusts the communication on the basis of the reactions of the target audience
- Recognizes the strategies used throughout the process and evaluates their effectiveness

The entrepreneurial relationship with the community



We now come to the specific nature of entrepreneurial culture. Clearly, it consists of a desire to act (emotional resources) and the knowledge needed to develop a project (cognitive resources). However, the project must also fit into a community that needs it, and it must be able to be implemented using the competencies of the people chosen—and willing—to participate in the adventure.

Vision and knowledge of the market

A study of the world of small businesses reports the following comment made by a young entrepreneur working as an accountant: “People who succeed understand the market and find a niche, often in their own field. They have a vision, but at the same time they understand the industrial sector in which they plan to operate. [...] Of course, they also need to have strong management

skills in the early years. What really makes the difference, though, is finding the right idea and hooking up with the right people.” But finding the right idea and choosing appropriate partners are two aspects that depend on a close relationship with the community.

This is a specialized area of analysis, but it will help highlight the real meaning of entrepreneurship. The “function of the

entrepreneur,” according to Schumpeter¹ (1935), is basically to innovate by:

- the introduction of new products or new qualities for existing products
- the introduction of methods of production
- the opening of new forms of industrial organization
- the conquest of new markets
- access to new sources of supplies

Clearly, seen from this angle, innovation is not just a form of playful originality or whim, but something completely new that fills a need or gap or offsets a dysfunction related to the marketplace, a production process, operating costs, a distribution chain, marketing strategy or some other aspect.

According to Kirzner (1973), an opportunity arises when there is a dysfunction in the marketplace, or an economic imperfection or imbalance that can be exploited by an entrepreneur who re-establishes a state of relative equilibrium in the marketplace. An opportunity consists, above all, in a possibility for profit created by the existence of a solvent demand and the availability of the required resources. The new product that a vigilant entrepreneur² is able to bring to market can be transformed into income. Cesson (1982) considers that opportunities are “situations in which new goods, services, raw materials or organizational methods can be presented and sold at a price above their production price.” We are not far here from the innovation paradigm.³

Entrepreneurs must see their community as a resource for themselves, and themselves as a resource for their community

Entrepreneurs seek to create something new that will be successful for them to the extent that it is well received by the target market. In other words, it is a project that must be based—in order to minimize risk—on knowledge and assiduous frequentation of the community that must be persuaded or won over, on a market survey and on a suitable business plan.

Entrepreneurs must see their community as a resource for themselves, and themselves as a resource for their community. These two conditions must also “converge.”

Since this attitude is one of the interactional resources that entrepreneurs must possess, it could be said that entrepreneurs are characterized by their ability to consider their environment as a resource that can be used to achieve their goals.

We have to be attentive and watchful if we are to be aware of what is around us and detect any insufficiencies. The idea of launching a business does not emerge only because an opportunity arises, but also because potential entrepreneurs are always on the lookout, and their minds are already prepared to receive new ideas.

1. Schumpeter was the first person to define entrepreneurship as an integral component of economic life.

2. Our emphasis.

3. Taken from the paper “Quatre paradigmes pour cerner le domaine de la recherche en entrepreneuriat” by Thierry Verstraete and Alain Fayolle (2004): <www.airepme.org>.

Pedagogical comments

What pedagogical conclusions can be drawn from the notion of opportunity and, more particularly, from the state of awareness that underlies and maintains it? Could this state of awareness be a new way of exploring and interpreting the environment in which students live? Suitable questions and proposals could be formulated in each academic subject. Let's take the example of a book that students must read, study and comment on. Why not lead the students to ask why some books are successful, apart from their literary qualities. What do they know about the stakes in the publishing world, and the struggle that small bookstores must wage against large retail chains? What do publishers actually do? How do they decide how many books to print? What are some of the book promotion options? The students could decide to conduct a market survey in the school, perhaps leading to the establishment of a book club.

Students sometimes opt to publish their own work in the form of anthologies, either electronically or by setting up an exhibition stand. Why choose one approach over another? Who is the target audience? How does one address the needs and interests of potential readers? How many books must be sold to cover costs, or to make a profit and hire extra staff?

The state of awareness can also be promoted by providing students with suggestion boxes where they can leave comments on selected topics, determined on the basis of what they have to learn. This state can also be associated with subject-specific content, for example, in the area of science and technology, with everyday consumer products, or with manufacturers or retailers of products that happen to be based on some invention or specific technical principle. However, the relevance of the product, the way in which it is made, its intended usefulness and its possible applications must always be questioned. The state of awareness we are talking about here includes

the ability to question current marketing methods.

An examination of the meaning of entrepreneurship can also help students become more aware as consumers, as illustrated by the following project.

Example of a project

An evening of food tasting (2004-2005)

The creation of the Goutzi business, with the goal of organizing an evening event at which the general public could taste the products of some 15 food producers and processors from the region. The project allowed the students to develop their independence, leadership and resourcefulness. The judges commented on the exposure created for regional exhibitors and resources, while promoting networking and partnerships.

Category: Secondary-level group

École secondaire La Découverte, CS de la Riveraine

Region: Centre-du-Québec

In short, the products and services that form part of everyday life can be looked at in this way. If the local drugstore were redesigned, what other services could it offer its customers? Could it be laid out differently, or relocated? Could it expand its mission, or improve its visibility?

Awareness makes the community a resource for students, who become more involved in, and concerned with, the reality around them. They also discover that they can engage with reality in creative, innovative and stimulating ways, and this can lead them to show initiative and take on responsibilities.

Vision: more than a project

From dreaming to seeing what is possible, from project to vision, a straight line of development runs from the simple to the complex, and from an individual to a collective need. Something that starts out as a playful whim can become an innovation, a creative approach to a situation or social context. And this leads, in turn, to an enriched combination of emotional, cognitive and interactional resources: dream—project—vision. How is vision developed, and how is it linked to an entrepreneur's interactional resources? Louis Jacques Filion, who teaches at the Hautes études commerciales, a Montréal business school, has explained this in a major publication.⁴ He states that entrepreneurial vision is like a projection into the future of what must be learned today and accomplished on a day-to-day basis to finally arrive at the chosen destination.

Entrepreneurs learn what they need to know from three distinct sources: from friends and family, from the business community and informally. Indeed, they devote extensive time to informal occasions, which include discussions with customers and suppliers, trade fairs and so on. This third level is, then, the learning level, the one at which they prepare for action. New entrepreneurs are very surprised that they have to learn by anticipation, through a form of "self-training." Their relationship with the community is a constant source of information, influence, collaboration and learning, enriching their vision and improving their chances of achieving it.

In short, vision is a project with, in addition, on-the-job training and acculturation to the target area. No matter how educated they may be, entrepreneurs have no choice but to learn about the area targeted by their business idea. This project is transformed by what they learn along the way, until their vision crystallizes and leads to a decision to act and to mobilize the required resources.⁵

As Louis Jacques Filion (2005) explains, business, knowledge of a sector of activity and understanding are the foundations of the vision process. Entrepreneurs must understand the evolution of a sector in its entirety. To position their products on the market, they must be able to identify market leaders, understand the pricing policy of competitors, distribution configurations, promotional strategies and advertising in the segments of the target market, know who does what and how organizations are structured, and be aware of short-term and long-term trends.

The best indicators for predicting business success are the value, diversity and depth of the entrepreneur's experience, and the entrepreneur's knowledge of the target sector.

Obviously, the above considerations go beyond a simple introduction to entrepreneurial culture, and draw near to the line separating it from specialized training for future entrepreneurs. However, it is important to remember that the entrepreneurial spirit leads inevitably to an interaction with the community, which is especially important in terms, for example, of the criteria used to assess entrepreneurial projects.

4. L.J. Filion and Minville Tintin, *L'entrepreneur et la potion magique* (Québec City: Les éditions Fides, 1999).

5. Entrepreneurs may be tempted to disavow the schools where they were trained. It is more productive to have them speak about their determination to learn as they moved ahead, their need to keep abreast of developments in the field, and how they learned to use the network to which they belong.

Introduction to Entrepreneurship Measure and interactional resources

It is important to know that, for the Québec Entrepreneurship Contest and the Introduction to Entrepreneurship Measure, the evaluation grids for the projects presented stress mainly interactional resources, especially in connection with joint entrepreneurship. Here, for example, are the criteria used to assess the innovative aspects of a project and the scope of the resulting achievements.

Innovative aspects

- The innovative aspect of the achievements sparks interest.
- The product or service is an improvement (better in terms of quality, price, adaptation to customer needs, distribution, etc.) or a better design (improved invention, new presentation, new solution to old problem, etc.).
- The idea, product or service reflects market trends and meets a collective need that is considered important (and ethical)⁶.

An initial examination of the innovative aspects must leave no doubt that the new idea, product or service matches a recognized need in the community or reflects market trends.

Quality and scope of achievements

The following must be taken into account:

- the age, competencies and experiences of the student (or group) and their partners when evaluating the project
- the management profile, the project structure (human, informational and financial resources, etc.), the business plan, and modalities of funding, planning, implementation and final evaluation

- the marketing plan (Was the marketing objective clearly defined? Was a sales strategy drawn up? Were the distribution channels selected able to supply the product or service to the target customers in the best possible conditions?)
- the impact of the achievements on the school or local community in pedagogical and social terms, and in terms of local or regional entrepreneurship and the economy (funding for student activities, student jobs creation) terms, etc.
- the number and quality of outside resources available and actually consulted (organizations to promote entrepreneurship, etc.)
- the progress made by the participants, the profile of the customer base and the results achieved (evaluated on the basis of the number of years of operation).

An initial reading of the elements that make up a successful approach show that it is necessary to begin by drafting a plan and defining a vision. The production of goods or services and the organization of an event have meaning only in terms of a target customer base. This is why a communications plan and sales strategy must be drawn up. Nothing can be achieved without an organizational culture and the mobilization of organizational resources, whether internal or external, and all the criteria, of whatever kind, concern the project's interactional resources.

Expressed in this way, evaluation can appear complex or technical. However, it is clear that the age and experience of the students must be taken into account. Surprisingly, even elementary level students can be expected to achieve a lot.

6. See Appendix 3 for information on ethics in the field of entrepreneurship.

Example of a project

Small office supplies store (2003-2004)

Establishment of a stationery store in the school to give students access to high-quality supplies at affordable prices. The goal of the project was to give all Grade Two students a genuine mathematical problem to solve, since they were all involved in a given stage of the process, whether the market survey, list of purchases, inventory, advertising, catalogue design, price list, sales and bookkeeping.

The judges were impressed by the originality, novelty, quality and scope of the achievements. In addition, they approved of the social objective pursued by the students and the contribution made by the project to the development of entrepreneurial skills such as cooperation, team spirit, solidarity and leadership. The judges were also appreciative of the process involved in the project and the fact that it allowed the students to acquire cooperative values.

*Category: Elementary (Grades One, Two and Three)
École Cœur-Vaillant, CS des Découvreurs
Region: Capitale-Nationale*

This type of entrepreneurial project is also a pedagogical activity since it includes subject-specific learning according to the principle of infusion.⁷ Here, the subject was mathematics, but often several different subjects are involved in a single project. In addition, the achievements of the project are long-lasting, and will create a practical economic relationship between students, teachers and parents. The profits generated are also measurable.

In this case, the result validates the projects and provides a source of pride.

In general, the focus is on the innovative value of an entrepreneurial project but, in this case, profitability is the main factor taken in account. It is important to note that economic notions are sometimes included in the elementary curriculum, for example in some U.S. states. The Appendix contains a short but significant text on the foundations of our economic system.

Interactional resources and entrepreneurial development

Students who have designed and carried out “lightweight” projects during elementary school and Secondary Cycle One are in a better position, thanks to the knowledge and skills they have acquired, to come up with more ambitious projects, and more likely to have an impact in their chosen fields. Vocational, technical and university-level training equip people for truly profitable projects.

This is why, in general, students who have acquired such training present projects based on their observations in the field and on their operational knowledge; their business plans set out the interactional resources that they expect to use.

A recent study (2005) on college-level entrepreneurship projects shows that students like to design services for the general public that match the specialized programs in which they are enrolled. For example, students in administration programs may be drawn to

This type of entrepreneurial project is also a pedagogical activity since it includes subject-specific learning

7. The principle of infusion involves the application of an academic subject (here, mathematics) to a project (a stationery store). This shows that contextualization promotes learning. For more information on various types of infusion, see *L'approche orientante, la clé de la réussite scolaire et professionnelle*, Septembre éditeur, 2004.

preparing income tax returns or market surveys, while students in maritime navigation may gravitate toward designing a small boat. The Optimax project is a good example of this tendency. According to Lise Lecours,⁸ students who perceive the concrete value of what they learned in school will be motivated to do projects and be alerted to the latter's business potential.

Example of a project

*OPTIMAX, business/training school
(2004-2005)*

The creation of a business/training school to stimulate students during their academic programs by establishing links between classroom theory and professional practice. The business offers a range of services connected to technical programs in business administration, industrial electronics, computer science and industrial engineering. The judges stressed the strength and versatility of the project: it was complete and well designed, and its viability was easily assessed. In addition, it came with strong computer support and covered several subject fields. The support from resource persons was well thought out, and the funding was sound. The judges appreciated the project and offered strong support for similar initiatives in other schools.

*Category: College level
Cégep de Trois-Rivières
Region: Mauricie*

The creation of Web pages for small businesses (2003-2004)

The creation of Web pages for various businesses in the region. The objective of the project was to create links between the school and the labour market. Teams of two students met with a representative from each business to collect relevant information for the Web page. Next, they planned

how to publicize the most appropriate services in the start menu on the home page.

The judges appreciated the fact that the project, in addition to using the information highway and new information technologies, built a bridge between the school and the labour market. Students were given an opportunity to move outside the theoretical framework of the classroom and to apply their knowledge to the realities faced by their clients.

*Category: Secondary level general education
École secondaire Curé-Antoine-Labelle, CS de Laval
Region: Laval*

Solena "spray tan" service (2003-2004)

An "imitation suntan" service using a new process that involves spraying the skin with a solution that reacts with dead skin cells, instantly darkening them, without any of the dangers associated with ultraviolet light.

The judges remarked on the quality of the business plan submitted by the young female students (striking presentations, explanatory photos, etc.).

They also detected entrepreneurial qualities in some of the participants: leadership, team spirit, self-confidence and independence. The file contained a well-presented market survey and complete financial statements. The students had found a way to take advantage of current market trends and had selected a promising niche. The file contained strong evidence of professionalism and "added value."

*Category: College level
Collège André-Grasset
Region: Montréal*

8. In a reference document on entrepreneurship presented to the MELS (2005).

Industrial drafting services (2004-2005)

Industrial drafting services for people wishing to manufacture their own inventions. The drawings gave the inventor an opportunity to refine the design in an interactive way, and then to manufacture the invention. The goal was to help inventors bridge the gap between design and production.

The judges highlighted the creativity, interpersonal skills, initiative, independence and sense of organization of the promoter, who also developed extensive contacts with people in the business world and created a relationship of trust with various businesses.

Category: Secondary-level vocational training

CFP de Matane, CS des Monts-et-Marées

Region: Bas-Saint-Laurent

It is clear that interactional resources are generally applied more explicitly by students in secondary-level vocational training or technical programs at the college level, probably because they have knowledge that is specially adapted to the situations concerned. This knowledge would allow them to create more sophisticated projects and carry them out more effectively in a sector they know well. There are obviously exceptions, especially at the elementary level, when schools have included entrepreneurship training in their educational mission, as is the case at the École Coeur-Vaillant, CS des Découvreurs (mentioned above).

A survey of entrepreneurs who launched their businesses at a young age shows that they took between five and ten years to sufficiently understand the sector in which they were operating, even though most of them believed that they had acquired the requisite understanding after one or two years.

What is the entrepreneurial spirit, how is it developed and how is it applied in a real context? Obviously, entrepreneurial potential must be applied to something real at a specific time and in a specific place. This is how entrepreneurs apply their interactional capital. Where does it come from? How is an entrepreneurial relationship created?

How and where interactional capital is constructed

Family

Having a parent, brother, sister or relative who runs their own business is probably the most significant factor in what is called interactional resources. It has been clearly established that such proximity leads to imitation, the acquisition of interpersonal skills and the progressive assimilation of the rules of the business world, where people reciprocate and where others are seen as resources offering networking opportunities, insider information and other advantages derived from membership in several different circles.

The entrepreneurial relation is constructed, therefore, via identification. Activities in which students explore business models that appeal to them, or meet company directors and young business leaders, help increase their motivation. This is all the more so if the activity in question is intended to create ties with those people for further action or exploration: an invitation to a symposium or exhibition, a visit to a laboratory, a day spent at the business premises, etc.

Networking

Young people who grow up in a family of entrepreneurs quickly understand the importance of networking. The culture of networking—which involves more than forays to obtain information—is the channel through which opportunities are found, competent staff are recruited and natural alliances are formed. The respected author Hervé Serieyx (2004), for whom prospecting is the key, promotes networking as a way of living:

“The ability to live as part of a network will also be essential in tomorrow’s labour market: during the information revolution, people who are unable to establish or maintain a network of friends and other like-minded people, or to work within a network of appropriately qualified individuals, will be condemned professionally.⁹ [...] To promote networking behaviour, schools must be interactive and open, teachers must demonstrate complementary abilities on an ongoing basis, students must be encouraged to cooperate, and other players in the community (businesses, local authorities, the state, artists, etc.) must be welcomed into the schools to demonstrate the range of their contributions and how equally noble and necessary they are.”

Schools and the labour market

Entrepreneurial culture should create numerous opportunities for contact between schools and the business community, whether the latter happens to be in the domain of industry, commerce, the arts or the media. All projects could benefit from consultation. The use of outside resources and competencies should be considered as adding value to entrepreneurial project proposals. The shooting of a film short (*Le diadème perdu*—described in Appendix 1) demonstrates the use of outside resources (film school, editing software, script supervision by a professional filmmaker, etc.).

The use of outside resources and competencies should be considered as adding value to entrepreneurial project proposals

The products, services and events resulting from entrepreneurial projects developed by students should benefit from supervision provided by professional volunteers. In this way, students will learn how to manage resources, conduct advertising campaigns, attract media interest, reduce the price of products manufactured at school, etc. And this process will itself become an interactional way of thinking and collaborating.¹⁰

9. Or “professionally limited (editorial note).

10. The principle of collaboration, which underlies the guidance-based school, makes a perfect fit with the notion of entrepreneurial culture. See D. Marceau and M. Gingras (2001).

The use of Internet and information technologies also becomes consistent with the interactional approach when a teacher pairs his/her group with a class in a school at another location.

The idea of partnerships and networks is an open concept that still offers scope for exploration. It is clearly part of entrepreneurial culture. What is included depends on the pedagogical values of the teachers concerned, and does not necessarily imply an underlying utilitarian ideology. On the contrary, it can consolidate a progressist philosophy. When looked at more closely, it becomes clear that there are several types of entrepreneurship connected to science, the humanities, politics and the social economy. The possibilities of entrepreneurship in connection with sustainable development remain to be explored.

Implementing an entrepreneurial project

Creating links in an entrepreneurial manner by instigating projects is, apparently, increasingly seen as the most effective way to acquire learning in this area. Within the framework of the Québec Entrepreneurship Contest and the Introduction to Entrepreneurship Measure, we have seen countless projects that mobilize entire schools and, indeed, the entire community: exhibitions, contests, theme days and weeks, computer services, and assistance for target groups and cultural projects—all reflecting the vitality of young people actively involved in projects. In short, projects shake things up and make their mark. In addition, they give schools a more central, integrative and significant role within society.¹¹

The following example illustrates what is meant by creating links in an entrepreneurial way. It presents parts of a project carried out by a group of secondary school students who, as part of a research-action (GPSAO-2004) in special education, were responsible

for setting up and managing a mini-enterprise to manufacture and sell various objects for students and their families.

Example

[...] An opinion poll of students, parents and school staff was conducted to find out what type of decorative objects could be manufactured by the mini-enterprise and sold. The results of the poll were used in math class as part of the “market survey” activity, and the data were compiled by the students to analyze the answers given by the three survey groups, together and individually, using pie charts. [Mobilization of the community: opinion poll, market survey, students, parents, school staff]

The students prepared to visit a company in the region, the Shermag factory. First, they took part in the activity “Building up a business” in their English class, where they studied how a business operates. They also became familiar with the theme of “workplace health and safety” in their personal and social development class. At this point the information needed for the visit (safety rules, company history, etc.) was also given to the students. [School-business link: mathematics, business, personal and social development]

11. For example, the Effervescence project for Secondary Cycle Two and college-level students unites the positions of business mentor and scientific adviser. See <www.boiteascience.com>

12. One example is the project described as “Le projet de la radio-école, une mobilisation exceptionnelle,” by N. Gingras and S. Salesas, in *L’approche orientante, la clé de la réussite scolaire et professionnelle* (Sainte-Foy, Septembre éditeur, 2004), p. 73. Another example is the project “An evening of food tasting” described above, which gave 15 regional producers and processors an opportunity to acquaint the local population with their products. The judges appreciated the showcasing of regional resources and the focus on networking and partnerships. The project promoted responsible consumption at the local level. École secondaire La Découverte. CS de la Riveraine.

The next activity was the company tour. The preparation for the visit and the necessary support were part of the personal and social development class. The students had to draft a series of questions to ask the workers and, after the visit, they had to report on their experience. The objectives for the exercise as a whole were to encourage students to build links between what they saw during the visit and what they experience at school (for example, the creation of a student business), and to identify jobs they would like to do. The idea for the visit emerged when the students said they needed to see what a company was really like in order to understand how it worked. [School-business link: visit, questions for workers]

As an extension of this activity, the students wrote a letter of thanks to the Shermag company representatives in their French class. They also had to complete a questionnaire to pinpoint the information they had gathered during the visit. Another activity, which took place in their English class, was called “How businesses work.” It introduced students to the various components of a business and asked them to draw parallels between the company they visited and their own student business. [School-business link: write a letter] [...]

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This is only a fragment of the entrepreneurial (and guidance-oriented) activity for Secondary Cycle One students. While the program will not change the world, it still mobilizes teachers, parents, business leaders and workers in a significant way. The use of outside resources, visits, polls and surveys—as well as the production of objects, events-based marketing and related activities—are beneficial to the students, the school and the nascent network. It is clear that the principle of collaboration provides guidance, in addition to its entrepreneurial aspects. In simple

terms, the links go beyond the mere transmission of information: familiarity is increased, services are exchanged, and roles and complementary qualities are recognized. Access to resources is improved, and entrepreneurial culture is developed naturally.

Group and leadership experience

The question of how and where interactional capital is constructed can be answered by referring to the situation that exists in a classroom, as Perrenoud observed by (2001; free translation).

“Every teacher can detect this relationship with the world among some students, practically at first sight. These are the

students who take initiatives, who say “It should be like this,” or “I’d like to be able to ...” or “I suggest we get organized to ...” They quickly become capable of designing projects based on individual or group actions. They take action, look for resources, gather information,

seek ways to solve problems, coordinate work and exercise leadership. At the other extreme, teachers also have some students who do not allow themselves to express the slightest wish, because they do not consider they have the right, competence, or legitimacy to want to transform their world or even outline a project.”

Perrenoud’s text highlights the question of inwardness and personal effectiveness. When individuals are capable of doing something, they want to do it. The experience of success and, especially, the experience of effective action can create a desire to undertake projects. Similarly, contact with a group project can feed into the entrepreneurial relationship.

projects shake things up and make their mark

“How do we learn how to shape projects? [...] First of all, by taking part in other people’s projects, and being ‘carried along’ without having to bear the full burden of imagination and coherence. We play a supporting role before becoming a project leader. With students who have not learned how to undertake projects with their family, the most urgent aspect is not to focus on individual action by telling them prematurely to invent a personal project, but to get them involved in group projects.”¹³

Group projects require people to cooperate and share goals, to coordinate actions, to negotiate and to work with others. Whether in classroom or extracurricular activities, there is no better way to learn about group action and the pursuit of shared goals.

Throughout the curriculum, “involvement in group projects” can encourage students to experience a project-based culture and shared leadership. This is a recent trend, but probably indicates what the labour market will be like in coming years.¹⁴

Instead of leadership by rules and contracts, interactional resources include shared and transformational leadership based on an articulated vision of a project capable of bringing out the best in every participant.¹⁵

Teachers who would like their students to think about some of the emotional and interactional resources mentioned in this document can download and use a questionnaire based on the following themes: energy and commitment – motivation – achieving results – initiative and creativity – self-competition – leadership.

In fact, the entrepreneurial process involves constant interaction with the community since it draws on four key notions: opportu-

nity, innovation, emergent organization and value creation. Each targets the production of something new, to the point where change becomes the entrepreneur’s way of life.

This requirement of change is no longer limited to entrepreneurs, but has practically become a way of life. The urgent need to act has gone from being a rare occurrence to a daily reality.¹⁷

From this perspective, the spirit of the times requires us to rely increasingly on entrepreneurial culture, which provides tools that we can use to adapt advantageously to the requirements we all face. It teaches us how to react using initiative and responsibility, instead of surrendering to the situation.

Project-based entrepreneurial culture also provides the judgment we need to maintain a focus on priorities, instead of becoming distracted by any number of problems. It also helps us to remain vigilant with respect to community needs, and aware of the promising possibilities that may arise in our personal and professional lives.

If entrepreneurial culture is indeed an educational value, as proposed at the beginning of this document, then its usefulness is to help us adapt to our life in society.

*four key notions:
opportunity,
innovation,
emergent
organization
and value cre-
ation*

13. Perrenoud (2001).

14 Julien, P.A. and R. Jacob (1999).

15. Pépin, Richard (2005).

16. Self-assessment questionnaire for entrepreneurial qualities: <<http://gpsao.educ.usherbrooke.ca>>.

17. See the short book by Saki Laïdi, *La tyrannie de l’urgence*, coll. Les grandes conférences (Montréal: Fides, 1999).

Foundations of entrepreneurial culture (interactional resources)

Project stage	Quality of action	Suggestions ¹⁸ for pedagogical support (Each student should be able to...)	Interactional resources
Design (project target)	1. Analysis of the current situation	Motivation Propose a project: – Analyze the target situation and give an opinion – Understand and formulate the goal – Ask as many questions as possible about the suggested project or projects and debate their feasibility – Identify the resources available and the roles they can play Devise a project: – Embark on a process of discovery – Identify possible actions connected to a specific problem – Identify the most appropriate project: i.e. the most feasible, promising and with the most appropriate level of difficulty	– Identify a problem situation – Identify needs – Anticipate trends – Define a vision – Adopt networking strategies
	2. Outline of a possible project	Self-confidence Determination – Identify the qualities or strengths needed to complete the project on the basis of its specific requirements – Choose tasks on the basis of their own interests and aptitudes	– Assess his/her competencies in relation to the project – Identify possible resources – Self-train
	3. Outline of the strategy to be applied	Effort Initiative – Foresee difficulties – Identify ways to overcome them – Imagine playing roles in which they will achieve success by overcoming difficulties – Face uncertainty; tolerate ambiguity	– Conduct a field study – Consult and process various sources of information, and prepare a business plan – Contact competent people – Make a decision
Implementation (project program)	4. Planning	Team spirit Sense of responsibility – Experience teamwork – Identify the role they will play – Take responsibility – Play a leading role at certain times – Identify and plan tasks – Propose possible approaches – Plan tasks and obtain materials – Exercise influence within the group	– Define a work schedule – Find financial, material and human resources – Ensure a rigorous approach to all management operations – Communicate his/her vision
	5. Problem management	Resourcefulness Solidarity Perseverance – Develop self-esteem by taking on appropriate responsibilities – Anticipate steps in the process to reduce stress – Deal with unexpected events – Demonstrate initiative – Resolve difficulties individually or in a team	– Ensure flexible operations, interdependent on outside resources – Create favourable conditions for communication within the group – Evaluate productivity and cost-effectiveness
	6. Evaluation	 With regard to the project: ¹⁹ – Discuss the success of the project as a group, and indicate how you might have obtained better results – Discover the criteria and other important elements to take into account for the evaluation – Draw lessons concerning operations and methodology – Understand entrepreneurial culture and its characteristics With regard to effective action and the emotional resources of each participant: – Evaluate progress and accomplishments from an individual and group perspective – Identify the qualities displayed by teammates – Realize what has been learned and the resources used to accomplish things	– Prioritize customers – Conduct a critical evaluation of the project and the efficient use of resources – Remain abreast of development in the sector, the policies pursued by competitors, etc.

18. To see all the suggestions, go to the “pedagogical support” sections on pages 36 to 40.

19. Four evaluation criteria and their definition: effectiveness: achievement of objectives; efficiency: judicious use of resources; coherency: actions taken to achieve objectives; relevance: positive effect in the target community

BY WAY OF CONCLUSION

The initial question was this: is it better to raise awareness about entrepreneurial culture, or to provide specific training in entrepreneurship? The first option was chosen. Why? To allow as many students as possible to take full advantage of the educational values associated with the entrepreneurial spirit, that power to act that mobilizes emotional, cognitive and interactional resources.

It is possible and useful to consider that these resources match, in the order given, a schematic form of entrepreneurial development. Emotional resources provide a spur to action, while cognitive resources shape the action taken to the point where it serves in the construction of a project. Then interactional resources are needed to successfully complete the project and integrate it into the community.

It is also valid, from a pedagogical point of view, to associate the development of emotional resources with elementary education, that of cognitive resources with secondary education, and that of interactional resources with vocational training and the college level (technical and pre-university programs).

In practical terms, this means that a project, as part of the Québec Entrepreneurship Contest and the Introduction to Entrepreneurship Measure, must mobilize all the types of resources but that the pedagogical approach may vary depending on the level of education concerned.

At the elementary level, the pedagogical approach should focus on entrepreneurial qualities and learning about effective action, with the related emotional and motivation aspects: the need to succeed, self-esteem, and a feeling of personal effectiveness.

At the secondary level, the pedagogical focus should be on an understanding of what constitutes a project, and students should be involved in all stages of its design and implementation. Entrepreneurial culture is acquired, in particular, when the project is evaluated after completion.

At the postsecondary level, the pedagogical approach should concentrate on identifying problem situations and the resulting business opportunities, while stressing the link between specialized knowledge and the competencies acquired during normal courses. Priority should be given to community resources and networking—involving information, competencies, services—that can be used in the project. Special attention should be paid to the mobilization of human resources and leadership within the group.

In addition, the resources correspond, in the same order, to the three focuses of development of the broad area of learning "Personal and Career Planning," namely:

- Self-knowledge and awareness of his/her potential and how to fulfill it (specifically with regard to entrepreneurship):
 - motivation, a penchant for meeting challenges and a sense of responsibility for his/her successes and failures; satisfaction in work well done

- Adoption of strategies related to a plan or project:
 - visualization of oneself in various roles
 - strategies associated with the various facets of a project
 - strategies for collaboration and cooperation
- Familiarity with the world of work:
 - the nature and demands of social roles, occupations and professions
 - goods and services associated with these occupations and professions
 - requirements of the world of work

The three columns below provide an overview of entrepreneurial resources as they relate to the three levels of education.

This introduction to entrepreneurial culture proposes a vision that needs sharing

Another overview is provided at the end of this document (Appendix 1). It presents and analyzes a project that was remarkable for the motivation it generated and the impact it had on the community. The text is taken unmodified from the contest application, but references have been added to the various concepts of entrepreneurial culture (stages, resources, etc.).

This introduction to entrepreneurial culture proposes a vision that needs sharing. Similarly, it needs to be enriched by the pedagogical approaches applied based on the outline given here.

Entrepreneurial Culture and Pedagogical Support

Emotional resources: drive actions	Cognitive resources: plan actions	Interactional resources: implement a project and create links with the community
<p>(elementary education)</p> <ul style="list-style-type: none"> - Develop readiness for effective action; attitudes and qualities needed by students to attain their goals: self-confidence, motivation, effort, sense of responsibility, initiative, perseverance, solidarity, team spirit, resourcefulness, determination - Work with individual or group projects of an appropriate level of difficulty in which students can achieve success - Envision the future (time-based perspective) - Become aware of their personal power (inwardness) <p>Pedagogical support:</p> <ul style="list-style-type: none"> - Help students strengthen their self-confidence and feeling of effectiveness <p>Focus of development:</p> <ul style="list-style-type: none"> - Self-knowledge and awareness of his/her potential and how to fulfill it 	<p>(secondary general education)</p> <ul style="list-style-type: none"> - Develop a sense of what goes into a project and show how this relates to the entrepreneurial spirit and the desire to innovate - Carry out individual or group projects: <ul style="list-style-type: none"> • by participating in all stages (unity) • by fully experiencing the entrepreneurial process (singularity) • by daring to act even when faced with uncertainty (complexity) • by using unexpected resources (opportunity) <p>Pedagogical support:</p> <ul style="list-style-type: none"> - Support the group if necessary and, once the project is completed, evaluate it to ensure that its methodology and the students' experience are formally explained <p>Focus of development:</p> <ul style="list-style-type: none"> - Adoption of strategies related to a plan or project 	<p>(vocational training and college education)</p> <ul style="list-style-type: none"> - Develop the meaning of an entrepreneurial relationship with the community and perceive the community as a resource for achieving goals - Develop a state of awareness in which the community is perceived as a source of information and opportunities - Adopt a self-training approach that matches the target objectives - Adopt networking habits that treat the community as a source of learning, influence, competency and complementarity - Acquire the ability to use material and financial resources productively, along with computer and management systems - Integrate the benefits of an entrepreneurial relationship with the business vision - Exercise leadership based on a continually evolving vision of the future - Refine an idea for a business based on specialized knowledge and competencies acquired during training <p>Pedagogical support:</p> <ul style="list-style-type: none"> - Learn to use outside resources for consultation purposes, to study a business plan in detail, to consider a project from the specific standpoint of an entrepreneur <p>Focus of development:</p> <ul style="list-style-type: none"> - Familiarity with the world of work

Stages and components of an entrepreneurial project

The following text presents a project implemented at the École Marguerite-Bourgeoys (C.S. de la Capitale – Québec) by the students of elementary teacher Christian Bouchard. We have reproduced part of the document, as presented by Mr. Bouchard to the student entrepreneurship division of the Québec Entrepreneurship Contest.

References to various elements of the project (characteristics, stages or other) are found in the margins.

Key

SP: Stage of the project

CCC: Cross-curricular competency

QA: Qualities of action

CPE: Features of entrepreneurial project

IR: Interactive resources

School: **École Marguerite-Bourgeoys**
Commission scolaire de la Capitale

Teacher responsible for project:
Christian Bouchard

The lost diadem

ÉP: Analysis of current situation

To promote the development of entrepreneurial qualities, our class set itself the challenge of shooting a short film. The script, written by the students, focused on various aspects of life at the École Marguerite-Bourgeoys. The film was scheduled to premiere at the end of the school year, in the presence of dignitaries from the school and school board, parents, friends and students at the school.

Idea for the project

FPS: Meaning of the project

The basic idea, suggested by the teacher, drew upon a historic event that took place at the École Marguerite-Bourgeoys and reflected a desire to highlight various aspects of life there. In 1959, while on a trip to Québec City, Queen Elizabeth II expressed an interest in visiting a school. The newly constructed École Marguerite-Bourgeoys was an obvious choice.

SP: Outline of a possible project

FPS: Premise of the project

The project involved developing a fictional story within a historical framework. All the elements in the story were contributed by the students and checked for chronological and logical consistency throughout the writing process, which took place in a class workshop. Another premise of the story was to recount a plausible adventure solidly anchored in the daily lives of the students, based on a historical fact reported in the biographical document "The life of Wilbrod Bhérer" and brought up to date in the historical section of the school's Web site. This challenging group-writing task mobilized all the group's energy and creative strength during three-hour workshops each week over a period of three months. The students made extensive use of their writing and oral communication skills.

Stages in the implementation of the project

The main stages in the implementation of the project were as follows:

CCC: 1. Uses information / 3. Exercises critical judgment / 4. Uses creativity

QA: Team spirit

SP: Outline of a possible project

CCC: 7. Achieves his/her potential

QA: Self-confidence

Writing of script: The students spent three months, in weekly three-hour workshops, writing the script as a group task. They suggested ideas, discussed the relevance of each person's contribution, willingly made any necessary changes and concurred in making final decisions.

Acting out each scene in the script: During the writing process, the students took turns acting out the various roles as each scene in the script was written. This allowed the various elements in the outline script to be viewed as they were developed and checked for consistency.

SP: Strategy
CCC: 6. Uses information and communications technologies
QA: Initiative

The students consulted the "Ciné cours" Web site, which provides distance education on all the film professions. They also read documents from various Web sites to gather a range of information on film professions and put together a glossary of film terms.

SP: Outline of a possible project
CCC: 7. Achieves his/her potential
QA: Determination/Planning
SP: Strategy
CCC: 2. Solves problems
QA: Effort

Job application: The students studied a series of posters presenting the various jobs involved in shooting the film and the personal qualities needed to fill each position. Each student could then compare his/her own qualities with those required for the job he/she preferred.

Visit from a filmmaker: Louis Bélanger, an internationally known filmmaker, came and spent a whole day in the classroom. He explained at length what each profession in the film business involves, highlighting essential practical aspects. Next, he directed a workshop to revise the students' script. During the workshop, the students had an opportunity to discuss the actual writing process and the various scenes that needed to be changed to obtain a final product that would be feasible, given the constraints of shooting in a school environment. Mr. Bélanger then showed various scenes from the original shoot of his latest film, *Gaz bar blues*, and the same passages after editing as they appear in the final cut. For various scenes that took a whole morning to shoot, the students were able to see the finished result, a one-minute scene in the film. This experience revealed the enormous amount of work involved in a film shoot and shocked the students into a realization of the realities of the film world. The last part of the day was devoted to questions from the students, which were numerous.

SP: Problem management
CCC: 8. Cooperates
QA: Effort/Initiative

Rehearsals: The student actors prepared actively for rehearsals supervised by the assistant directors and the director.

SP: Problem management
CCC: 5. Adopts effective work methods / 3. Exercises critical judgment
QA: Effort/Initiative

The shoot: The teams set up, and the shoot began. Thanks to a precise storyboard, the various scenes were shot as planned.

SP: Problem management
CCC: 3. Exercises critical judgment
IR: Evaluate the competencies developed during the project

Test on the qualities developed during the project: Halfway through the project, the students completed a short questionnaire to discover the specific qualities they were in the process of developing in the job they had chosen.

SP: Problem management
QA: Perseverance

Editing: The impressive amount of film shot was examined by the editing team, using specialized software.

Key

SP: Stage of the project
CCC: Cross-curricular competency
QA: Qualities of action
CPE: Features of entrepreneurial project
IR: Interactive resources

SP: Strategy
CCC: 3. Exercises critical judgment
QA: Resourcefulness / Solidarity / Perseverance

SP: Problem management
CCC: 5. Uses effective work methods / 8. Cooperates with others

SP: Analysis of the current situation
CPS: Meaning of the project

Tour of a film school: A tour of the Québec City film school was organized. The students already had some film-making experience; during the visit they were able to look at this in the light of the professions taught at the school. This new awareness gave them an opportunity to understand the path they had travelled and their own strengths and weaknesses vis-à-vis the requirements of the job market.

Preparation of the film premiere: A date was set for the premiere. The theatre and projection equipment were booked and made ready, tickets were "sold," and the film was screened for the guests of honour, school staff and students, school board representatives, parents and friends.

Distribution of the film: Each student received a copy of the film on DVD.

Goals of the project

The fascinating world of film is highly motivating for students, as was clear throughout the project. The broad area of learning "Personal and Career Development" in the new Québec Education Program covers the field of entrepreneurship.

One of the goals of the project was to develop entrepreneurial qualities among the Cycle Three students who participated actively in the project. The teacher encouraged the students throughout the project to identify their own entrepreneurial qualities, to evaluate themselves and to question their abilities.

The project involved collaboration between all the Cycle Three teachers and students, and a presentation to students in other cycles. The new QEP encourages teachers and students to cooperate and work together, and the project allowed the school to take the lead in this area by encouraging Cycle Three students to cooperate by joining the team of actors. A first-year special education class also played a role in several scenes of the film. The final product premiered at the end of the year for an audience that included all the school staff, students, parents and friends.

The project also allowed the school to open up to the world since the students were brought into contact with several concrete aspects of the world of film. This film made by and for young people gave them an opportunity to see what the job market was really like, and allowed younger students to discover various aspects of school life in Cycle Three.

SP: Evaluation

Finally, the project gave the students an opportunity to structure their identity by evaluating their personal involvement in a team effort. They learned more about themselves and increased their motivation in other subjects, since they were able to see that the world belongs to those who work.

CPS: Meaning of the project

To conclude, the project was seen as a way to plunge students into the world of work. Their brief experience in the fascinating world of film allowed them to discover personal strengths, interests and talents that they will be able to develop throughout their lives, whatever the area of activity they eventually choose.

Original and innovative aspects of the project

SP: Analysis of the current situation
QA: Motivation / Initiative / Determination

The students in the school come from underprivileged backgrounds. The multitude of problems they face every day lead to discouragement and a high dropout rate. The idea of exploring a world that is part of everyone's dreams was immediately attractive to them and increased their motivation throughout the school year. The students plunged into the project: not a day passed without someone coming to see me to discuss some point of the film, or without an e-mail arriving from a student about an aspect of the shoot. The project even generated several spinoffs. One group of students decided to write a journal about the life of film stars and publish it on the Web, while another group kept a Web log about the shoot. A third group decided to rehearse a short stage play (The Wizard of Oz) outside class hours, eventually performing it for other classes in Cycles One and Two. The project was innovative in terms of both technical resources (technological and computer-related material and resources) and outside resources (a visit by a filmmaker and a tour of a film school). The students were highly appreciative of the efforts made by the teacher and school administration to involve them in a unique and enriching experience. They responded with an astonishing degree of enthusiasm and motivation. The experience remains a revelation for both the students and the teacher, who now realizes that a stimulating, innovative project is an incredibly powerful motor and catalyst for student motivation.

SP: Planning
IR: Create a work schedule

Work organization

See the table of tasks and the work schedule on the next page.

Tasks carried out by students

Committee	Number of students	Tasks
DIRECTORS	3 students	<ul style="list-style-type: none"> - Direct all the teams on the shoot - Keep an eye on all details - Be behind the camera or give camera instructions - Plan rehearsals - Help the actors fine-tune their performances - Supervise the work of the committees
ACTORS	8 students	<ul style="list-style-type: none"> - Retain information - Improvise - Perform a role
CAMERAPERSONS AND PHOTOGRAPHERS	3 students	<ul style="list-style-type: none"> - Carefully set up and operate the camera in accordance with the director's instructions - During editing, take photographs for the press kit
SOUND ENGINEERS	2 students	<ul style="list-style-type: none"> - Carefully set up and operate the sound recording equipment - Work as a boom operator during the shoot
LIGHTING TECHNICIANS	3 students	<ul style="list-style-type: none"> - Carefully set up and operate the lighting equipment in accordance with the director's instructions
JOURNALISTS	1 student	<ul style="list-style-type: none"> - Keep a log of the shoot and write an article periodically for publication in the student newspaper
LOCATION MANAGERS AND STAGE TECHNICIANS	3 students	<ul style="list-style-type: none"> - Ensure that all aspects of the set are ready before and after the shoot - Help transport material
MAKEUP AND HAIR ARTISTS	3 students	<ul style="list-style-type: none"> - Oversee the makeup and hair of some actors
COSTUME DESIGNER	1 student	<ul style="list-style-type: none"> - Ensure that the actors are wearing clothes consistent with the time line of the film - Keep a costume log
PRESENTER	1 student	<ul style="list-style-type: none"> - Present the film at the premiere
PREMIERE PREPARATION	2 students	<ul style="list-style-type: none"> - Sell tickets for the premiere - Help set up the theatre - Seat guests
EDITING	1 student	<ul style="list-style-type: none"> - Help the teacher edit the film.

Work schedule

ACTIVITY	Sept. to Dec.	January	February	March	April	May	June
Write script	★						
Coordinate activities	★	★	★	★	★	★	★
Act out each scene in the script	★	★	★	★			
Consult the "Cinécouts" Web site	★						
Receive visit from filmmaker	★						
Select material		★					
Rehearse	★	★	★	★	★	★	★
Test qualities developed during the project					★ ★		
Prepare for the premiere						★	★
Distribute copies of the film							★

Key

SP: Stage of the project

CCC: Cross-curricular competency

QA: Qualities of action

CPE: Features of entrepreneurial project

IR: Interactive resources

IR: Find financial, material and human resources

SP: Evaluation
IR: Use of expertise

Resources available for the project

Human resources:

Several contributors to the project:

A principal

An assistant principal

A guidance counsellor

A filmmaker

A carpenter

A teacher

Material and financial resources:

Several stages of the project were completed during regular classes in various classrooms, the schoolyard and the home of a community member. Film equipment expenses (\$1 500) came out of the teacher's class budget. The school agreed to supply some of the necessary material, spending \$1 375 on a new computer for editing. A school bus was needed to take students to the Québec City film school. For the film premiere, the school agreed to pay for getting the theatre ready and renting equipment. All photocopying and visual arts materials, computers and room space were provided by the École Marguerite-Bourgeoys.

Collaboration and partnerships

As mentioned above, the students were an integral part of the project. The other partners were clearly the school team, including the teaching team and the person responsible at the local level for the guidance-oriented school.

Evaluation

Project results

The project gave the students an opportunity to attempt an ambitious writing exercise that required discipline and creativity from beginning to end. The script they produced was submitted for examination to a well-known professional scriptwriter (Louis Bélanger) who admired the quality of the writing and led the students in a positive exercise to revise the script. They developed several fundamental qualities needed for any large-scale project: perseverance, cooperation and communication, which allowed them to achieve their joint goal with its stringent objectives.

In addition, they acquired various subject-specific and cross-curricular competencies, by

- writing in a variety of genres exploring all the resources of the French language
- exploring a historical reality they share, namely the development of an infrastructure in their community (École Marguerite-Bourgeoys)
- discovering, developing and applying their personal resources to establish links with the world of work
- using information and communications technologies in a leading-edge area to complete a significant, large-scale task

Key

SP: Stage of the project

CCC: Cross-curricular competency

QA: Qualities of action

CPE: Features of entrepreneurial project

IR: Interactive resources

IR: Media resources

The project took an unexpected positive turn with the arrival of a communications specialist from the Commission scolaire de la Capitale to publicize the event in the press (Le Soleil). This enabled the students to become even more aware of the quality of their work and increased their self-confidence

The publicity for this project also resulted in media exposure for the school's plans with respect to computers, which made the authorities and the community aware of the dynamic approach adopted by the school team to encourage the students to complete their education.

IR: Financial resources

Similarly, it is important to mention the considerable contribution made by some new partners, who helped us bring the project to fruition by providing substantial financial support: the Commission scolaire de la Caisse populaire St-Sauveur, Sun Canada.

The students will doubtless retain lifelong memories of their experience, which may have triggered some new aspirations. It will have allowed them to discover something about themselves in a project that they worked on wholeheartedly and that allowed them to realize some of their dreams.

The screening of the film will crown the efforts of an entire year by all those involved in the project. It will take place around June 1, 2004. Four hundred people will be invited, including dignitaries from the CS de la Capitale, students, parents and friends.

Reasons why the project deserves to win the Québec Entrepreneurship Contest

IR: Define a vision

I had been thinking about this project for over a year. When I launched it at the start of the school year, the students were already curious and interested. The requirements and constraints soon became clear. What could have been an insurmountable obstacle became an enjoyable adventure because of the constant interest and strong involvement of the students. This was the first time I had led a project of this scale, and one that mobilized the strengths of all the students involved as never before. We were constantly stimulated and encouraged to go even further forward by the students themselves, to the point that the requirements of the job were transformed into an outpouring of passion. To see students suggest parallel projects, discuss the project among themselves in the schoolyard, meet outside class hours to rehearse their roles—in short to see them experience a truly significant learning process was an unbelievable source of satisfaction. To know that you have played a key role in the edification of all these little personalities is truly satisfying. It is also important to note the dynamic

IR: *Define a vision*

approach of the school team. Just before establishing the first computerized public elementary school in Québec, we were all excited to see so many years of effort reach a conclusion. Often, during the project, my conversations with colleagues directed and enlightened my thoughts about where to go with the project. Our school team is lucky enough to have several highly competent individuals in terms of ICTs. This expertise was often applied to the use and manipulation of hi-tech equipment. The enthusiasm of my colleagues for the project was also a constant source of stimulation.

IR: *Evaluate the project and the use of resources*

To conclude, the main point to emerge from the project is the high degree of interest and involvement shown by the students throughout the year. They did not run out of steam (as might have been expected); their motivation spurred the project on. Through their commitment and desire to see the project through to the end, the students continually encouraged me to go even further. Of all the projects I have directed, none has produced this kind of result. Students, colleagues, administrators and parents all supported the project enthusiastically and followed the work of the children closely. We received many offers of help (some outdoor scenes were shot at the homes of some students).

N.B.: A complete version of this text is available at <http://www.cscapitale.qc.ca/mg-bourgeois/>

[//www.cscapitale.qc.ca/mg-bourgeois/](http://www.cscapitale.qc.ca/mg-bourgeois/)

Click on Le coin des jeunes—3^e cycle—Classe de Christian—Le diadème perdu

Economics: The Foundation of Entrepreneurship

The purpose of the study of economics is to help society decide how to create, distribute, and consume wealth. Every human activity has an economic dimension. Every time you wonder if there will be enough money to pay the rent or the mortgage, question the increase of food prices or decide to buy certain products, you are acting as an economic decision-maker.

Most people want to know more about the economy. Knowing some economics is essential to understanding what is going on in your life. Economics is not always easy to figure out and many adults and young people feel that understanding the economy is difficult.

As an individual it is important to be able to evaluate the impact of the economy on your life. As a business owner, it is important to understand economic terms and how economic changes affect your business. You don't have to be a professional economist, but you should be able to evaluate the impact

of economic changes and the effects in your town, state, region, and nation. Furthermore, you should also have some idea of the impact of changing economies in other countries in the world.

Consider the importance of customers for a business. The state of the economy will have an impact on how much money customers will spend and what they will buy. This is just one example of the impact of the economy on your business.

Individuals also have a role in shaping the economy. Entrepreneurs provide an example of how individual activities can create jobs, new products and services to improve the economy. As individuals become informed they are better able to participate in shaping the economy. Much of understanding economics is to learn to **“speak the language.”**

Overview of the Language

The **market** for any product or service is composed of a number of **consumers**. These consumers are people or organizations that are willing to buy your product and/or service. Business organizations sell their own products or service, but they are also major consumers of other businesses. For example, if you are selling trucks, you may **target** business owners as your market for the trucks. Most of your **marketing activities** will be focused on those types of businesses that use trucks in their operations. And most of your consumers in your **market niche** will be those business owners.

The **price** you charge for your products and services will depend on a number of factors. First you need to be sure to be able to cover the **costs** of providing those items to consumers. Some of these costs are fixed and do not change no matter how many items you sell. These items include rent, insurance, a truck for deliveries, and the owner's salary. Other costs are **variable**, that is the number you must buy, adding to your costs, vary with the number of items you produce or sell. These items might include packaging materials, production workers' salaries, and shipping charges.

When considering the potential success of your business you must think of **the law of supply and demand**. This means the number of items like yours that are available to the market (**supply**) and the number of consumers who are in the market for this product (**demand**).

When the supply is scarce and there is a great need for this product or service in this particular market, you say that the demand is higher than the supply. When this is true, those who already produce this product can charge a high price for it. People will pay a lot for it if they really want it. It can be said that the **demand is high**.

Under these circumstances entrepreneurs often see an opportunity to introduce a new product that fills this same need for the consumer. Or they may merely find a way to increase the supply of the same product or service. In any event, now they have increased the supply of the product for the consumers. The suppliers now find that they cannot charge such high prices because there are more **competitors** for the consumer's money. In this case the supply gets higher and the price gets lower.

When supply gets too high for the demand, business owners drop prices in order to attract consumers. Businesses work hard to make enough sales to cover their costs and then make a **profit**. And some companies may even be forced to go out of business if consumers do not buy from them at a price that will cover their costs and also make a profit.

Businesses also must try to keep their costs as low as possible in order to make a profit. One of the highest costs of providing a product or service is the cost of workers. **Human capital** is the economic term for those people that produce a product or service. An increase in the amount of work produced by the workers without an increase in pay leads to an increase in productivity for the business. The resulting **high productivity** keeps the costs per item low and helps increase profits for the company.

Let's Speak "Economics"

This activity is designed to encourage students to think about business using economics perspectives and language. Read the following case, and then, in small groups, discuss the questions at the end of the story using the economics terms explained on the previous page.

In 1999 the U S economy was experiencing prosperity, and many businesses were experiencing a problem with finding enough workers. George and Jean were trying to decide whether to quit their jobs and start a new business that seemed very promising. They wanted to match the need for workers to the need that some low skilled, inexperienced potential workers had to find work. They owned a rental building in one of the low rent districts in a large city on a main bus route, and felt they could open a business there.

Jean would be responsible for selling their services to companies throughout the area. George would manage the office, finding the potential workers, arranging for them to be driven to work and paid each day they worked, and filling out all the company paperwork.

The only competition for this type of business in the area did not provide transportation to the job and return and did not pay their workers daily. The office for the competition was located in the center city, about 4 miles from George & Jean's location. They ask your advice on the potential for success.

They now want to have your opinion on their business's potential for success.

- Describe the market for the company.
- What fixed costs would they have?
- What variable costs would they have?
- What price should they charge their customers?
- How many employees would they need? How many would be full time and how many temporary?
- How could they encourage productivity?
- How would you sell this service to potential clients?
- How does the law of supply and demand affect this type of business?
- How do they attract potential workers?
- What are the major risks of this type of business?
- What is the potential for profit from this type of business?
- What advice would you give them about starting this business?

Share the ideas from each group. Then discuss how economics affects business decisions.

(This activity was published in *EntrepreNews & Views* and is free to copy for use in the classroom. *EntrepreNews & Views* is published by the Consortium for Entrepreneurship Education, Columbus, Ohio).

This text is available in English at the address:http://www.entre-ed.org/_teach/econ-ed.htm

Ethical Behaviour Is Good Business

Ethical business practices include assuring that the highest legal and moral standards are observed in your relationships with the people in your business community. This includes the most important person in your business, **your customer**. Short term profit at the cost of losing a customer is long term death for your business.

A reputation for ethical decisions builds trust in your business among **business associates and suppliers**. Strong supplier relationships are critical to a successful business. Consider the problems you might have if you could not supply what the customer needs...at the time that they need it.

The entrepreneur is the role model for **employees**. If your behavior includes lying to customers, taking money out of the cash register, or taking home some of the inventory or supplies, you cannot be surprised if your employees follow your lead. Your family members may see the business as their own and take things that really belong to the busi-

ness. Employees may see this as being dishonest, or as a conflict with their needs for a raise in pay.

The **community** expects your business to operate in an ethical manner that enhances the image of the community as a whole. If you are located in a mall, for example, your code of ethics will help or hinder customer traffic for the other businesses too. A reputation for telling customers anything they want to hear, regardless of the truth, eventually hurts your business and other businesses around you. It usually isn't illegal to lie to customers, but it isn't good business.

Ethical behavior is merely making **good business decisions** based on an established "code of ethics". Entrepreneurs should establish a written code of ethics that can serve as a framework for decisions to be made by the entrepreneur as well as the employees. In developing this code of ethics you should consider the following items:

- Identify your general principles that would lead to fair business practices.
- Check with your industry association for basic standards to review
- Allow for the fact that ethical questions do not always have a unique, faultless answer.
- Write out specific statements that will assist you and others in making day-to-day ethical decisions.
- Apply your code of ethics to a written policy and procedure manual identifying the major rules for operating your business.
- Train your employees (and family members) to make ethical decisions about the business.

Your code of ethics will apply to all types of business operations including the following. What others can you add to this list?

- Handling cash and checks from customers
- “Negotiating” special prices for a friend without permission
- Accepting gifts from suppliers and business associates
- Selling damaged merchandise
- Warranties on products
- Merchandise return policies for customers
- Returning merchandise to suppliers
- Handling shoplifters
- Accounting procedures for cash sales
- Employee theft
- Insurance coverage adequate to protect the business and employees
- Supporting your advertising promises
- Checking in merchandise when received from suppliers
- Keeping the premises clean and free from harmful substances or germs
- Handling employee performance problems
- Telling customers the truth

Use Decision-Making Skills For Ethical Decisions

The day-to-day operations of a business require everyone to make decisions all the time. Practice in developing a code of ethics and then applying it to situations is important to establishing an ethical business image.

Consider how the decision-making process will help you improve the success of your business:

1. **Define the problem** requiring a decision. Often we jump to conclusions about a situation without even taking time to clarify the problem.
2. **Consider alternative solutions to the problem.** There is always more than one solution to any problem. Practice thinking about possibilities before taking action.
3. **Identify the consequences of alternative solutions.** There are many different consequences possible for choosing different alternatives. Entrepreneurs need to think about both the short-term and long-term consequences likely to result from their decisions.
4. **Collect information** if you do not have enough to make the right decision. This is where a company policy and procedure guide may help employees check out their approach to a problem.

Group Activity

Ask the class to form small groups of about 8 persons to work on ideas for ethical decision-making. Provide them with information about a business to use for the activity. This could be a local business, a business idea of your choice or theirs, or a business plan sample that they have been working with in the class. Ask each group to do the following:

1. Identify problems the entrepreneur might encounter in running this business in an ethical manner.
2. Develop a 10-point code of ethics for the business.
3. Discuss policies and procedures appropriate for this business that would support the code of ethics.
4. List as many ethical problems as possible that might be faced by employees during a normal work day. Discuss the possible solutions for the problems. Consider how a procedure guide might help employees to make the best decisions.
5. Members of the group should then role-play the process of handling an ethical issue with a customer, with a supplier, with a competitor, and with the son of the owner. Discuss the results of the role-playing exercise. If necessary you may want to modify your code of ethics at this time.
6. Each group should present their code of ethics to the class and discuss major outcomes of their discussion.

Source: PACE, Unit 13 Business Management. PACE is available from the Center on Education and Training for Employment, The Ohio State University, Columbus, OH. 1-614-292-4277.

This text is available in English at the address <http://www.entre-ed.org/_teach/ethics.htm>.

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