



The evaluation of learning



Le Carrefour de la réussite au collégial was created by the Fédération des cégeps to support colleges in the implementation of programs geared to student success. This includes the organization of conferences, symposiums, thematic workshops, regional meetings and the development of learning tools for detection and diagnostic purposes.

Le Carrefour has identified eight major improvement axes and developed learning kits that offer access to professional development to colleges.

This learning kit is the eighth in the series and deals with the evaluation of learning. It was developed by Mr. Hermann Guy and its content does not necessarily reflect the opinion of Le Carrefour or La Fédération des cégeps.

Carrefour de la réussite au collégial

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Contributing authors:

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<http://www.educ.usherb.ca/performa/documents/fiches/D'Amour et al.htm>, Université de Sherbrooke, Performa.

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LOUIS, Roland, *L'évaluation des apprentissages en classe : Théorie et pratique*, Montréal, Éditions Études Vivantes, 1999.

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To avoid redundancy and for ease of reading, the masculine gender is used on occasion in this learning kit.

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General presentation

- Introduction
- The evaluation of learning
- Contents of the learning kit
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- Mediography

Introduction

The evaluation of learning plays a vital role in pedagogical strategies at all teaching levels: from primary schools with their new programs, to colleges with the establishment of programs defined by competencies. Evaluations have become a major topic of concern today. Change requires new approaches and an intellectual understanding of new practices is not sufficient. Individuals must find meaning in them. As Gérard Scallon writes, the question is not new but the goals are different and new questions are being raised:

“Why perform an evaluation? ... This is quite the question! Many answers have been given and there is a multitude of work on the subject. Every decade or so, we rewrite the answers based on the educational system, expectations and ideologies of the time. Like any question, it must be meaningful at the time it is asked and it must also have meaning for the person asking it. [...]”

During the last four decades, Québec’s school system has undergone major changes. Over time, we have experienced different periods of reflection. Teachers today face major challenges. They must assimilate programs targeting the development of competencies. New teaching approaches and practices incorporating project-based learning and student cooperation must be mastered. Teachers must collaborate with many people both inside and outside the teaching profession. Let us also underline that evaluations have become the major concern of the hour. It is sometimes necessary to substitute or integrate totally new approaches to prior knowledge and skills. Knowing “how to evaluate” is important, but knowing “why to evaluate” is what gives meaning to the practice of evaluation. In addition, to complicate matters further, the answer is not univocal or impartial, since it relates to the person doing the evaluation [...].

In the past, evaluations were designed to bring pressure to bear and to accelerate progress. They were also a symbol of power. This approach to evaluation is gone, or at least dying out. Evaluation practices have been refined and must now be backed by solid arguments. The idea of monitoring student progress in order to maximize educational success is now widely accepted as a guiding principle and integrating concept.”¹

¹Translated from Gérard Scallon, “Pourquoi évaluer?... Quelle question!”, Vie pédagogique, no 120, September-October 2001, p. 20-23.

Emerging changes

Changing from a program driven by objectives to a program based on the development of competencies alters the traditional role of evaluations. Learning rather than knowledge becomes the object of the evaluation. As Marie-Françoise Legendre states, the instructor's professional judgment plays a key role:

“To evaluate is to make an assessment without necessarily knowing the consequences that ensue. To be evaluated has far-reaching consequences (Lemay, 2000). It is therefore not surprising that the evaluation of learning is seen as a key component in current educational reform.”²

New trends in the evaluation of learning have been part of the Québec pedagogical landscape for some time now. Their importance is more pronounced today than ever before. However, once the chaotic implementation stage is over, the desire to understand the nature and basis for change will become stronger. André Chabot summarizes it this way:

“Generally-speaking, over the last twenty years, the evaluation of learning has experienced changes in:

- study program structure (competency-based approach)
- learning concepts: from behaviorism to cognitivism and constructivism
- evaluation types: from normative to criteria-based evaluations
- evaluation objectives: from knowledge to competencies
- evaluator’s role: from an individual perspective to a program approach
- evaluation tools: from tests based on knowledge to problem situations
- learning results: from grades expressed in percentages to descriptive results

The main research and pedagogical movements to influence these changes are: cognitive psychology and the organization of the learner’s prior knowledge, transfer of learning and metacognition (when to use this or that way of proceeding), motivation and the social context of learning (cooperative approach).

In the United States and Europe, the movement for authentic evaluations has brought about a paradigm shift in the role of evaluations. Today an evaluation is seen as a learning tool more than a selection tool.

An evaluation is authentic when:

- it provides an accurate assessment of student ability to carry out key intellectual tasks;
- the students can demonstrate their skills and what they have learned;
- the students encounter a broad range of situations that incorporate valid learning activities, rich and stimulating situations: projects, performance tests, discussions, etc.;
- the students are allowed to work on improving and fine-tuning their answers (product or process);
- criteria are used to assess the quality of the response.

² Translated from Marie-Françoise Legendre, “Favoriser l’émergence de changements en matière d’évaluation des apprentissages”, *Vie pédagogique*, n° 120, September-October 2001, p. 15-19.

New methods have been in use for some time now to test the different roles and the timing of evaluations. New tools such as self-evaluations, networks of concepts and portfolios enable students to participate even more actively in their learning through formative and summative evaluations [...]

From now on, development relating to the evaluation of learning will be focused on the objects of evaluation (competency and the process by which students acquire it), the quality of the tools and results that are communicated to students in an ongoing fashion, according to the competency profile.”³

The evaluation of learning

The evaluation of learning is a complex part of instructional planning. However, practices are many and varied and practitioners are not always clear as to the foundations on which they are built. The competency-based approach that now guides the design of study programs, calls for changes in current teaching practices.

“The inherent limitations in the widespread use of standardized tests led specialists and teachers to look for other ways of evaluating student learning. Other factors include the growing influence of cognitivist thinking and constructivism and an academic curriculum based on the development of competency. All of the above have a profound effect on the conception and implementation of the evaluation of learning.” (Laliberté, 1995)

Influences relative to the evaluation of learning in a general *college context* include the type of instruction and evaluation models used for program development, cognitive psychology, and the new paradigm in the evaluation of learning.

Training in colleges and the evaluation approach

“The primary goal of college education is to teach students to be autonomous and to resolve complex problems in a variety of real life and work situations. In a program approach, the disciplines, subject matter and courses are subordinate to the development of generic, professional and socio-cultural competencies. The goals are competencies, such as: integration of knowledge, intellectual capacities, psychomotor and technological skills as well as socioaffective capacities and dispositions that allow for adequate and effective action, for the analysis and modification of situations (solutions, improvement), and taking charge of one’s own cultural, social and professional development. Competency consists in the ability and resources we need to carry out our role and responsibilities, to accomplish our activities and tasks.

What is of concern in colleges is competency as a precursor to mastery, a potential for mastery. The challenge of evaluation within an academic framework is the ability to reflect a valid and accurate image of student competency in one or several fields.”⁴

³ Translated from André Chabot, “Les nouvelles tendances en évaluation des apprentissages”, *Reflets*, vol. 8, n° 1, Cégep de Chicoutimi, December 1997. [<http://www2.cgodin.qc.ca/carrefour/lectures.htm>].

⁴ Translated from François Vasseur et al, “Journée pédagogique portant sur l’élaboration d’un système d’évaluation des apprentissages dans le cadre de la nouvelle PLEA”, Cégep de La Pocatière, October 1998.

Developmental models for study programs⁵

When a new program development model is introduced in education, two questions immediately arise: Does the model provide answers to the problems that teachers have identified and how does this new model differ from previous models? Let us briefly examine these two areas.

In Québec as elsewhere, the first programs were designed around a table of contents specific to disciplinary subject matter: A succession of components joined into a logical sequence. Instruction had one goal: To explore a specific content adequately. However, we saw that even when taught in a logical way, knowledge was not enough for the student to develop competencies; the course had to be included within a practical training program.

Thereafter, programs and courses were described in terms of objectives. Inspired by behaviorist psychology, these programs made it possible to clarify the vagueness of our good intentions vis-à-vis instruction. Learning objectives were defined, as were student behaviours and evaluation criteria. However, the learning objectives were so unrelated that one course could contain more than fifty objectives; additionally, these objectives were parceled out in teaching units, like individual atoms dispersed in space. This caused us to lose sight of the real learning objectives of courses and programs. Finally, programs were centered on evaluation rather than support for the integration of learning and the development of complex cognitive capacities.

Chapter 3 of this learning kit deals specifically with the subject of developmental models for study programs.

Influence of cognitive psychology⁶

The transition from a pedagogy based on first-generation objectives to a competency-based pedagogy is related to the evolution of psychology and recent discoveries on the brain and learning. (See the table on page 15 (*The influence of psychology on teaching and learning*). Cognitive psychology concepts are compatible with learning centered on the development of competencies.

Chapter 2 of this kit deals specifically with the influence of cognitive psychology.

An evaluation of learning based on the new paradigm

The recommended evaluation is in line with this new paradigm⁷:

- The evaluation is appropriate to complex, multidimensional, integrated and transferable learning;
- The evaluation truly supports learning;
- The summative evaluation results are interpreted versus the targeted results (interpretation based on evaluation criteria);
- The evaluation supports forward-thinking methodology and values the role of professional judgment while recognizing student accountability.

⁵ Translated from Pierre Deshaies, Hermann Guy and Michel Poirier, “Un modèle d’élaboration des programmes”, *Recueil intégrateur, Section I : Une vision intégrée de la formation au collégial, regroupement des collèges Performa*, 2003.

⁶ Ibid.

⁷ Translated from Cécile D’Amour and Groupe de travail à Performa, *L’évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie: Les questions préalables, first edition, [s. l.], April 1996, p. 15-18.

At college level, the evaluation of learning falls under the aegis of the new paradigm; moreover, it must be carried out in a professional manner and within the program framework.

Chapter 2 of this kit specifically covers the evaluation of learning based on the new paradigm.

Contents of the kit

The evaluation of learning in a competency-based approach raises many questions and the documents in this kit help provide some answers. Answers however are as numerous as the concepts on which the practices are based.

A person's underlying learning and evaluation concepts have a strong influence on instruction and evaluation practices. On this level it is useful for teachers to enrich the “frame of reference” on which they rely to decode situations and make the right choices. The implementation of a competency-based program by the teacher implies its interpretation. What influences teachers' interpretation are not only the characteristics of the situation but also the mental model they create using their own frame of reference. This frame of reference is supported by a whole range of knowledge that is not static but dynamic.

To avoid pitfalls, we must understand underlying concepts and their influence on practices...

There are two major pitfalls in academic reform:

- Reform without change: giving current practices a new packaging and rhetoric.
Our way of doing things does not change, only our way of describing the activities.
- Change without a solid foundation: adopting new practices without understanding the concepts and principles on which they are based. They change our way of doing things without necessarily influencing our underlying beliefs.”⁸

Chapter 1 “Beliefs and practices in the evaluation of learning” makes it possible to actualize the perception an individual has of evaluation practices and the models used.

Chapter 2 “From teaching to learning: impact on evaluations” introduces the basis for change and allows for the identification of essential characteristics that impact the new paradigm in the evaluation of learning.

Chapter 3 “The vision and impact of study programs centered on competencies” attempts to describe and validate the impact of instructional programs targeting the development of competencies.

Chapter 4 “Definitions and policies relative to the evaluation of learning” sheds light on current evaluation models, principles and policies that guide evaluation practices.

Chapter 5 “Establishing a general evaluation strategy” highlights the importance of a general plan for competency assessment that determines how formative and summative evaluations are used in practice.

Chapter 6 “Procedures for developing an evaluation” provides general procedures and detailed steps for planning an evaluation.

Chapter 7 “The comprehensive program assessment” provides a broad outline for developing a comprehensive assessment. This type of evaluation at college level will enrich the frame of reference and relevant practices.

The topics discussed in this document are outlined in greater detail in the following pages.

⁸ Translated from Marie-Françoise Legendre, “Présentation sur le thème des grandes orientations de la réforme”, ministère de l’Éducation du Québec, February 15, 2000.

Topics presented in this document

Chapter 1: Beliefs and practices in the evaluation of learning

- My evaluation practices
- My beliefs relative to the evaluation of learning
- Evaluation based on the new paradigm

Chapter 2: From teaching to learning: impact on evaluations

- From a teaching paradigm to a learning paradigm
- A new paradigm in the evaluation of learning
- Bringing change to the evaluation of learning

Chapter 3: The vision and impact of study programs centered on competencies

- Development of a study program
- The concept of competency
- The characteristics of a competency and its influence on planning and evaluation
- The principles connected to competency assessment
- The basic concept of an authentic evaluation

Chapter 4: Definitions and policies relative to the evaluation of learning

- A definition of the evaluation of learning
- Principles underlying the evaluation of learning
- Principles and rules that guide the evaluation of learning

Chapter 5: Establishing a general evaluation strategy

- Planning levels
- Components of a general evaluation strategy
- Development of a general evaluation strategy

Chapter 6: Procedures for developing an evaluation

- Analyze the targeted learning
- Identify and specify the items to be evaluated
- Choose and validate the tasks and evaluation tools
- Develop tools to collect data and for the evaluation judgment
- Communicate the results and provide students with feedback

Chapter 7: A comprehensive program assessment

- The definition of a comprehensive program assessment
- The object of evaluations: essential learning
- Conditions for a valid comprehensive evaluation

- Three grids for evaluation or self-evaluation in a comprehensive program assessment

The table shown on the next page, *The influence of psychology on teaching and learning*, summarizes the influence of behaviorism and cognitive psychology on the concepts of teaching and learning, students, evaluations and the instructor's role. A synthesis of the contributions made by these two psychological approaches helps us better grasp the nature of the changes underway, their pedagogical components and their impact on the planning of teaching⁹ activities and the evaluation of learning. This frame of reference conditions the pedagogical choices discussed in this document.

⁹ Translated from Pôle de l'Est, “Pour une analyse détaillée des influences de la psychologie cognitive sur la planification de l’enseignement et de l’apprentissage”, *L’enseignement et l’apprentissage : un cadre conceptuel*, see Chapter 10, 1992, p. 195-221.

The influence of psychology on teaching and learning

Behaviorism	Cognitive psychology
Concept of teaching	Concept of teaching
<ul style="list-style-type: none"> — creation of an environment centered on the development of behaviour; — creation of an environment that breaks up the content; — creation of an environment that organizes content as a series of prerequisites; — creation of a coercive environment by the teacher. 	<ul style="list-style-type: none"> — creation of an environment based on student's prior knowledge; — creation of an environment centered on cognitive and metacognitive strategies; — creation of an environment with complete and complex tasks.
Concept of learning	Concept of learning
<ul style="list-style-type: none"> — learning occurs through the association of stimulus and response; — learning is primarily imitation; — learning is achieved successively. 	<ul style="list-style-type: none"> — learning occurs through the gradual increase in knowledge; — learning occurs when prior knowledge integrates new information; — learning requires the organization of knowledge; — learning occurs through global tasks.
Concept of teacher's role	Concept of teacher's role
<ul style="list-style-type: none"> — the teacher intervenes frequently; — the teacher is a trainer. 	<ul style="list-style-type: none"> — the teacher intervenes frequently; — the teacher is a trainer; — the teacher is a mediator between knowledge and the student.
Concept of evaluation	Concept of evaluation
<ul style="list-style-type: none"> — the evaluations are frequent; — the evaluation relates to behaviour displayed; — the evaluation is often formative, sometimes summative; — feedback relates to performance results. 	<ul style="list-style-type: none"> — the evaluations are frequent; — the evaluations relate to knowledge as well as cognitive and metacognitive strategies; — the evaluation is often formative, sometimes summative; — feedback is centered on the strategies being used; — feedback is focused on the construction of knowledge.
Concept of learner	Concept of learner
<ul style="list-style-type: none"> — the learner responds to environmental stimuli; — the learner is reactive; — the learner is motivated by external factors. 	<ul style="list-style-type: none"> — the learner participates actively; — the learner demonstrates a constructive attitude; — the learner is motivated in part by his perception of the value of the task and by the control he has over his success.

Translated from an adaptation by Tardif (1992)

Translated from Pôle de test, *Processus de planification d'un cours centré sur le développement d'une compétence*, regroupement des collèges Performa, December 1996, p. 9.

Sensitization activities

Activity 1:	Beliefs and practices in the evaluation of learning
Activity 1.1:	Evaluation practices
Activity 1.2:	My beliefs concerning the evaluation of learning
Activity 2:	Characteristics of an evaluation of learning under the new paradigm
Activity 3:	Characteristics of competencies and their impact on course planning and the evaluation of learning
Activity 3.1:	Study programs and the concept of competency
Activity 3.2:	Characteristics of a competency and their impact
Activity 3.3:	Principles related to competency assessment and the contribution of an authentic assessment
Activity 4:	Definition and policies which guide the evaluation of learning
Activity 4.1:	Definitions
Activity 4.2:	Policy
Activity 5:	General evaluation strategy
Activity 5.1:	Example of a general evaluation strategy
Activity 5.2:	Planning levels
Activity 5.3:	Components of a general evaluation strategy
Activity 5.4:	The development of a general evaluation strategy
Activity 6:	Planning the evaluation for the final exam
Activity 6.1:	The training objective
Activity 6.2:	The objects of evaluation, performance indicators and evaluation criteria
Activity 6.3:	The evaluative task
Activity 6.4:	The marking grid
Activity 6.5:	Communicating the results
Activity 7:	Evaluating a comprehensive program assessment

Learning tools and documents

The number of the learning tools and documents corresponds to the sensitization activity number.

— Learning tool 1.A:	Evaluation practices
— Learning tool 1.B:	The evaluation of learning based on the new paradigm
— Learning tool 1.C:	Self-evaluation of beliefs relative the evaluation of learning
— Learning tool 1.D:	“Beliefs and practices in the evaluation of learning”
— Complementary document 1:	Student perceptions and expectations
— For reference:	Results of the research on “Beliefs and practices in the evaluation of learning”
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— Learning tool 2.A:	From a teaching paradigm to a learning paradigm
— Learning tool 2.B:	Summary of the characteristics of the two paradigms
— Learning tool 2.C:	Statements for discussion
— Learning tool 2.D:	Summary of the characteristics of learning evaluations based on the new paradigm
— Document 2.A:	A new paradigm in the evaluation of learning
— Document 2.B:	Supporting the emergence of change in the evaluation of learning
— Document 2.C:	Bringing changes to the evaluation of learning
— Complementary document 2:	Alternate ways of designing and evaluating learning
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— Learning tool 3.A:	Development of a study program
— Learning tool 3.B:	Definition of a competency
— Learning tool 3.C:	Characteristics of competencies and their impact on course planning and the evaluation of learning
— Learning tool 3.D:	Characteristics of competencies and their impact on course planning
— Learning tool 3.E:	Characteristics of competencies and their impact on the evaluation of learning
— Learning tool 3.F:	Principles connected to competency assessment
— Learning tool 3.G:	The authentic evaluation
— Learning tool 3.H:	Tensions between traditional and modern ways of thinking
— Document 3.A:	Development of a study program
— Document 3.B:	Assessment in authentic situations: underlying principles

- Complementary document 3: LASNIER, François, Principles of an evaluation in competency-based learning (Competency Based Training) linked to principles of competency-based learning
 - Learning tool 4.A: A definition of the evaluation of learning
 - Learning tool 4.B: Guiding principles for the evaluation of learning
 - Learning tool 4.C: Definitions applicable to the evaluation of learning
 - Learning tool 4.D: Comparing three types of evaluations
 - Learning tool 4.E: Principles and rules that govern my actions
 - Document 4.A: “Principles and rules that guide the evaluation of learning”
-
- Supporting document: Document 2.C: “Bringing changes to the evaluation of learning”
-
- Learning tool 5.A: Example of a general evaluation strategy and related documentation
 - Learning tool 5.B: Course planning levels: from ministerial specifications to Lesson planning
 - Learning tool 5.C: Course planning based on competency development
 - Learning tool 5.D: The components and tools pertinent to a general evaluation strategy
-
- Complementary document 4: From planning stages to the evaluation plan for the final course test
-
- Learning tool 6.A: Procedures for developing an evaluation plan and tools for collecting data and making judgments
 - Learning tool 6.B: Tasks for the analysis of a learning target
 - Learning tool 6.C: Tool for the analysis of a competency
 - Learning tool 6.D: Tasks to identify objects of evaluation
 - Learning tool 6.E: Tasks appropriate for the evaluation of learning
 - Learning tool 6.F: The description of an authentic situation
 - Learning tool 6.G: Guidelines for choosing evaluation methods
 - Learning tool 6.H: Tasks to build data collection tools
 - Learning tool 6.I: Sample marking grid designed at Cégep Saint-Laurent
 - Learning tool 6.J: Tasks to communicate evaluation results
 - Document 6.A: Tools for evaluations in authentic situations
 - Document 6.B: How to assess competencies
-
- Learning tool 7.A: The definition of a comprehensive program assessment
 - Learning tool 7.B: Objects of evaluation: essential learning
The exit profile
What is evaluated is being taught

- Learning tool 7.C:
 - A grid of shared responsibilities for instruction
 - A valid comprehensive program assessment:
 - Prerequisites
 - The preparation of the student throughout the program
 - The choice of evaluation test
 - Sample comprehensive program assessment
- Learning tool 7.D:
 - Three grids for evaluation or self-evaluation within a comprehensive assessment
- Complementary document 5: The evaluation of learning at college level: from course to program

Mediagraphy

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 - Section 2 : L'élaboration locale d'un programme d'études
 - Section 3 : La planification de l'enseignement centré sur le développement des compétences
 - Section 4 : L'évaluation des apprentissages centrés sur le développement de compétences
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Recommended reading

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- WIGGINS, Grant, *Educative Assessment: Designing Assessments to Inform and Improve Student Performance*, San Francisco, Jossey-Bass¹⁷.
- WIGGINS, Grant, *The case for authentic assessment. Practical Assessment, Research & Assessment*, 2 (2), 1999. [<http://ericae.net/pare/getvn.asp?v=2&n=2>]¹⁸

¹⁰ Article on developing an observation grid applied to the evaluation of stages in nursing

¹¹ Pay particular attention to section 3 of chapter 2 relating to the concept of competency and new study programs

¹² Pay particular attention to the summary of chapter 4 entitled “Comment peut-on aborder le concept de compétence dans une perspective socioconstructiviste?”

¹³ Pay particular attention to appendix D recommending various formative evaluation strategies

¹⁴ Pay particular attention to chapter 7 on evaluation in authentic situations and the construction of evaluation tasks

¹⁵ Text showing the characteristics, strengths, and weaknesses in some observation grids with procedures to build and validate descriptive scale grids.

¹⁶ Pay particular attention to chapter 7 on the evaluation of competencies.

¹⁷ A recognized reference relative to the evaluation of learning

¹⁸ Text including the definition and characteristics of the authentic evaluation

Chapter 1 Beliefs and practices in the evaluation of learning

“For several years now, many researchers have put forth theories to explain how evaluation practices are used in the classroom. These theories tend to show that beliefs and attitudes are among the principal determinants of evaluation practices and those beliefs underlying attitudes are also behind personal evaluation practices.

When our beliefs have been the basis of our actions and attitudes for a long time, if they have provided satisfaction, answered our questions, directed and stabilized us ... it will be difficult for us to want to change them.

The more anchored the beliefs, the more a person tends to use cognitive strategies to protect them. This is the behaviour of individuals who want their beliefs to survive, even when it has been shown that they are false. Therefore, if we want to improve a teacher’s competency relative to the evaluation of learning, we must take into account their current practices and the way they do things. It is also necessary to understand the beliefs underlying their practices.”¹

Two sensitization activities introduce this topic:

Activity 1.1: “Evaluation practices” are, to some extent, a diagnostic evaluation that allows participants to express their concepts and perceptions concerning evaluation practices, and then to validate or invalidate them by comparing them to those of other participants.

Activity 1.2: “My beliefs concerning the evaluation of learning” allow us to position our beliefs and practices relative to the evaluation of learning.

As a complement to activity 1.2, the text “Student perceptions and expectations” (complementary document 1) discusses the way students experience the evaluation of learning, and broaches the question of the impact the evaluation of learning is likely to have on the student’s life:

- within the academic framework (their vision of the academic institution, evaluations and study behaviours);
- within the framework of academic and professional orientation (their aspirations, studies and career path); and
- relative to their expectations of evaluations, which in turn tells us something about their conceptions.

Lastly, learning tool 1.D documents the results of research on the “Beliefs and practices in the evaluation of learning” and is instrumental in clarifying the beliefs behind our practices.

¹ Translated from Robert Howe and Louise Ménard, “Croyances et pratiques en évaluation des apprentissages”, *Pédagogie collégiale*, vol. 7, n° 3, March 1994, p. 21-27.

Chapter synopsis:

Activity 1:

Beliefs and practices in the evaluation of learning

Activity 1.1: Evaluation practices

Activity 1.2: My beliefs concerning the evaluation of learning

Learning tools:

Learning tool 1.A: Evaluation practices

Learning tool 1.B: The evaluation of learning based on the new paradigm

Learning tool 1.C: Self-evaluation of beliefs relative the evaluation of learning

Learning tool 1.D: “Beliefs and practices in the evaluation of learning”

Complementary documents:

Complementary document 1: Student perceptions and expectations

Reference: Results of research on “Beliefs and practices in the evaluation of learning”

Activity 1.1

Heading	Evaluation practices
Objective	To identify prior knowledge concerning evaluation practices. To express concepts and identify evaluation practices used by colleagues.
Description	This activity is to some extent a diagnostic evaluation that allows participants to express their concepts and perceptions relative to evaluation practices and then to validate or invalidate them by comparing them to those of other participants.
Unfolding	A. Participants complete a questionnaire on their own (Learning tool 1.A). Approximately twenty minutes. B. The resource person compiles the answers to question IV in order to get a global picture. C. Team discussions, if appropriate number of participants; if not, group discussions for all questions. For each question, the resource person may present the table of compiled answers. D. The resource person presents an overview of general evaluation practices. E. The resource person introduces the ‘new’ characteristics in the evaluation of learning by distributing learning tool 1.B to each participant.
Moderator's role	To create a climate favourable for reflection. To encourage participants to ask questions. To accept answers without judgment. To support the interaction of all participants. To frequently summarize what has been said; this allows individuals to recall and identify their concepts and practices more readily.
Participants' role	To openly express their concepts. To interact with other participants. To examine past experiences to identify the concepts behind their evaluation practices. To make a personal diagnosis on their evaluation practices.
Pedagogical material	Learning tool 1.A: Evaluation practices Learning tool 1.B: The evaluation of learning based on the new paradigm Learning tool 1.C: Self-evaluation of beliefs relative the evaluation of learning Learning tool 1.D: “Beliefs and practices in the evaluation of learning”
Complementary document	Complementary document 1: Student perceptions and expectations.
Approximate duration	3 hours

Activity 1.2

Heading	My beliefs concerning the evaluation of learning
Objective	To identify personal beliefs relative to the evaluation of learning practices.
Description	<p>Beliefs and attitudes are among the principal determinants of evaluation practices; in fact, beliefs determine attitudes and specific practices result from these.</p> <p>This activity is designed primarily to identify beliefs and validate them through exchanges with colleagues and within the framework of the new evaluation paradigm.</p>
Unfolding	<ol style="list-style-type: none">A. Each participant completes a questionnaire “Self-evaluation of beliefs in the evaluation of learning” (Learning tool 1.C). It is preferable to have the questionnaire completed prior to the initial activity. This makes it possible to produce a summary of answers.B. Summary and pooling of evaluation practices category by category.C. Beliefs are validated initially during peer interaction. Finally, personal results are compared to the research results provided in learning tool 1.D.D. At the end of the session, participants are invited to assess their perceptions and attitudes in light of their personal beliefs.
Moderator's role	To create a climate favourable for reflection. To encourage participants to ask questions. To accept answers without judgment.
Participants' role	To express their beliefs openly. To interact with other participants. To identify what their personal practices reveal about their beliefs.
Pedagogical material	Learning tool 1.C: Self-evaluation of beliefs relative to the evaluation of learning Learning tool 1.D: Results of research on “Beliefs and practices in the evaluation of learning”
Complementary document	Complementary document 1: Student perceptions and expectations. Although the following article is not included in the learning kit, it discusses the results of research and can be beneficial for readers: Robert Howe and Louise Ménard, “Croyances et pratiques en évaluation des apprentissages”, <i>Pédagogie collégiale</i> , vol. 7, n° 3, March 1994, p. 21-27.
Approximate duration	3 hours

Learning tool 1. A

Evaluation practices²

A few clues on where to start

Responses should be spontaneous. As the title suggests, the goal is to collect data that will help us position ourselves relative to questions on evaluation practices and to validate our reflections with colleagues.

- I. Are you completely satisfied with the way in which you evaluate the learning in your courses?

If you are dissatisfied, indicate the kind of dissatisfaction you are experiencing and its cause.

- II. Do you believe that the evaluation of learning is done in an equivalent manner by different professors who teach the same course? _____

On what do you base this belief?

- III. Does the evaluation of learning in a course centered on the development of competencies imply major changes in evaluation practices? _____

What are the similarities and the differences? Name some new practices.

² Translated from Cécile D'Amour, *Les pratiques d'évaluation dans le département de chimie en fonction des compétences*, Activité de perfectionnement, Collège de Bois-de-Boulogne, May 1995.

IV. Indicate your level of agreement with each of the following statements by placing a checkmark in the appropriate box. Make notes on your comments for the group discussion.

Statements	disagree	to be discussed	agree completely
1. The evaluation of learning is a process that must be transparent, precise and hold no surprises.			
2. The evaluation of learning must relate only to objectives that are explicitly defined and respected.			
3. Student evaluation results in a classroom should follow the normal curve.			
4. Within our courses, some learning can be so important that non-mastery of that subject matter leads to automatic failure.			
5. Student attendance should not have an effect on the grade given for any evaluation or for the entire course.			
6. The objectives and evaluation requirements should be identical for all class groups for a given course, and evaluation methods should be equivalent.			
7. Every course should end with a final exam to verify that essential learning has been mastered.			
8. Passing the final exam should be a prerequisite for successful completion of the course.			
9. The final grade assigned must reflect as accurately as possible the level of mastery of learning at end of course, and must mean the same thing for all students.			
10. Activities relative to formative evaluations are of key importance.			
11. There should be very few summative evaluations. These evaluations must apply to the course in its entirety or to complete course segments.			
12. When an evaluation has been administered to a group of students, teachers must take the necessary means to evaluate the performance of each individual student; they cannot attribute an identical grade to all based on the quality of a collective production.			
13. The requirements of an evaluation should be adjusted from one class to another, based on group ability.			
14. The final grade assigned to a student who has completed the course cannot simply be the sum of grades assigned for various exams throughout the course; the professor is the one who must decide the student's final grade.			

V. The purpose of this question is to establish the degree of familiarity with current terminology in the evaluation of learning.

In the following table, identify all the components of the second column that belong to each of the evaluation types shown in the first column:

- 1: _____
2: _____
3: _____

1. The diagnostic evaluation ...	A. Assesses the degree of achievement of learning at the end of the process.
2. The formative evaluation ...	B. Is used to identify adjustments required in the learning or teaching process. C. Should be frequent.
3. The summative evaluation ...	D. Belongs at the end of a course or after a pivotal or complete section. E. Is particularly important at the start of the course. F. Is used to justify advancement, equivalency and certification. G. Should be integrated into teaching and learning processes. H. Helps to adjust the course to students' level of acquisitions upon entry.

VI. In the table below, match a component in the first column to one of the components in the second column:

- 1: _____
2: _____

The evaluation is said to be	... established by comparing a student's level of learning at a given time with
1. criteria-based when ...	a. a prior level of learning
2. normative when...	b. other students' level of learning c. a pre-established threshold of success

VII. What is the best method for evaluating the level of mastery of a competency?

Learning tool 1.B

The evaluation of learning based on the new paradigm³

The evaluation of learning at college level is now driven by the new paradigm. It must be carried out with professionalism and within a program perspective.

The evaluation of learning based on the new paradigm

We are recommending that the evaluation of learning be re-examined within the perspective of the new paradigm, because it seems to adequately resolve the problem elements we have identified:

- the “professionalization” of the teacher’s role;
- the changing nature of learning objectives;
- increased requirements relative to the quality and validity of the evaluation of learning;
- emerging postulates of the new epistemology, psychology of learning and education sciences; etc.

We will frequently see traces of these four perspectives in the new paradigm.

The evaluation we propose has the following characteristics:

1. **An evaluation adapted to a competency-based approach**, relating therefore to complex multidimensional, integrated and transferable learning that from *a methodological perspective*, implies an evaluation that is:
 - global, multidimensional,
 - contextualized,
 - a true opportunity for students to demonstrate their competency, while ensuring standardization of the conditions for success and evaluation criteria.
2. **An evaluation that truly serves the purpose of learning**, an evaluation integrated into teaching and learning processes: to guide, support, assist students in assuming responsibility for their learning and, finally, determine what learning has been acquired;

from a methodological perspective, it implies an evaluation that:

- is dynamic rather than static, combines snapshots of specific moments to create a portrait of the learning taking place, focuses not only on the results but also on the process used to achieve them;
- is conducted within a didactic framework and not exclusively docimological;
- is used to create benchmarks and make judgments as well as for diagnostic purposes;
- is readily adapted to the pursuit of learning;
- takes into account not only the cognitive but also the affective dimension;
- uses a diversity of evaluation methods (teacher who guides the learning, other teachers, students, evaluators outside the academic environment);

³ Translated from Cécile D’Amour and Groupe de travail à Performa, L’évaluation des apprentissages au collégial from the program course, Fascicule II. Cadre de référence. Première partie: Les questions préalables, First edition [s. l.], April 1996, p. 15-18.

- does not make a final judgment on the acquired learning until the end of the learning period;
- 3. An evaluation based on criteria** where judgment is based on the achievement of learning objectives rather than the classification of students in relation to others (normative evaluation).
from a methodological perspective, it implies an evaluation that:
- is focused on validity rather than discrimination;
 - uses qualitative approaches and descriptive methods;
- 4. A forward-thinking methodology** that upgrades the role of professional judgment and recognizes student responsibility, a methodology that is adapted and thorough:
- adapted
 - to the first three identified characteristics;
 - to the purpose of the evaluation in question: supports the learning process or the learning certificate;
 - thorough, which implies
 - that judgment can assume its rightful role;
 - that the methods and learning tools (scales, calculations, etc.) are used in conformity with their conditions of use.

An evaluation of learning carried out in a professional manner

Like other components of teaching, the evaluation of learning must be carried out in a professional manner, that is to say, with serious minded and in good faith. It must also be done responsibly, **relying on a specific competency** in the field (one that is acquired or will be acquired, maintained and developed), **using existing margins of flexibility** to ensure the most appropriate methods are used for each individual learning situation, ensuring a continued evolution of evaluation practices, **respecting ethical principles, agreeing to accountability** for actions taken. With regard to the evaluation of learning, assuming full responsibility means agreeing to **make an evaluation judgment**: we believe this is one of the major issues at stake in changing current practices.

An evaluation of learning carried out within a program perspective

To increase the odds of students completing their study program with the desired “profile”, the evaluation of learning, like other **interventions**, must be conceived and carried out within a program perspective.

What exactly does this mean?

- The methods of evaluation for all courses should be **coherent and articulated** to motivate students to concentrate their efforts on learning and integrate this learning rather than compartmentalize it.
- Within the framework of each individual course, evaluation activities should **support learning** so that the course effectively contributes what it is supposed to contribute to the training and to ensure that the learning acquired cumulatively throughout the courses is integrated as effectively as possible.
- The results of the summative evaluation carried out in each course should **accurately reflect the level of learning mastered** by each student, so that in subsequent courses, we can count on a certain basis of acquired knowledge.

- In planning the evaluations of learning — as with the planning of learning interventions — objectives that require the contribution of several courses should be given **particular attention**: formative and summative evaluations should be designed to encompass all the courses that contribute to achieving these objectives and their final certification.
- Furthermore, evaluation methods should be based on **the students' level of development**, keeping in mind that this level will increase as students advance in the program; evaluations must maximize the development of **self-evaluation and metacognitive skills**.

In summary, overall evaluation interventions should contribute to the integration of learning throughout the program.

The comprehensive evaluation at the end of the program, could then officially attest to the degree of mastery and level of integration of essential learning for each student at the end of the learning process.

For discussion purposes, use the chart on the next page.

Chart

Perspectives for change	Statements with which you agree; that represent a particular difficulty for you; or that cause you to question your practices
— An evaluation adapted to a competency-based approach	
— An evaluation that truly serves the purpose of learning	
— A criteria-based evaluation	
— A forward-thinking methodology that upgrades the role of professional judgment and recognizes student accountability	
— An evaluation carried out in a professional manner	
— An evaluation carried out within a program perspective	

Learning tool 1.C

Self-evaluation of beliefs relative to the evaluation of learning⁴

Beliefs, as described by Howe and Ménard (1993), have a determining influence on attitudes and behaviours. It is essential that we understand our beliefs explicitly if we wish to modify and improve our practices as regards the evaluation of learning. The exercise below⁵ is intended to highlight some of our beliefs and allow us to measure them against the new paradigm in the evaluation of learning.

For each statement, indicate your level of agreement or disagreement:

- AC** Agree completely
- A** Agree
- D** Disagree
- DC** Disagree completely
- NC** No comment

Compare your answers with the results obtained by Howe and Ménard in their research among college professors. Please refer to learning tool 1.D. The classification categories correspond to the six fields of competency evaluations described by Stiggins (1991)⁶. The authors comment on the choices they made subsequent to their research:

“Within the framework of research in progress, Louise Ménard and I had to find a system that permitted a classification by categories of many statements regarding beliefs and practices in assessing learning in the classroom. Documentation on the subject revealed several categorizations that were adaptable to the evaluation of beliefs and practices. We chose four approaches (Fontaine, 1988; Stiggins, 1991; American Federation of Teachers, 1990 and Schafer, 1991) and studied them, our goal being to eventually adopt one of these systems.

In the end, we selected the typology of competency fields recommended by Stiggins (1991) because, with six key components, it enabled us to answer the three primary questions of our research: the “why”, “what” and “how” of assessment in the classroom. The categories identified by Stiggins within a competency-based evaluation of learning, appear not only pertinent to the goal of our research but also in the description of knowledge, skills and attitudes that teachers should develop in the field of measurement and assessment in the classroom. In my opinion, these six fields of competency represent a valid structure to analyze assessment practices of teachers in the classroom and to guide the planning of professional development activities.”

The typology (on the following page) is presented because of its value and usefulness in research and in teacher education. A detailed description of these categories can be found in the above-mentioned research.

⁴ Translated from Robert Howe and Louise Ménard, *Croyances et pratiques en évaluation des apprentissages*, PAREA research, Laval, Collège Montmorency, 404, 1993.

⁵ Translated from an activity designed by Germain Perreault, Collège de la Région de l'Amiante and Hélène Servais, Cégep Limoilou.

⁶ R. J. Stiggins, “Relevant classroom evaluation training for teachers”, *Educational Measurement: Issues and Practice*, vol. 10, n° 1, March 1991, p. 7-12.

The categories identified by Stiggins

In “Relevant Classroom Assessment Training for Teachers”, Stiggins (1991) suggests a description of the competency domains for teachers relative to the measurement and evaluation of learning in the classroom. These domains form an excellent structure consisting of six categories that facilitate the analysis of practices and beliefs in assessment and also orient the planning of professional development activities.

The use of assessment in the classroom

Based on Stiggins’ observations, teachers use evaluation of learning to respond to three needs: a) to support decisions, b) to guide teaching and learning, c) to manage the classroom. To use the evaluation of learning competently within the framework of these separate needs, teachers must be assessment-literate and understand the role of assessment as well as its educational and pedagogical impact on teaching and learning.

— Assessment objectives

Stiggins’ second category deals with the specific areas targeted by assessments. The areas generally evaluated by teachers are: knowledge of subject matter, skills, higher cognitive skills and attitudes. Teachers must clearly understand what they seek to assess and use appropriate assessment methods.

— Assessment qualities

The characteristics of a sound assessment vary according to the context. However, some quality standards are common to all assessment situations: the connection between the field to be evaluated and the measurement tool used; control over margins of error in measurement; the reconciliation between targeted learning and assessment results; information with meaning that is clear to both students and teachers.

— Assessment tools

According to Stiggins, teachers use at least three types of assessment tools in the classroom: learning tools like "paper and pencil", observation and verbal exchanges.

These assessment tools can be used correctly or incorrectly. Each method has distinct advantages and disadvantages and can be more or less appropriate for a particular context. Teachers must know how to make assessments while recognizing that the rules of validity may vary from one assessment to another.

— The interpersonal dimension of assessments

A classroom assessment implies highly complex interpersonal exchanges. The assessment is rarely scientific, objective and detached in this type of environment. On the contrary, it is linked to all kinds of variables (motivation, concepts of teaching and learning, emotional aspect of the assessment, etc.) that come into play before, during, and after the actual assessment.

— Feedback in the classroom

Teachers provide feedback on assessment results on a continuous basis. According to Stiggins, teachers must assign grades that are pertinent so that the feedback is without ambiguity. It is also important that all aspects of the feedback correspond specifically to the objectives, be given in a timely manner, and be meaningful for the student.

Category 1: Classroom evaluation practices (

		AC	A	D	DC	NC
1.	The best way to motivate students is to assign grades to their work.					
2.	Being evaluated motivates students to devote more energy to their studies.					
3.	Evaluations must be frequent to help students identify weaknesses quickly.					
4.	Evaluations are used to identify student strengths and weaknesses relative to the learning to be acquired.					
5.	Evaluations must be used to classify students relative to each other rather than identify learning they have acquired.					
6.	If I could, I would never give examinations.					
7.	A grade should not be assigned in a formative examination.					
8.	Evaluation is an integral part of instruction.					
9.	Evaluations must be frequent so that student's work is consistent.					
10.	Evaluation practices at college level often favour short-term versus long-term learning.					
11.	Evaluations are not learning activities.					
12.	I evaluate the academic output of my students to meet college administrative requirements.					
13.	All work done by the student in and outside of the classroom deserves to be evaluated and graded.					

Comments

Category 2: Evaluation targets

		AC	A	D	DC	NC
1.	It is practically impossible to get evaluation results that accurately reflect student learning.					
In determining the final grade, it is important to evaluate each of the following items (questions 2 to 6):						
2.	Attitudes (personal conduct)					
3.	Skills, procedures					
4.	Knowledge (learning)					
5.	Critical thinking					
6.	Skills in analysis, synthesis and problem solving					
7.	To evaluate is to prepare exams on everything seen and done in the classroom.					
8.	It is unfair to ask questions that go beyond the subject matter taught.					
9.	It is not necessary for the evaluation to cover all aspects of the subject matter.					
10.	It is impossible at college level to evaluate both the understanding students have of the subject matter and the knowledge they have acquired of it.					
11.	It is more important to evaluate the understanding students have of the subject matter than their knowledge of the facts.					
12.	At college level, higher cognitive skills (analysis, synthesis, problem solving) are the areas that should be evaluated.					

Comments

Category 3: Evaluation qualities

		AC	A	D	DC	NC
1.	After an examination, it is useful to analyze my questions to gauge their value.					
2.	It is advisable to have examination questions checked by a second specialist in the subject matter.					
3.	All students should be evaluated using the same criteria.					
4.	It is practically impossible to achieve evaluation results that accurately reflect student learning.					
5.	It is necessary to evaluate frequently to obtain reliable results.					
6.	My examinations are effective and tell me what I want to know.					
7.	When I evaluate the achievement of course objectives, I am on solid ground.					
8.	It is sometimes necessary to modify the evaluation criteria during grading.					
9.	It is necessary to establish evaluation criteria before the start of grading.					
10.	It is impossible to establish evaluation criteria before the start of grading.					
Different criteria should be used for different groups of students:						
11.	The more gifted should work harder to earn a higher grade.					
12.	We should be less demanding of the less gifted so that they may achieve higher grades.					
13.	The students who maximize their skills and aptitudes should receive higher grades than those who do not.					

Comments

Category 4: Evaluation tools

		AC	A	D	DC	NC
1.	Only questions requiring development can measure essential learning.					
2.	All examinations should allow access to textbooks.					
3.	All evaluations should be self-evaluations.					
4.	Multiple-choice questions favour the evaluation of memorized knowledge.					
5.	Assessment exams at end of sessions should be obligatory in almost all disciplines.					
6.	Multiple-choice questions can measure the understanding of the subject matter.					
7.	It is almost impossible to write examination questions that measure higher cognitive skills.					
8.	Only research work or the realization of a project can truly measure the level of achievement of course objectives.					
9.	Examinations with multiple choice questions measure essential learning better than questions requiring development.					

Comments

Category 5: Interpersonal dimensions of evaluation

		AC	A	D	DC	NC
	It is important not to raise or lower student grades as a means of encouragement or to motivate them to work harder.					
The final report card grade could be increased as a reward for:						
1.	the student's active participation in the classroom.					
2.	the effort shown.					
3.	student progress throughout the entire session (evolution).					
4.	student creativity.					
5.	student attendance at all courses.					
6.	Knowing a respondent's identity can influence me when grading developmental questions					
The final report card grade could be lowered as a penalty for:						
7.	non-justified absences.					
8.	absence or lack of effort on student's part.					
9.	lack of discipline in class.					
10.	plagiarism.					

Comments

Category 6: Feedback and grading

		AC	A	D	DC	NC
1.	Professors should provide written comments on work of students.					
2.	The majority of students read the comments written by their professors.					
3.	The average class grade is a direct reflection on the quality of the instruction.					
4.	In a group, the distribution of the grades should follow the normal Bell curve: Only a small percentage of students should have very high or very low grades.					
5.	At my college, the criteria for success or failure are generally: (choose one)					
	a. much too lenient, generous					
	b. too demanding					
	c. adequate					
6.	Grading is a handicap to instruction.					
7.	Some professors evaluate and assign grades because they have to and, consequently, do so quickly to get it over with.					
8.	The grades I assign are not really indicative of what my students have learned.					
9.	When grading, the good or bad results obtained by the student in evaluations at the beginning of the instruction must be taken into account.					
10.	It is necessary to avoid performing evaluations that involve the teacher's personal judgment and subjectivity.					
11.	Grades should reflect the number or percentage of objectives achieved by my students.					

Comments

Learning tool 1.D

“Beliefs and practices in the evaluation of learning”⁷

Summary table of research results⁸

The evaluation of learning is an integral part of what teachers do. It is of key importance in improving the quality of learning (and teaching) during the training and in validating the quality of learning at the end of the training.

Professors in colleges have always been responsible for the evaluation of learning. This responsibility is a visible and credible demonstration of the professional competency of professors, and this competency, far from being definitively acquired and static, must be the object of pertinent and regular updates.

The research of Howe and Ménard (1994) highlighted inadequate practices as well as erroneous thinking regarding the evaluation of learning. To identify these, certain methods are suggested whose implementation rests on an understanding of beliefs and practices. For this purpose, the questionnaire can be used locally as a research tool to identify the practices and beliefs of the entire body of teachers at a college or within a given department. The authors list a number of main objectives for training and/or professional development:

- to grasp concepts better, in particular the concept of formative evaluation;
- to support the greater use of formative evaluations;
- to question the use of evaluations as a means of managing a class and the validity of grade adjustments;
- to understand better the various tools than can be used to evaluate learning;
- to develop validation practices and professional development in the field of evaluation tools.

The authors conclude, “The evaluation of learning is not a panacea but many authors speak of the tremendous influence that evaluation practices and beliefs have on all aspects of teaching and learning” (Stiggins, 1992; Crooks, 1988). Any intervention that improves the ability to evaluate will lead to better quality instruction and learning.

The following table documents a summary of Howe and Ménard’s research and shows the distribution of answers given by teachers relative to their beliefs on the evaluation of learning.

⁷ Translated from Robert Howe and Louise Ménard, “Croyances et pratiques en évaluation des apprentissages”, *Pédagogie collégiale*, vol. 7, n° 3, March 1994, p. 21-27.x

⁸ For a presentation of research results, please refer to: Robert Howe and Louise Ménard, *Croyances et pratiques en évaluation des apprentissages*, recherche PAREA, Laval, Collège Montmorency, 1993, 404 p.

Summary answers given by teachers relative to their beliefs on the evaluation of learning

Table 1: Distribution of responses to statements on beliefs relative to:

Category 1: The use of evaluations in the classroom (abridged)

	AC	A	D	DC	NC
To guide decisions					
1. The evaluation is used to identify student strengths and weaknesses.	43 %	52 %	4 %	0 %	1 %
2. Following the evaluation, the teachers should be willing to readjust course contents.	32 %	44 %	15 %	4 %	4 %
3. If I had a choice, I would not evaluate.	7 %	7 %	38 %	45 %	3 %
4. The evaluation is used mainly to satisfy administrative requirements.	2 %	7 %	53 %	35 %	3 %
To assist learning					
5. The evaluation is used to validate what the students learn.	34 %	61 %	3 %	1 %	0 %
6. The evaluation can help students learn.	35 %	60 %	3 %	0 %	2 %
7. Formative evaluations are not necessary.	1 %	3 %	40 %	51 %	5 %
8. Formative evaluations are mini evaluations that prepare students for the summative evaluation.	7 %	43 %	31 %	13 %	6 %
To manage the classroom					
9. The best way to make students work is to assign grades to their work.	17 %	61 %	17 %	3 %	2 %
10. Evaluations encourage students to put more effort into their studies.	33 %	61 %	5 %	0 %	1 %
11. Students work more consistently when evaluations are frequent.	29 %	58 %	8 %	1 %	4 %

Note — Percentages are based on frequency tables after weighting. N min. = 616; N max. = 628.

Table 2: Distribution of responses to statements on beliefs relative to:

Category 2: Objects of evaluation

	AC	A	D	DC	NC
Course subject matter					
1. Examination questions should not go beyond the subject matter taught.	19 %	39 %	33 %	5 %	5 %
2. It is not practical to have the evaluation cover all the subject matter taught.	7 %	50 %	28 %	10 %	4 %
3. The examination should cover everything that is taught in the classroom.	8 %	27 %	50 %	12 %	3 %
Skills					
4. It is more important to evaluate understanding than knowledge.	19 %	49 %	20 %	4 %	7 %
5. It is impossible to evaluate anything other than knowledge.	2 %	8 %	55 %	32 %	4 %
6. It is practically impossible to evaluate attitudes.	5 %	19 %	46 %	18 %	13 %
7. We should be evaluating higher cognitive skills.	9 %	41 %	40 %	4 %	7 %

Table 3: Distribution of responses to statements on beliefs relative to:

Category 3: Evaluation qualities

	AC	A	D	DC	NC
Validation of the components					
1. It is useful to analyze examination questions.	35 %	56 %	4 %	1 %	3 %
2. A second specialist should check examination questions.	14 %	58 %	15 %	2 %	11 %
3. Instructions for written work are clearer if a second specialist verifies them.	17%	64 %	11 %	1 %	7 %
Evaluation criteria					
4. Everyone should be evaluated using the same criteria.	47 %	45 %	5 %	1 %	2 %
5. It is necessary to establish the criteria before beginning the grading.	47 %	48 %	4 %	-	1 %
Representation					
6. It is impossible for evaluation results to accurately reflect student learning.	4 %	25 %	50 %	16 %	5 %
7. Several evaluations are required to obtain reliable results.	32 %	62 %	5 %	-	1 %
8. My evaluation methods are reliable.	13 %	79 %	4 %	-	4 %
9. Grades should reflect the level of mastery of objectives.	22 %	62 %	8 %	1 %	7 %
Consistency					
10. Many teachers lack consistency in evaluations.	11 %	30 %	20 %	2 %	38 %

Table 4: Distribution of responses to statements on beliefs relative to:

Category 4: Evaluation tools

	AC	A	D	DC	NC
1. Questions requiring development can only measure higher learning.	12 %	32 %	41 %	7 %	8 %
2. Multiple-choice questions can measure higher learning.	3 %	38 %	32 %	15 %	11 %
3. Multiple-choice questions mainly measure knowledge.	6 %	35 %	42 %	8 %	9 %
4. Too often, multiple-choice questions lead to random answers.	8 %	35 %	33 %	2 %	21 %
5. Examinations should allow the use of textbooks.	4 %	14 %	55 %	12 %	15 %
6. Assessment examinations should be obligatory in all disciplines.	13 %	38 %	29 %	5 %	15 %
7. Written work and projects are the best evaluations.	6 %	31 %	44 %	5 %	13 %
Evaluations should generally be self-evaluations that are:					
8. Formative	4 %	24 %	48 %	13 %	10 %
9. Summative	0 %	5 %	53 %	35 %	6 %

Table 5: Distribution of responses to statements on beliefs relative to:

Category 5: Interpersonal dimension of the evaluation

	AC	A	D	DC	NC
1. The hardest working students deserve the highest grades.	16 %	36 %	39 %	4 %	5 %
2. Poor results lead to de-motivation.	9 %	61 %	23 %	1 %	5 %
3. A grade should not be increased to encourage the student to work harder.	15 %	55 %	21 %	3 %	6 %
4. In grading work, we are influenced by the identity of the respondent.	4 %	40 %	35 %	9 %	12 %
5. Teaching concepts influence the evaluation.	26 %	57 %	8 %	1 %	7 %

Table 6: Distribution of the responses to the statements of beliefs relative to:

Category 6: Feedback and grading

	AC	A	D	DC	NC
Feedback					
1. Professors should provide written comments on students' work.	33 %	57 %	4 %	1 %	5 %
2. The majority of students read the comments written by their professors.	25 %	60 %	6 %	1 %	9 %
Grading					
3. The class average is a reflection of the quality of teaching.	1 %	17 %	62 %	14 %	6 %
4. It is necessary to avoid evaluations that are subjective.	18 %	44 %	25 %	4 %	8 %
5. Professors sometimes assign passing grades that are not deserved.	4 %	28 %	23 %	4 %	41 %
6. Grades should follow the normal curve.	2 %	38 %	39 %	12 %	10 %
7. Formative evaluations should not be taken into account on the report card.	16 %	35 %	32 %	7 %	10 %
8. Grading hinders teaching.	2 %	9 %	57 %	24 %	8 %
9. A grade is a student's salary.	9 %	46 %	26 %	9 %	10 %

Chapter 2 From teaching to learning: the impact on evaluations

General presentation

Important changes are taking place and impacting the pedagogical foundations of education and particularly the evaluation of learning.

“The concept of learning that has generated various reforms in Québec points to a paradigm rupture” (Tardif, 1998) a transition from a teaching paradigm to a learning paradigm. What does this mean? It does not mean that teaching now becomes a secondary function and that the focus is now exclusively on learning. Rather, it is a different way of viewing the relationship between learning, teaching and evaluation. These three components are no longer seen as independent entities; they are now seen in dynamic interrelationships within the educational framework of activities implemented by the teacher.”¹

“We see a major change in perspective in current teaching literature relative to the evaluation of learning. We echo this new perspective in the following pages, especially as concerns the authentic evaluation and competency assessment.”

The following authors emphasize a number of important changes linked to the new paradigm.

Robert Howe affirms:

“The evaluation per se, is a topic seen more and more frequently in writings on education. We question evaluation practices used in our classrooms and see an opportunity to evaluate the various aspects of our school system. For many of us, this type of thinking arouses some concern: We know that change is in the air and that this change is impossible to circumvent. We suspect it involves the way in which we evaluate learning. We also know that we will be personally challenged sooner or later, because our beliefs are at the core of the issue. Many fear these changes, others await them eagerly. This difference in attitude relative to current trends in evaluation is a natural occurrence in major transitional states. We are living a great change of paradigm in evaluation and change brings a certain amount of confusion in its wake, as it always does.”²

Marie-Françoise Legendre adds:

“Evaluations bring out many fears: fear of not being objective, of losing control, of lowering the standards. No one remains untouched! For some, evaluation fulfills the promise of attaining learning objectives and provides a solid foundation for determining student success or failure, using pre-established criteria. For others, it is a support function that assists learning to ensure educational success for the greatest number of students. Some want to avoid the danger of lowering performance levels. Others find it necessary to reconsider the role of evaluations in the global context of learning activities and instruction based on competency development. [...]”

The transition from programs based on objectives to programs centered on competency development points to a paradigm shift that has serious repercussions on the way we view evaluations, their role in learning, the culture in which they originate and new requirements relative to accountability and methods used. We will initially specify what this “paradigm shift” is, and its implications on the evaluation of learning. We will then tackle the central question of

¹ Translated from Marie-Françoise Legendre, “Favoriser l'émergence de changements en matière d'évaluation des apprentissages”, *Vie pédagogique*, n° 120, September-October 2001, p. 15-19.

² Translated from Robert Howe, “Un nouveau paradigme en évaluation des apprentissages”, *Pédagogie collégiale*, vol. 6, n° 3, March 1993.

evaluation in a competency-based program. Lastly, we will see that the function of evaluation must fall under a shared accountability that grants the central role to professional judgment but also makes room for other involved participants.”³

In referring to our neighbours to the south, Jacques Laliberté stated in 1995:

“In the United States, inherent limitations in the widespread use of standardized tests led specialists and educators to seek other ways of evaluating student learning. Other factors include the ever-increasing influence of cognitivist and constructivist theories of learning and the influence resulting from a competency-based education or, on a larger scale, outcome-based education. All the above have profoundly affected the concept and implementation of the evaluation of learning for our American neighbours.”⁴

At the end of her research for Performa, Cécile D’Amour (1996) concludes:

“The new perspective is so different from the one which currently prevails that it is referred to as a new paradigm, a new frame of reference i.e., a set of concepts, hypotheses, principles and behaviours adopted by a community of researchers and intervenors that use them as general guidelines for research and activity in the field.

At a time when many colleges are questioning the evaluation of learning, this new paradigm can undoubtedly help move things along. It can be a frame of reference for teachers who wish to reflect on their evaluation practices and their underlying beliefs and values. It can be a promising path for teachers who seek to get out of “the rut of managing grades” and who want to make evaluations an educational activity. It can also be a source of inspiration for new learning evaluation methods currently being implemented in colleges, to ensure they do not become mere administrative tools but rather ways to improve the quality of teaching and learning.”⁵

To fully grasp the nature of these changes, this chapter documents the transition from a teaching paradigm to a learning paradigm as well as the characteristics of an evaluation of learning based on the new paradigm.

³ Translated from Marie-France Legendre, “Favoriser l’émergence de changements en matière d’évaluation des apprentissages”, *Vie pédagogique*, no 120, 2001.

⁴ Translated from Jacques Laliberté, “D’autres façons de concevoir et de faire l’évaluation des apprentissages”, *Pédagogie collégiale*, March 1995.

⁵ Translated from Cécile D’Amour et Groupe de travail à Performa, “Une évaluation des apprentissages marquée par le nouveau paradigme”, *L’évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie : Les questions préalables, première édition, [s. l.], April 1996, p. 15-18.

Chapter synopsis:

Activity 2:

Characteristics of the evaluation of learning based on the new paradigm

Learning tools:

- | | |
|--------------------|--|
| Learning tool 2.A: | From a teaching paradigm to a learning paradigm |
| Learning tool 2.B: | Summary of the characteristics of the two paradigms |
| Learning tool 2.C: | Statements to be discussed |
| Learning tool 2.D: | Summary of the characteristics of learning evaluations based on the new paradigm |

Documents:

- | | |
|---------------|--|
| Document 2.A: | A new paradigm in the evaluation of learning |
| Document 2.B: | “Supporting the emergence of change in the evaluation of learning” |
| Document 2.C: | “Bringing changes to the evaluation of learning” |

Complementary document:

Complementary document 2: “Alternate ways of designing and evaluating learning”

Activity 2

Characteristics of the evaluation of learning based on the new paradigm

Heading	Characteristics of the evaluation of learning based on the new paradigm
Objectives	To identify the characteristics of the teaching paradigm and the learning paradigm. To recognize the characteristics of a learning evaluation based on the new paradigm. To evaluate the impact on evaluation practices.
Description	This activity describes the paradigm shift and its implication in the evaluation of learning. The task involves examining the new perspective, identifying its underlying dimensions and factors of change, reading its literature and identifying the characteristics of an evaluation of learning based on its perspective. The new perspective has a major impact on the way we conceive and implement learning evaluations. It also represents an opportunity to measure its influence on evaluation practices.
Unfolding	A. Individuals review: <ul style="list-style-type: none">— the first two pages of learning tool 2.A: “From a teaching paradigm to a learning paradigm”;— the summary tables of learning tool 2.B. B. Group discussions to validate the understanding of participants, using learning tool 2.C. C. Beginning with a summary of characteristics of the learning evaluation, based on the new paradigm: <ul style="list-style-type: none">— to validate comprehension, compare characteristics using learning tool 2.D: “Summary of the characteristics of the evaluation of learning based on the new paradigm”;— to identify what is new and what is similar to current practices. D. Evaluate the impact on personal evaluation practices (reference document: Document 2.C). E. Perform a final assessment so individuals can draw a portrait of their own evaluation practices, taking into account the new perspective based on the paradigm shift.

Moderator's role	To create a climate favourable to peer interaction. To present frequent summaries so participants can validate their understanding.
Participants' role	To perform required reading. To openly express personal concepts and perceptions. To interact with other participants. To do a personal assessment.
Pedagogical material	<ul style="list-style-type: none"> — Learning tool 2.A: From a teaching paradigm to a learning paradigm — Learning tool 2.B: Summary of the characteristics of the two paradigms — Learning tool 2.C: Statements to be discussed — Learning tool 2.D: Summary of the characteristics of the evaluation of learning based on the new paradigm
Support documentation	<p>As an extension to the activity, reading the following will clarify the changes relative to the new paradigm. A description can be found in the previous pages.</p> <ul style="list-style-type: none"> — Document 2.A: A new paradigm in the evaluation of learning — Document 2.B: Supporting the emergence of change in the evaluation of learning — Document 2.C: Bringing changes to the evaluation of learning
Complementary document	Complementary document 2: “Alternate ways of designing and evaluating learning”
Approximate duration	This activity can be divided into two parts: Part A and B, approximately 2 hours. Part C, D and E, approximately 3 hours.
Comments	The discussions will be more beneficial if participants are asked to read the material beforehand.

Learning tool 2.A

From a teaching paradigm to a learning paradigm

From a teaching paradigm to a ...	Learning paradigm
<p>In a teaching paradigm, learning is subordinate to teaching. In other words, students learn because they are taught and it is primarily the quality of the instruction they receive which determines the quality of their learning. From this point of view, the emphasis is on the teaching process more than on the learning process, and on the products or observable demonstrations of learning more than on the thought process or the reasoning process that underscore them. This concept, inherited from learning behaviorists and mastery learning in particular, places the emphasis on the “<i>a priori</i>” determination of objectives that correspond to the totality of skills—be they attitudes, aptitudes or knowledge—that we plan on teaching students and on the development of evaluation processes to determine with precision if the subject taught was actually learned.</p> <p>In short, we tend to establish a direct correspondence between what is evaluated and what is learned, between what is learned and what is taught. Teaching, learning and evaluation then correspond clearly to three distinct times within a linear sequence, and the student is unable to learn unless he has been taught and evaluations focus only on what was learned and consequently, taught!</p>	<p>In a learning paradigm, teaching does not determine learning. Its function is primarily to guide and support it. Therefore, it is not because someone teaches that the student learns since learning takes place independent of specific instruction. We can teach very well and still not achieve the desired learning objectives (Saint-Onge, 1992a). It is therefore impossible to establish a direct correspondence between what is taught and what is learned, since learning does not begin and end with teaching. It is equally impossible to evaluate with exact precision what has been learned as the student often calls upon knowledge other than what has been specifically taught (Legendre, 1998).</p> <p>In short, it is not because teaching takes place that students learn, but rather because learning is a complex process that is cognitive, social and emotional by nature, requiring specific teaching practices adapted to the nature of the processes mobilized. Such a paradigm regards evaluation as an integral part of the learning process.</p>

This is the perspective from which programs based on objectives are created, characterized by the establishment of numerous fragmented objectives corresponding to the knowledge and skills that must be taught and learned then evaluated. One of the negative side effects of these programs is that they anchor learning and teaching to the evaluation: we tend to teach what is easy to evaluate, and students tend to be motivated to learn relative to what will be evaluated! The result is evaluations that are undoubtedly appropriate for linear and fragmented learning, but that prove inadequate when it comes to evaluating global learning occurring through the progressive reorganization of prior knowledge – as is the case with competencies – rather than by the simple accumulation of knowledge.

Its primary function is not to sanction success or failure, but to support student learning and guide or reorient teachers in their pedagogical interventions. It presupposes a differentiated instruction, i.e. the ability to implement varied teaching and learning methods that take into account student diversity and allow them to travel on different paths towards academic success (CSE, 1993). This is the perspective of a competency-based program.

This program stresses the importance of not approaching the knowledge to be acquired in a compartmentalized and decontextualized way, but through interaction and in relation to contexts that validate its use (Legendre, 2000). It also calls upon the professionalism of the teacher who must select teaching strategies that are adapted to the targeted learning but also to the students and the specific context. Teaching, learning and evaluation are not considered sequential, like distinct moments in a process, but rather as dynamic interactions within the process. There is no need therefore to plan for evaluations that are separate from learning situations. Evaluations become an integral part of a teaching process that includes methods of regulation or self-regulation of learning and teaching activities.

Translated from Marie-Françoise Legendre, “Favoriser l’émergence de changements en matière d’évaluation des apprentissages”, *Vie pédagogique*, n° 120, September-October 2001, p. 15-19.

Learning tool 2.B

Summary tables

Table 1: Summary of characteristics of the teaching and learning paradigms⁶

Indicators	Learning paradigm	Teaching paradigm
Learning Concept	<ul style="list-style-type: none"> — Transformation of information and knowledge into viable and transferable knowledge — Integration of knowledge into cognitive diagrams — Creation of relationships 	<ul style="list-style-type: none"> — Memorization — Accumulation of knowledge — Interconnection of diverse knowledge
Classroom activities	<ul style="list-style-type: none"> — Begin with the student — Based on projects, research and problem situations — Interactive relationships 	<ul style="list-style-type: none"> — Begin with the teacher — High frequency of practical activities — Educational and vertical relationships
Evaluation methods	<ul style="list-style-type: none"> — Relative to competencies developed — Portfolios 	<ul style="list-style-type: none"> — Relative to knowledge — Tests requiring short answers
Proof of success	<ul style="list-style-type: none"> — Quality of understanding — Quality of competencies developed — Quality of knowledge constructed — Transferability of learning 	<ul style="list-style-type: none"> — Amount of information retained — Sometimes, the quantity of acquired knowledge
Teacher's Role	<ul style="list-style-type: none"> — Centered on providing support and the gradual removal of support — Sometimes a learner 	<ul style="list-style-type: none"> — An expert — A conveyer of information
Student's Role	<ul style="list-style-type: none"> — A builder — A collaborator — Sometimes an expert 	<ul style="list-style-type: none"> — A passive recipient — A learner who is in listening mode

⁶ Translated from Jacques Tardif, presentation to the ministère de l'Éducation du Québec, October 12, 1999.

The following table highlights differences between what the author calls “constructivism” (learning paradigm) and traditional trends (teaching paradigm) that are called “instructivism” because of the prevalence given to instruction (teaching) over learning.

Table 2: Principles of teaching/learning practices in constructivism and instructivism ⁷		
	Constructivism (learning paradigm) ⁸	Instructivism (teaching paradigm) ⁹
Individual dimension		
1. Student's role	Active builder of knowledge Collaborator, sometimes an expert	Person who listens Always a learner
2. Learning concept	Transformation of information into knowledge and meaning	Accumulation of information
3. Cognitive foundations	Interpretation based on prior knowledge and beliefs	Accumulation based on previously acquired information
4. Type of activities	Centered on the learner, vary according to learning styles Interactive relationship	Centered on the teacher Didactic relationship Same practical exercises for all learners
5. Type of environment	Supportive	Hierarchical
6. Type of curriculum	Rich in resources, centered on activities Provides access to information requested	Pre-established and fixed, provides only the resources required
7. Proof of success	Quality of understanding and construction of knowledge	Quantity of memorized information
8. Flow of activities	Self-directed	Linear and directed by the teacher
9. Evaluation	Relative to developed competencies, portfolios	Relative to information Tests with short questions Standardized tests
Social dimensions		

⁷ Translated from La transition des instructivismes aux constructivismes par les technologies de la communication au service de l'enseignement/apprentissage à distance, Télé-université, 2002. [<http://www.refad.ca/constructivisme.html>].

⁸ Author's addition to the heading.

⁹ *Id.*

1. Concept of knowledge	A dynamic process that evolves over time and within a given culture	A static truth that can be acquired once and for all, independently of the learner
2. Teacher's role	Collaborator, facilitator, sometimes a learner	Expert, transmitter of knowledge
3. Teaching focus	Creating relationships Answers to complex questions	Memorization Focus on information
4. Principal actions	Centered on cooperative work Project development and problem solving	Individual readings and exercises
5. Social model	The community, sense of belonging People who act on their environment and are not only dependent on it Development of autonomy, metacognition and critical thinking	Classroom Learners as recipients of transmitted knowledge
6. The role of play	Play and experimentation as valid forms of learning	Play = waste of time Limited experimentation
Tools and technologies	Varied: computers, DVDs, technologies that impact the learner in his daily existence, books, magazines, periodicals, films, etc.	Paper, pencil, texts, some films, videos, etc.

In summary, this table shows that constructivists relate to a post-modern educational paradigm where the learner constructs his own interpretation of events and information. Knowledge is not set in stone. Authentic tasks and projects are considered stimulating. Constant collaboration is an integral part of educational practices.

Learning tool 2.C

Statements to be discussed

From a teaching paradigm to a learning paradigm

Statements to be discussed	My beliefs
Learning is subordinate to teaching. In other words, it is because we teach that the students learn and it is primarily the quality of the teaching that determines the quality of the learning.	Personal notes:
It is not possible to establish a correspondence between what is taught and what is learned.	Personal notes:
Students can only learn if they are subjected to some form of teaching and the evaluation must only deal with what has been learned.	Personal notes:
We tend to teach what is easy to evaluate and the students tend to be motivated to learn only what will be evaluated.	Personal notes:
The evaluation is an integral part of the learning process. Its principal function is not to sanction success or failure, but to support the student's learning process, to direct or reorient educational interventions.	Personal notes:
While support can be given to competency development, strictly speaking, we cannot teach a competency.	Personal notes:

Statements to be discussed	My beliefs
Formative evaluation involves a rigid control of the learning progress for each student relative to the imposed criteria for success.	Personal notes:
To evaluate, regardless of the method used, is to make a judgment and the fact of assigning a grade on the basis of a normative or criteria-based evaluation in no way eliminates the involvement of judgment.	Personal notes:
If the evaluation administered to a student consists of completing a single exercise sheet, the teacher will not have access to pertinent data on which to judge the level of competency development.	Personal notes:
The transition from an evaluation centered on validation and selection to an evaluation, whose essential function is to support learning and teaching, marks an important shift in the evaluation culture.	Personal notes:

Learning tool 2.D

Summary of characteristics of the evaluation of learning based on the new paradigm

The evaluation of learning at college is marked by the new paradigm; it is carried out in a professional manner and within a program perspective.

The evaluation of learning is characterized by ¹⁰ :	Which, on a methodological plane, signifies:
1. An evaluation adapted to a competency-based approach , resulting in complex, multidimensional, integrated and transferable learning.	An evaluation: <ul style="list-style-type: none">— that is global, multidimensional;— contextualized;— that provides students with real opportunities to demonstrate their competencies;— while ensuring standardization in passing requirements and evaluation criteria.
2. An evaluation that truly serves learning , an evaluation that is integrated into teaching and learning processes: that guides and helps students to assume responsibility for their learning and, finally provides a reliable validation of learning achieved.	An evaluation: <ul style="list-style-type: none">— that is dynamic rather than static;<ul style="list-style-type: none">○ with snapshots taken at specific times to create a picture of learning in motion;○ concerned with results but also with the process;— carried out within a didactic perspective and not one that is exclusively docimological;— used not only to establish reports or make assessments but also for diagnostic purposes;— that offers the possibility of various adjustments in the pursuit of learning;— that takes into account not only cognitive but also affective aspects;— that calls on a variety of evaluators (teacher responsible for guiding the learning, other teachers, students, evaluators from outside the educational environment);— that withholds making a final judgment on the learning achieved until the end of the complete learning period
3. An evaluation that is criteria based , that judges the achievement of learning objectives rather than seeking to classify students in relation to each other (normative evaluation).	An evaluation: <ul style="list-style-type: none">— concerned with validity rather than discrimination;— that makes use of qualitative approaches using descriptive methods.

¹⁰ Translated from Cécile D'Amour and Groupe de travail at Performa, *L'évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie : Les questions préalables, première édition, [s. l.], April 1996, p. 15-18.

4. A forward-thinking methodology , re-establishing the role of professional judgment and recognizing student accountability, a thorough and adapted methodology.	<ul style="list-style-type: none"> — that is adapted: — to the first three characteristics; — to the function of a given evaluation: support for the learning process or certification of learning achieved; — thorough, which means: <ul style="list-style-type: none"> — it allows judgment to play its role; — its methods and learning tools (scales, calculations, etc.) are properly employed, in accordance with their conditions of use.
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This second part completes the table of characteristics and stresses the value of professional judgment¹¹.

A culture of shared responsibility (Legendre, 2001, p. 18 et 19)	<p>From the perspective of evaluations integrated into the learning process we should accentuate the support provided by various learning functions. This would lead to a clear definition of the roles of intervenors in student education, beginning with the student himself. Moreover, we should not underestimate the importance of support given by the institution in stimulating dialogue within the program team.</p> <p>Thus the role assigned to <i>professional judgment</i>, far from isolating the teacher in his decisions, is closely linked to <i>individual and collective methods</i> and is included in the culture of shared responsibility. In other words, to provide means that ensure the highest educational success for the greatest number of students is not the sole responsibility of the teacher, but that of the organization as a whole.</p>
The preponderance of professional judgment	<p>An evaluation, regardless of the format used, automatically implies a judgment and assigning a grade on the basis of a normative or criteria-based evaluation in no way eliminates the need for a judgment.</p> <p>The role of professional judgment does not introduce an arbitrary element into an apparently neutral evaluation process. It simply recognizes the role of judgment in any professional activity, whatever it may be. The mark of professionals is the <i>capacity to make a judgment</i> in their field of expertise. It therefore seems necessary to bring a certain clarification to the concept of <i>professional judgment</i>.</p>

¹¹ Translated from Marie-France Legendre, “Favoriser l’émergence de changements en matière d’évaluation des apprentissages”, *Vie pédagogique*, n° 120, 2001, p. 18 and 19.

The characteristics of professional judgment¹²

A professional judgment is a judgment that is autonomous and based on responsibility.	<p>All professionals are constantly faced with situations that they must evaluate in order to make decisions, direct their interventions and revise them as need be. A professional is not content to merely do what is asked of him. He has the necessary <i>autonomy</i> to determine what seems appropriate, based on the data available to him and his personal knowledge and experience. Professionals are able to assume <i>responsibility</i> for their decisions and choices since the latter are supported by recognized expertise.</p> <p>A person is regarded as a professional when they possess knowledge and experience that allows them to evaluate in a suitable way the various situations they experience in their practice. He should be able to make sound decisions and to assume responsibility for them; to succeed in his actions and make any adjustments along the way, taking new data into account. Autonomy and responsibility do not mean that the professional acts alone. This is not the case. In fact, a mark of professional autonomy and responsibility is to seek advice from a more experienced colleague or to find the expertise which supplements our own, when dealing with a situation that taxes the limits of our competency. In this respect, the teaching profession is no different from any other. Teachers are not simple doers. In the context of their daily practice, they never stop evaluating situations in relation to clues they find significant, they continue to make choices and decisions (Perrenoud, 1996). To upgrade the teacher's professional judgment does not mean introducing something new into teaching practices but rather recognizing that this judgment exists and assigning its rightful role in an evaluation that is an integral part of daily practice. It means accepting to maintain evaluation as an integral part of a teacher's field of activity.</p>
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¹² Translated from Marie-Françoise Legendre, "Favoriser l'émergence de changements en matière d'évaluation des apprentissages", *Vie pédagogique*, n° 120, September-October 2001, p. 15-19.

<p>A professional judgment is made with the help of tools.</p>	<p>Teachers have various tools (didactic tools, evaluation and self-evaluation instruments, etc.) that can be used within their professional activities. They must sometimes adapt the tool to the particular situation at hand. When they evaluate a situation, make a decision and accomplish an action, all professionals have a wealth of resources available that they can use, when it is relevant, useful or necessary to do so.</p> <p>However, competency does not rely on the tools we have at our disposal, but rather on our ability to use them. A tool is not good or bad in itself, but in relation to its relevancy to a context or established goal. With regard to the evaluation of learning, specific tools can be suitable for making a clear diagnosis on certain components of the competency, yet prove completely inadequate when it comes to evaluating a competency in its totality. Accordingly, existing evaluation methods are not put aside but must support professional judgment. This makes it possible to delimit their use and, if necessary, to design other tools that are better adapted to the new requirements identified in the follow-up and assessment of competencies.</p>
<p>A professional judgment is based on a competency to observe while the situation unfolds.</p>	<p>To observe does not mean to collect information passively, it means to record observations, actively organize and interpret them based on a frame of reference. To assess the development of competencies on the basis of observation, two conditions are necessary: access to pertinent data and the ability to give that data meaning. To access pertinent data, it is important to call on a sufficient number of diversified learning situations so the students may apply their competencies and pursue their development. To interpret data requires a sufficiently precise representation of the competency whose development is being supported.</p> <p>Every task has limitations relative to the data it can provide and every task does not necessarily allow us to evaluate a competency. Therefore, a variety of tasks relative to what we want to observe is needed so that we may avoid making a global judgment based on limited data.</p> <p>It is also necessary to avoid establishing a term-to-term correspondence between the task and the object of evaluation. One task can call several competencies into play, and the same competency can be required in several distinct tasks. Admittedly, when the teacher gives the students relatively complex tasks that require more than one competency, it is not possible to observe everything at the same time. Observation is selective by definition and it is completely valid to favour specific data based on the goals or the information sought. But we must not fail to recognize competencies other than the ones targeted by the observation when they appear. <i>“What counts in observation, specifies Perrenoud, is more the theoretical framework that guides and governs the interpretation of what is being observed than the instrumentation used.”</i></p> <p>In this respect, the teacher's observations are closely linked to the underlying</p>

	<p>frame of reference, both in the selection of pertinent data and their interpretation, i.e. to interconnect them to determine the meaning. The competency that will be observed presupposes not only the ability to design learning situations likely to provide interesting material for what we wish to observe, but also the ability to interpret the data collected based on our experience and knowledge. An adequate representation of competencies to be developed and learning situations likely to support their development proves to be essential.</p>
Professional judgment is an evolutionary judgment.	<p>Professional judgment is <i>an evolutionary judgment as it relies</i> on a portrait taken at a specific time in the process, a portrait that can be modified through the addition of new information. On the one hand, the competency is evolving, as is its evaluation since it relies on information observed at a specific moment and within a specific context and situation. On the other hand, observations by the teacher are incomplete and can be enriched by the contribution of new data. Indeed, according to the learning situations proposed to students and the disciplinary contexts in which they take place, teachers do not necessarily have access to the same data. It is thus important, particularly with regard to transversal competencies, to share observations that come from varied sources.</p> <p>It is indeed through their actualization in varied disciplinary contexts that teachers will be able to make an assessment of the student's transversal competencies. The teacher's judgment can thus be enriched by observations made by other participants, such as other teachers or intervenors and even the students themselves. Professional judgment rests on the close cooperation of the various intervenors. New data can cause the teacher to modify or revise a portion of the judgment. It can also bring about an evolution in the frame of reference that supports the observations.</p>
The professional judgment must be an ethical judgment in conformity with a set of values.	<p>Teachers must not be prejudiced in their judgement of students. Their interventions are intended to support learning and development and must be founded on a "concept of educability", i.e. confidence in the potential of the child (Meirieu, 1991). As an educator, every teacher is endowed with a certain "power" and has an influence over his students. He must use this power and influence in an ethical manner; he must be particularly sensitive to the impact his evaluations have on the development of the student's academic, personal and social identity. Experience acquired in educational environments often carries lasting influences on student self-image both as a learner and as a human being. It can have a determining impact on the student's future social and professional integration. With respect to ethics, the teacher must acknowledge the limitations of his professional judgment, the need for a solid foundation and the possibility that his judgment may be called into question.</p>

Conclusion

From the perspective of competency-based development, an evaluation should not be considered a separate entity from the learning process, whose sole function is to make a judgment on the learning achieved. Any situation can be viewed from the dual perspective of the learning it hopes to achieve and the observations it elicits in support of the evaluation. It is not necessary therefore to design evaluations that are distinct from learning situations.

In a program that places specific teacher interventions in the broader context of their contribution to general training, teachers are collectively rather than individually responsible for providing support to learning. The same applies to the evaluation that is part of the culture of shared responsibility. Lastly, in this context of collective responsibility, it is important to clearly recognize the roles and responsibilities of each individual and to examine them in light of their complementarity. It is from this perspective that professional judgment takes its true meaning and acknowledges the teacher's expertise.

The transition from an evaluation centered on approval and selection to an evaluation whose essential function is to support learning and teaching, marks an important change in our evaluation culture. It goes without saying that cultural changes do not occur overnight. We must take the time and apply the means necessary to evolve, to gradually modify current practices and adapt them to new requirements and constraints. We must also have a clear vision of the direction in which we are headed. Cultural changes do not mean that we must put aside all current practices and sweep them away. It is rather a realignment to better identify the role and limitations of current evaluation practices and to conceive of new practices that supplement, enrich and bring new meaning in a renewed context.

Document 2.A

A new paradigm in the evaluation of learning¹³

The evaluation of learning is not considered foreign to the pedagogical process. It is an integral part of teaching and learning; it facilitates the decision-making process as regards the behaviour of the professor and the process undertaken by the student.

The concept of evaluations is more and more evident in writings on education. We are questioning evaluation practices used in our classrooms and we see an opportunity to evaluate the various aspects of our school system. For many of us, this type of thinking causes some concern: we know that change is in the air and that this change is inevitable. We suspect that it involves the way in which we evaluate learning. We also know that we will be personally challenged, sooner or later, because it is at the very core of our beliefs. Many fear these changes, others await them eagerly. This difference in attitudes relative to current trends in evaluation occurs naturally in all major transitional states. We are living a great change in paradigm as regards evaluation and change brings, as it always does, a certain amount of confusion. [...]

The consequences

This new way of viewing evaluations forces us to re-examine the concept we have of the teacher-student relationship; it also causes us to question, among other things, the interpretation of grades that the professor assigns to his students as well as the impact of evaluations on teaching and learning.

The interpretation of grades

In an excellent study on grading practices, Suzan Brookhart explains that a grade assigned by a teacher will be analyzed on one hand, and used on the other. Therefore, because many professors worry about the use that will be made of the grade (failure of a student who was showing promise, abandonment of a training profile, difficulty in finding employment or gaining entrance to university), many teachers will add circumstantial variables to indicate the student has potential, has put forth valid efforts or shows promise. These variables (effort, participation, etc.) directly raise the grade that would be lower if based solely on acquired competencies.

This gives rise to a new problem. If we worry about the social impact of the evaluation to the point where we introduce diverse variables for the final grading, we reach a point where we are unable to interpret the grade assigned. According to Brookhart, several teachers are ambivalent when they think about the interpretability of the grade, on the one hand, and the social use of the grade on the other. According to her, several authors stress that this phenomenon calls into question the validity of evaluations and maintain that the interpretation of grades and the social impact of their use must be included in the criteria being analyzed with regard to the validity of an evaluation.

In the United States, professors are increasingly conscious of their social responsibility in this respect. Many are the target of lawsuits resulting from unjustified failures and successes among students.

¹³ Translated from Robert Howe and Louise Ménard, “Conseillers pédagogiques Collège Montmorency”, *Pédagogie collégiale*, March 1993, vol. 6 n° 3.

In this excerpt, references listed in the article were removed to avoid confusion with notes found at the bottom of the document page.

Teaching and learning

The choice of evaluation strategy, tools and practices impacts both students and professors, particularly in their selection of content and pedagogical approach. What is not evaluated tends to disappear from the *curriculum*. If this assertion is true, we can then say that exams and strategies used to evaluate have a determining influence on teaching and learning. According to Gong, evaluation has such a leverage effect that simply changing evaluation practices can modify teaching practices.

Guy Romano did some research on student study practices at college level. He notes that students develop study strategies that are more or less complex and have more or less depth depending on the exams they will have to pass. The choice of evaluation practice by the teacher (instrumentation, frequency, rating, feedback, strategies, and taxonomy levels) will therefore be the deciding factor, at least to some degree, for the study methods used by the students.

Lundeberg makes the same observations. If the student believes that the professor will evaluate his learning through the use of objective questions and that these questions usually measure memorized knowledge, he will tend to study superficially. Similarly, if students believe that the professor will use open questions and that these questions usually measure understanding or application skills, their study will be more in-depth and analytical.

Beginning with the first evaluation, students quickly pick up on what the professor considers important in the subject matter and tend to study relative to this perception. They tend to adjust their study strategies relative to their professor's evaluation strategy and this causal connection is so strong, according to Crooks that the best way of modifying student learning behaviour is to modify evaluation practices. Professors understand this and many try to influence the choice of study method by implementing specific evaluation strategies. In recent research, Green shows that some professors believe that "development questions" in exams are likely to discourage study when used to measure higher cognitive skills, because they call upon reflective and analytical capacities. According to these professors, students tend to trust their ability to improvise, to a certain extent. Based on this, teachers tend to use only objective exams that measure basic knowledge. On the other hand, some teachers believe that students study more when questions requiring development are used and that these questions lend themselves better to the measurement of higher cognitive skills. In spite of the apparent inconsistencies, these observations clearly show that professors want to adopt evaluation practices relative to the influence they want to have on study habits.

Conclusion

Although Ralph Tyler identified economic, social and political constraints needed "to shake off" the old paradigm, we recognize that research in humanities and evolution in the sciences of education and cognitive psychology help our understanding and the new paradigm to move forward. But the transition from the old to the new can be confusing. Indeed, in educational matters, we are not always able to accurately distinguish evaluation concepts by linking them to one paradigm or another. And, to complicate matters, many are not even aware that there is a paradigm – old or new – at the centre of the debate.

In any event, the old paradigm that dominated for the past forty years has given education an air of scientific precision while encouraging tradition of scientific thoroughness, both in research and in psychometrics. But we are experiencing a definite paradigm shift in evaluation that is leading us to see evaluations as an integral part of education and a powerful tool for improving learning.

Document 2.B

“Supporting the emergence of change in the evaluation of learning”

Introduction

The many debates in the media on the evaluation of learning, held within the context of educational reform and the development of a new educational program in Québec schools, are very revealing. For one thing, the topic of evaluation brings out many fears: loss of objectivity, loss of control and lowering of *standards*. No one remains untouched! For some, it promises the achievement of learning objectives and provides an objective basis on which to determine student success or failure, as per pre-established criteria. For others, it should be a support to learning and assist in the academic success of the greatest number possible. Some fear that a change of perspective in evaluation will lead to a lower level of performance. Others consider it necessary to reconsider the role of evaluations in the global context of learning and teaching activities centered on competency development. To evaluate is to assess without knowing the impact of our evaluation; and to be evaluated is to be judged and, possibly, significantly impacted by the judgment (Lemay, 2000). It is thus not surprising that the question of the evaluation of learning is considered one of the major issues in the current educational reform.

The transition from programs based on objectives to programs centered on competency development points to a paradigm shift that has serious repercussions on the way we think of evaluations, their role in learning, the culture in which they originate and new requirements relative to accountability and methods. We will initially examine exactly what this “change in paradigm” is and its implications on the evaluation of learning. We will then tackle the central question of evaluation integrated in the learning process within a competency-based program. Lastly, we will see that this function of the evaluation must fall under a shared responsibility that grants a central role to professional judgment and makes room for other participants.

1. Change in paradigm

The concept of learning which supports the new educational program in Québec schools points to a “paradigm rupture” (Tardif, 1998) or, in other words, a break from a teaching paradigm to a learning paradigm. But what exactly does this mean? It certainly does not mean that teaching is considered a secondary function and that the focus is now exclusively on learning. It is rather a question of rethinking the relationship between learning, teaching and evaluation by seeing them not as independent entities, but rather in their dynamic interrelationship within an educational process. To better understand the nature of this change and its impact on the design of evaluations; let us briefly see what characterizes these individual paradigms.

From a teaching paradigm...

In a **teaching paradigm**, learning is subordinate to teaching. In other words, students learn because they are taught; and it is primarily the quality of the instruction they receive that determines the quality of their learning. From this point of view, the emphasis is on the teaching process more than on the learning process, and on the products or observable demonstrations of learning more than on the concept or reasoning process that underscores them. This approach, inherited from learning behaviorists and mastery learning in particular, places the emphasis on the *a priori* determination of objectives that correspond to the totality of skills — be it attitudes, aptitudes or knowledge — that we will teach and on the development of evaluation processes to determine with precision if the subject matter taught was actually learned.

In short, we tend to establish a direct correspondence between what is evaluated and what is learned, between what is learned and what is taught. Teaching, learning and evaluation then correspond clearly to three distinct moments within a linear sequence, with the student unable to learn unless he is subjected to instruction; the evaluation is focused exclusively on what was learned and, consequently, taught! From this perspective programs based on objectives are created and defined by numerous goals corresponding to the knowledge and skills that must be taught, learned, and then evaluated. One of the side effects of these programs is that they anchor learning and teaching to the evaluation: we tend to teach what is easy to evaluate, and students tend to be motivated to learn in relation to what will be evaluated! The result is evaluations that are undoubtedly appropriate for linear and fragmented learning, but which prove inadequate when it comes to evaluating global learning occurring through the progressive reorganization of prior knowledge, as is the case with competencies, rather than by the simple accumulation of knowledge.

...to a learning paradigm

In a learning paradigm, teaching does not determine learning. Its function is primarily to guide and support it. Therefore, it is not because someone teaches that the student learns, since learning happens independently of specific instruction, and we can teach very well and still not achieve the desired learning objectives (Saint-Onge, 1992a). It is not possible to establish a direct correspondence between what is taught and what is learned, since learning does not begin and end with teaching. It is equally impossible to evaluate with exact precision what has been learned, as the student often calls upon knowledge other than what has been specifically taught (Legendre, 1998).

In short, it is not because teaching takes place that students learn but rather because learning is a complex process that is cognitive, social and affective by nature, that requires specific teaching practices and that is adapted to the nature of the process used. Such a paradigm regards evaluation as an integral part of the learning process. Here, its primary function is not to sanction success or failure, but to support the student's learning process and guide or reorient the teacher's pedagogical interventions. It implies a differentiated instruction, i.e. the ability to apply varied teaching and learning methods that take into account student diversity and allow different students to take different routes towards academic success (CSE, 1993). This is the perspective of a competency-based program. This program stresses the importance of not approaching 'knowledge to be acquired' in a compartmentalized and decontextualized way, but through interactions and in contexts that validate its use (Legendre, 2000). The program also calls upon the teacher's professionalism in selecting teaching strategies that are not only adapted to the desired learning but also to the students and the specific context. Teaching, learning and evaluation are not considered sequential, like specific moments in a teaching process but rather as dynamic interactions within the process. There is no need therefore to plan for evaluations that are separate from learning situations. Evaluations become an integral part of a teaching process that includes methods of regulation or self-regulation of learning and teaching activities.

2. Evaluation integrated into learning

The ever-increasing distance between learning and evaluation is linked to the decontextualization of knowledge, disciplinary compartmentalization, the division of knowledge and the atomization of competencies. The growing gap is the result of the belief that knowledge and skills can be taught in small relatively stable units that are separate from each other and, once acquired, will combine and subsequently transfer from one context to another (for example: learning a grammatical rule, a list of vocabulary words, a definition, a mathematical algorithm, etc.) The learning situation consists of memorized knowledge and the use of previously taught skills, while the evaluation takes the form of a "test" relating to a specific subject, at a specific time and in a specific context, that is often artificial and restrictive (Tardif, 1998). In a competency-based approach, we cannot separate the acquisition of knowledge from the context in which it acquires its meaning. Consequently, the distinction between learning situations and evaluations seems of little importance. Every situation becomes an opportunity

for learning and evaluation insofar as it offers students the opportunity for metacognition, and an evaluation of the steps they have taken so far. It provides the teacher with observable data to track the development of competencies. One of the principal challenges of the new educational program in Québec schools is the emergence of new evaluation practices compatible with targeted goals, i.e. adapted to the process of developing competencies and to student diversity. It is within this context that **evaluation integrated into learning** takes its meaning, i.e. evaluations whose main role is to manage the learning process.

The regulation of learning and teaching activities

Let us say straightaway that with regard to the development of competencies, we cannot, properly speaking, teach a competency. A competency is not knowledge or skills that can be taught, learned, practiced, and then evaluated. For example, the competency to “write” is knowledge to act that mobilizes a diversity of external and internal resources and this competency is developed over the years. It calls upon knowledge and various strategies that the student will gradually have to adopt, but it cannot be reduced to procedural know-how that is applied in a certain order to a series of predetermined stages. There are various ways of completing a writing task depending on the goals, the nature of the activity, its context, the internal and external resources available to the student, etc. To approach learning from the perspective of competency development is to put in place learning situations that are favourable to this development, whether completing a task, solving a problem or carrying out a project.

From this point of view, a pedagogical structure includes the planning of learning activities based on clearly defined teaching goals, their adjustment along the way, and finally a review of the activities to facilitate learning. Since it is never possible to plan or anticipate all eventualities, teachers must adapt their own interventions to the effects observed. Similarly, they must provide timely feedback to the students on their process, which is also unpredictable. Teachers need to collect observations on the difficulties students have encountered and on the learning they have achieved so they can direct or reorient their teaching practices. Similarly, teachers need clues to evaluate the impact of their own interventions if they are to support students in their learning process. These aspects can relate to both the teacher’s pedagogical process and the student’s learning process. The on-going adjustments can relate to a specific aspect of the process or to more general aspects. We can thus establish a distinction between *micro-regulations*, which are short-term and integrated into the daily work of teachers, and *macro-regulations*, which are more systematic and call for a reflection by the teachers on their practice so they may re-direct their future interventions. They can occasionally resort to instrumentation but regulations are generally based on interaction that takes place during an activity. They also target the gradual involvement of students in the management or regulation of their own learning process.

The concept of regulation is linked to the well-known *formative evaluation* whose principal function is to ensure the progress of learning through a process of continuous regulation and that allows for adjustments or improvements along the way. In this respect, Perrenoud (1999) specifies: “*any evaluation that helps the student learn and develop is formative, in other words, it regulates the learning and development of an educational project*” (p. 120). Scallon (1999) formulates a similar notion when he discusses the formative evaluation in the context of situational pedagogy centered on the development of competencies and the achievement of trans-disciplinary objectives. Here, the emphasis is placed on the regulating role brought about by discussions between students and teachers and on the importance of involving student metacognitive capacity.

However, the concept of *formative evaluation* initially originated within the behaviorist approach to teaching and mastery learning, where the methods of regulation considered are corrective in nature and solely the responsibility of the teacher. The formative evaluation then exerts a stringent control over student progress relative to predetermined criteria that qualify success. It often takes the form of a criteria-based test, given after the learning period and followed by remedial teaching. In current practices, the formative evaluation has gradually lost its significance and initial purpose and become

synonymous with continuous micro-summative evaluations. The competency-based approach invites the academic environment to reconsider the formative evaluation within the broader framework of regulation and self-regulation processes occurring along the way, i.e., while the learning and teaching activities are unfolding, and subsequent to the activity, to better direct future teacher interventions. In this respect, the formative evaluation is only one form of regulation among others. The teacher's observations, student feedback, student interaction as well as co-evaluation and self-evaluation processes generally play an important role. In addition, the gradual assumption of responsibility by the student for regulating his activities not only supports learning, but, more importantly, represents a true learning objective since it involves developing students' metacognitive capacity by allowing them to self-regulate their own learning processes (Scallan, 1999).

The assessment of acquired learning

From the perspective of evaluation integrated into learning, it is not necessary to dissociate *the assessment of learning* that takes place at the end of the cycle and evaluates the learning achieved, from the *regulation activities* that support learning, since they complement each other. To assess learning, it is necessary to follow its progression. In developing competencies, a continuous regulation of learning and teaching activities is vital and it is considered beneficial to evaluate them at various moments within the cycle. The role of end-of-cycle assessments is to update the parents on their child's progress, let the student know where he stands and provide information for teachers in the upcoming cycle.

Even though **the assessment of learning** is linked to the *summative evaluation*, it is nonetheless different in many ways. In current practice, the *summative evaluation* can be generally summarized as the sum of partial results, as formal evaluations or tests carried out periodically during the school year. The assessment in this case is more a *snapshot* of the situation using a variety of data collected during the learning activity and not through formal evaluations designed for this purpose. This data is not merely cumulative but also subject to interpretation. This assessment is a global and summary evaluation relating to one or more competencies and generally accompanied by more precise data on certain aspects of learning. The data points to student difficulties and also to student strengths, since it is important to focus on these to support the student in his learning. When a student experiences certain difficulties that require intervention, they must be clearly defined in order to identify the appropriate support. But it is also essential to underscore students' acquisition, the progress they have achieved and the interest they display or the particular aptitudes they possess. *The assessment of learning must* be supported by evaluation methods that are compatible with the characteristics of a given competency (Legendre, 2000). It must take into account the complexity, as well as the global, interactive and evolutionary character of a competency.

A competency is complex, it is not simply the sum of its components, but the result of their dynamic organization. It can only be evaluated globally, as components cannot be taken separately. In the course of learning, from a perspective of regulating learning and teaching activities, it may be more advantageous to work on specific components of the competency, such as a particular skill or knowledge. It is also pertinent to resort to more precise diagnostic tools to determine the nature or the source of the difficulties observed. However, we can only judge the development of a competency if the student is regularly placed in situations that are sufficiently complex to require the mobilization and integrated use of various resources. It is by confronting students with various tasks and encouraging them to apply their competencies that the teacher will be able to collect pertinent observations to evaluate their level of development.

A competency is global and integrating since it calls upon a diversity of internal and external resources and rests on the way an individual orchestrates its use in a given situation. Admittedly, it is possible and even desirable to identify *a priori* a certain number of indispensable resources that the student will be required to call upon in a given situation. But it is never possible to predict in an exhaustive way all the resources that students will need to accomplish a task, carry out a project or solve a problem. Indeed, these resources differ from one student to another, since students do not all have the same knowledge and

experience or interests and aptitudes. Consequently, there is more than one way of expressing competencies within a given situation.

Take the case, for example, of a teacher who should be able to evaluate student competency when it comes to writing texts even if the students do not use the same vocabulary, or develop ideas and structure texts differently. As a result, the teacher takes into account the overall totality of the competency when judging the development of a competency, and not each individual component used. Admittedly, to achieve various tasks, the student has to make use of varied knowledge and strategies. However, it is not each mobilized resource that is evaluated but rather the result of their dynamic interaction and mobilization in a variety of situations. Thus, when evaluating a competency as a professional, the teacher keeps track of student progress from the start of the training with observations made under a variety of circumstances. A competency is *interactive* because it does not exist by itself, but relative to the contexts in which it is used and the conditions that necessitate its use.

To evaluate a competency, contexts must be provided that require the deliberate activation of the competency and provide students with resources that maximize its use. For example, we cannot evaluate the competency “working cooperatively” if a student has not been given opportunities to accomplish tasks that by their nature require cooperative work. Other competencies will require other settings, contexts and conditions. The choice of situations that correspond to the competencies we want to observe, the analysis of resources needed to accomplish the task, and a context that provides meaning, are all essential factors. However, even when it is designed to elicit the activation of a specific competency, a learning situation usually calls upon more than one competency. It is therefore an opportunity for both learning and evaluation. Indeed, the student can only use his competencies if he is given opportunities to do so. And it is through mastery of competencies that students provide the teacher with pertinent observable data. It is also during these activities that students can be asked to use their metacognitive capacity to examine their own competencies. This is why there is no need, even when dealing with assessments, to differentiate between learning and evaluation situations.

A competency is **evolutionary** in that it develops through a series of situations in which it is called into use. However, this gradual development can be done at varying rates and according to different paths. This makes it difficult to determine a learning sequence that is identical for all students. Even though it is possible to have benchmarks for the student along the way, these measurements must not be interpreted as fixed moments in a sequential and linear acquisition process. In addition, with competency being evolutionary, the observations collected by the teacher in the course of learning, whether informally or done with the help of various tools, do not have the same degree of meaning relative to the assessment to be done. Teachers must use their judgment to evaluate the relative relevance of varying data or clues (a diversity of work, self-evaluation records, observation grids, comments made by the teacher, etc.), collected in various contexts and at various moments during the course of development. It is also the teacher’s responsibility to establish their meaning by interconnecting them.

This broader concept of evaluation, formative as well as summative, places professional judgment in a central position and also calls into question the role of the teacher as sole judge and evaluator. In a **culture of shared responsibility**, it is necessary to tackle the question of evaluation by giving the intervenors the role that is rightfully theirs.

3. A culture of shared responsibility

Even when the teacher implements learning situations targeting specific competencies, especially in the context of disciplinary learning, the student is necessarily called upon to mobilize other competencies, specifically *transversal competencies* that do not belong to a specific learning field but must be developed within all disciplines. Moreover, competencies acquired in a particular disciplinary context should be transferable to other disciplinary contexts. Consequently, it becomes very difficult to limit the influence

of a teacher to a circumscribed field because his interventions contribute to the attainment of general training goals. Within the framework of a program centered on competency development, all teachers are asked to contribute to the development of the competencies through their own interventions. However, if teachers have a collective responsibility relative to the general education of students and the development of competencies, they should also have a collective responsibility with regard to evaluations.

In addition, the new educational program in Québec schools grants students a major role in their own learning process. From a perspective of evaluations that are integrated into learning, we should ensure that the diverse participants responsible for student education are assigned their appropriate roles, starting with the student himself. Lastly, it is advisable not to underestimate the importance of the support offered by the school. Therefore, far from isolating the teacher in his decisions, the role assigned to *professional judgment* is closely linked to the *obligation of individual and collective means*, which are included in the culture of shared responsibility where implementing means likely to ensure the educational success of the greatest number of students is not the sole responsibility of the teacher, but rather of the institution as a whole.

The preponderance of professional judgment

The role we want to assign to professional judgment, both within the new educational program in Québec schools and within evaluation of learning practices, raises many concerns with parents and teachers alike. Many see a danger of replacing objective measurement with arbitrary interpretations. Parents fear that the intrusion of the teacher's judgment will compromise justice, equality and equity. The general belief is that an evaluation using grades is completely objective by definition and, consequently free from any biased judgment. Teachers, for their part, worry that they will be accused of being unjust and arbitrary if they do not rely primarily, even exclusively, on grades to inform the parents of their child's progress relative to targeted learning and the level of achievement at end of cycle.

However, whatever its form, an evaluation is a judgment and the use of grades for a normative or criteria-based evaluation in no way removes the need for judgment (de Landsheere, 1980). To make room for the professional judgment of the teacher is not to introduce arbitrary decisions into an apparently neutral evaluation process; it is to acknowledge the role of judgment in a professional activity, whatever it may be. The *ability to make a judgment* in a field where one is supposed to have acquired expertise is the mark of a professional. It thus appears essential to clarify the concept of *professional judgment*.

Let us examine certain characteristics.

A professional judgment is autonomous and based on responsibility.

Every professional is faced with situations he must constantly evaluate in order to make decisions, direct his interventions and revise them as need be. The professional is not content to merely do what is asked of him. He has the necessary autonomy to determine what seems suitable based on the data available to him, plus his own knowledge and experience. He is able to assume responsibility for his decisions and his choices, since the latter are supported by recognized expertise.

A person is regarded as a professional when they possess knowledge and experience that allow them to evaluate in a suitable way the various situations to which they are subjected in their practice, to make sound decisions and to assume responsibility for them by succeeding in their actions and making adjustments along the way to take new data into account. Autonomy and responsibility do not mean that the professional acts alone. This is not the case. It is in fact the mark of professional autonomy and responsibility to seek advice from a more experienced colleague or to find the expertise which supplements our own when dealing with a situation that taxes the limits of our competency. In this respect, the teaching profession is no different from any other. Teachers are not simple doers. In the daily context of their practice, they never stop evaluating situations in relation to clues that appear significant to them, in order to make choices and decisions (Perrenoud, 1996). To recognize the value of the professional judgment of the teacher is not to introduce something new into teaching practices, but rather

to recognize that this judgment exists, and assign it its rightful role in an evaluation that is an integral part of daily practice. It means accepting to maintain evaluations among the professional tasks incumbent on the teacher.

A professional judgment is supported by tools.

Every professional has the opportunity to use the diverse tools and instruments that are part of the external resources available in his field of competency. A surgeon will be able to demonstrate his expertise all the more if he has at his disposal the conditions and tools adapted to the nature of the intervention he is planning to undertake. A doctor will make a better diagnosis if he can subject the patient to appropriate tests or examinations. In the same way, teachers have various tools (didactic tools, evaluation and self-evaluation instruments, etc.) that they can use during professional activities. They must sometimes adapt the tool to the particular situation at hand. But all in all, when it comes to evaluating a situation, making a decision and accomplishing an action, every professional has a wealth of useful and pertinent resources available, if necessary,

Teacher competency however, does not rely on the tools teachers have at their disposal, but rather on their ability to put the tools to good use. A tool is neither good nor bad in itself, but rather based on its use within a given context or in relation to a targeted goal. Regarding the evaluation of learning, certain tools can perform a refined diagnostic on particular components of the competency, but can prove completely inadequate when it comes to evaluating the competency in its totality. Accordingly, existing evaluation methods are not to be discarded but must be supported by a professional judgment that alone makes it possible to ensure proper usage and, if necessary, to design other tools better adapted to the new requirements demanded by the follow-up and assessment of competency.

The professional judgment of teachers is based on their competency to make observations while the situation unfolds.

To observe does not mean to collect information passively, it means to record, actively organize and interpret observations based on a frame of reference. To assess the development of competencies on the basis of observation, two conditions are necessary: access to pertinent data and the ability to give that data meaning. To access pertinent data, it is important to employ a sufficient number of diversified learning situations allowing students to apply their competencies and pursue their development. To interpret data requires a sufficiently precise representation of the competency whose development is being supported. If a student is asked only to complete an exercise sheet, the teacher will not have access to sufficient data for judging the level of competency development.

Every task has limitations relative to the data it can provide and every task does not necessarily allow us to evaluate a competency. To this end, we need to use a variety of tasks relative to what we want to observe so that we may avoid making a global judgment based on an insufficient number of tasks. It is necessary however to avoid establishing a term-to-term correspondence between the task and the object of evaluation. One task can call several competencies into play, and the same competency can be required in several distinct tasks. Admittedly, when the teacher gives the students relatively complex tasks that require more than one competency, it is not possible to observe everything at the same time. Observation is selective by definition and it is completely valid to favour specific data based on the goals or the information sought. But we must not fail to recognize competencies other than the ones targeted by the observation, when they appear. *“What counts in observation, specifies Perrenoud, is more the theoretical framework that guides and governs the interpretation of what is being observed than the instrumentation used.”*

In this respect, the teacher's observations are closely linked to the underlying frame of reference, both in the selection of pertinent data and their interpretation, i.e. the way they relate to each other, their meaning. The competency that will be observed implies not only the ability to design learning situations likely to provide interesting material on what we wish to observe, but also the ability to interpret the data collected

based on our experience and knowledge. Consequently, an adequate representation of competencies to be developed and learning situations likely to support their development proves to be essential.

Professional judgment is *an evolutionary judgment as it relies* on a portrait taken at a specific time in the process, a portrait that can be modified through the addition of new information. On the one hand, the competency is evolving, as is its evaluation since it relies on information observed at a specific moment and within a specific context and situation. On the other hand, observations by the teacher are incomplete and can be enriched by the contribution of new data. Indeed, according to the learning situations proposed to the students and the disciplinary contexts in which they take place, teachers do not necessarily access the same data. It is thus important, particularly as concerns transversal competencies, to share observations from varied sources.

Teachers will be able to make an assessment of students' transversal competencies by observing their actualization in a variety of disciplinary contexts. The judgment of the teacher can thus be enriched by observations made by other participants, such as other teachers or intervenors and even the students themselves. Professional judgment rests on the close cooperation of the various intervenors. New data can cause the teacher to modify or revise a portion of the judgment. It can also bring about an evolution in the frame of reference that supports the observations.

Lastly, it should be stressed that a professional judgment must be *an ethical judgment* in conformity with a set of values. The teacher must always be careful not to be biased towards the student. His interventions are intended to support learning and development and must be founded on a "concept of educability", i.e. confidence in the potential of the child (Meirieu, 1991). As an educator, every teacher is endowed with a certain "power" and has an influence on his students. Teachers must use this power and influence in an ethical manner; they must be particularly sensitive to the impact of their evaluations on the development of the academic, personal and social identity of the student. Experience acquired in educational environments often carries lasting influences on the student's self-image both as a learner and as a human being; it can have a determining impact on the student's future social and professional integration. With respect to ethics, teachers must acknowledge the limitations of their professional judgment, the need for a solid foundation and the possibility that their judgment may be called into question.

Conclusion

The new competency-based educational program in Québec schools demands particular requirements that contribute to the establishment of a favourable context for the emergence of changes relative to the evaluation of learning. The purpose of this article was to highlight some of these changes. From the perspective of competency-based development, evaluation should not be considered distinct or separate from the learning process, with the sole function of making a judgment on the learning achieved. Any situation can be viewed from the dual perspective of the learning it hopes to achieve and the observations it elicits in support of the evaluation. It is not necessary therefore to design evaluations that are distinct from learning situations. In a program that places the specific interventions of the teacher in the broader context of their contribution to general education, teachers are collectively and not only individually responsible for providing support to learning. The same applies to evaluation that is also part of the culture of shared responsibility. Lastly, in this context of collective responsibility, it is important to recognize the roles and responsibilities of each individual clearly and to examine them in light of their complementarity. It is from this perspective that professional judgment takes its true meaning and acknowledges the expertise of the teacher.

The transition from an evaluation centered on approval and selection to an evaluation whose essential function is to support learning and teaching marks an important change in our evaluation culture. It goes without saying that cultural changes do not occur overnight. We must take the time and apply the means necessary to evolve, to gradually modify current practices and adapt them to new requirements and constraints. We must also have a clear vision of the direction in which we are headed. Cultural changes do not mean that we must put aside all current practices and sweep them away. It is rather a realignment to

better identify the role and limitations of evaluation practices and to conceive other ways of evaluating which supplement and enrich them and contribute towards giving them new meaning in a renewed context.

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Document 2.C

Bringing changes to the evaluation of learning¹⁴

New trends in the evaluation of learning propose changes to the nature of the objects evaluated, the relationship between evaluation and learning, the way of interpreting results, and the methodology used.

Two articles published recently in *Pédagogie collégiale* discussed the major change in perspective occurring with the evaluation of learning in the United States, where we hear more and more talk about *assessment*. This new point of view finds support here, specifically as concerns authentic evaluations or the assessment of competencies.

This article includes excerpts from *L'évaluation des apprentissages : du cours au programme*. It includes two instalments: the first one introduces the problem and the second presents the initial part of the reference framework for the evaluation of learning. It will be followed by a second instalment in the fall and will include suggestions and material to support changes in evaluation of learning practices. This documentation was produced by a working group at Performa, thanks to a subsidy from the Regroupement des collèges Performa. Cécile D'Amour served as research agent. The excerpts used for this article are taken from section C.2 of Booklet I (p.30-36) and section A.3 of Booklet II (p. 15-17).

The new perspective differs from the one that has prevailed to date, and many are calling it the new paradigm i.e. a set of concepts, assumptions, principles, and behaviours adopted by a community of researchers or intervenors who use them as general guidelines for research and activity in the field.

At a time when many within the college environment are questioning the evaluation of learning, the new paradigm can undoubtedly help the debate move forward. It can be used as a frame of reference for teachers who wish to reflect on their evaluation practices and beliefs and the values that underscore them; and it can be a promising path for teachers who seek to extricate themselves from the rut of grade management, bring changes to evaluations and turns them into pedagogical activities. It can also be a source of inspiration enabling evaluation of learning measures that are being experimented in colleges today to be more than mere administrative rulings and truly contribute to the quality of teaching and learning.

We will examine this new perspective, specifying the dimensions and factors of change in question by examining how it is being expressed in writings and by identifying the characteristics of an evaluation of learning based on this new paradigm.

¹⁴ Translated from Cécile D'Amour, "Changer l'évaluation des apprentissages", *Pédagogie collégiale*, May 1996, vol. 9, n° 4.

Dimensions and factors of change

Authors who define the context for the paradigm shift speak of various dimensions of change. We have identified four key ones: the nature of the objects of evaluation, the relationship between evaluation and learning, the interpretation of summative evaluation results, and the methodology used to carry out an evaluation.

The nature of the objects of evaluation

The object of evaluation is still learning, but the nature of the learning in question has changed as a result of two influences, one from within the world of education and the other from without.

On one hand, teaching and learning concepts have been modified, particularly by the influence of constructivism and cognitivist psychology; on the other hand, learning objectives have also changed: they often relate to higher abilities of integration and transfer — with transfer taking place not only within the academic context but also beyond.

The relationship between evaluation and learning

We now consider evaluation as an integral part of learning. Previously, the accent in evaluation was placed on validation; the main emphasis is now on support of learning, both from the perspective of a diagnostic tool and an evaluation per se.

Here too, internal and external influences have been at work: changes in learning concepts have brought to light various aspects requiring diagnostic interventions and the regulation of learning (non-linear character of the process, positive role of errors, affective dimensions, etc.). Besides, social requirements relative to academic success are on the rise, both qualitatively and quantitatively. This calls for support measures to be more present and diversified.

The interpretation of summative evaluation results

Whereas the normative perspective once prevailed, a clear consensus is now spreading with regard to the relevance of using criteria-based interpretation: the learning achieved by a student is compared to the targeted goal (evaluation with a criteria-based interpretation) rather than being compared to the performance of others or distributed according to the normal curve (normative evaluation).

This change results mainly from the fact that school is designed (at the very least, this is what the official statements say) as an instrument of training, of personal and professional development, and not as an instrument of social selection.

Methodology

The role of measurement is redefined and reduced, the role of observation and judgment is increased; qualitative methods are employed, concepts of validity and reliability are re-examined to better adapt them to the conditions of evaluation which prevail in education (and which differ largely from psychometrics), etc. These changes are closely dependent on the four dimensions of change that we have just described. As such, changes in the nature of the objects of evaluation, in the evaluation-learning relationship and in the way of interpreting the results will necessarily bring about modifications in methodology. Moreover, two other factors are at play here. On one hand, like many other fields in humanities, evaluation is progressively freeing itself from the vice-grip of measurements and quantitative methods. On the other, we are witnessing increased requirements with regard to the quality and reliability of evaluation, for a number of reasons:

- increased awareness of the importance given to social expectations relative to the effectiveness of academic establishments;
- increased awareness of the impact of evaluation methods and results on students' study behaviour, their goals and the paths they choose for their studies and career;
- general social trend to respect rights of individuals, to seek fairness and equity;
- general trend towards professionalism in teaching;
- importance of reliable information on student acquisitions in order to offer the most coherent and effective type of education.

We should mention that evaluation concepts evolve due to underlying philosophies that also evolve through social constraints. Consequently, evaluation methods are also changing. Furthermore, we can conclude by saying that: "it is thanks to research and evolution in humanities, education and cognitive psychology that our understanding of the new paradigm is evolving".

What's in a name

When we read current writings on the assessment of learning originating from here and elsewhere, many expressions are used to describe trends that are more or less current, and more or less widespread, relative to the evaluation of learning. Expressions like: *competency assessment, assessment, authentic assessment, alternative assessment, and performance-based assessment*.

To make sense of all this, we should first clarify the meaning of these expressions, in particular by associating them with the four dimensions of change we mentioned earlier. It should be noted that the meaning given to each expression varies based on the author! In addition, an explicit definition is not always provided. To help the reader distinguish clearly among meanings, we will discuss what seems essential as well as elements that may help better understand the meaning of the new trends in evaluation.

	Trends	Key dimensions of change
Alternative assessment	Among the many expressions linked to new trends in evaluation of learning, “alternative assessment” is the most generic. It is used by most authors to qualify the various practices that differ from traditional practices, particularly standardized multiple-choice tests.	One or several dimensions
Assessment	<p>The <i>assessment</i> is a type of evaluation characterized by systematic observation and judgment that is criteria-based, and by its support for learning. It is truly in the service of learning and integrated within the process of learning itself. This perspective is accurately expressed by the term “<i>assessment as learning</i>”.</p> <p>This perspective of evaluation as a support for learning is similar to the concept of formative and diagnostic evaluations; it is also compatible with the use of <i>assessment</i> for the purpose of sanctioning learning.</p>	Methodology Relationship between evaluation and learning
Learning-assisted evaluation	To the best of our knowledge, this expression was introduced by Hadji ³ . It reflects a similar approach to <i>assessment as learning</i> .	Relationship between evaluation and learning
Competency assessment	<p>Authors who talk about competency assessment highlight the specific nature of competencies as well as the methodological requirements for this type of evaluation.</p> <p>There is an obvious interest in using a “performance-based evaluation” to assess multidimensional learning that is integrated and transferable, as is the case with competencies (this does not mean that performance is the only type of competency indicator that can be used).</p>	Nature of learning and, therefore, evaluation objects Methodology

Performance assessment	The expression “ <i>performance assessment</i> ” highlights the type of data used to make a judgment. In spite of the variations shown by different authors, it is always a student activity (an action, behaviour, a demonstration, etc.) that allows for the most direct observation of student skills and ability to use the learning.
Process/ Product assessment	We should not lose sight of the fact that within a learning approach based on competency, it is the performance, the process and the product, which are strictly speaking, indicators of competency — not the competency itself. Here, the degree of inference is relatively decreased in relation to other indicators.
Performance-based assessment	Therefore, the value relative to the evaluation of performance, the evaluation of the process, and the evaluation of the product, refer essentially to the methodological dimensions of change — resulting from the modifications to the nature of learning we want to evaluate. In a context of education within a competency-based approach, it seems appropriate to speak of a “ <i>performance-based assessment</i> ” rather than a “ <i>performance assessment</i> ”.
Authentic assessment	When we speak of authentic assessment, we refer to the characteristics of the tasks and evaluation contexts that are being investigated. In an authentic evaluation, the student not only directly demonstrates his mastery of the competency; he does it within a context and with tasks that bear key similarities to real situations requiring the competency. This authenticity of task and context can appear under various guises: the stimulus, complex task, time allocated for the achievement of the task, available resources, control the student has over how to carry out the task, quality standards of performance, requirements, consequences, etc.
Criteria-based assessment	In an evaluation based on criteria, the evaluation judgment is supported by criteria and by comparing student results to the targeted end-of-learning objectives rather than by comparing them to the results of a global student population.

Translated from *Pédagogie collégiale*, vol. 9, n° 4, May 1996.

An evaluation of learning marked by the new paradigm

The new paradigm involves important changes to our usual ways of evaluating learning. Below is an outline of the methodological characteristics of an evaluation of learning at college level that reflects the new trends.

The objects

The evaluation must be adapted to a competency-based approach, dealing with learning that is complex, multidimensional, integrated and transferable. This requires an evaluation that:

- is global, holistic, multidimensional; contextualized;
- provides students with authentic opportunities to demonstrate their competencies;
- assures a standardization of conditions for evaluation criteria and success.

The function

Within the framework of the new paradigm, evaluation is truly at the service of learning. It must be integrated into the teaching-learning process to guide, support, and help students to assume responsibility for their learning and, finally, validate the learning achieved in a consistent fashion. To achieve this, we must ensure that evaluations:

- are dynamic rather than static (snapshots taken at various moments to create a portrait of learning in motion; focusing on the process used and not only results);
- are didactic in perspective, not exclusively docimological;
- are not merely official statements or judgments, but also offer a diagnostic dimension;
- are open to many adjustments in the pursuit of learning;
- benefit from the input of a variety of evaluators (teacher who guided the learning, other teachers, students, evaluators from outside the school environment);
- are capable of encompassing not only the cognitive dimension but also affective aspects;
- withhold the final judgment on acquired learning until the end of the learning period.

The interpretation of results

It is necessary to use a criteria-based evaluation for an interpretation that judges the achievement of learning objectives, rather than one that classifies students in relation to each other (evaluation with a normative interpretation). This is an evaluation that:

- uses a qualitative approach with descriptive methods;
- is concerned with validity rather than discrimination resulting from a docimological (measurement and evaluation) point of view.

Conclusion

Adopting the new paradigm means significant changes in the way we view and carry out evaluations of learning. We believe that these changes can greatly benefit the college environment and the school system in its entirety. It is necessary however to be aware that when we speak of a paradigm shift, we are on the side of specialists rather than practitioners. Teachers are often quite adept with the paradigm of “pragmatic intuition” says De Ketele⁴. In many cases, they are unaware of the thought processes at the heart of their own practices. Therefore these practices can display varying degrees of similarities to the old paradigm that once dominated the world of specialists.

This great diversity in evaluation practices and their intuitive character must be taken into account because they create difficulties when adopting a new frame of reference and new practices, in particular with conceptual confusion and anachronistic elements (old concepts and practices that persist within the new policies).

As stated by Howe and Ménard, “the transition from the old paradigm to the new one is not done without confusion. Indeed, in pedagogical discourse, evaluation concepts are often incorrectly identified as relating to one paradigm or another. And to further complicate the matter, many do not even seem aware that a paradigm, old or new, is at the centre of this debate.”

To bring about pertinent changes that are coherent and long lasting, we need clarity and understanding. It is also necessary for teachers to understand what lies beneath their practice, to introduce greater controls and coherence and to link their practice to a frame of reference.

While aware of the work and remaining questions, it seems pertinent that teachers adopt coherent evaluation methods based on the new perspective gaining prominence in the evaluation of learning. Current thinking and experimentation carried out by teaching personnel will also contribute to the consolidation of new trends.

1. Translated from J. Laliberté, “D’autres façons de concevoir et de faire l’évaluation des apprentissages ”, *Pédagogie collégiale*, vol. 8, n° 3, March 1995, p. 9-13; Robert Howe and Louise Ménard, “Un nouveau paradigme en évaluation des apprentissages ” *Pédagogie collégiale*, vol. 6, n° 3, March 1993, p. 36-40.
2. Robert Howe and Louise Ménard, *ibid.*, p. 39.
3. C. Hadji, “L’apprentissage assisté par l’évaluation (A. A. E.), mythe ou réalité? ” *Cahiers pédagogiques*, n° 231, February 1990, p. 20-23.
4. J.-M. De Ketela, “L’évaluation conjuguée en paradigmes ”, *Revue française de pédagogie*, n° 103, April, May and June 1995, p. 59-80.
5. Robert Howe and Louise Ménard, *ibid*

Chapter 3 The vision and impact of study programs centered on competencies

In many countries, recent and current educational reforms are centered on the implementation of competency-based programs. This is true for pre-school, primary and secondary levels as well as higher education. These reforms generally result from an educational paradigm that is shifting from systems centered on teaching to systems centered on learning. In turn, these changes impact evaluation practices whether they deal with the evaluation of learning and teaching, or the evaluation of a program and an institution.

In such a context, **the implementation of programs centered on the development of competencies calls for a change in the “evaluation culture”** and confirms the necessity to accord equal importance to the progress of learning and the final validation of the targeted competencies. To monitor the progress of learning we need “authentic” and/or “alternative” evaluation practices that identify and document progress and a demonstration of learning.

According to Philippe Perrenoud, in a context where it is necessary “to act urgently and decide in uncertainty”, it is essential to distinguish between competency-based programs and programs based on pedagogical objectives, then to accurately define the concept of competency and to analyze its impact on teaching activities and the evaluation of learning.

When referring to an evaluation based on competencies, we are talking about the mobilization by the student of integrated knowledge for the purpose of accomplishing a specific action (production or construction of knowledge) where effectiveness will depend on the judgment exercised by the student. A competency is evaluated via *complex and practical tasks* necessary to carry out a role or function. Evaluation of learning in a program centered on competencies focuses on the accomplishment of a variety of tasks to deduce the presence of a competency. The tools required for the competency assessment will relate to tasks that are as close as possible to those the students will encounter both inside their academic environment and outside. This involves the *authentic* evaluation described below. To give you an idea of “The vision behind study programs centered on competencies: their impact on planning and evaluation”, we cover, in this activity, the following aspects:

- The development of study programs:
 - study programs based on pedagogical objectives,
 - study programs centered on competencies;
- The concept of competency;
- The characteristics of competencies and their impact on planning;
- The characteristics of competencies and their impact on evaluation;
- Principles connected to the evaluation of a competency;
- The concept of authentic evaluation.

Chapter Synopsis:

Activity 3:

- Activity 3.1: Characteristics of competencies and their impact on course planning and the evaluation of learning
Study program and the concept of competency
- Activity 3.2: Characteristics of a competency and their impact
- Activity 3.3: Principles connected to the assessment of a competency and the contribution of the authentic assessment

Learning tools:

- Learning tool 3.A: Development of a study program
- Learning tool 3.B: Definition of a competency
- Learning tool 3.C: Characteristics of competencies and their impact on course planning and the evaluation of learning
- Learning tool 3.D: Characteristics of competencies and their impact on course planning
- Learning tool 3.E: Characteristics of competencies and their impact on the evaluation of learning
- Learning tool 3.F: Principles connected to the assessment of a competency
- Learning tool 3.G: The authentic evaluation
- Learning tool 3.H: Tensions between traditional and modern ways of thinking

Documents:

- Document 3.A: Development of a study program
- Document 3.B: Evaluation in authentic situations (the foundations)

Complementary documents:

- Complementary document 3: François LASNIER, Principles of evaluation in competency-based learning (CBL) in relation to principles of competency-based learning (CBL)

Activity 3

Characteristics of competencies and their impact on course planning and the evaluation of learning

Heading	Characteristics of competencies and their impact
Objectives	A comparison between a study program based on pedagogical objectives and one centered on competencies. To validate one's concept of competency. To evaluate the impact of the characteristics of a competency on instructional planning and the evaluation of learning.
Description	The vision behind a study program centered on competencies is a replacement solution for programs based on objectives that are connected to a disciplinary content. In a competency-based approach, the focus is not on content that is external to the individual but rather on the integration by the individual of knowledge (theoretical and practical), skills and the attitudes necessary for the accomplishment of complex tasks that are meaningful to the students and necessary for their later adaptation to adult life. Once this vision is understood, the activity focuses on a definition of the concept of competency. Characteristics of the concept are evaluated relative to their impact on instructional planning and particularly on the evaluation of learning. Following this, we can identify principles connected to the evaluation of a competency and justify the use of authentic evaluations.
Unfolding	Activity 3.1: Study programs and the concept of competency <i>Study programs</i> <ol style="list-style-type: none">Give each participant the synthesis reference card (Learning tool 3.A) "Development of a study program". After an initial reading, individuals complete the card while jotting down their thoughts on each of the statements.Using the synthesis reference card, information is pooled and subsequently discussed in small work groups.Recommended preliminary reading of the document: "Development of a study program" (Document 3.A) that introduces the foundations of a competency-based program. <i>Concept of competency</i> <ol style="list-style-type: none">Participants take a few moments to write their own definition of competency.Pooling of the competency definitions drafted by participants.Discussion on the proposed definition of a competency (Learning tool 3.B).

	<p>Activity 3.2: Characteristics of a competency and their impact</p> <p>G. Presentation, clarification and exchanges on the characteristics of a competency using learning tool 3.C: “Characteristics of competencies and their impact on course planning and the evaluation of learning.”</p> <p>H. Individually, each participant completes the second column of learning tool 3.C.</p> <p>I. In groups, validate the answers using learning tool 3.D: “Characteristics of a competency and their impact on instructional planning”.</p> <p>J. Individually, each participant completes the third column of learning tool 3.C</p> <p>K. In groups, validate the answers using learning tool 3.E: “Characteristics of a competency and their impact on the evaluation of learning”.</p> <p>L. Reserve some time at the end of the meeting to allow participants to individually assess the consequences of what they have observed as well as their own evaluation practices and to share this with other participants.</p> <p>Activity 3.3: Principles connected to the assessment of a competency and the contribution of the authentic assessment</p> <p><i>Principles connected to an evaluation</i></p> <p>M. Presentation, clarification and group exchanges on the principles connected to the assessment of a competency using learning tool 3.F.</p> <p>N. Evaluate the need, relevance and usefulness of the principles connected to the assessment of a competency.</p> <p>O. Make a global assessment by analyzing the impact on personal evaluation practices.</p> <p><i>Authentic evaluation</i></p> <p>P. Presentation, clarification and group exchanges on the concept of “authentic evaluation” using learning tool 3.G “The authentic evaluation” and Document 3.B “Evaluation in authentic situations (the foundations)”.</p> <p>We can also refer to learning tool 6.F for a description of an authentic situation.</p> <p>Q. Discussion on the contribution of this concept to the development of a competency.</p> <p>R. Make a global assessment by analyzing the consequences on personal evaluation practices.</p> <p><i>Assessment relative to the changes</i></p> <p>S. Individual reading of learning tool 3.H: “Tensions between traditional and modern ways of thinking”.</p> <p>T. Group exchanges on the implications of change.</p>
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Moderator's role	To support personal reflection. To reach a consensus. To use strategies that assist in the structuring of knowledge.
Participants' role	To freely express personal concepts. To actively participate in group exchanges to compare and validate personal concepts.
Required material	<p>Learning tools:</p> <ul style="list-style-type: none"> — Learning tool 3.A: Development of a study program — Learning tool 3.B: Definition of a competency — Learning tool 3.C: Characteristics of competencies and their impact on course planning and the evaluation of learning — Learning tool 3.D: Characteristics of competencies and their impact on course planning — Learning tool 3.E: Characteristics of competencies and their impact on the evaluation of learning — Learning tool 3.F: Principles connected to the assessment of a competency — Learning tool 3.G: The authentic evaluation — Learning tool 3.H: Tensions between traditional and modern ways of thinking <p>Documents:</p> <ul style="list-style-type: none"> — Document 3.A: Development of a study program — Document 3.B: Evaluation in authentic situations
Complementary documents	— Complementary document 3: François Lasnier, Principles of evaluation in competency-based learning (CBL) in relation to principles of competency-based learning (CBL)
Approximate duration	Activity 3.1: 3 hours Activity 3.2: 4 hours Activity 3.3: 3 hours

Learning tool 3.A

Development of a study program¹

Goals of a study program based on teaching objectives	Goals of a study program based on competency development
<p>Study programs based on teaching objectives generally target a vast amount of knowledge, skills and components of social development that the student must acquire to function adequately in life.</p> <p>This goal is generally reflected in disciplinary content that tends to be piecemeal and divided into teaching objectives.</p>	<p>The vision behind a study program centered on competencies is also a replacement solution for programs based on objectives linked to a disciplinary content. In a competency-based approach, the focus is not on contents external to the individual, but rather on the integration by the individual of knowledge (theoretical and practical), skills and attitudes necessary to satisfactorily accomplish complex and meaningful tasks that are necessary for the student's adaptation to adult life.</p> <p>Several authors clearly stress the need to base the new study programs on a cognitivist approach to competencies.</p>
<p><i>Personal comments on the subject</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	

¹ Translated from Roland Louis, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, Montréal, 1999, p. 19-26.

Study program based on pedagogical objectives	Study program centered on competency development
Definition of a teaching objective	Definition of a competency
<p>A teaching objective is a statement of intent that specifies and determines lasting changes that are to take place within a subject during a teaching situation or subsequent to one.</p> <p>An objective is defined for each of the disciplinary contents and identifies the learning to be acquired by the student.</p>	<p>From a cognitivist perspective, competency is a state and ability to act rather than a specific action. This state is dependent on a structure of conceptual knowledge and methodology, attitudes and values that enable the person to make assessments and adapt actions to complex and varied situations.</p> <p>Competency is the exercise of judgment in the choice and application of required knowledge to effectively carry out an action based on a problem statement and the context in which the action takes place.</p> <p>Competency is the result of a mobilization by the students of declarative, procedural and conditional knowledge for the successful accomplishment of an action having implications on their environment and their adaptation to adult life.</p>
<p><i>Personal comments on the subject.....</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	

Study program based on pedagogical objectives	Study program centered on competency development
Characteristics	
<p>Dependent on an approach where disciplinary contents are <i>external to the individual</i>, objectives are usually specific to subject matter, and the acquisition of knowledge and skills occurs theoretically, in a sequential manner.</p> <p>This approach causes teachers to focus on covering the content of the discipline and to parcel out the learning to students.</p> <p>Moreover, the cognitive aspect (knowledge and skills) tends to become more important than the emotional aspect (personal conduct).</p>	<p>From this standpoint, a competency displays the following characteristics:</p> <ul style="list-style-type: none"> — it is internal to the person; — it integrates knowledge, skills and attitudes; — it manifests itself in events and in problem situations occurring in a person's life;
<p>Inspired by behaviorist theory, a teaching objective:</p> <ul style="list-style-type: none"> — is external to the learner in training; — is predetermined and fixed; — parcels out the contents of learning and argues that the sum of the parts is equal to the whole; — generally distinguishes learning according to cognitive (cognitive skills), emotional (attitudes) and psychomotor (psychomotor skills) fields; — generally considers that failure to achieve an objective is an indicator of the absence of learning in the individual. 	<p>When a person fails to demonstrate mastery of a competency this does not necessarily mean it is absent. It can mean that for various reasons, the context does not allow the competency to be called into use.</p> <p>The judgment that the student must exercise is based on three types of knowledge required to perform the action and evaluate its effectiveness within a specific context. As the definition of a competency suggests, the teacher does not view knowledge in an isolated way. Rather, it involves:</p> <ul style="list-style-type: none"> — the integration of three types of knowledge that allow the competency to be used; — transversal knowledge relative to various disciplines; — the exercise of student judgment in the effective accomplishment of the action.
Personal comments on the subject.....	
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The evaluation in a ...	
Study program based on pedagogical objectives	Study program centered on competency development
<p>When our attention is focused on the content of a discipline, we tend to emphasize what the student must know and do in order to fulfill the requirements for mastery. This is why the definition includes a set objectives referred to as pedagogical because they are centered on expected student learning.</p> <p>From this point of view, knowledge results from the accumulation of specific skills (objectives) prioritized according to the requirements of the discipline. The evaluative approach that results from this paradigm will focus on a quantitative analysis of the knowledge acquired by the person undergoing the training.</p> <p>Consequently, the evaluation will generally pay attention to objectives of a cognitive nature connected to the discipline. This is what we call an evaluation centered on disciplinary content.</p> <p>The evaluation of learning consists in validating the accomplishment of preset objectives that relate only to the content of the discipline that is being studied by the learner.</p>	<p>The logic that guides evaluations centered on preset behavioural objectives seems different from evaluations that take student judgment into account when mobilizing knowledge for the effective accomplishment of an action.</p> <p>Practices originating from the use of preset objectives lead to evaluations that separate declarative knowledge from procedural and conditional knowledge.</p> <p>For example, questions in one exam may measure declarative knowledge, procedural knowledge and sometimes conditional knowledge separately. The totality of correct answers is then considered an indicator of student integration of the three types of knowledge.</p> <p>When an evaluation centered on competencies is used, it is necessary to pay attention to the mobilization by the student of the <i>three types of integrated knowledge</i> used to carry out an action (production or construction of learning) and its effectiveness will depend on this judgment.</p> <p>There is another characteristic that distinguishes an objective from a competency. If the objective normally derives directly from theoretical knowledge and disciplinary content, the competency, on the other hand, is based on <i>complex and practical tasks</i> necessary for the accomplishment of a role or function. Disciplinary content is, of course, always present. However, this is only one category of the resources necessary for completion of the task.</p> <p>In other words, if the accomplishment of a task requires specific disciplinary knowledge, the mastery of this knowledge is not necessarily an indication of the ability to realize the task. The evaluation of learning in a program centered on competencies will focus on the accomplishment of a variety of tasks, which infer the presence of the competency. The tools necessary for an assessment of competency will relate as much as possible to tasks that are close to student's real life, in and away from school.</p>

Personal comments on the subject.....

Learning tool 3.B

The recommended definition of a competency in support of program development is as follows: “A training objective centered on the development of the student’s ability to identify and effectively solve, in an autonomous way, problems specific to a family of situations on the basis of integrated and pertinent resources”. The table below details this definition.

Competency is ...	
— <i>A training objective</i>	In a training context, it is the final referent in training (objective to be reached during the training period), its meaning reflects general training needs, the work function or the capacity for higher education in a given field, thus the entry level for a particular function.
— <i>centered on the development of student ability</i>	A competency is acquired through practice. It requires time and frequent use by the student.
— <i>to be autonomous</i>	<i>To be competent means that a person is able to identify and use necessary resources, in an autonomous manner.</i>
— <i>to identify and to resolve</i>	A competency requires a problem situation where a strategy or procedure must be used to reach a desired goal or outcome.
— <i>effectively</i>	<i>The implementation of a competency by the student must be effective and produce the desired results, in conformity with established standards.</i>
— <i>problems specific to a family of situations</i>	Competency is always contextualized; it is always linked to a given field of activity or knowledge.
— <i>on the basis of integrated and pertinent resources</i>	Competency is a structured unit that integrates diverse resources (knowledge, skills, attitudes and values) that constitute it, with each resource being called upon when required. <i>These resources are pertinent because they were selected on the basis of their usefulness and potential for action in real life or in a specific disciplinary field.</i>

Translated from Pôle de l'est, (1996) and D. Raymond, (2001).

The characteristics of competencies

An analysis of the various definitions of “competency” enables us to identify its essential characteristics. The sum of these characteristics helps us understand its overall qualities. Some characteristics complete each other, others define and some are connected by cause and effect. These characteristics have an impact on the pedagogical development of programs, course planning and the evaluation of learning. These characteristics are outlined below.

Identified characteristics
A competency is a second generation objective, A TRAINING TARGET.
A competency is MULTIDIMENSIONAL.
A competency is A POTENTIAL FOR ACTION.
A competency is defined in relation to known benchmarks: STANDARDS.
A competency is AN ABILITY LINKED TO A REAL LIFE ACTIVITY.
A competency is AN INTEGRATED TOTALITY of skills.
A competency is a skill acquired as a result of EXPERIENCE.
A competency relies on PERTINENT knowledge.
A competency is ability TO DEFINE THE SCOPE OF PROBLEMS and RESOLVE THEM.
A competency is related to a SPECIFIC FIELD of action.
A competency is A CAPACITY FOR IMMEDIATE ACTION.
A competency is A CAPACITY FOR EFFECTIVE ACTION.
A competency is A CAPACITY FOR STABILITY OF ACTION.
A competency is A FINAL TRAINING OBJECTIVE.

These characteristics can be grouped in several ways. To group them helps improve retention and integration. Each grouping has a specific meaning. For example, see below:

A competency is a final training target that:

- is centered on the development of a capacity for autonomous action that is immediate, standardized and stable;
- relies on the identification and resolution of problems in a specific field of action;
- mobilizes multidimensional resources that are integrated and pertinent (knowledge, skills, attitudes and values).

Learning tool 3.C

Characteristics of competencies and
their impact on course planning
and the evaluation of learning²

Characteristics of a competency	<u>Consequently, in my course planning, I ...</u>	<u>Consequently, in my evaluation, I ...</u>
<p>1- A competency is a TRAINING OBJECTIVE. Which means:</p> <p>.....</p>	<p>List required actions</p>	<p>List required actions</p>
<p>2- A competency is MULTIDIMENSIONAL. Which means:</p> <p>.....</p>	<p>List required actions</p>	<p>List required actions</p>
<p>3- A competency is a POTENTIAL FOR ACTION. Which means:</p> <p>.....</p>	<p>List required actions</p>	<p>List required actions</p>

² Translated from the characteristics of a competency by Pierre Deshaies, Hermann Guy and Michel Poirier, “La conception de la compétence”, *Recueil intégrateur, Section I : Une vision intégrée de la formation au collégial*, (soon to be published), Sherbrooke, regroupement des collèges Performa, 2003.

<p>4- A competency is defined in relation to a known threshold: A STANDARD.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>5- A competency is AN ABILITY LINKED TO A REAL LIFE ACTIVITY.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>6- A competency is AN INTEGRATED TOTALITY of skills.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>7- A competency is a skill acquired as a result of EXPERIENCE.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>

<p>8- A competency relies on PERTINENT knowledge.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>9- A competency is the ability TO DEFINE THE SCOPE OF PROBLEMS and RESOLVE THEM.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>10- A competency is related to a SPECIFIC FIELD of action.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>
<p>11- A competency is a CAPACITY FOR IMMEDIATE ACTION.</p> <p>Which means:</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>	<p>List required actions</p> <p>.....</p>

<p>12- A competency is a CAPACITY FOR EFFECTIVE ACTION. Which means:</p>	<p>List required actions</p>	<p>List required actions</p>
<p>13- A competency is a CAPACITY FOR STABILITY OF ACTION. Which means:</p>	<p>List required actions</p>	<p>List required actions</p>
<p>14- A competency is a <i>FINAL TRAINING OBJECTIVE.</i> Which means:</p>	<p>List required actions</p>	<p>List required actions</p>

Learning tool 3.D

Characteristics of competencies and their impact on course planning³		
Characteristics	Explanation	Impact on planning
1- A competency is a TRAINING OBJECTIVE .	A competency is first and foremost a <i>training objective</i> , i.e. a 2 nd generation objective achieved <i>during</i> the course of studies. It is dependent on a standard that has been adapted to a training level and not the level of competency of an expert in the field. (see characteristic 5)	<ul style="list-style-type: none"> — Make sure that the goal is adapted to the level of training — Ensure the goal is adapted to the role of the course within the program — Make sure that the goal is written in language understood by the students so they may position their learning relative to the targeted competency — Make sure that the summative evaluation deals as much as possible exclusively with the competency and its use by the student
2- A competency is MULTIDIMENSIONAL .	Once acquired, the competency becomes a capacity. This capacity to act relies on resources <i>concurrently</i> connected to cognitive, psychomotor and socioaffective fields. A competency is not one-dimensional. (see characteristic 6)	<ul style="list-style-type: none"> — Highlight essential components connected to each of the three resource fields — Create teaching and learning activities that incorporate each type of resource — Create teaching and learning activities that target the integration of resources connected to each field — Present the student with complete and global tasks connected to each field

³ Translated from Pierre Deshaies, Hermann Guy and Michel Poirier, “La conception de la compétence”, *Recueil intégrateur, Section I : Une vision intégrée de la formation au collégial*, (à paraître), Sherbrooke, regroupement des collèges Performa, 2003.

Characteristics of competencies and their impact on course planning		
Characteristics	Explanation	Impact on planning
3- A competency is a POTENTIAL FOR ACTION .	A competency is an internal state, a potential linked to an action and not the action itself, which is its performance (the observable and measurable components of competencies); some authors use the expressions “virtual competency” and “effective competency”. The principal indicator of an <i>effective</i> competency is the successful resolution of the problem; other indicators are the <i>process</i> used, how the students <i>describe</i> their own process and the result of <i>their actions</i> .	<ul style="list-style-type: none"> — Plan teaching, learning and evaluation activities relative to the 3 following indicators: result of actions, the process used, how the students describe their own process and the result of their actions — Evaluate, or have the students self-evaluate frequently the use of a competency in all its complexity — Guide the students to describe and evaluate their own problem solving process
4- A competency is defined in relation to a known threshold, A STANDARD .	A competency is the ability to act effectively with a degree of mastery that varies according to the level of training. A competency thus implies a <i>consensus</i> on conditions of achievement, on criteria and on a minimal threshold of performance <i>adapted to the level of training</i> . Without this consensus, a definition of the targeted competency is not possible nor is a shared judgment validating the existence or non-existence of the competency.	<ul style="list-style-type: none"> — Develop a concerted approach to evaluation among teachers, in each of the program courses (conditions of achievement, criteria and common thresholds) — Provide students with evaluation grids that have precise performance thresholds
5- A competency is an ABILITY LINKED TO A REAL LIFE ACTIVITY .	A competency is a training objective that is pertinent due to its <i>real connection</i> to <i>post-education</i> , i.e. the labour world, university and everyday living. The selection of targeted competencies in a given program is based on an analysis of work-related situations, training-related situations, real life and social situations. (see characteristic 8)	<ul style="list-style-type: none"> — Ensure an understanding of the objective’s relevance — Highlight the objective’s relevance during the course presentation — Respect the objective’s relevance in the planning of learning activities — Present the student with complex tasks that are as real as possible (“authentic” situations)

Characteristics of competencies and their impact on course planning		
Characteristics	Explanation	Impact on planning
6- A competency is an INTEGRATED TOTALITY of skills.	A competency is an ability that rests on a <i>structured whole</i> and <i>integrates</i> various types of resources: knowledge, skills, attitudes and values. (see characteristic 2)	<ul style="list-style-type: none"> — Highlight the structure of the resources linked to the competency — Create teaching and learning activities that target the development of this type competency within the student
7- A competency is a skill acquired as a result of EXPERIENCE .	A competency is an ability to resolve problems with adroitness subsequent to repeated use.	<ul style="list-style-type: none"> — Ask the student frequently to use the competency in all its complexity
8- A competency relies on PERTINENT knowledge.	A competency is an ability that rests on an <i>organized network</i> of <i>pertinent</i> resources (knowledge, skills, attitudes, and values), specific to the competency; it is not the discipline that decides the relevance of these resources, but their usefulness and potential ability to act within a given field. (see characteristic 5)	<ul style="list-style-type: none"> — Identify resources that are essential to the development of the competency — Highlight the relevance of these resources within the development of the competency — Create teaching, learning and evaluation activities that focus mainly on these essential resources
9- A competency is the ability TO DEFINE THE SCOPE OF PROBLEMS and RESOLVE THEM .	A competency is an ability to resolve problems: the student must construct a mental model of the problem and identify the process used to reach the goal. <i>Autonomously</i> , the student must know: what to do, how to do it, when and why, and to anticipate the consequences. Finally he must self-evaluate his actions based on specific criteria.	<ul style="list-style-type: none"> — Identify situations where the students must detect the problem, find a model and resolve it by themselves — Schedule frequent problem resolution activities for the students — Explicitly teach procedures required for action — Gradually guide the student to self-evaluate his performance

Characteristics of competencies and their impact on course planning		
Characteristics	Explanation	Impact on planning
10- A competency is related to a SPECIFIC FIELD of action.	A competency is an ability linked to a diversity of actions in a family of situations. It is specific to a field of activities yet remains general, i.e., it remains the same for a whole range of actions within the field. The student must surpass the specificity of the action and be able to carry out other actions in similar but different contexts, i.e., to “transfer” the knowledge.	<ul style="list-style-type: none"> — Teach the student to reflect on the structure of resources linked to the competency — Teach the student to surpass the specificity of the problem by identifying the general character of the problem and the process used
11- A competency is a CAPACITY FOR IMMEDIATE ACTION .	A competency is an ability to identify and resolve problems <i>rapidly</i> yet <i>effectively</i> . It is not enough just to do well at the right time; the student must be able to act “immediately”. This means he has integrated the procedures for use and the competency has a certain <i>automatism</i> . This immediacy relies on procedural quality.	<ul style="list-style-type: none"> — Frequently ask the student to use the competency in all its complexity — Frequently evaluate or have the student self-evaluate the use of a competency in all its complexity
12- A competency is a CAPACITY FOR EFFECTIVE ACTION .	Effectiveness is the ability to autonomously and quickly resolve problems based on a set of standards and related to a family of situations. Effectiveness is based on characteristics of a competency such as the ability to define the scope of problems and resolve them, a capacity for immediate and stable action that is linked to preset standards.	<ul style="list-style-type: none"> — Recognize the impact of the following skills: to define the scope of problems and resolve them, a capacity for immediate action, stable and defined in relation to a given standard

Characteristics of competencies and their impact on course planning		
Characteristics	Explanation	Impact on planning
13- A competency is a CAPACITY FOR STABILITY OF ACTION.	A competency is a <i>lasting capacity</i> for effective action; this capacity to act is not transitory, i.e. here today and gone tomorrow. All competencies require a stability of performance. Stability is the result of a procedural quality and rests on organized conceptual models.	<ul style="list-style-type: none"> — Frequently ask the student to use the competency in all its complexity
14- A competency is a FINAL TRAINING OBJECTIVE.	A competency is a training objective that expresses the desired result <i>at the end</i> of a training period; the length of time for training is based on the complexity of the competency, the program format and resulting “learning activities”.	<ul style="list-style-type: none"> — Evaluate mainly in a formative way during the learning process — Evaluate in a summative way, as much as possible, at the end of the cycle or learning process

Learning tool 3.E

Characteristics of competencies and
their impact on the evaluation of learning⁴

Characteristics	Impact on the evaluation of learning
1. A competency is a LEARNING OBJECTIVE	Ensure that the summative evaluation deals mainly with the competency and its use by the student.
2. A competency is MULTIDIMENSIONAL	Present the student with complete and global tasks connected to each field.
3. A competency is a POTENTIAL FOR ACTION	Plan teaching, learning and evaluation activities relative to the three indicators: results of the action, the process used and how the students describe their process and the results of their action. Frequently evaluate, or have the students self-evaluate the use of the competency in all its complexity. Guide the students to describe and evaluate their problem resolution process.
4. A competency is defined in relation to a known threshold, A STANDARD	Provide students with evaluation grids that have precise standards of performance.
5. A competency is an ABILITY LINKED REAL LIFE ACTIVITY .	Present students with complex tasks as close to reality as possible (“authentic” situations).
6. A competency is an INTEGRATED TOTALITY of skills.	Create teaching and learning activities that target the <i>development</i> of such a structure within the student.
7. A competency is a skill acquired as a result of EXPERIENCE .	Frequently ask the student to use the competency in all its complexity.
8. A competency relies on PERTINENT knowledge.	Create teaching, learning and evaluation activities that focus mainly on these essential resources.
9. A competency is the ability TO DEFINE THE SCOPE OF and RESOLVE PROBLEMS	Gradually lead the students to <i>self-evaluate</i> their own performance.
10. A competency is related to a SPECIFIC FIELD of action.	Guide the student to reflect on and describe the structure of the resources that make up the competency.

⁴ Translated from Pierre Deshaies, Hermann Guy and Michel Poirier, “La conception de la compétence” *Recueil intégrateur, Section I : Une vision intégrée de la formation au collégial*, (à paraître), Sherbrooke, regroupement des collèges Performa, 2003.

11. A competency is a CAPACITY FOR IMMEDIATE ACTION.	Frequently evaluate, or have the students self-evaluate the use of a competency in all its complexity.
12. A competency is a CAPACITY FOR EFFECTIVE ACTION.	Recognize the impact of the following skills: to define the scope of problems and resolve them (7), a capacity for immediate (9) and stable (11) action, and a capacity defined according to a standard (12).
13. A competency is a CAPACITY FOR STABILITY OF ACTION.	Frequently ask the student to use the competency in all its complexity.
14. A competency is a FINAL LEARNING OBJECTIVE.	Evaluate mainly in a formative way during the learning process. Evaluate in a summative way, as much as possible, at the end of the cycle or learning process.

Learning tool 3.F

Principles connected to the evaluation of a competency⁵	
<p>1- Ensure the student has access to formative evaluations.</p> <p>A quality formative evaluation must allow the student to position himself in relation to the targeted objective, to recognize his learning difficulties, to undertake remedial activities adapted to his learning difficulty(ies) and to receive feedback on these activities.</p> <p>The summative evaluation of learning must be preceded by one or more formative evaluations.</p>	<ul style="list-style-type: none"> — Since a competency develops gradually, it is necessary to allow for <i>the right to err during</i> the learning process. — Learning requires supervision and support to be of value. — The summative evaluation should only be used at the end of the learning process or at the latest possible moment.
<p>2- The evaluation of learning is an integral part of the pedagogical planning process for a course.</p> <p>In a coherent process, learning objectives (competencies and objectives) determine learning and teaching strategies; in turn, these elements influence evaluation methods (diagnostic, formative and summative) and the evaluation tools used.</p>	<ul style="list-style-type: none"> — The <i>evaluation process</i> includes three types of evaluations: <i>diagnostic</i>, formative and summative. Each must be used within a coherent whole as each has its own specific function; yet all three are nonetheless complementary and necessary for an evaluation to be complete. These three types of evaluations differ only in their objective, therefore evaluation tools should be of comparable value and evaluation grids should be equivalent or identical.
<p>3- The evaluation of learning must lie within the scope of programs at college level and respect pre-established objectives and standards developed at the ministerial level for each competency.</p> <p>(See principle 5)</p>	<ul style="list-style-type: none"> — The objects of evaluation and the criteria to gauge this evaluation do not depend on teachers' personal choices but rather on <i>ministerial regulations</i>. The objectives and standards are the same across the network and ensure a certain equivalence of training as well as <i>fairness</i> and <i>consistency</i> in evaluations. (See principle 8)

⁵ Translated from a table developed by Pierre Deshaies, educational advisor at Collège de Shawinigan within the framework of PIEA (Politique institutionnelle d'évaluation des apprentissages).

Principles connected to the evaluation of a competency⁵

<p>4- Considering the <i>integrating, total</i> and <i>final</i> character of a competency as a learning objective, the final evaluation of learning within a course consists in a final examination on the <i>statement of competency</i> for the course (or final integrating objective if the course targets more than one competency, or if a competency is developed in more than one course).</p> <p>The final test must count for a large percentage of the weighting.</p>	<ul style="list-style-type: none"> — The tradition of <i>continuous evaluation</i> can give a student a passing grade in a course without having demonstrated mastery of the competency; the trend toward evaluations that test learning at the <i>end of the course (final)</i> is preferable. — Ideally, the final test should count for 100%. However, it is also necessary to recognize the <i>overall learning</i> within the course (global). To support and evaluate the integration of learning during the course (integration): mastery of a competency is more than the sum of cumulative knowledge. — A grade of 60% or more could be considered sufficient on the final test (requirement) for success in the course. — The minimal threshold must correspond to what is expected for an <i>entry-level</i> technician or student who is <i>entering</i> university. — The final test is an opportunity for learning.
<p>5- The final test relates to the terms of competency stated for the course, evaluated according to all the performance criteria of the ministerial edict (or criteria connected to the final integration goal when a course targets more than one competency or a competency is developed in more than one course).</p> <p>The summative evaluation must rely on exact and criteria-based measurements of learning. It is necessary to communicate these criteria to students before the evaluation, ideally at the start of the learning process.</p> <p>(See principle 3)</p>	<ul style="list-style-type: none"> — The evaluation of learning has evolved from a <i>normative</i> concept to one that is <i>criteria-based</i> in which the student's performance is compared to pre-established criteria rather than peer results. — Criteria should be classified in an evaluation grid and communicated to students in advance to allow them to better grasp what is expected of them during evaluations and <i>during</i> the learning process. Moreover, the use of a precise evaluation grid facilitates teaching, learning and the development of the capacity for self-evaluation.

Principles connected to the evaluation of a competency⁵

<p>6- The summative evaluation allows for the assigning of grades and/or the certification of learning.</p> <p>The summative evaluation can only refer to the outcome of learning. Therefore, there can be no summative evaluations for participation, involvement and effort. Nor can the teacher include course attendance in a summative evaluation.</p>	<ul style="list-style-type: none"> — <i>The summative evaluation is neither to punish nor to reward.</i> Its purpose is to validate what the student can do effectively and to certify mastery of a competency at the end of the learning cycle. — The summative evaluation exclusively measures the achievement of a targeted competency. Participation, involvement and effort can however be assessed in a formative evaluation. — In rare instances, should the learning context require it, course attendance can be considered a prerequisite for admittance to the exam.
<p>7- Moreover, a summative evaluation must be individual because it measures, <i>for each student</i>, the level of achievement of performance necessary for success in the course. Unless the <i>ability to work in teams</i> is part of the targeted competency(ies) for the course, it cannot be evaluated in a summative manner.</p>	<ul style="list-style-type: none"> — <i>The product of learning is individual.</i> Learning is defined within individuals and based on what they already know and new connections that they have <i>personally</i> constructed. — Teamwork and cooperative learning are excellent learning activities; they must allow for a fair and equitable evaluation of individual performance.
<p>8- In the case where a course is given to more than one group during the same session (or by more than one teacher), the objectives are common and the content conforms to the course framework.</p> <p>In the case of courses given to more than one group during the same session (or by more than one teacher), standards and rules governing evaluations are common and the same marking grid is used.</p>	<p>Conformity with the course framework and with common standards of evaluation ensures <i>equivalence</i> and <i>equity</i> of the training and evaluations for each course. Course framework plan: in conformity with local educational program specifications and the graduate profile, the overall course outline is approved by a team of teachers and used as a framework in course planning. “Unique marking grid”: marking grid prepared by all teachers giving the same course and used to evaluate all students taking this course in the same session (and from one session to another if possible).</p>

Learning tool 3.G

The authentic evaluation⁶

Do multiple-choice tests really evaluate student understanding? Many educators believe that there is a more effective evaluation alternative, with tests that do not focus entirely on memorization.

Instead, they ask students to demonstrate the skills and concepts they have learned. This strategy is called authentic evaluation.

What is authentic evaluation?

Authentic evaluation is designed to assess student abilities in 'real-world' contexts. In other words, students learn how to apply their skills in authentic tasks and projects.

Authentic evaluation focuses on the students':

- analytical skills;
- ability to integrate what they learn;
- ability to work in collaboration;
- written and oral communication skills.

The authentic evaluation places as much value on the learning process as on the finished product. In authentic evaluations, students:

- carry out science experiments;
- conduct research;
- write reports and texts;
- read and interpret literature;
- resolve problems that have applications in the real world.

Why use authentic evaluation methods in the classroom?

Many teachers are dissatisfied with using only traditional testing methods to administer tests and believe students should practice *higher-order thinking skills*. These educators assert that students must be prepared to do more than memorize information and use algorithms to solve simple problems in a mechanical fashion.

How to use authentic evaluation in the classroom

Authentic assessment utilizes performance sampling (learning activities that encourage students to use higher-order thinking skills).

There are five major types of performance sampling:

1- Performance Assessment

Performance assessments test students' ability to use skills in a variety of authentic contexts. They frequently require students to work collaboratively and to apply skills and concepts to solve complex problems.

Short- and long-term tasks include activities such as:

⁶ Translated from Pearson Education Development Group. [<http://www.teachervision.fen.com/page/4911.html>]

- writing, revising, and presenting a report to the class;
- conducting a week-long science experiment and analyzing the results;
- working within a team to prepare a classroom debate.

2- Short Investigations

Many teachers use short investigations to assess how well students have mastered basic concepts and skills. Most short investigations begin with a stimulus like a math problem, cartoon, map or a short excerpt from a story or text. The teacher may ask students to interpret, describe, calculate, explain and predict. These investigations may use multiple-choice questions. The goal is to assess how well the student establishes relationships between concepts.

3- Open-Response Questions

Open-response questions require that students answer with:

- a brief written or oral answer;
- a mathematical solution;
- a drawing;
- a diagram, chart or graph.

4- Portfolios

A portfolio documents learning over time. This long-term perspective accounts for student improvement and teaches students the value of self-evaluation, editing, and revision. A student portfolio can include:

- a personal journal;
- peer-evaluations;
- personal artwork, diagrams, charts and graphs;
- individual work or group reports;
- student notes and outlines;
- rough drafts and final copy.

5- Self-Evaluation

Self-evaluation requires that students evaluate their own participation, process and products. Students give written or oral responses to questions such as:

- What was the most difficult part of this project for you?
- What do you think you should do next? If you could do this task again, what would you do differently?
- What did you learn from this project?

Authentic evaluations succeed when students know what teachers expect. For this reason, teachers should always clearly define standards and expectations at the beginning of the project. Students must be given the evaluation grid before the start of the project.

Authentic assessment emphasizes process and performance; it encourages students to develop critical-thinking skills.

Learning tool 3.H

Tensions between traditional and modern ways of thinking

Our concept on the evaluation of learning is undergoing an in-depth renewal at college level, marked by changes to the objectives of learning, i.e. competencies. Various trends and approaches are impacting the Québec college network. Our main concerns include issues pertaining to the relevance and quality of education as well as to academic success: the complete development of the individual, a program perspective, support given to learning and a competency centered approach.

Whether the evaluation of learning is done at the course or program level, the context is always unique, one that is different from all other contexts, despite the fact that there may be many similarities between evaluation situations. Every case is particular to a certain extent.

Depending on the situation, the factors listed below contribute to this singularity (and the list is probably not exhaustive):

- the rules of the game relative to the evaluation of learning used within an institution, a program, a department;
- the nature of the program, course or discipline;
- the concepts, competency and experience of the teacher or the team that designs and carries out the evaluation.

We must not lose sight of this **singularity** when we review evaluation methods. Even though it may be pertinent and useful to have guiding principles and standard tools, it is an illusion to think that the concept of the evaluation of learning can be reduced to a simple application of these tools. We are always dealing with a **problem solving situation** where the best way to proceed does not depend on automatic functioning or algorithms.⁷

“The adoption of a new perspective creates ambiguity and uncertainty. There are many factors that make bringing changes to evaluation practices a demanding and delicate issue. We can expect various tensions, mentioned by the Commission for UNESCO as being at the heart of 21st century angst (1995, p. 3 and 4), to also impact the world of education: tension between traditional and modern ways of thinking, between short-term and long-term, between the singular and the universal, between local and global, between inevitable competition and the desire for equity.

Each of these tensions impacts the two groups of participants – teachers and students – involved in the dynamics of implemented changes or within the evaluation of the learning process itself.

- *Tensions between traditional and modern ways of thinking*

The tradition of current practices, which teachers and students alike are familiar with, versus *modern ways of thinking*, is manifested as a paradigm shift in the evaluation of learning, through changes in the rules of the game at college level.

- *Tensions between short-term and long-term*

Short term, which tempts us to respond quickly to new requirements versus *long term*, which is required for major changes to take root.

⁷ Translated from Cécile D'Amour and Groupe de travail at Performa, *L'évaluation des apprentissages au collégial : des cours au programme*, 1996, Fascicule I. La problématique, p. 59.

Short term, where student motivation is called into play on a daily basis versus *long-term*, over which learning acquires its meaning.

— *Tensions between the singular and the universal*

The singularity of each evaluation versus the *universality* of general principles common to all situations.

A certain *singularity* in evaluation conditions and student's work, a singularity which can ensure a more accurate evaluation of competencies, versus *universality*, which ensures greater reliability of the tools used and judgments made.

— *Tensions between local and global*

Local rules of the game for a team of teachers versus the *global* membership in the same establishment, the same college network.

The *local* nature of specific, targeted learning versus the *global* nature of multidimensional and integrated learning.

— *Tensions between inevitable competition and equity*

Differences in teaching establishments — differences used for purposes of distinction and *competition* — and *concern for equity* in the treatment of students within the same program who attend different establishments.

Competition that prevails upon entry into the labour market and during student selection for admission to university programs; and the *concern for equity* that must overshadow the evaluation of learning.

The attitude to adopt vis-à-vis these tensions is one of mediation rather than favouring one side over the other, even though mediation can appear in certain circumstances to be preferential toward one approach over another, while still respecting both".

Document 3.A

1. Study programs based on pedagogical objectives⁸

1.1 Definition

A study program generally targets a vast amount of knowledge, skills and components of social development that students must acquire to function in life. This goal is generally translated into “piecemeal disciplinary content described as pedagogical objectives i.e., teaching objectives that are statements of intent defining the lasting changes that must take place within the individual in a learning situation or subsequent to it.” (Legendre, 1993). Objectives are defined for the disciplinary content and identify the expected student learning [...]

Programs centered on objectives generally follow the same pattern: general objective — final objectives — intermediate objectives. The characteristics of these programs are provided below.

1.2 Characteristics

When an approach is centered on the contents of a discipline that are *external to the individual*, the objectives *are generally specific* to the subject matter; and, in principle, the acquisition of knowledge and the development of skills is sequential. Some authors such as Newman (1988) stress that this approach causes teachers concern with regard to covering the contents of the discipline and results in the fragmentation of student learning. The cognitive aspect (knowledge and skills) assumes greater importance than the emotional aspect (personal conduct).

A teaching objective inspired by behaviorism:

- is external to the learner;
- is predetermined and fixed;
- fragments the contents of learning and postulates that the sum of the parts is equal to the whole;
- generally distinguishes learning according to cognitive (intellectual skills), affective (attitudes) and psychomotor (psychomotor skills) areas;
- generally views the non-achievement of an objective as an indication of the absence in the student of the targeted learning.

The objective-based approach has had positive effects; it has undoubtedly brought greater coherence to the education system. It should be kept in mind that its implementation was marked by a behaviorist perspective.

1.3 Evaluation in an objective-based program

When we are predominantly focused on the contents of a discipline, we identify what the student must know and be able to do in order to master the contents. Therefore we often resort to the definition of a set of objectives said to be pedagogical because they are focused on the desired student learning to be achieved. From this point of view, knowledge results from an accumulation of specific skills (objectives) in a hierarchy dependent on the requirements of the disciplinary content. The evaluation approach resulting from this paradigm deals with the quantification of acquired knowledge by learners prioritized according to the requirements of the

⁸ Taken from: Roland Louis, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, Montréal, 1999, p. 19-26.

discipline. Consequently, the evaluation will generally be centered on objectives of a cognitive nature connected to the discipline. It is what we call an evaluation centered on the contents of a discipline. The evaluation of learning consists in validating the achievement of predefined learning objectives that relate exclusively to disciplinary content.

Popham (1974), with his concept of expanded objectives, and Hively (1974), with his concept of measurement dependent on the discipline, recommended these approaches in answer to criticism of study programs based on operational objectives over thirty years ago. In Québec in the 1980's, a new trend emerged with objectives that were more global and therefore circumvented the limitations of operational objectives. Despite these efforts, objectives whether specific or global, remain tied to the content of a discipline. We have also seen pedagogical movements that recommend an integration of subject matter, where the focus is on "transversal" skills such as critical judgment and reasoning in order to break from a model linked exclusively to a teaching discipline.

2. Competency-based programs

2.1 A definition

A study program based on competencies is also a replacement solution for programs based on objectives tied to disciplinary content. In a competency-based approach, the emphasis is not placed on competencies that are external to the individual but rather on the *integration by the individual of knowledge (theoretical and practical), skills and attitudes necessary for the satisfactory accomplishment of complex tasks that are meaningful for the student and needed in his later adaptation to adult life*. Several authors have clearly underlined the need to have these new study programs rest on a cognitivist vision of competencies and have proposed definitions that evoke complex skills (Barbès, 1990; Désilets and Brassard, 1994; Goulet, 1995c; Perrenoud, 1995).

According to the cognitivist perspective, competency is a state, an ability to act and not a particular action. This state is linked to a structure of conceptual and methodological knowledge as well as attitudes and values that allow a person to make assessments and to adapt his actions to complex and varied situations. For Woditsch (1977), a competency is a set of generic skills that recur with frequency as a component in the successful accomplishment of a series of varied tasks involving knowledge, skills and attitudes. Wiggins (1994, p. 219) goes a little further by defining competency as a judgment that allows the student to adapt effectively to specific roles and situations encountered in the adult world.

We define competency as a judgment in the choice and use of knowledge necessary to effectively accomplish an action, by taking into account the given problem and the context in *which the action takes place*. For us, competency is the result of a mobilization of declarative, procedural and conditional knowledge used by students to effectively accomplish an action that impacts their environment and their adaptation to adult life. For example, we can observe the demonstration of a competency in a student who, when faced with a problem in real life (school, family, etc.), is able to call upon the necessary knowledge (particular to the discipline, mathematics, French, etc.) to find a solution and communicate it. He can also effectively implement and defend his choice. Of course, competencies differ for students in primary and secondary school and students in training for a profession (teacher, doctor, etc.). In the latter case, we speak of professional competency relative to the reality of professional practices.

We believe that our vision of competency harmonizes with the socioconstructivist movement where knowledge is constructed through interaction by the individual with his environment. Moreover, for certain authors who also share this position:

- learning is an active, constructive and gradual process during which the students integrate material that was not part of their prior knowledge and create new ideas and new representations. (Gerlach, 1994; Smith and McGregor, 1992; Tardif, 1992);
- learning takes place within a social framework (communication and interaction) characterized by the diversity of experience and knowledge of the various participants. (Gerlach, 1994).

2.2 Characteristics

Competency, as we understand it, has the following characteristics:

- comes from within;
- integrates knowledge, skills and attitudes;
- appears in situations or problems originating in real-life situations;
- the non-demonstration of a competency does not necessarily signal its absence, but rather may be a sign that, for whatever reason, the context does not allow its manifestation.

Competency calls upon three types of knowledge. They are:

Declarative knowledge (what?) is theoretical knowledge that refers to facts, principles and laws. For example, knowledge of grammatical rules, chemical laws, mathematical formulas and the physical resources of a region is declarative knowledge.

Procedural knowledge (how to?) is knowledge relating to how to carry out an action, the stages and procedures that allow us to do so. Examples of procedural knowledge are implementing the necessary stages for drafting an opinion paper, conducting a valid laboratory experiment and writing a report using historical context to better understand an event.

Conditional knowledge (what to do? and how to proceed if...?) is knowledge referring to the *when*, *why* and *conditions under which* to carry out an action or implement a strategy. For example, when there is a problem to resolve, the student reads the stated problem then chooses one strategy among several that seems to offer the best solution. Further on, we will see that conditional knowledge is called upon when the evaluation of learning deals with a task in a complex context or situation.

2.3 The integration of the three types of knowledge

Student judgment will therefore rely on the three types of knowledge needed to accomplish the action and do so effectively based on the context of application. As our definition of competency suggests, the teacher will not isolate the different types of knowledge, but will simultaneously pay attention to:

- the integration of the three types of knowledge that allow the demonstration of the competency;
- the transversal quality of this knowledge relative to the teaching disciplines;
- the exercise of student judgment in the effective accomplishment of a task.

Take for example the following competency: the ability to effectively communicate a proposed problem solution to an audience.

This competency includes declarative knowledge (knowledge of the rules / stages of problem resolution and communication, knowledge of audience characteristics, etc.), procedural knowledge (implementation of stages, procedures for problem resolution and communication) and conditional knowledge (selecting the best strategy to resolve a problem based on the available information, the best communication strategy to use for this audience, etc.).

This example enables us to observe the transversal nature of a competency, since it utilizes knowledge and processes that are not specific to a given teaching discipline. Lastly, the students must involve the use of their judgment for the effective accomplishment of the task.

2.4 Evaluation in a competency-based program

Accordingly, the logic that seems to guide an evaluation based on preset behavioural objectives appears to differ from an evaluation that takes into account student judgment in the mobilization of knowledge for the effective accomplishment of a task. Practices resulting from the use of pre-determined objectives have familiarized us with evaluations that separate declarative knowledge from procedural and conditional knowledge. For example, in a single exam we frequently encounter questions that measure declarative knowledge, procedural knowledge and sometimes conditional knowledge in an isolated fashion. The number of correct answers is then seen as an indication of the student's level of integration of the three types of knowledge.

When we consider an evaluation based on competencies, it is necessary to be attentive to the student's mobilization of the *three integrated types of knowledge* in the realization of a task (production or construction of knowledge). The effective accomplishment of the task will also depend on the student's use of judgment.

2.4.1 Complex tasks enabling the resolution of a concrete problem

There is another characteristic that distinguishes objectives from competencies. Although an objective generally arises directly from theoretical knowledge linked to disciplinary content, competency for its part, originates in *complex and practical tasks* necessary for the accomplishment of a role or function. The concepts contained in the discipline are still present; however, they represent only one type of resource among others needed to accomplish the task. In other words, if the accomplishment of a task requires a given disciplinary knowledge, the mastery of the latter is not necessarily indicative of the capacity to accomplish the task. The evaluation of learning in a competency-based program will therefore focus on the accomplishment of a variety of tasks that allow for an assessment of competency. As much as possible, the tools necessary for competency assessment should relate to tasks that mimic real life situations that students are likely to encounter in the school environment and beyond.

Since a competency is complex, evaluation tasks will have to identify the dimensions where this complexity manifests itself, i.e., the multidimensional aspect of the competency. Recognizing this complexity and multidimensionality guides our judgment on the development of competencies in the learner. For example, certain dimensions of a competency may be present in the person being evaluated, whereas other more complex ones may not yet be present.

2.4.2 Definition of the field of performance

Another important area of a competency-based evaluation is the definition of the field of performance required to deduce the targeted competencies. Until now, the field to be measured incorporated disciplinary content as well as components of taxonomy relating to the cognitive field, such as Bloom's taxonomy. Because the interest is now on complex performances that reflect the integration of knowledge and the ability to perform tasks as effectively as possible, such as resolving a meaningful problem, a definition must take all these components into consideration. Schaefer and others (1992) stress that we must be careful in the conceptualization and definition of performance fields to ensure the validity and usefulness of the evaluation. Insofar as we believe that performance is complex to evaluate, that it involves student judgment and that it can vary from one situation to another, responses should also vary from one individual to another. In other words, there can be no predetermined response. The evaluators must use their judgment to analyze and interpret the variety of responses given. At this point, it becomes necessary to define, in the context of the field of performances and in preparation for the

evaluation, the dimensions of the critical attributes relating to the effectiveness of performances to be observed (criteria, performance standards, rating grids, etc.).

One of the challenges in competency assessment is the development of criteria that clearly represent meaningful and useful performance levels; levels that reflect the competency and student development in acquiring that competency. This requires descriptive and precise criteria for all levels of performance. In current practices, criteria are often defined outside the evaluated task and are not shared with students. The criteria are often expressed as a percentage of a grade or rating scale using terminology such as: mastery — masters to some degree — masters with assistance — no mastery. In a competency-based evaluation, criteria must clearly establish performance levels but must also be shared with students so the latter may position themselves with regard to the task to be achieved. If this information is missing, students will probably not be able to exercise the sound judgment required for the effective accomplishment of the task.

A final yet equally important area of concern relates to the energy and resources linked to the development and implementation of a competency-based evaluation. Factors to take into consideration include: the many tools (written tests, observation grids, portfolio, etc.) used to measure the complexity of performance, the variety of support available for these tools (audio-visual equipment, examiners, markers, etc.), and the time needed to collect data and compile it. In the following chapters, we will outline in greater detail, the evaluation model best suited for evaluating competency development.

Document 3.B

The authentic evaluation⁹

1. Basis

- 1.1 Context
- 1.2 Definition and goals of the evaluation in authentic situations
- 1.3 Measurement based on complex performances
 - 1.3.1 Components of an evaluation in an authentic situation

Please note: this excerpt uses the original classification of Chapter 7 by Louis (1999), although only Section 1 is shown here. The remainder of Chapter 7 includes:

2. Tools for authentic evaluations

- 2.1 Measurement based on specific tasks
- 2.2 The portfolio

3. Authentic evaluations: problems and solutions

- 3.1 The problem of reliable decisions
- 3.2 The problem related to extracurricular situations

We categorized evaluation practices according to three approaches: psycho-educative approach, objective-based approach and “ecological” approach. The authentic evaluation can be considered as a means to implement the ecological approach that focuses on developing individual competencies allowing a person to function more adequately in his immediate environment. This chapter outlines in greater detail the basis of authentic evaluations and the tools that accompany this evaluation model.

1. Foundations

1.1 Context

The tests and exams currently in use have been the object of much criticism. On the one hand, they were criticized for putting students in situations that generally demanded a single answer (multiple choice, true or false, sentences to complete) or a known and acceptable answer. According to the teacher or examiner, that does not necessarily reflect the extracurricular reality for which the student is being prepared. On the other hand these tests and exams have serious limitations when it comes to identifying strategies and procedures the student used to arrive at the answer. For example, giving a correct answer does not necessarily mean the student possesses the ability being measured by the question: a correct answer may conceal poor understanding of the subject and an incorrect answer does not provide information on the process used by the students or on their level of learning because it does not explain how they arrived at their answer.

⁹ Translated from Roland Louis, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, Montréal, 1999, p. 77-82.

In spite of the educational and pedagogical limitations of these tools, teachers seem inclined to teach based on the content of the tests, and students seem inclined to only learn what is evaluated on these tests (Doyle, 1983). In Québec secondary schools, we observe that most of the month of May is devoted to reviewing the MEQ's and/or the school board's previous exams to help prepare students for final exams. This only serves to confirm to students that teaching has one goal: to successfully pass MEQ and/or school board exams.

The concept of authentic evaluation was coined in 1989 by Grant Wiggins (1989), and suggests a new way of evaluating learning.

1.2 Definition and goals of the authentic evaluation

For Wiggins (1993) and Hart (1993), an evaluation is authentic when it provides students with tasks that:

- are taken from real life situations;
- are meaningful and motivating for the student;
- allow for the understanding or resolution of problems frequently encountered in extracurricular life.

This evaluation relies in part on introducing students to tasks that call for the integration of acquired knowledge. These tasks are considered complex. Contrary to the examination model composed of independent questions that are unrelated to each other or questions that measure bits and pieces of knowledge only, the authentic evaluation measures all dimensions, both cognitive and affective, that allow for effective action. Remember that an objective-based evaluation uses measurements linked to criteria, *criterion-referenced-measurement* (the criteria are the targeted objectives) or linked to a domain, *domain-referenced-measurement* (the domain being the various situations that questions measuring a specific objective must refer to). The authentic evaluation uses complex performance measurement tools.

Since both student and teacher recognize the importance of success in exams, one way of modifying the situation is to *use an evaluation that conforms to known principles of learning and teaching*. This is the first goal of an authentic evaluation.

We are aware that the use of tests and formal exams creates an artificial situation in the classroom: the instructional relationship between teacher and student takes on a different dimension the day of the exam. The teacher becomes the judge who sanctions the student success or failure rather than one who helps students with their comprehension. Often, the test or exam deals with factual learning without validating the transfer of this learning to concrete situations. Moreover, answers given by a student to a set of questions like those found in standard tests and exams do not reflect the depth of learning achieved. The *evaluation should take into account actual concerns that make the student active in his own learning process and that focus on the process as well as on the product of learning*. The evaluation should not impede the instructional relationship between teacher and student. This is the second goal of an authentic evaluation.

Today, thanks to the influence of cognitive psychology, evaluations seem to focus on the way in which the learner processes information received from a complex environment that is varied and changeable, in order to improve his functioning. According to Glaser (1994), the design of evaluation tests and concepts based on the traditional psychometric approach will be replaced by concepts of cognition, learning

and competency linked to cognitive psychology. Authors such as Wiggins (1993) Beck (1991) and Shepard (1989) speak of authentic evaluations, i.e. an evaluation that should take into consideration the context and environment in which the person will use the skills. Moreover, the evaluation of learning does not rely solely on one type of learning tool but rather on a variety of tools to better grasp the multiple facets of learning. We can then speak of *performance-based assessment*, an evaluation that requires students to demonstrate their ability to implement the knowledge, skills and necessary attitudes in a real life context, (Linn, 1994; Millman, 1991; Quellmaz, 1991; Stiggins, 1994). The term *performance* is used here to mean *effective accomplishment of a task or an operation using multidimensional integrated knowledge* (declarative, procedural and conditional).

1.3 Measurement based on complex performances

The authentic evaluation calls for different tools than those currently used for tests and exams. The authentic evaluation relies on the *measurement of complex performances*. It is based on the student's competency in implementing cognitive and metacognitive strategies in varied contexts and situations that are required for the successful accomplishment of a task or a set of tasks.

To the term “performance” we add the qualifier “complex” to indicate that the measurement of the performance should involve declarative, procedural and conditional knowledge *at the same time*. Traditional knowledge introduces the exercise of student *judgment* in relation to the relevance and effectiveness of the action or strategy being considered.

In fact, instead of having a whole set of exam questions relating to piecemeal knowledge, a measurement based on complex performances requires that the student integrate all three types of knowledge to effectively accomplish the task.

The accomplishment of the task can occur during class hours or outside the classroom. When measuring complex performances, the task, requires that the student develop or construct his own response and consequently, there is no single answer expected by the teacher or designer of the task.

In theory, experts are the ones who evaluate the level of accomplishment for a given task. So, there is a need to clearly identify the evaluation criteria for the performances being observed.

Even though an authentic evaluation calls for measurements based on performance, it is important to emphasize that a measurement of a complex performance does not automatically constitute an authentic evaluation.

For example: When the school board or the ministère de l'Éducation du Québec administers a written exam to students, allows two hours for completion, and requires a concrete production on the part of the student (written text) that will be corrected by experts (expert judgment) who rate the work on specific criteria, we can consider this exam to be a measurement of performance. However, it does not necessarily meet the requirements for authenticity: the duration may or may not respect realistic time frames for the drafting of such a text, the students cannot take advantage of advice from their teacher and cannot consult books such as a dictionary; the students may draft the text without having any real recipient in mind; or they may not be aware of the marking criteria used by those grading the exams, etc.

Thus, Wiggins (1993) suggests a set of criteria that would allow us to determine if an evaluation task is truly authentic. Among these criteria are the ones we defined earlier and others we have summarized below:

- The tasks require the student to construct or produce new knowledge and new work.
- The tasks lead to interactions between students and peers (collaboration), between students and examiners. Since the students must justify certain answers and obtain additional information to effectively complete the task, the examiner is a source of information and external feedback allowing the students to adjust the quality of their work.
- The tasks allow the students a certain amount of control over actions leading to their accomplishment. For example, in the case of a written production, the students will be able to choose the subject and the way in which they want to approach it.
- The tasks must contain the components necessary to motivate the student to go beyond the goal of just getting a good grade.

Obviously, an authentic evaluation cannot keep track simultaneously of all the criteria listed here. It is thus essential that the teacher or person evaluating, be specific with regard to authentic criteria that are considered important for the evaluation situation.

1.3.1 Elements of an evaluation task in an authentic situation

Popham (1998) reports that specialists in performance measurement list three components that characterize this measurement: multiplicity of performance dimensions, predefined performance evaluation criteria and the use of expert judgment.

- Multiplicity of performance dimensions

The measurement refers to the multiple dimensions of a given competency.

For example, the *student competency in communicating* can be measured using the following dimensions: clarity of ideas, speech adapted to the audience, the varied use of communication means, etc.

- Predefined performance evaluation criteria

For each dimension, a performance rating scale is produced for the students and shared with them.

For example, for the dimension *clarity of ideas* (see above), the rating scale could be defined as:

The student communicates the key idea of the message clearly and effectively and establishes a link between main and secondary ideas. 4

The student communicates the key idea of the message and some secondary ideas. 3

The student provides important information, but the ideas are not well structured. 2

The student provides some information without emphasizing
the key idea. 1

And the secondary concepts of the message.

— The judgment of experts

Unlike situations where a computer can be used to correct student answers or grids that do not require the judgment of experts, a measurement based on complex performances relies on the judgment of experts. The teacher is thus considered as a possible expert. From this perspective, the measurement can be compared to a sporting event where experts in the field judge the performance of an athlete.

Chapter 4 Definitions and policies relative to the evaluation of learning

Before deciding how to evaluate learning, it is necessary to have a clear picture of what we are dealing with. It is useful to understand not only the nature of the evaluation but also how it functions and its impact within the educational system.

To begin with, let us examine the nature of evaluation and identify the relationships and distinctive features between evaluation, judgment and measurement. We will then look at the various functions of the evaluation of learning and the people who benefit from its practical use.

The evaluation of student learning is an operation that consists primarily in making a judgment (or, if viewed in the context of support for learning, as an attestation or diagnostic tool) on the learning of a student. This conclusion is arrived at through deduction and is based on data provided by indicators and interpreted using benchmarks (evaluation criteria, requirements, scale, etc.).

The evaluation of learning consists therefore primarily in a judgment based on inference. It cannot be reduced to an algorithm nor be wholly objective. An evaluation is different from a measurement. A measurement is the collection of quantitative data that can be used, on occasion, as the basis for a judgment.

The evaluation of learning involves many people — those who evaluate and those whose learning is evaluated — and calls into play relational and *affective* dimensions that must be taken into consideration.

To grasp the nature of the evaluation of learning, we must remember what evaluations and learning are, and also that we are referring to the learning of people, of students. The term “evaluation” (like measurement, judgment, learning and integration) designates both the operation and its result.

If we view the evaluation as an operation, we can identify the following fundamental characteristics taken from the many definitions of the terms “evaluation” and “to evaluate”.

- evaluation is directed towards a goal, it leads to a decision;
- evaluation deals with an object;
- evaluation is primarily about assessment and judgment;
- judgment is based on data;
- judgment is made using benchmarks (in particular, evaluation criteria).

To fully understand the evaluation, it is essential to make the distinction between “evaluation” and “measurement”. According to the Commission de terminologie de l’éducation du Québec : “Evaluation has a broader meaning than measurement. An evaluation includes *qualitative and quantitative* descriptions of behaviour as well as value judgments on their desirability. (“C.T.E.Q., 1988, in Legendre, 1993, p. 574), whereas measurement consists in “collecting results and other clues for a *quantitative* analysis of student knowledge, abilities and skills .” (Legendre, 1993, p. 831).

As noted by Legendre (p. 574), “measurement relates to the collection and processing of information, whereas evaluation is a judgment based on this information”.

Chapter Synopsis:

Activity 4 :

- Activity 4.1 : Definition
- Activity 4.2 : Policy

Learning tools :

- Learning tool 4.A : A definition of the evaluation of learning
- Learning tool 4.B : Guiding principles for the evaluation of learning
- Learning tool 4.C : Definitions applicable to the evaluation of learning
- Learning tool 4.D : Comparing three types of evaluations
- Learning tool 4.E : Principles and rules that govern my actions

Document :

- Document 4. A : “Principles and policies that guide the evaluation of learning”

Supporting documentation

- Document 2.C : “Bringing changes to the evaluation of learning”

Activity 4

Definition and policies that guide the evaluation of learning

Heading	Definition and policies that guide the evaluation of learning
Objectives	To define policies prior to the planning and implementation of learning evaluations. To validate personal practices in light of these principles.
Description	To agree on definitions that are essential for understanding the proposed framework. The central aspect of this activity relates to principles and policies that guide the evaluation of learning. To acknowledge the policies that guide the implementation process for the evaluation of learning Lastly, to discuss the statements themselves in order to integrate, adapt or replace them. The purpose of this exercise is to support the policies that guide personal practices and identify emotions connected to them.
Unfolding	Activity 4.1 <i>Definitions</i> A. Individually, draft a definition of the evaluation of learning. B. Presentation of personal definitions and validation using the definition found in learning tool 4.A “A definition of the evaluation of learning”. C. Review of principles and policies using learning tool 4.B “Guiding principles and policies. Personal reactions.” D. Presentation and discussion on definitions and types of evaluation: the diagnostic evaluation, the formative evaluation and the summative evaluation using the following documents: - Learning tool 4.C “Definitions applicable to the evaluation of learning”; - Learning tool 4.D “Comparing three types of evaluations”

	<p>Activity 4.2</p> <p><i>Policies</i></p> <p>E. Creation of teams of 4 to 6 people. Each team can choose to discuss the questions in the order given or those that are of concern to them, using learning tool 4.E "Principles and rules that govern my actions".</p> <p>F. To acknowledge the proposed principles and policies and comment on them by accepting, modifying or replacing them.</p> <p>G. To identify reservations, solicit questions, concerns, agreement or disagreement on each principle. If there is no consensus within the team, make note of various options and their basis.</p> <p>H. To evaluate the relevance and coherence of principles.</p> <p>I. To evaluate the possible impact of principles adopted in our personal practice.</p>
Moderator's role	To create a climate favourable to reflection. To encourage participants to ask questions.
Participants' role	To openly express personal convictions. To support interaction with other participants. To identify the principles and policies that govern learning evaluation practices in our lives.
Pedagogical material	Learning tool 4.A: A definition of the evaluation of learning Learning tool 4.B: Guiding principles for the evaluation of learning Learning tool 4.C: Definitions applicable to the evaluation of learning Learning tool 4.D: Comparing three types of evaluations Learning tool 4.E: Principles and rules that govern my actions Document 4.A : Principles and policies that guide the evaluation of learning
Support documentation	Document 2.C : "Bringing changes to the evaluation of learning"
Approximate duration	Activity 4.1: 2 hours Activity 4.2: 4 hours

Learning tool 4.A

A definition of the evaluation of learning¹

“Tis with our judgments as with our watches, none go just alike,
yet each believes his own.”

Alexander Pope

The evaluation of learning is primarily:

- a judgment
- made by evaluators
- on the leaning of students
- through inference
- based on information relative to indicators
- using benchmarks (typical criteria, requirements, productions, etc.)
- to enlighten decisions
- relative to the learning process and its results.

Every evaluation of learning comprises three separate stages:

1. collection of raw data;
2. analysis and interpretation of data:
 - a. for the purpose of **supporting** learning:
assessment, diagnosis and judgment,
 - b. for the purpose of **attesting** to learning acquired:
measurement of performance and judgment on learning;
recording of results as grades or other format;
3. **follow-up** after judgment: communication, decisions and actions.

Based on the various results, a final judgment is made to establish a student's level of mastery relative to the targeted learning (of a course or a program).

To proceed to the evaluation of learning, there must be:

1. an identification of the learning to be evaluated;
2. a selection of indicators that constitute (as per our judgment) demonstration of this learning;
3. identification of the evaluation criteria (learning qualities);
4. data collected on these indicators through the observation of students;
5. the use of evaluation criteria to analyze the data;
6. conclusions through inference, on the level of mastery of the underlying learning.²

¹ Translated from Cécile D'Amour, *L'évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie : Les questions préalables, première édition, Performa collégial, April 1996, p. 26.

What characterizes learning

The terms “learning” and “evaluation” indicate both a process and a **result**. When we speak of learning and evaluation, we are generally referring to results. The concept we have of the **nature** of these results is in keeping with the concept we have of the process used to achieve the results.

At college level, the learning we want to evaluate is:

1. *the result of a process*
 - this is true of all learning;
2. a process that is *directed* by goals
 - this is true of all conscious and voluntary learning;
 - the goals are those of the educational system and those of the student; they are seldom in total agreement; the system goals are more clearly defined;
3. a process that is *characteristic* of the learner
 - this is true of all learning;
4. a process that is *supported* by pedagogical and didactic interventions
 - this is true of all learning except self-learning;
5. results that are *characteristic* of the person who guided the learning process
 - this is true of all learning;
6. results that are mainly abstract, *internal*, and not directly accessible or completely observable.

What characterizes the evaluation of learning

Every evaluation is affected by the characteristics of the object to be evaluated: requirements, difficulties and methods used may vary to a certain extent, according to the object being evaluated. For example, to evaluate an ability, an approach, an intellectual process, to assess a system of knowledge, to evaluate a material object and to evaluate a social behaviour are operations that, although similar in some respects, present major differences.

The operation of “evaluating learning” will share commonalities with all evaluations but it will also have characteristics of the object being evaluated, given that the object is the result of learning. Depending on the learning in question, the evaluation of learning can be characterized by a number of traits that are provided in the following table.

² Translated from Cécile D’Amour, *L’évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie : Les questions préalables, première édition, Performa collégial, April 1996, p. 51.

Evaluation of learning characteristics based on the nature of learning³

Because...	Evaluation of learning is:
i. Because learning is the result of a process,	the evaluation of learning is used to attest to results of the process and to support its unfolding.
ii. Because the process is characteristic of the learner,	the evaluation is used to support the learning process and must help learners increase their mastery of the process.
iii. Because learning is the result of a process,	the evaluation attesting to results should not be given until the time allocated for training is over.
iv. Because the learning process is based on precise targets,	the evaluation judgment is made by comparing the learning achieved with the targeted learning.
v. Because in an academic environment, the learning process is directed and supported by interventions,	the evaluation accurately targets clear learning objectives that have been effectively supported by pedagogical and didactic interventions.
vi. Because learning results are characteristic of the individual,	the evaluation judgment accurately reflects the level of mastery of each individual relative to the targeted learning.
vii. Because learning is a reality that is not directly accessible nor observable (in all its complexity),	the evaluation judgment is made through inference and based on indicators.

³ Translated from Cécile D'Amour, *L'évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Première partie : Les questions préalables, première édition, Performa collégial, April 1996, p. 25.

Learning tool 4.B

Guiding principles and rules⁴

Principles (personal conduct) useful in directing the process and for maintaining a critical eye.

A. The evaluation of learning is in the spirit of collective choices

- an action in keeping with collective choices;
- a practice marked by the dynamics of a dialogue between departments, programs.

B. The evaluation of learning is carried out in a professional manner

- a practice based on a frame of reference;
- consistency between individual and collective practices;
- respect of ethical requirements.

C. The evaluation of learning supports learning while attesting to the learning achieved

- adequate formative-summative coordination;
- importance of role played by formative and diagnostic evaluations.

D. The summative evaluation must be fair and equitable and perceived as such

The summative evaluation must be fair and equitable

The term “fair” implies an evaluation that is both just and accurate. A fair and equitable evaluation fulfills three requirements: justice, accuracy and equity.

Justice means the absence of arbitrary decisions, in conformity with:

- agreement on lines of conduct, suitable rules;
- right of recourse in case someone perceives the evaluation as either unfair or not equitable.

Accuracy is the quality of proper targeting, of assigning the rightful and exact value:

- to evaluate effectively what one seeks to evaluate (validation);
- to evaluate the object of evaluation with accuracy (reliability);
- to judge based on a sufficient amount of data.

Equity means the judgment is impartial and treats all individuals equally:

- the process of evaluation is free of discrimination, at all levels;
- the process of judgment is written out, illustrated and executed in a manner that ensures the greatest possible objectivity, impartiality and stability;
- measures are taken to ensure **equivalence** as much as possible in the evaluation from one classroom-group to another, from one teacher to another.

The summative evaluation must be perceived as such

⁴ Translated from Cécile D'Amour et Groupe de recherche à Performa, “Une évaluation des apprentissages marquée par le nouveau paradigme”, *L'évaluation des apprentissages au collégial : du cours au programme*, Fascicule II. Cadre de référence. Section D, première édition, Performa collégial, p. 65-85, 1996.

The rules for evaluations, the benchmarks used for judgment (evaluation criteria, minimum requirements, levels of mastery, typical productions, etc.) and the process must be understood by those who will be evaluated (**transparency**).

E. The formative evaluation is lenient and conducive to the development of student autonomy

The teacher adopts an attitude of trainer: coaching, showing empathy, encouraging progress, identifying problems, contributing to the diagnosis and the evaluation as well as the identification and implementation of remedial measures (**student preparation throughout the program**).

Formative evaluation activities are designed so the student develops the ability to adjust actions and learning autonomously, thanks to feedback received (**development of autonomy**).

Formative activities are designed to enable students to develop their ability to self-evaluate and their capacity for metacognition (**development of autonomy**).

F. The evaluation of learning is carried out with pertinent and exact methodology that keeps track of evaluation methods (collection of data, interpretation and judgment) as well as measures ensuring the quality of the evaluation.

Evaluation methods are adapted to the nature of the learning to be evaluated.

Evaluation methods are adapted to the **function** of the evaluation (support or certification) and its requirements.

Methods ensure the quality of the evaluation (guarantee validity, reliability and equivalence).

The choice and use of methods and **tools** are marked by a stringent respect for proper procedures and conditions of use.

Four rules on which to base the search for fairness

For a process to be fair, it must respect rules deemed appropriate by those who use the process. These rules can vary from one community to another and even within the same group from one era to another; they are a function of the concepts concerning the process in question and the very notion of fairness.

Given the understanding we have of the nature and functions of the evaluation of learning and the decision made to include the evaluation of learning as part of the new emerging perspectives in the field of education, it seems to us that the search for fairness in the evaluation of learning rests on four rules:

Rule 1

The evaluation of learning objects and methods, must be consistent with the orientation (objectives) and the reality of learning (teaching and learning activities).

Coherence in evaluation-training

Rule 2

The summative evaluation judgment must not be rendered before the end of the training period (that corresponds to the segment of education— course or program — required for attestation); the result of the evaluation must reflect the degree of mastery achieved at the end of the process.

Respect of the final nature of the summative evaluation

Rule 3

Within the framework of the summative evaluation, student learning must be evaluated relative to expected (pre-defined) learning results

Use of expected results for comparative purposes (criteria-based evaluation)

Rule 4

Results of the evaluation of learning must be characteristic of the student; the indicators used must allow for a judgment on the acquisitions of each individual.

Respect for the individual character of learning

Learning tool 4.C

Definitions applicable to the evaluation of learning⁵

Measurement	Activity consisting in collecting results and other data for quantitative and/or qualitative descriptions of performances and student acquisitions (knowledge, abilities, skills, attitudes, values). First stage in the process of the evaluation of learning.
Evaluation	Activity that analyzes and interprets results and other measurement data to make a qualitative or quantitative judgment on student performances or acquisitions (knowledge, abilities, skills, attitudes, values). The purpose of this activity is to make the best decision possible relative to the support and certification of student learning. Second and third stages in the process of the evaluation of learning.
Normative evaluation	Evaluation in which student performance is compared to that of a reference group using the same measurement tool. (Legendre, 1988)
Normative interpretation	The interpretation of results is considered normative when it is compared to group results. For example, Annie can jump 1.10 m. She is first in her class.
Criteria-based evaluation	Evaluation in which the performance of a subject is judged using benchmarks and criteria for success identified within targeted objectives, and independent of other performances.(Legendre, 1988)
Criteria-based interpretation	The interpretation is criteria-based when the results are compared to criteria. For example, Peter can jump 1.20 m. The criteria for success for this student is set at 1.25. Therefore the objective was not reached.

⁵

Translated from Pierre Deshaies, Hermann Guy and Michel Poirier, “Les procédures d’élaboration d’une épreuve d’évaluation”, *Recueil intégrateur, Section IV : L’évaluation des apprentissages au collégial*, (not yet in print), Sherbrooke, regroupement des collèges Performa, 2003.

**Definitions applicable
to the evaluation of learning (cont'd)**

Continuous evaluation	Cumulative process of grading or reporting spread over a pre-determined period of time (learning activity, session, year) after which a final grade is assigned. (Pôle de l'Est, 1996)
Diagnostic evaluation	Intervention carried out at the beginning of a course to identify the level of mastery of previously acquired skills in relation to the attainment of targeted learning in a specific course. (Pôle de l'Est, 1996)
Formative evaluation	Evaluation of one or more learning sections a learning sequence during the course of teaching and learning. The essential function is the regulation of learning. It provides feedback so the student can progress in his learning through remedial activities; it allows the teacher to identify activities for the pursuit of teaching and the required student supervision . (Pôle de l'Est, 1996)
Summative evaluation	Evaluation carried out at the end of a course or learning sequence that is consistent and meaningful. The essential function is the validation of learning and student certification, a verdict for success or a grade indicating failure. (Pôle de l'Est, 1996)
Object of evaluation	Learning (knowledge, skills, abilities, and attitudes) evaluated to support the learning process or validate acquired student learning. The objects of evaluation are based on the learning required within the program or the course. (D'Amour et autres, Fascicule II, p. 55, 1996)

**Definitions applicable
to the evaluation of learning (cont'd)**

Object of the summative evaluation	<p>Learning that is considered sufficiently important to warrant official certification at the end of the course or program. In a competency-based approach, this is fundamental and integrating learning. Certification deals with the mastery of learning that corresponds to:</p> <ul style="list-style-type: none"> — the targeted goals and learning objectives (<i>cf.</i> ministerial specifications, exit profile, final integrating objective or final integrating objectives for each course, etc.); — knowledge that contributes to preparing students for subsequent stages of learning. (<i>cf.</i> stage within the course and subsequent courses). <p>(D'Amour et autres, Fascicule II, p. 52, 1996)</p>
Object of the formative evaluation	<p>Learning that the teacher or teaching group feel is useful in supporting the process. This can include:</p> <ul style="list-style-type: none"> — all learning connected to the objects of the summative evaluation (ex.: intermediate, specific, one-dimensional learning, etc.); — learning that is seen in more than just one course and the object of a summative evaluation in a subsequent course; — learning that is not the object of a summative evaluation (ex.: prior knowledge to be consolidated; learning relative to basic education, an educational project at college, the exit profile for a program and learning that is not included in official objectives). <p>(D'Amour et autres, Fascicule II, p. 53 et 54, 1996)</p>

**Definitions applicable
to the evaluation of learning (cont'd)**

Indicator	<p>An indicator is a demonstration, action or gesture that is directly observable and allows for an evaluation of an objective that is not directly observable. (D'Amour et autres, Fascicule II, p. 55, 1996)</p> <p>The selected indicators must allow for the observation of:</p> <ol style="list-style-type: none"> 1. actions, student behaviour during the achievement of a task, in a situation (a process); 2. work produced by the student following the achievement of a task (production); 3. words (written and oral) used by the student relative to his knowledge and their integration in the achievement of the task (speech). <p>(D'Amour et autres, Fascicule II, p. 55, 1996)</p>
Evaluation criteria ⁶	<p>Evaluation criteria refer to the properties, characteristics and qualities that assist in judging various dimensions of the objects of evaluation as revealed by indicators.</p> <p>(D'Amour et autres, Fascicule II, p. 55, 1996)</p>
Minimum requirements (Identification of “STANDARDS” for certification of learning)	<p>Benchmarks and indicators chosen by the teacher or teaching group to represent the minimum level of learning that must be achieved by the student at a specific stage (ex.: in a course, at the end of a course or program, professional examination, etc.).</p> <p>(D'Amour et autres, Fascicule II, p. 52, 1996)</p>
Inference	<p>Process by which the teacher or teaching group arrives at conclusions relative to student learning, based on selected indicators.</p> <p>The quality of the inference relies on the strength of the connection between the indicator and the object, the time frame (proximity to the end of the learning process) and the minimum requirements for this stage of learning.</p> <p>(D'Amour et autres, Fascicule II, p. 26, 1996)</p>

⁶ The term “criteria” is very general and can be used to indicate dimensions of the object and indicators. We use the term to indicate “qualities” that are sought and will be used to render the evaluation judgment.

Learning tool 4. D

Comparing three types of evaluation

Let us examine the formative evaluation, the summative evaluation and the diagnostic evaluation based on four major characteristics:

- the time frame;
- the nature of the objects under evaluation;
- the nature of the decisions resulting from the evaluation;
- the recipient of the judgment rendered.

Characteristics	Diagnostic evaluation	Formative evaluation	Summative evaluation
Time frame	before learning begins; at the beginning of a sequence	during learning; at the end of a stage regularly, in continuous fashion	after learning has taken place; at the end of a key stage of learning
Nature of the objects under observation	abilities or prior knowledge	learning progress, learning, process and results (mastery of knowledge, skills, etc.) (small units)	achievement of key goals (larger units)
Nature of the decisions	prior student orientation and adjustment to teaching activities	ongoing adjustments to teaching and learning activities	passing grade, diploma
Principal recipients	school administration; teacher	student; teacher	school administration

Types of evaluation

Included are eight index cards (p. 144-151) provided by Pierre Deshaies, educational advisor at Collège Shawinigan, within the framework of MIPEC/PED-858/Outils de formation, version 2, autumn 2002.

1. Evaluating in a formative and summative way

Theoretical considerations

“Teachers cannot avoid feeling like traitors... either they betray the trust of students who expect total complicity; or, they betray society that expects them to always provide sound judgments.”. Albert Jacquard

These concise remarks by A. Jacquard¹ introduce us to this ongoing debate that brings into conflict proponents of formative evaluations and those of summative evaluations, despite the fact that the nature of both types of evaluation seems well defined.

The general consensus in the field is to consider the formative evaluation as a review of data provided by the teacher during the learning process. The data validates the total or partial mastery of the objects of learning; identifies what the student has understood, what he has not yet grasped and why he is experiencing a particular difficulty in mastering these objects. According to Scallon², formative evaluation plays the role of *regulator* of student learning. Although it can be quantified (ex.: a discriminating scale), the formative evaluation is generally descriptive and qualifies student training. It is thus ideal for providing continuous feedback on learning achieved and is also “proactive” in that it can identify any remedial learning required.

A similar consensus applies to the *summative* evaluation that is linked to the *decision-making process* at the end of the training, which it sanctions by either granting or withholding success. As expressed by Allal³, it is from this type of generalized evaluation that students receive certificates of competency (report cards) from designated organizations. By assigning the student a certain grade, the teacher does more than judge and validate the degree of student success; he also intervenes in a decisive fashion in the student's academic and professional environment. Jacquard denounced precisely this type of situation when he accused teachers of treachery [...]. According to him, society abdicates its role when it asks teachers to go against their natural complicity with students by rendering peremptory judgments and sanctions.

Teachers should be true coaches and provide students with resources during the entire learning process. The final summative evaluation and selection should be left to others. In short, the formative evaluation should be the responsibility of the teacher and the summative evaluation should be left to society!

¹ Translated from Albert Jacquard, *Inventer l'homme*, Éd. Complexe, Brussels, 1984, 183 p., p. 170.

² Translated from Gérard Scallon, *L'évaluation formative des apprentissages. La réflexion*, Presses de l'Université Laval, 1988, 171 p., p. 135.

³ Translated from L. Allal, *Vers une pratique de l'évaluation formative*, De Boeck Wesmael, Brussels, 1991, 158 p., p. 13.

2. Evaluating in a formative and summative way

Theoretical considerations (cont'd)

We will not settle this theoretical debate but we will try to define it in terms with which teachers are more familiar.

Whether desirable or not, the teacher performs both formative and summative evaluations and it is wrong to view this bimodal function as merely accessory. In fact, pedagogically speaking, the formative evaluation seems to have a definite advantage over the summative evaluation. And this is not just a bias. Many research results attest to the superiority of the formative evaluation over the summative evaluation, relative to the effectiveness of teaching.

We are in complete agreement with this and, in fact, believe that the formative evaluation could be considered part of the act of teaching itself, given that it is inherent to it. How can we possibly conceive of effective teaching without continuous feedback between the teacher and the student? Whether formal or not, the formative evaluation should be considered essential to teaching because it provides essential information on learning. However, a great number of teachers are still not giving it the attention it deserves. The reasons given are diverse and summarized in the writings of J. Lavoie-Sirois⁴. In spite of the key role played by the formative evaluation in teaching however, it is important not to forget the *summative* evaluation and the role it plays.

Admittedly, many teachers are convinced of the effectiveness of formative evaluations in the learning process, but there are others who recognize the unquestionable effectiveness of *summative* evaluations. Students may say “that they do not work for the grade”, but they continue to ask “does this count or not?”. And, in fact it does count, because when a teacher assigns a grade to the student at the end of a learning cycle, he places the student in a competitive situation that will inevitably impact him in ways he cannot anticipate. This fact alone should dictate that the summative evaluation be handled as professionally as possible. A grade is often a strong motivator in the learning process. Behaviorist theories on the effects of rewards and punishments were not inspired by Tarot readings! Every teacher who has used formative evaluations frequently, without assigning a grade, can attest to the fact that they lead to *a decrease* in student efforts over time.

The desire to distinguish between formative and summative evaluations resulted in a dissassociation of the two rather than a collaboration towards a common goal, i.e., the evaluation of learning. In our opinion, collaboration is the right pedagogical path on which to embark.

In short, let us stress that the formative evaluation draws its maximum effectiveness when it lets students understand the precise nature of their learning and by effectively preparing them for the summative evaluation. We will discuss later how this is possible on a practical level. The summative evaluation, for its part, draws its maximum effectiveness by validating the mastery of learning; and, by acting as a *lever* or *motivating agent* for later learning. This will also be reviewed in the following pages.

⁴ Translated from J. Lavoie-Sirois, *La problématique de l'évaluation formative chez les enseignants et les enseignantes*. Non-published course notes taken from an improvement session, Documents A, B, C and D, Université Laval, Faculty of Education, 1991, 27 p., p. 3-5.

3. Formative evaluation versus summative evaluation

All things considered, the teacher who wants to effectively use both summative and formative evaluations, should position them on a *continuum* where, in complementary fashion, formative evaluations prepare the student for upcoming summative evaluations.

Statements

- The formative evaluation is generally more effective than the summative evaluation in supporting quality learning in students.
- The formative evaluation achieves its maximum effectiveness when it prepares the ground for the summative evaluation. Used alone and too frequently, it can negatively impact student efforts and interest.
- The formative evaluation is done throughout the student learning process.
- The formative evaluation has *diagnostic* and *prescriptive* qualities.
- This type of evaluation offers great flexibility in its methods of application: exercises, written and oral comments, encouragement, formal and informal feedback, etc.
- The formative evaluation is also applicable to several types of learning objectives (memorization, judgment, analysis, transfer of knowledge, attitudes, etc.).
- The formative evaluation allows students to participate in their own evaluation.
- The summative evaluation is used only at the end of a learning process and for assessment purposes.
- The summative evaluation evaluates a broader body of learning than the formative evaluation.
- The summative evaluation is directed towards a *decision* on the level of student success.
- The summative evaluation is always quantified or assigned a grade.
- The summative evaluation is always formal and objective.
- The summative evaluation can have a motivating effect on students, particularly students who are high achievers.
- The summative evaluation results in immediate and far-reaching consequences for the student, and demands professionalism from the teacher.

4. To evaluate in a formative and summative way

Practical advice

- When evaluating student learning in a formative way, define the value of this type of evaluation very clearly by demonstrating that “it counts even if it does not count for grades”!
- Avoid repetitive formative evaluations. When they are frequent and closely spaced, these evaluations end up “de-motivating” students.
- Regularly connect formative evaluations to later summative evaluations. For example, use questions in a simulated examination and advise students that these questions will be on the summative examination. Vary the formative evaluation: oral questions in the classroom, written test, questionnaire corrected by the students, distribution of answers, questionnaire-games, teamwork, student identification of problems and resolutions, immediate reference to reading assignments, individual feedback in the classroom, etc.
- The use of formative evaluation grids is strongly recommended. [...]
- When evaluating students in a *summative* way, focus the evaluation on what is essential to the achievement of course objectives. Not everything can be evaluated, nor is it realistic to believe it can be. In theory, examinations of 25 questions or more should be avoided and written work must be directly connected to course objectives, well defined and include precise instructions. [...]]
- Always inform your students in advance of evaluation dates and repeat the information.
- You can provide examination questions to students in advance, when the evaluation’s targeted objectives make it feasible. This process helps guide students in their studies and maximizes efforts. It is particularly suited to examinations with “open” questions (10 or more questions).
- This practice has no value for exams that are said to be “objective”. The purpose of the examination is not to trap students but to validate their understanding of the subject matter. Providing the questions in advance - when feasible – displays good faith and guides the students in preparatory work, it also increases their sense of security.
- To give a formative character to summative evaluations, allow students to “correct” their examination answers whenever feasible. The formula of at-home exams lends itself well to self-correction and many students – both weak and strong – benefit from this exercise. In this scenario, interested students must meet with the teacher only at predetermined times so as not to overload their latter’s workload. This type of activity reduces the workload relative to final corrections.
- You can also allow students to bring a sheet or index card, that they have prepared prior to the exam, to summarize the subject matter. In this situation, you may choose not to provide students with questions in advance.

Translated from Jean Proulx, *Enseigner mieux, stratégies d’enseignement*, Cégep de Trois-Rivières, 1993, p. 169-174.

5. The summative evaluation

Function

To prepare an assessment of what the student has learned in order to make decisions relative to validation of studies and certification

Decision

Decisions of an administrative nature:

- certification
- passing grade to next level

Decisions of a pedagogical nature:

- to create special groups
- to organize remedial courses

Goal

Goals :

- validate achievement of objectives within a program or section of a program (course)
- grant credits and/or recognize acquisitions

When:

- at the end of learning

Content:

- final program objectives
- final objective (integration) of a course

Summative evaluation

Judgment

Type of feedback (judgment) :

- information and judgment relative to *each* student that is:
 - analytical (profile of acquisitions)
 - summarial (global judgment)
- information relative to the group:
 - global indicators of group acquisitions

Measurement

Type of measurement interpretation:

- criteria-based
- normative (this measurement should not be present in a competency-based approach)

Means:

- final test
- comprehensive assessment

SRD/adapted from PEPFO (Projet d'excellence pédagogique des francophones de l'Ontario)

6. The formative evaluation

Function

To provide feedback on student progress, identify errors, their cause and introduce corrective measures.

Decision

Decisions of a pedagogical nature:

- modification of teaching and learning strategies or framework

Goal

Goals

- adapt to the needs of the students (individual or group)
- help the student to progress

When:

- before, during and after the learning process

Content:

- one or more learning objectives
- the final course objective
- the final program objectives

Judgment

Type of feedback (judgment) :

- information and judgment relative to *each* student that is:
 - analytical (profile of acquisitions)
 - summarial (global judgment)
- information relative to the group:
 - global indicators of group acquisitions

Formative evaluation

Measurement

Type of measurement interpretation

- criteria-based

Means:

(measurement tools) :

- tests constructed to identify errors and plan corrective measures
- observation grids
- rating scale
- journals
- ...

7. Advantages of the formative evaluation

1. Focuses on the **process** more than the product (the product is just a product, i.e., the result of a process).
2. Facilitates cooperation; competition impedes cooperation.
3. Creates a **climate of security** that is more productive than stress generated by external controls and values placed on performance.
4. **Rapidity** of execution; there is nothing more time-consuming than grading assignments.
5. Allows for feedback on **all aspects of education**.
6. Reduces **the burden of corrections**, by entrusting the essential work of formative evaluation to the student.
7. Allows the students to assume **responsibility for their learning**.
8. Allows for transmittal of information relative to **qualities and weaknesses of work**, as well as **desired improvements**.
9. Enables and even encourages intellectual risk; allows students to **go off the beaten paths** without risk of being penalized.
10. Supports **frequent feedback**, which in turn motivates students.

Excerpt translated from Ulric Aylwin, “Apologie de l'évaluation formative”, *Pédagogie collégiale*, March 1995.

8. Examples of formative evaluation exercises

- Find three words that summarize the presentation that just took place.
- Give an example of the rule (or concept or formula) explained in the preceding presentation.
- Find the rule (or concept or formula) that is expressed in the following example.
- Identify the elements of the subject matter you did not understand.
- Identify the elements you understood the best.
- Form pairs using the two lists of words provided (for example, a list of symptoms and one of diagnostics).
- Compare your course notes with those of your neighbour.
- Write a sentence that summarizes the presentation that occurred.
- Draft a question on the presentation's essential theme.
- Given a specific answer, find the question that goes with it; or given a solution, identify the problem.
- Given a specific situation, identify the factors or circumstances that created it.
- Given a specific situation, identify the resulting impact or phenomena.
- Classify a list of words according in a specific order.
- Complete the following concepts.
- Identify in the following table, the components that are missing, unnecessary or erroneous.
- Given the following problem, list the steps or procedure required to find the solution.
- Given the present situation, what diagnosis would you recommend? (What decision should be made? What action should be taken?)
- Etc.

Translated from Ulric Aylwin, *Petit guide pédagogique*, Montréal, AQPC, 1994, p. 67.

Learning tool 4.E

Principles and rules that govern my actions⁵⁵

Key questions and principles	Comments:
<p>BY WHOM? Proposed principle(s)</p> <p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation of learning belongs to the teacher; it respects the principles adopted by the establishment and the department and although it can be shared with colleagues, it cannot be shared with the learner whose leaning is being evaluated nor his colleagues.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) The teacher is not the only person responsible for formative evaluations, nor should he be: it is desirable, in student learning, that formative evaluation methods call upon peer evaluation and self-evaluation.</p>	<p>Does this statement fall under the teaching paradigm or the learning paradigm?</p> <p>Is it present in my evaluation practices?</p> <p>Novelty and pertinence of this principle?</p> <p>.....</p>
<p>OF WHOM? Proposed principle(s)</p> <p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation must be individualized.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) It is not necessary for the formative evaluation to validate individual work, but it is useful with this type of evaluation to use collective methods for observation, judgment and feedback.</p>	<p>Does this statement fall under the teaching paradigm or the learning paradigm?</p> <p>Is it present in my evaluation practices?</p> <p>Novelty and pertinence of this principle?</p> <p>.....</p>

⁵⁵ Translated from Cécile D'Amour, *Principes et règles d'action qui devraient guider l'évaluation des apprentissages*, Session de perfectionnement, Cégep de l'Abitibi-Témiscamingue, 1995.

Key questions and principles	Comments:
<p>WHAT? Proposed principle(s)</p> <p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation within a course must deal <i>uniquely</i> with objectives that were <i>precisely</i> pre-determined as learning objectives in the course.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) The formative evaluation must deal with the principal components or stages of targeted learning in the course that will be the object of the summative evaluation.</p> <p>3) The formative evaluation can also deal with objectives that are not included in the summative evaluation (for example, objectives relative to basic education or students' personal objectives).</p>	<p>Does this statement fall under the teaching paradigm or the learning paradigm?</p> <p>Is it present in my evaluation practices?</p> <p>Novelty and pertinence of this principle?</p> <p>.....</p>
<p>ACCORDING TO WHAT? Proposed principle(s)</p> <p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation must be based on criteria:</p> <ul style="list-style-type: none"> — that are predetermined; — transmitted to the student; — common to all student groups within the same course. <p>2) The evaluation criteria must be appropriate to:</p> <ul style="list-style-type: none"> — the learning objective; — the level of student learning. <p>THE FORMATIVE EVALUATION</p> <p>3) The formative evaluation must (primarily) be based on the same criteria used for the summative evaluation so that students may incorporate them.</p>	<p>Does this statement fall under the teaching paradigm or the learning paradigm?</p> <p>Is it present in my evaluation practices?</p> <p>Novelty and pertinence of this principle?</p> <p>.....</p>

Key questions and principles	Comments:
TO WHAT POINT? Proposed principle(s) THE SUMMATIVE EVALUATION	Does this statement fall under the teaching paradigm or the learning paradigm?
1) The level of requirements on which the summative evaluation of learning is based, must be achievable by the great majority of students admitted to the course providing they benefit from quality teaching and do adequate personal work, both qualitatively and quantitatively (respecting the weighting assigned to the course).	Is it present in my evaluation practices? Novelty and pertinence of this principle?
2) The minimum degree of mastery for each component of complex learning must correspond to the value of that component (some components may require perfect mastery).	..... ..... ..... ..... .....
THE FORMATIVE EVALUATION	.....
3) The formative evaluation must motivate students to achieve the highest possible mastery of targeted learning; it must not orient students exclusively towards meeting the minimum threshold (a passing grade).	..... ..... ..... ..... ..... ..... .....

Key questions and principles	Comments:
FOR WHOM? Proposed principle(s)	Does this statement fall under the teaching paradigm or the learning paradigm?
THE DIAGNOSTIC EVALUATION	Is it present in my evaluation practices?
1) The diagnostic evaluation at the beginning of a course is primarily useful for students but also for professors.	Novelty and pertinence of this principle?
2) Results must be communicated individually to the student.	.....
3) The overall results of diagnostic evaluations of classroom-groups in a course should be communicated to professors who teach courses that are prerequisites to this course.	.....
THE FORMATIVE EVALUATION	.....
4) The formative evaluation within the course is useful for both students and the professor, from a perspective of regulating the teaching and learning processes.	.....
5) The formative evaluation does not always have to be confidential; it can be done in a progressively informal fashion, as trust develops over time in the classroom-group. (An open approach makes it possible for several students to benefit from feedback offered on one student's productions or performance vs a confidential approach; it also increases social interactions conducive to learning; and has the advantage of reducing the amount of teacher corrections.)	.....
THE SUMMATIVE EVALUATION	.....
6) The results of a summative evaluation officially sanction studies.	.....
7) The results of a summative evaluation must be communicated to students in a confidential manner.	.....
8) The overall results of a summative evaluation for classroom-groups in a course, should be communicated (for analytical purposes) to those teachers whose responsibility is to ensure course quality.	.....

Key questions and principles	Comments:
FOR WHAT? Proposed principle(s)	Does this statement fall under the teaching paradigm or the learning paradigm?
THE DIAGNOSTIC EVALUATION	Is it present in my evaluation practices?
1) The primary purpose of a diagnostic evaluation at the beginning of a course, is to help students and professors plan the work ahead:	Novelty and pertinence of this principle?
— The teacher will have a better grasp of student concepts and acquisitions and be more able to anticipate learning difficulties;
— Students will have a more accurate view of their acquired strengths and their weaknesses.
2) The results of the diagnostic evaluation can also serve to promote reflection on what students acquired in prior courses.
THE INFORMATIVE EVALUATION
3) The purpose of the formative evaluation is to regulate teaching and learning processes.
THE SUMMATIVE EVALUATION
4) The primary purpose of the summative evaluation in a course is to attest to the level of mastery achieved as regards the learning targeted in the course, the level reached:
— by each individual,
— at the end of the course.
5) The results of the formative evaluation can also contribute to the global evaluation process of a program or the teaching dispensed within a department.

Key questions and principles	Comments:
HOW? Proposed principle(s) (means)	Does this statement fall under the teaching paradigm or the learning paradigm?
THE SUMMATIVE EVALUATION	Is it present in my evaluation practices?
1) The methods used to evaluate the accomplishment of a goal must “respect” the nature of the objective and the level of mastery sought. (coherence goals /methods)	Novelty and pertinence of this principle?
2) At the end of the course, there must be a test (with one or more sections) dealing with the final goal(s) of the course, in all its(their) complexity and totality. (final test.)	..... ..... ..... ..... .....
3) The report card grade should reflect the degree of mastery of learning at the end of the course; it cannot simply be the total of grades given at different moments during the training. (construction of the final grade)	..... ..... ..... ..... .....
4) To achieve “success”, the student must pass the final test (this is an absolute requirement).	..... ..... ..... ..... .....
5) A student who fails the final test despite having passed most of the tests leading up to it, should have the right to rewrite the exam. (conditions for rewriting)	..... ..... ..... ..... .....
THE FORMATIVE EVALUATION	.........................
6) It is beneficial to use the formative evaluation in various ways (formal and informal, individual or group, oral or written, interactive or not, etc.).	..... ..... ..... ..... .....
7) The methods adopted must always include feedback and offer possibilities for correction and adjustments in learning and teaching.	..... ..... ..... ..... .....

Key questions and principles	Comments:
HOW? Proposed principle(s) FOR OVERALL EVALUATIONS	Does this statement fall under the teaching paradigm or the learning paradigm?
1) <i>Transparency</i> Students must be clearly informed: <ul style="list-style-type: none">— of the general principles and rules prevailing in the institution as regards the evaluation of learning;— of the various components making up the evaluation process in each course.	Is it present in my evaluation practices? Novelty and pertinence of this principle?
THE FORMATIVE EVALUATION
2) <i>Frequency and integration</i> The course must include frequent formative evaluations that are linked to the summative evaluation and also well integrated into the teaching and learning processes.
THE SUMMATIVE EVALUATION
3) <i>Accuracy</i> The evaluation methods provide an accurate evaluation. To accomplish this, we must ensure the validity and reliability of the evaluation tools (in situations where reliability is relevant).
4) <i>Fairness</i> In order to ensure fair treatment for students in all courses, the summative evaluation for the overall course must avoid all forms of discrimination and be administered in accordance with common principles and guidelines (adopted by the institution and the department responsible for the course).
(Rules are to be applied in a considered and critical manner; with modifications if necessary).
In addition, the summative evaluation must be equivalent for all students in the same course (whether they have the same professor or not).

Key questions and principles	Comments:
<p>HOW? Proposed principle(s) (means)</p> <p>To achieve a <i>final integrating goal</i> relative to complex learning that, in some cases, will be directly transferable outside the college environment.</p> <p>In addition to the previously mentioned general principles we must take into account the following specific principles:</p>	<p>Does this statement fall under the teaching paradigm or the learning paradigm?</p> <p>Is it present in my evaluation practices?</p> <p>Novelty and pertinence of this principle?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
THE SUMMATIVE EVALUATION	
<p>1) The degree of achievement as regards complex learning is more appropriately expressed by a “snapshot” of the mastery of the various components in interaction rather than the results of tests where components are evaluated separately. (interaction rather than juxtaposition)</p> <p>2) Tasks used to evaluate complex learning must reflect the complexity of this learning and must be as realistic as possible in reflecting the way learning will be used beyond college studies. (nature of the tasks)</p> <p>3) Evaluating the level of mastery of complex learning rests on an evaluation judgment and not on a measurement. (importance of the judgment)</p> <p>4) To accurately evaluate how well complex learning has been mastered, we must use more than one test. (number of tests)</p> <p>5) The level of mastery of complex learning is more accurately reflected by a scale defined by levels (a few numbers) than by a scale expressed in percentages. (rating scale)</p>	<p>.....</p>
THE FORMATIVE EVALUATION	
<p>6) Formative evaluation methods must stimulate metacognition and self-evaluation.</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Document 4.A

“Principles and rules that guide
the evaluation of learning”⁵⁶

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>Why?</p> <p>GOAL (S)</p> <p>Within the scope of a course, both the diagnostic evaluation and the formative evaluation meet the need for diagnosis and regulation, with the diagnosis being stronger in a “diagnostic” evaluation. This evaluation can be considered similar to a formative evaluation used at the beginningng of a course.</p>	<p>THE DIAGNOSTIC EVALUATION</p> <p>1) The primary goal of the diagnostic evaluation, administered at the start of a course, is to help students and teacher plan their work:</p> <ul style="list-style-type: none"> a) The teacher will have a better grasp of student concepts and acquisitions, and be more able to anticipate learning difficulties; b) Students will have a more accurate view of their acquired strengths and their weaknesses in relation to what is required to undertake the course. <p>2) <i>In certain courses</i>, the diagnostic evaluation can help the student understand the purpose of the course and become aware of the gaps between his capacities and what is needed to pass the course.</p> <p>3) The results of the diagnostic evaluation can also serve to nourish a reflection on what students acquired in prior courses.</p> <p>THE FORMATIVE EVALUATION</p> <p>4) The purpose of the formative evaluation is the regulation of teaching and learning processes, regulation that can be the result of a diagnosis.</p> <p>THE SUMMATIVE EVALUATION</p> <p>5) The primary purpose of the summative evaluation of learning for an overall course is to officially attest to the level of mastery achieved:</p> <ul style="list-style-type: none"> — for each individual, — at the end of the course. <p>6) The results of the formative evaluation can also contribute to the evaluation process within a program or the teaching dispensed within a department.</p>

⁵⁶ Translated from Cécile D'Amour, *Principes et règles d'action qui devraient guider l'évaluation des apprentissages*, Proficiency session, Cégep de l'Abitibi-Témiscamingue, 1995.

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
For whom? RECIPIENTS	<p>THE DIAGNOSTIC EVALUATION</p> <ol style="list-style-type: none"> 1) The diagnostic evaluation, administered at the start of a course, is useful for students and the professor. 2) The results must be communicated individually to each student. It is also worthwhile for the professor to communicate the overall results to the classroom-group and to explain how this “snapshot” will be taken into account in the planning of teaching, learning and evaluation activities (impact on student motivation). 3) The overall results of the diagnostic evaluation, for the classroom-group of a given course, should be communicated to all teachers offering courses that are prerequisites for this course. <p>THE FORMATIVE EVALUATION</p> <ol style="list-style-type: none"> 4) The formative evaluation administered in a course helps the students and the professor in regulating the teaching and learning processes. 5) The formative evaluation does not always have to be confidential; it can be conducted in a progressively more open manner, in a more public fashion, as trust develops in the classroom-group⁵⁷. <p>THE SUMMATIVE EVALUATION</p> <ol style="list-style-type: none"> 6) The results of the summative evaluation serve to officially sanction studies. 7) The results of the summative evaluation must be communicated to the students in a confidential manner. 8) The overall results of the summative evaluation, for the classroom-group of a given course, should be communicated to the professors who are responsible for course quality (departments, program teams, etc.). (Any documents useful for interpretation should accompany the results.)

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The open approach versus confidentiality makes it possible for several students to benefit from feedback based on one student’s production or performance; this way of proceeding increases social interactions conducive to learning; it also offers the advantage of reducing the professor’s burden of corrections.

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
When? TIME AND FREQUENCY	<p>THE DIAGNOSTIC EVALUATION</p> <p>1) A diagnostic evaluation must take place at the start of a course (first or second meeting).</p> <p>THE FORMATIVE EVALUATION</p> <p>2) The formative evaluation must be used regularly, at pivotal moments in the learning process and any time the teacher deems it necessary to check the impact of his teaching.</p> <p>THE SUMMATIVE EVALUATION</p> <p>3) All summative evaluations must take place at the end of a pivotal stage of learning. (“at the end” means the moment when most of the students should have completed that stage of learning)</p> <p>4. The definitive judgment that follows the summative evaluation must be made when it is no longer possible to go back over past content.</p> <p>(see principles listed under “HOW?” (the methods)</p>
Of whom? SUBJECT(S)	<p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation must be individualized, that is, the judgment must be based on indicators obtained from the <i>individual</i> whose learning we are trying to sanction. These indicators can also relate to a group activity.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) It is not only unnecessary for the formative evaluation to be given in the form of an individual assignment, but it is practical for this type of evaluation to use collective methods for observation, judgment and feedback purposes.</p>

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
Of what? OBJECT(S)	<p>THE DIAGNOSTIC EVALUATION</p> <p>1) The diagnostic evaluation, administered in one or several more-or-less formal sections, must deal with all objects (concepts, beliefs, acquisitions, intellectual practices) likely to have an influence on learning.</p> <p>THE SUMMATIVE EVALUATION</p> <p>2) The summative evaluation within a course must deal <i>exclusively</i> with the objective(s) that was(were) clearly <i>stated</i> and <i>pursued</i> as the targeted learning for the course.</p> <p>THE FORMATIVE EVALUATION</p> <p>3) Any component that will be the object of the summative evaluation must first have been evaluated in a formative evaluation.</p> <p>4) The formative evaluation can also relate to goals that will not be the object of the summative evaluation (for example, certain basic education goals or students' personal goals).</p> <p>5) The formative evaluation deals with results and processes as well as with the student's judgment on the processes and results.</p>
Based on what? CRITERIA	<p>THE SUMMATIVE EVALUATION</p> <p>The summative evaluation of a student's learning must be an "evaluation established on a criteria-based interpretation", that is, the judgment must be given in comparison with a pre-determined standard (threshold of success) and based on pre-established criteria, and not in comparison with the student's performance at the beginning of the course (evaluation of progress) or in comparison with the performances of other students (normative evaluation).</p> <p>2) The diagnostic evaluation must enable the teacher and the students to get an overview of the situation:</p> <ul style="list-style-type: none"> in relation to prior learning judged necessary (prerequisite threshold) to the pursuit of the targeted goal, in relation to factors likely to support learning or detract from it, in certain courses; in relation to the threshold to be achieved at the end of the course. <p>THE FORMATIVE EVALUATION</p> <p>3) Even though the formative evaluation must enable the students to position themselves with regard to the threshold to be attained, it can also prove useful to compare their achieved level with a prior level of learning or with the performance of colleagues (to enlighten and stimulate).</p>

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>In relation to what?</p> <p>POINTS OF COMPARISON</p>	<p>THE SUMMATIVE EVALUATION</p> <p>1) The summative evaluation must be based on criteria that are:</p> <ul style="list-style-type: none"> — predefined; — familiar to the students and understood by them; — the same for different groups of students who follow the same course. <p>2) The evaluation criteria must be:</p> <ul style="list-style-type: none"> — adapted to the learning objective; — adapted to the level of student training; — relative to the future context of transfer. <p>THE FORMATIVE EVALUATION</p> <p>3) The criteria used for summative evaluations must also be used for the formative evaluation so that students can incorporate them.</p> <p>Their use can be adjusted (progressive introduction; use only a few of them, use of various combinations; etc.).</p> <p>Other criteria can be used, for example, in the following two circumstances:</p> <ul style="list-style-type: none"> when they relate to training included in the program but are not the object of a summative evaluation within the course; when they are useful for a student's learning progress.

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>To what point?</p> <p>REQUIREMENTS, THRESHOLD OF SUCCESS (STANDARDS)</p>	<p>THE SUMMATIVE EVALUATION</p> <p>1) The course requirements that form the basis for the summative evaluation of learning, must be achievable by the great majority of students in the course providing they benefit from quality teaching and do adequate personal, both qualitatively and quantitatively (respecting the weighting assigned to the course).</p> <p>2)</p> <p>a) At the end of the program: the requirements must correspond to the entry level in the labour market or for university studies.</p> <p>b) At the end of the course: the requirements must be established to allow for a normal progression in the program.</p> <p>If a course represents the final stage toward a program objective, the condition stipulated in a) must apply.</p> <p>c) At the end of a stage in a course: the requirements must be established in order to enable, at the very least, a normal progression within the course, keeping in mind that certain components require a greater mastery than others (some require absolute mastery).</p> <p>THE FORMATIVE EVALUATION</p> <p>3) The formative evaluation must motivate students to reach the greatest possible mastery of targeted learning; it must not orient students exclusively towards meeting the minimum threshold (standard for a passing grade)⁵⁸, even though it must provide students with opportunities to appropriate this standard and to judge where their learning stands in relation to it.</p>

⁵⁸ Translated from Ulric Aylwin, “Quel niveau de compétence? Une ambiguïté fondamentale”, *Pédagogie collégiale*, vol. 8, n° 2, December 1994, p. 26 and 27.

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>By whom?</p> <p>AGENT (s)</p>	<p>THE SUMMATIVE EVALUATION</p> <p>1) The teacher is the person responsible for the summative evaluation; his responsibility in this matter must be exercised while respecting the principles adopted by the institution and the department and, although this responsibility may be shared with teaching colleagues, it cannot be shared with the individual whose learning is being evaluated nor his peers.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) It is not recommended that the teacher be the only evaluator. When training students, it is better if formative evaluation methods call upon peer evaluations and self-evaluation activities.</p>
<p>How?</p> <p>METHODS</p>	<p>THE SUMMATIVE EVALUATION</p> <p>1) The methods used to evaluate an objective must respect the nature of the objective as well as the criteria and the level of mastery sought (the links between objectives, criteria, levels and methods).</p> <p>2) The report card grade should reflect the degree of mastery of learning at the end of the course; it cannot simply be the total of grades taken at different moments during the training session (construction of the final grade).</p> <p>3) At the end of the course, there must be an overall test (one or more sections) dealing with the final course goal(s), in all its complexity and totality (final test).</p> <p>4) To achieve “success”, the student must pass the final test (this is an absolute requirement).</p> <p>5) A student who fails the final test despite having passed most of the tests leading up to it, should have the right to rewrite the exam (conditions for rewriting).</p> <p>THE FORMATIVE EVALUATION</p> <p>6) It is beneficial to vary the methods of using the formative evaluation (formal and informal, individual or group, oral or written, interactive or not, etc.).</p> <p>7) The methods adopted must always include feedback and offer possibilities for correction and adjustments in learning and teaching.</p>

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>How?</p> <p>QUALITIES</p>	<p>FOR OVERALL EVALUATIONS</p> <p>1) <i>Transparency</i> Students must be clearly informed: — of the general principles and rules prevailing in the evaluation of learning at the college and in the course; — of the various components making up the process of evaluation in each course.</p> <p>THE FORMATIVE EVALUATION</p> <p>2) <i>Frequency and integration</i> The course must include frequent formative evaluations that are linked to the summative evaluation and well-integrated in the teaching and learning processes.</p> <p>THE SUMMATIVE EVALUATION</p> <p>3) <i>Accuracy</i> The evaluation methods used must evaluate with precision what we wish to evaluate. To accomplish this, we must ensure the validity of the evaluation tools as well as their reliability (in situations where reliability is relevant).</p> <p>4) <i>Fairness</i> In order to ensure fair student treatment in all courses, the summative evaluation for the overall course must avoid all forms of discrimination and be administered in accordance with common principles and guidelines (adopted by the institution and department responsible for the course). (Rules are to be applied in a considered and critical manner; with modifications if necessary). In addition, the summative evaluation must be equivalent for all students in the same course (whether it is the same professor or not).</p>

Key question OBJECT OF DECISION	Principles and policies that should guide the evaluation of learning
<p>Where? With what? For how long? CONTEXT OR CONTEXTS</p>	<p>THE SUMMATIVE EVALUATION</p> <ol style="list-style-type: none"> 1) The summative evaluation must take place in the most authentic context possible, relative to the goal(s) whose attainment we wish to evaluate. 2) The context must respect the principles adopted for the evaluation process. <p>THE FORMATIVE EVALUATION</p> <ol style="list-style-type: none"> 3) The formative evaluation can take place in contexts that differ from those of the summative evaluation, but they must also prepare students to work effectively in such contexts.
<p>How? METHODS For a final integrating objective relative to complex learning and, in certain cases, directly transferable outside of college studies. In addition to general principles mentioned earlier, we must also take into consideration the ones provided here.</p>	<p>THE SUMMATIVE EVALUATION</p> <ol style="list-style-type: none"> 1) The degree of achievement of complex learning is more appropriately expressed by a “snapshot” of the mastery of the various components in interaction, rather than the results of tests where components are evaluated separately (interaction rather than juxtaposition). 2) Tasks used to evaluate complex learning must reflect the complexity of this learning and must be as authentic as possible relative to the way in which the learning will be used beyond college studies (nature of the tasks). 3) They must make it possible judge the mastery of this complexity and, if necessary, the capacity to transfer (which the simple observation of a performance does not allow for). (nature of the test) 4) Evaluating the level of mastery of complex learning rests on an evaluation judgment and not on a measurement. (importance of the judgment) 5) To accurately evaluate the mastery level of complex learning, we must use more than one test. (number of tests) 6) The level of mastery of complex learning is more accurately reflected by resorting to a scale defined with levels (a few numbers) than by a scale defined with percentages. (rating scale) 7) The judgment of “success” must be based on a certain stability in demonstrating mastery of the integrating objective. (basis for determining final grade) <p>THE FORMATIVE EVALUATION</p> <ol style="list-style-type: none"> 8) The methods of formative evaluation must stimulate metacognition and self-evaluation.

Chapter 5 Establishing a general evaluation strategy

The establishment of a general evaluation strategy takes place during the last stage of instructional planning and is dependent on decisions taken during program development, the determination of local specifications, the elaboration of the course framework and, lastly, the lesson plan.

After having identified the planning levels for the course, the next stage in the planning process is to establish a general evaluation strategy. Decisions taken with regard to course sections will affect the choices made relative to the evaluation of learning. As a matter of fact, the choice of learning sequence establishes the progression of learning relative to the development stages of a competency, which in turn will correspond to the summative evaluation activities structured within the course.

Evaluation is no longer dissociated with teaching and learning. It no longer interferes with the process and is no longer used only to crown success or confirm failure. “Teaching, learning, and evaluation are not sequential and are not considered distinct moments in the pedagogical process. Rather, they are dynamic interactions within the process. It is therefore not necessary to plan for evaluations that are distinct from learning situations; in fact, evaluation becomes an integral part of a teaching approach in which various methods of regulation or self-regulation of learning activities and instructions are present.” (Legendre, 2001) This is particularly true in the case of formative evaluations, that is, evaluations integrated in the training and adapted to the process of developing competencies.

The purpose of this activity is to establish a general evaluation strategy. To begin, we present an example of a general evaluation strategy. Then, after having defined various planning levels (Learning tool 5.B), Tool 5.C is designed to identify the process in “course planning based on the development of a competency” and to develop a general evaluation strategy.

After studying the components of a general evaluation strategy, the activity proceeds with the elaboration of a general evaluation strategy.

Chapter Synopsis:

Activity 5:

- | | |
|---------------|--|
| Activity 5.1: | A general evaluation strategy |
| Activity 5.2: | Sample general evaluation strategy and related documents |
| Activity 5.3: | Planning levels |
| Activity 5.4: | Components and tools of a general evaluation strategy |
| | The development of a general evaluation strategy |

Learning Tools:

- | | |
|--------------------|--|
| Learning tool 5.A: | Sample general evaluation strategy and related documents |
| Learning tool 5.B: | Course planning levels: from ministerial specifications to lesson planning |
| Learning tool 5.C: | Course planning based on competency development |
| Learning tool 5.D: | Components and tools of a general evaluation strategy |

Complementary document:

- Complementary document 6: From a planning approach to an evaluation plan for the final course examination

Activity 5

The general evaluation strategy

Heading	General evaluation strategy
Objective	To distinguish planning levels To establish links between instructional planning and evaluation. To develop the key steps in a general evaluation strategy.
Description	When course planning is in its preparatory stages, many decisions will be affected by prior decisions taken relative to the development of local programs and course planning. After having identified the planning levels for the course, the presentation of the planning process helps position the general evaluation strategy. Decisions taken with regard to course sections affect the choices made relative to the evaluation of learning. In fact, the choice of learning sequence establishes the progression of learning relative to the development stages of a competency, which in turn corresponds to the summative evaluation activities structured within the course. A selection of course sections prepares the ground for the development of a general evaluation strategy. Each section of the course becomes a stage in competency development and serves as material for the summative evaluations administered during the training and at the end of the cycle.
Unfolding	Activity 5.1 <i>Example of a general evaluation strategy</i> A. To present, clarify and discuss a sample general evaluation strategy that includes: <ul style="list-style-type: none">— a definition of the targeted training objective;— the learning sequence;— a summary view of course sections;— the components of a ‘general evaluation strategy’ example using Learning tool 5.A: “Example of a general evaluation strategy and related documents”.

	<p>Activity 5.2</p> <p><i>Planning levels</i></p> <p>B. When developing a general evaluation strategy, a number of decisions made during various planning levels influence, and can even determine, the general strategy:</p> <ul style="list-style-type: none"> — To begin with, there are the local specifications applied to the ministerial definition of the competency; — Then there is general plan approved by the program team; — finally, there is the teacher's course plan. <p>To properly align the process, the course planning levels should be presented, clarified and discussed. Learning tool 5.B.</p> <p>Following this, it is useful to discuss the process of course planning centered on competency development (Learning tool 5.C) so as to shed light on participants' personal practices relative to instructional planning.</p> <p>In the final analysis, you can discuss the process and the results of the local program development approach.</p> <p>When developing an evaluation plan, many decisions will already have been made in the early stages of the local program development process. Choices made for the evaluation of learning must respect these prior decisions.</p> <p>In order to clarify the context of the decisions to be made, it is useful to review the overall development process for the program and course. The data collected during these stages have a cumulative effect on both the context and the content of the evaluation plan used for the general evaluation strategy and the final examination at the end of the course.</p> <p>Since development approaches differ from one cégep to another, each participant uses the approach adopted by his college. For an example, refer to complementary document 6 entitled "From a planning approach to an evaluation plan for the final course examination".</p> <p>Activity 5.3</p> <p><i>The components of a general evaluation strategy</i></p> <p>C. Present, clarify and discuss the components of a general evaluation strategy using Learning tool 5.D: "The components of a general evaluation strategy" and the tools which accompany this document.</p> <p>Activity 5.4</p> <p><i>The development of a general evaluation strategy</i></p> <p>D. Develop a general evaluation strategy working in small teams within the same program:</p> <ol style="list-style-type: none"> a. Review the example given in learning tool 5.A. b. Select a competency, or a component of a competency to be developed in a course.
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	<p>c. The general evaluation strategy is the last stage in the course planning process. It takes into account the decisions made in the analysis of training objectives and the division of the course into sections. Consulting the course presentation and the description of the course sections within a course plan facilitates the establishment of a general evaluation strategy.</p> <p>d. Complete the grid using components of the strategy in learning tool 5.D.</p> <p>E. Assess achievements and difficulties encountered during the development of the strategy.</p>
Moderator's role	<p>To create a climate favourable for discussion.</p> <p>To clarify for participants an activity that contains a number of instructions.</p> <p>To encourage participants to describe their personal way of doing things during the development of a general evaluation strategy.</p>
Participants' role	<p>To actively participate in the accomplishment of all segments of the activity.</p> <p>To draw up a personal assessment on ways of creating a general evaluation strategy.</p>
Pedagogical material	<p>Learning tool 5.A: Example of a general evaluation strategy and related documents</p> <p>Learning tool 5.B: Course planning levels: from ministerial specifications to lesson planning</p> <p>Learning tool 5.C: Course planning centered on competency development</p> <p>Learning tool 5.D: Components of a general evaluation strategy</p>
Complementary document	<p>Complementary document 6: “From a planning approach to an evaluation plan for the final course examination”</p>
Approximate duration	<p>Activity 5.1: 2 hours</p> <p>Activity 5.2: 2 hours</p> <p>Activity 5.3: 2 hours</p> <p>Activity 5.4: 6 hours</p>

Learning tool 5.A

Example of a general evaluation strategy and related documents⁵⁹

A. Description of a training objective

(Example taken from the course ‘‘Evaluating competencies’’)

Objective	Standard
Statement of competency	Realization context
To develop a summative evaluation of a learning activity that validates the development of all components and competencies targeted by the course.	<ul style="list-style-type: none">— Individually or in teams;— During the development or review of a course plan;— Using documentation produced for this activity and available tools;— By taking into account the specifics provided by the ‘‘Politique institutionnelle d’évaluation des apprentissages (PIEA) of your college.
Components of a competency	Performance criteria
1. To describe the characteristics of principles and concepts associated with the evaluation of a competency.	<ul style="list-style-type: none">1.1 <i>Adequate</i> identification of the characteristics relating to the concept of competency and their impact on instructional planning.1.2 <i>Sufficient</i> comparison between the definition of evaluation of learning and the principles that guide its use, in the context of competency-based training.1.3 <i>Accurate</i> identification of the basic characteristics of the concept of evaluation.1.4 <i>Sufficient</i> recognition of the changes that competency-based learning brings to the evaluation of learning.
2. To identify the components of a general evaluation strategy for a competency.	<ul style="list-style-type: none">2.1 <i>Adequate</i> understanding of the role played by the evaluation of competencies in course planning.2.2 <i>Pertinent</i> identification of the components of a

⁵⁹ Translated from Hermann Guy and Michel Poirier, Course : *L'évaluation des compétences, qu'est-ce que ça change dans la planification de mes cours?*, Colleges de la région de Québec, CPE/C Performa, Université de Sherbrooke, Fall 2001.

- general evaluation strategy.
- 2.3 *Adequate* description of procedures for using tools to document a general evaluation strategy.
- 3 To develop the final examination for a course that is centered on the development of a competency.
- 3.1 *Pertinent* analysis of the training objective(s) targeted in the course.
- 3.2 *Pertinent* and *valid* choice of objects to be evaluated based on the characteristics of the competency.
- 3.3 *Sufficient* and *adequate* identification of indicators and evaluation criteria.
- 3.4 *Pertinent* choice of evaluation methods relative to the principles of competency-based learning.
- 4 To develop and revise tools used for the evaluation of competencies in the course.
- 4.1 *Adequate* use of procedures and rules for structuring a marking grid.
- 4.2 *Coherent* justification of learning tool contents relative to the objects being evaluated.
- 5 To validate the evaluation tools that have been developed and revised.
- 5.1 Adequate identification of rules that ensure the validity and reliability of tools used to evaluate competencies.

B. The learning sequence

To establish the learning sequence required to achieve the training objective described in section (A)

<p>Dividing the course into sections:</p> <p>Divide the course into sections and present a synopsis of the progression of learning for the whole course.</p> <p><i>Example of presentation format:</i></p> <p><u>Section 1:</u></p> <ul style="list-style-type: none">— Title of the course section— Content overview— Duration <p><u>Section 2:</u></p> <ul style="list-style-type: none">— Title of the course section— Content overview— Duration <p><u>Section 3:</u></p> <ul style="list-style-type: none">— Title of the course section— Content overview— Duration <p><u>Section 4:</u></p> <ul style="list-style-type: none">— Title of the course section— Content overview— Duration	<ul style="list-style-type: none">— The learning sequence shows the order of the sections and how teaching will be organized to favour competency development.— Goal: to show how the progression of learning will unfold for the overall course. <p>Activities to be carried out</p> <p>Taking into account:</p> <ul style="list-style-type: none">— The production required from students based on the statement of competency,— The components of competency,— The problem situation or evaluation that is being used as a final test for the course,— The progressively complex approach ... <p>determine the stages that the students must complete, and structure them according to the global unfolding of the course.</p> <p><i>Results:</i> the division of the course into sections or learning sequences.</p>
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Course sections help structure a general evaluation strategy.

C. Synopsis of course sections

To validate the project produced in the preceding section with the help of this table.

The evaluation of competencies: What does it change in course planning? 15 hours, 1 credit			
Sequence 1 Planning the general evaluation strategy for a course Concepts: Competency Learning evaluation Impact on practices General strategy components Procedures: Develop a general strategy Activities: Knowledge-building exercises Formative activity on using a tool to develop a general strategy Task 1: Complete a table on the strategy Duration: 4 hours	Sequence 2 Elaborating an evaluation plan for a competency Concepts: Training objective Evaluation objective Indicators Criteria Procedures: Analysis of the development tasks Development process (tasks 1-6) Activities: Presentations and discussions Modelling Task 2: Develop a “summary” evaluation plan Duration: 5 hours	Sequence 3 Constructing a marking grid Concepts: Evaluation methods Components of a marking grid Validity of correction tools Procedures: Assessment of an evaluation plan Elaboration process (tasks 7-10) Analyze the relevance of each object of the evaluation plan Activities: Presentations and discussions Modelling Task 1 Complete a table on the strategy Duration: 2 ½ hours	Sequence 4 Developing personally an evaluation plan Concepts: Components of a general evaluation strategy Components of the evaluation plan Procedures: Development of an evaluation strategy Elaboration process for the summative evaluation activity Activities: Presentations and discussions Collective and individual feedback Task 1 Develop a final evaluation plan Duration: 4 hours

D. Tool for developing a general evaluation strategy

Complete by entering the data on course sections and objects of evaluation that correspond to essential learning.

Course title: *The evaluation of competencies. What does it change in course planning?*

Program: Performa

Course number: MEE-251

Components of my evaluation strategy						
<p>Statement of competency (final integrating objective): To develop a summative evaluation activity that validates the achievement of all components or competencies targeted in a course.</p>				<p>Write the name of each course section: A. B. C. D.</p>		
Course section n°:	Evaluation activity:	Timeframe (week n°)	<u>Objects to be evaluated</u> The evaluation activity refers to what learning?	<u>Task(s) required</u> <u>Evaluation tool(s)</u> (By what means is the evaluation activity carried out?)	<u>Type of evaluation</u> Diagnostic (D) Formative (F) Summative (S)	<u>Weighting</u> (% of final grade) <u>Evaluator</u> Professors (P) Students (S) Others (specify)

E. Marking grid: Course: The evaluation of competencies, what does it change in course planning?

Components of the general evaluation strategy							
Statement of the competency (final integrating objective): To develop a summative evaluation activity to validate the achievement of all components or competencies targeted in a course.				Statements (final integrating objectives) for each section of the course: To determine the place and the role of the evaluation of learning in instructional planning To develop a summary evaluation plan for one or more competencies To develop a marking grid in connection with the evaluation plan To validate the development process for the evaluation plan			
Course section n° :	Activity n° :	Timeframe (week n°)	<u>Objects to be evaluated</u> The evaluation activity refers to what learning?	<u>Task(s) required</u> <u>Evaluation tool(s)</u>	<u>Type of evaluation</u> Diagnostic (D) Formative (F) Summative (S)	<u>Weighting</u> (% of final grade)	<u>Evaluators</u> Professors (P) Students (S) Others (specify)
1	1	Wednesday May 5 A.M.	Individual representation of the concept of competency, the evaluation of learning and principles connected to the evaluation of learning	Feedback following the formulation of definitions	D/F	-	P/S
	2			Feedback following an exercise on principles	F	-	P/S
	3			Drafting of a general evaluation strategy	D	-	PS
2-A	4	Wednesday May 5 P.M.	Development process for an evaluation plan	Feedback during and after the presentation of tasks 1 to 6	F	-	P/S
	5			Drafting of a “summary” plan	D/F	-	P/S
2-B	6	Thursday May 6 A.M.	Development process for an evaluation plan	Feedback on the “summary evaluation plan”	F	-	P

<u>Course section n° :</u>	<u>Activity n° :</u>	<u>Timeframe (week n°)</u>	<u>Objects to be evaluated</u> The evaluation activity refers to what learning skill?	<u>Task(s) required</u> <u>Evaluation tool(s)</u>	<u>Type of evaluation</u> Diagnostic (D) Formative (F) Summative (S)	<u>Weighting (% of final grade)</u>	<u>Evaluators</u> Professors (P) Students (S) Others (specify)
3	7 8	Thursday May 6 A.M.	Selection process for evaluation methods Development process for a marking grid	Feedback during and after the presentation of tasks 7 and 8 Feedback during and after the presentation of tasks 9 and 10	F F	- -	P/S P/S
4	9 10	Thursday May 6 P.M. Friday May 7 A.M.	Development of a general evaluation strategy Development of an evaluation plan for the final course examination	Feedback on the “evaluation strategy” Individual feedback and support for the plan under development	F F	- -	P/S P/S
	11	Deadline for handing in to be determined	Final test: production of an evaluation plan	Final version	S	100 %	P

Learning tool 5.B

Course planning levels: from ministerial specifications to lesson planning⁶⁰



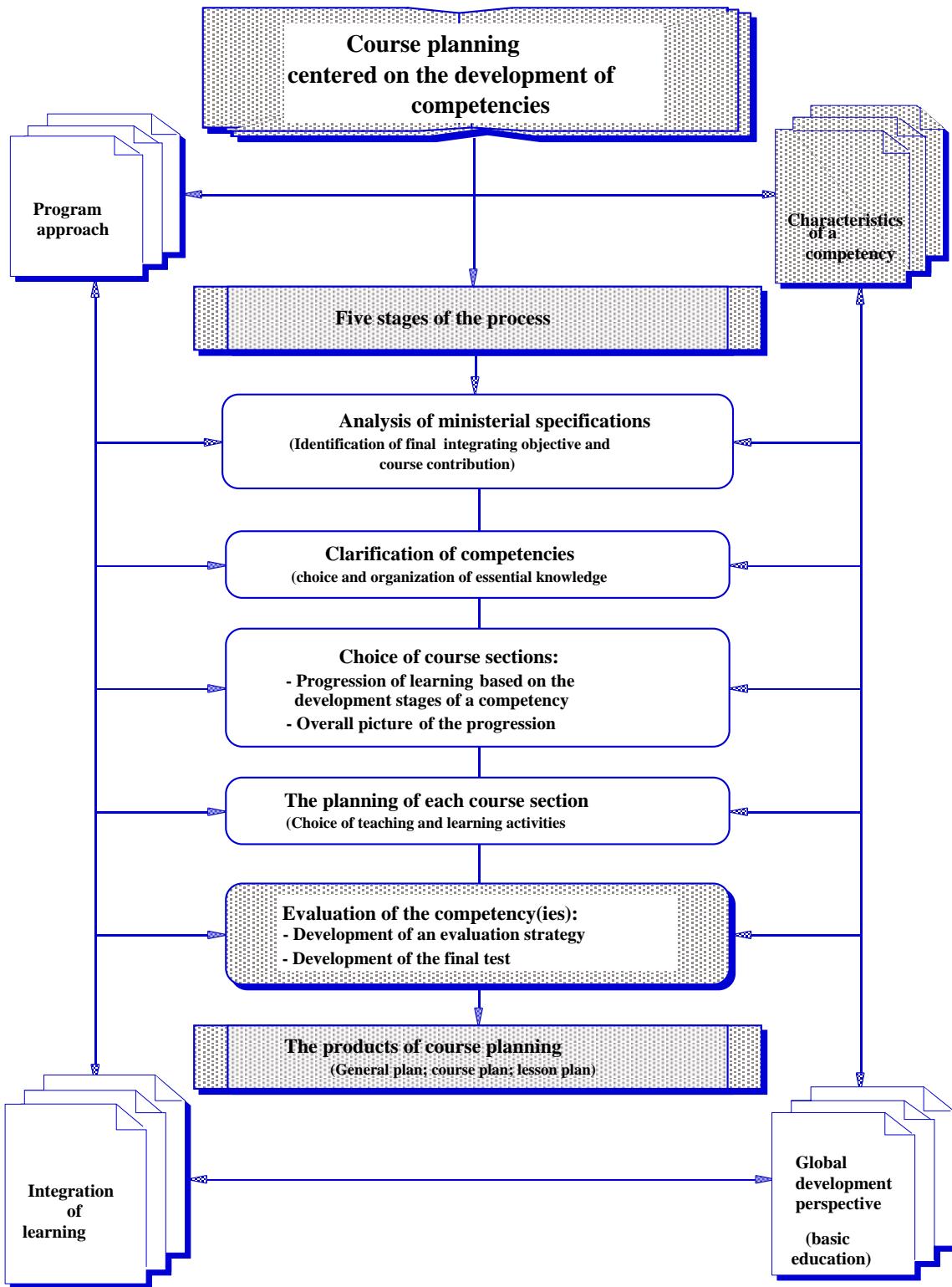
MEQ	elaborates	ministerial specifications	for use by	college and program team	to develop local program specifications
Ministerial specifications may include:		Ministerial administrative precisions Program goals, purpose and pedagogical objectives General training goals and pedagogical objectives Objectives and standards for general education and specific training			
Program team	elaborates	local specifications or institutional description of the program	for use by	program team, professors	to develop courses
Local specifications include mainly:		Analysis of ministerial description of competency: Role of competencies in the training program Clarification of the competency Objectives (statement and components of competency) Standards (realization context and performance criteria) Identification of essential content (guidelines) Framework for course plan: Role of the course in the training program Teaching orientations Orientations relative to the evaluations Summary description of the final test Mediography for professors Mediography for students			

MICROPLANNING
MACROPLANNING

⁶⁰ Translated from Pierre Deshaies, Hemann Guy and Michel Poirier, “Les documents d’information selon les champs d’action des enseignants” *Recueil intégrateur, Section I : Une vision intégrée de la formation au collégial*, Sherbrooke, regroupement des collèges Performa, 2003.

Course team or professor	elaborates	course plan (RREC 20)	for use by	professors and students	to plan the course and its content, its unfolding and requirements
The course plan includes:	<ul style="list-style-type: none"> — Identification and general information — Preliminary report — Learning objectives — Course content, organization and a summary description for each course section — Methodological instructions — Methods of course participation — Evaluation of learning methods — Material resources for students (Mediagraphy, ...) 				
Professor	elaborates	lesson plan (PIEP)	for use by	professor or students	to plan each lesson as well as the learning, teaching and evaluation activities
The lesson plan includes:	<ul style="list-style-type: none"> — Lesson objectives — Teaching and learning activities organized according to a typical training process — Formative and summative evaluation activities — Material resources — Study tasks that follow each lesson and prepare the groundwork for subsequent lessons (accompanied by respective instructions) — References for consultation 				

Learning tool 5.C⁶¹



⁶¹ Translated from Pôle de l'Est, Processus de planification d'un cours centré sur le développement d'une compétence, regroupement des collèges Performa, December 1996.

Overall picture of the progression of learning

Example: competency 01Q3 (Nursing)

Section and duration	Learning objectives	Essential content
Section 1 7 hours summative exam and oral presentation	To support our actions based on principles that underscore professional practice	<ul style="list-style-type: none"> — Concept of the person — Concept of health — Concept of the environment — Concept of primary health care — Clinical approach adapted to the person — Openness to integration of these concepts within our professional practice
Section 2 21 hours summative examination and personal reflection	<p>To rely on a conceptual model in the performance of one's duties</p> <p>To use a patient care approach</p>	<ul style="list-style-type: none"> — Conceptual model: <ul style="list-style-type: none"> ○ definition ○ components ○ advantages ○ link between professional practices and conceptual model — Model put forth by Virginia Henderson : <ul style="list-style-type: none"> ○ concepts ○ values ○ components ○ fundamental need ○ list of the 14 fundamental needs ○ concept of independence-dependence — Analysis of 4 fundamental needs — Problem solving process — Link between the process for problem solving and: <ul style="list-style-type: none"> ○ the model put forth by Virginia Henderson ○ the practice of nursing ○ the process of dispensing care — the stages of dispensing care and their implementation — Data collection : <ul style="list-style-type: none"> ○ appropriate use of information sources — Analysis and interpretation of the data: <ul style="list-style-type: none"> ○ formulation of the problem and its causes — Planning of care: <ul style="list-style-type: none"> ○ formulation of objectives and interventions ○ partnership nurse-client and close relatives

		<ul style="list-style-type: none"> — Execution of the intervention — Evaluation of the procedure : <ul style="list-style-type: none"> ○ evaluation criteria
Section 3 17 hours Summative examination	To rely on a conceptual model in the performance of one's duties (continued)	<ul style="list-style-type: none"> — Analysis of 10 fundamental needs — Attitudes and behaviours linked to the model
Final test	“Refer to a concept in the field of nursing to define how you practice your profession”	<ul style="list-style-type: none"> — Integration of the overall essential content

Source: Nursing Faculty, Cégep de Rimouski, 2001.

Learning tool 5.D

The components and tools of a general evaluation strategy⁶²

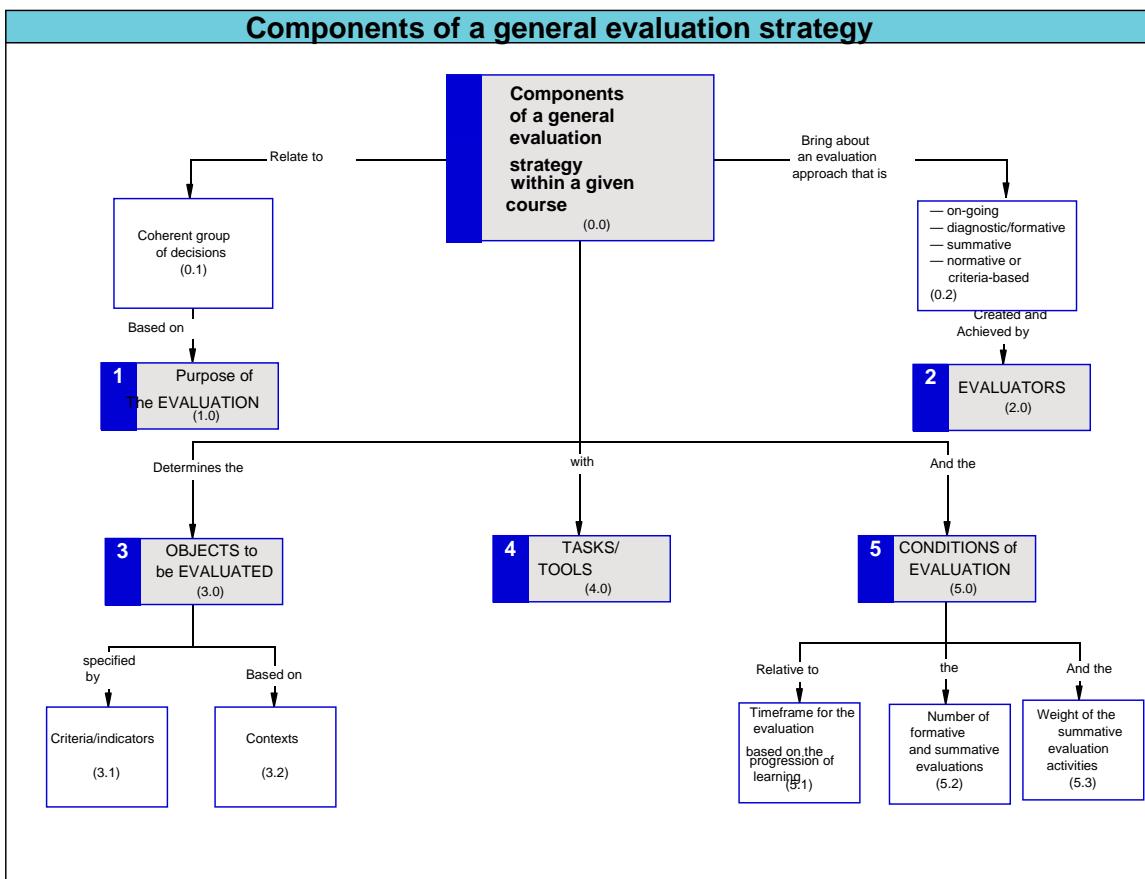
A general evaluation strategy relates to the planning of *the overall* evaluation of learning activities within a course. Decisions taken in connection with evaluation activities relate to the five following components:

1. Purpose of the evaluation (Why?)
2. Who is evaluating? (Who?)
3. What is being evaluated (What?)
4. Tasks and tools (How?)
5. Conditions of the evaluation (When? How frequently? How much?)

The general evaluation strategy is the last stage in the planning process of a course. It takes into account the decisions made during the analysis of the training objective and the division of the course sections. The consultation of a course presentation (for example, the preliminary draft) and the description of the course sections (for example, a synoptic overview) in the course plan facilitate the establishment of a general evaluation strategy.

The following diagram identifies and connects the principal components of a general evaluation strategy mentioned above.

⁶² Translated from Hermann Guy and Michel Poirier, Course: *Évaluer une compétence*, CPE/C Performa, Université de Sherbrooke, summer 2003.



Tools for a general evaluation strategy

The following tools are designed to establish and analyze the contents of a general evaluation strategy:

Tool n° 1: Grid to establish a general evaluation strategy.

This grid allows for the recording of all decisions made concerning each of the five components of the strategy. For each course section, the professor or the team of professors can register the evaluation activity data concisely:

- The number of each planned activity. This will make it possible to establish the number of activities planned for the whole course;
- The best timeframe to carry out each activity;
- The principal objects to be evaluated in each activity⁶³;
- The nature of the task and evaluation tool used in the evaluation of an object or a group of objects;
- The purpose of this activity. The type of evaluation to which it corresponds;
- The weighting of this activity relative to the final grade for the summative evaluation;
- Identification of the evaluation “agents”: professors, students, and others ...

Tool n° 2: Example: course: The evaluation of competencies. What does this change in course planning?

This tool includes an example of a completed grid and the type of information that can be collected for each component of the strategy.

Tool n° 3: Verification questions on the components of an evaluation strategy.

This tool, as its name implies, allows us to validate the content of an evaluation strategy developed for a course, based on the development of one or more competencies. Questions relate to each component of the strategy.

Tool n° 4: Analysis of the components of a strategy.

This tool allows for a critical analysis of decisions made and listed in tool n° 1. The tool lists each of the components of the strategy, its characteristics and decisions taken according to traditional or revised views on the evaluation of learning. The teacher or the group is asked to analyze and comment on its/their decisions using these characteristics.

⁶³ The identification of evaluation criteria and indicators designed to make the objects to be evaluated ‘operational’ generally occurs during the drafting of the evaluation plan (*cf. chapter 6*) or during the development of the marking grid. This strategy serves to identify all objects that will be evaluated within the course framework.

Tool n° 1⁶⁴

Name: _____ Program: _____ Course name and n°: _____

Grid to determine the components of a general evaluation strategy							
Statement of competency that is targeted or final integrating objective:				Statements of the learning objectives targeted in each of the course sections:			
Course section N°	Evaluation activity N°	Timeframe (week n°)	Objects to be evaluated	Tasks and evaluation tools	Type of evaluation : — Diagnostic (D) — Formative (F) — Summative (S)	Weighting (% of final grade)	Evaluators : — Professors. (P) — Students (S) — Others (specify)
Moment(5.1)	Number (5.2)	Moment (5.1)	Objects (3.0)	Tasks and tools (4.0)	Purposes (1.0)	Weighting (5.3)	Evaluators (2.0)

⁶⁴ Translated from Hermann Guy and Michel Poirier, adapted from a tool developed by Claude Gagnon, educational advisor at Collège de la Région de l'Amiante, 1996.

Tool n° 2

Example: Course: *The evaluation of competencies. What does this change in course planning?*

Components of a general evaluation strategy							
Statement of the final integrating objective: To develop a summative evaluation activity that validates the development of the components or the competencies targeted by the course.			Statement of integrating objectives in each section of the course: Identify the place and role of the evaluation of learning in instructional planning. To elaborate in summary fashion an evaluation plan for one or more competencies. Develop a marking grid in connection to the evaluation plan. Validate the development procedures for the evaluation plan				
Course section n° :	Evaluation activity n° :	Timeframe (week n°)	Objects to be evaluated The evaluation activity refers to which learning skill?	Task(s) required/ <u>Evaluation tool(s)</u>	Type of evaluation — Diagnostic (D) — Formative (F) — Summative (S)	Weighting (% of final grade)	Evaluator — Professors (P) — Students (S) — Others (specify)
1	1	Wednesday May 5 A.M.	Individual representation of the concept of competency, the evaluation of learning and principles connected to the evaluation of learning	Feedback following the formulation of definitions	D/F	-	P/S
	2			Feedback following an exercise on the principles	F	-	P/S
	3			Drafting of a general evaluation strategy	D	-	P/S
2-A	4	Wednesday May 5 P.M.	Development process for an evaluation plan	Feedback during and after presentation of tasks 1 to 6	F	-	P/S
	5			Drafting of “summary” plan	D/F	-	P/S
2-B	6	Thursday May 6 A.M.	Development process for an evaluation plan	Feedback on work done and the “summary plan” for evaluation	F	-	P

Course section no :	Evaluation activity no :	Timeframe (week no)	Objects to be evaluated The evaluation activity refers to which learning skill?	Task(s) required/ Evaluation tool(s)	Type of evaluation — Diagnostic (D) — Formative (F) — Summative (S)	Weighting (% of final grade)	Evaluator — Professors (P) — Students (S) — Others (specify)
3	7	Thursday May 6 A.M.	Process for choosing the evaluation methods	Feedback during and after the presentation of tasks 7 et 8	F	-	P/S
			Development process for a marking grid	Feedback during and after the presentation of tasks 9 et 10	F	-	P/S
4	9	Thursday May 6 P.M.	Development of a general evaluation strategy	Feedback on the “evaluation strategy” work	F	-	P/S
			Friday May 7 A.M.	Development of an evaluation plan for the final course test	Individual feedback and support regarding the plan that is being developed	F	-	P/S
	11	Deadline to be determined	Final test: production of an evaluation plan	Final version	S	100 %	P

Tool n°3

Questions that validate the components of a general evaluation strategy⁶⁵

What is the purpose of evaluations?

- Did the students receive progressive feedback on their performance during the development of the competency?
- What are the respective roles of the formative evaluation and the summative evaluation?

Who does the evaluations?

- Teachers or “authentic” external educators?
- Do the students have the opportunity to evaluate themselves and make corrections?

What objects are evaluated?

- Is knowledge evaluated as much as possible during the resolution of problem cases?
- Does this knowledge encompass all types of knowledge required by the competency (concepts, procedures, cognitive skills, study and learning procedures)?

What are the evaluation criteria?

- Have the evaluation criteria come directly from the performance criteria relative to the competency?

What is the context?

- Is the evaluation context an “authentic” one?
- Does the context resemble more and more, as the session comes to an end, the realization context described by the ministère?

Which tools are used?

- Were the tools validated for integrity and reliability?

Under what conditions should evaluations be done?

- Are the frequency and timeframe of evaluations a function of competency development related to each course section?
- Is the timeframe for evaluations influenced by the decision to validate the stability of student performance?
- Has the relative weighting of the summative evaluation activities been specified?
- Is information on the objects and conditions of evaluation provided to students?
- Has the student had the opportunity to implement the competency in question prior to the summative evaluation?

⁶⁵ Translated from Pôle de l'Est, *Processus de planification d'un cours centré sur le développement d'une compétence, regroupement des collèges Performa*, 1996, p. 155.

Tool n° 4

Analysis of the components of a general evaluation strategy			
Components/ Decisions	According to the “traditional” viewpoint	According to the “new” viewpoint	Comments on your decisions (decisions identified using tool n° 1)
0.0- (global) EVALUATION STRATEGY	↓	↓	↓
0.1 is a coherent set of decisions applicable to planning an evaluation activity in a course	<p>decisions based on :</p> <ul style="list-style-type: none"> — the distribution and spreading out of the contents over time — the continuous and cumulative character of summative evaluation activities 	<p>decisions based on :</p> <ul style="list-style-type: none"> — support for student learning — certification of the level of acquisition of the competency — the stages identified for the development of the competency 	
0.2 is characterized by an evaluation approach that is:	<ul style="list-style-type: none"> — continuous, mainly centered on the summative evaluation — diagnostic — sometimes formative — mainly summative — normative (interpretation of student results in relation to each other) 	<ul style="list-style-type: none"> — continuous, mainly centered on the formative evaluation — diagnostic — mainly formative — sometimes summative — criteria-based (interpretation of student results in relation to performance criteria) 	

Components/ decisions	According to the “traditional” viewpoint	According to the “new” viewpoint	Comments on your decisions (decisions identified using tool n° 1)
1.0- PURPOSES OF EVALUATIONS	↓	↓	↓
(Why evaluate?)	Evaluation based on: — student rankings	Evaluation based on: — support for student success	

	<ul style="list-style-type: none"> <input type="radio"/> student selection (certification) 	<ul style="list-style-type: none"> (formative) — certification of the level of success (summative) 	
2.0- EVALUATORS	↓	↓	↓
(Who evaluates?) (based on what relationship?)	<ul style="list-style-type: none"> — mainly professors 	<ul style="list-style-type: none"> — students — colleagues — population — workers in the industry and institutions — professors — a relationship with the student that is external and ‘hidden’ — making a summative judgment at end of cycle 	

Components/ decisions	According to the “traditional” viewpoint	According to the “new” viewpoint	Comments on your decisions decisions identified using tool n° 1)
3.0- THE OBJECTS OF EVALUATION	↓	↓	↓
<p>3.0 Objects (What is to be evaluated?)</p> <p>(Which cognitive processes are required?)</p>	<p>Relate to:</p> <ul style="list-style-type: none"> — mainly theoretical knowledge — knowledge that is isolated and taken out of context — knowledge that oversimplifies situations — stable and discriminating knowledge <p>call upon:</p> <ul style="list-style-type: none"> — memorization — understanding — application of the knowledge 	<p>Relate to:</p> <ul style="list-style-type: none"> — various types of knowledge — the structure of knowledge — knowledge that is mobilized in a realistic situation <p>call upon:</p> <ul style="list-style-type: none"> — the integration and transfer of knowledge — student judgment, in context — the ability to identify and resolve situations and problems 	

Components/ Decisions	According to the “traditional” viewpoint	According to the “new” viewpoint	Comments on your decisions (decisions identified using tool n° 1)
3.0- THE OBJECTS OF EVALUATION (cont'd)	↓	↓	↓
3.1 Criteria (To evaluate in relation to what?)	<ul style="list-style-type: none"> — normative approaches (comparative) — relationship of the student to the group — standard deviation — standard score 	<ul style="list-style-type: none"> — criteria-based approach — relative to performance — success with or without assistance — analysis of error 	
3.2 Context (How to evaluate?/ realization context)	<ul style="list-style-type: none"> — decontextualization of knowledge — breaking down of various types of knowledge 	<ul style="list-style-type: none"> — integration of different types of knowledge — the greatest authenticity possible — simulated or real context allowing for identification and resolution 	
4.0- TASKS/ TOOLS	↓	↓	↓
4.0 Type of tasks/tools (How to evaluate?/ Using what methods?)	objective type: <ul style="list-style-type: none"> — multiple choice — sentences to complete — checklist — observation grid — open question 	“authentic” type: <ul style="list-style-type: none"> — problem situation — case study, simulation, role playing — observation — questioning during the process — oral examination 	

		— portfolio	
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Components/ Decisions	According to the “traditional” viewpoint	According to the “new” viewpoint	Comments on your decisions (decisions identified using tool n° 1)
5.0- CONDITIONS OF EVALUATION	↓	↓	↓
5.1 Determination of the timeframe for the (summative) evaluation (When to evaluate?)	According to —the number of evaluation objects and the performance criteria —the number of weeks scheduled for the various sections	—according to the stages of development of the competency(ies) —placed preferably at the end of the course sections or after a learning sequence —more frequent towards the end of the course	
5.2 Number of (summative) evaluations (How many times should you evaluate?)	determined according to the accumulation of: —acquired knowledge —exercise of skills	determined by: —a sufficient number of performances or evaluation tasks attesting to the development of the competency(ies) —stability of the performance during tasks —generalization of the performance during tasks	
5.3 Weighting of the evaluations (summative)	according to total accumulated in course sections	—established to guarantee the stability of the competency(ies) —more important for the final course test	

Chapter 6 Procedures for the development of an evaluation test

“How do I evaluate the competencies of my students? How to communicate the results of an evaluation on competency? How do I make sure that the problem situation chosen to evaluate student competencies corresponds to the type of situations used during the training?

These are the types of questions, whether general or specific in nature, basic or emanating from deep reflection, that are on everyone’s mind. The competency-based approach causes teachers to seriously question the delicate and difficult task of evaluating student competencies, a task which remains nonetheless inherent to the nature of the work [...]

The term “evaluation” seems to include too many different aspects to allow a coherent discussion on the subject with colleagues or with students. This is why I find it necessary to mention its purpose every time I use the term. The use of a descriptor will be sufficient for now. Therefore, we will speak more precisely of:

- **Formative evaluation**, when it is used to evaluate learning during the training period and regulate the learning process. On the one hand, **a regulation of student learning**, when under the teacher’s guidance, errors are analyzed to identify acquired learning, learning still to be acquired, the learning process, resolution strategies, and errors in procedure and work methods. On the other hand, **a regulation of the teacher’s instruction** includes such things as providing additional exercises, explaining a rule, correcting student note-taking and providing more time to acquire the learning;
- **A summative evaluation** is an evaluation that is done at the end of training. Student performance will be rated by the professor according to predetermined coefficients, to determine if the student will succeed or fail in the trimester.”⁶⁶

To successfully evaluate learning, several questions relative to the “objects of evaluation” must be answered, notably: What distinguishes the objects of the summative evaluation from those of the formative evaluation? What should the objects be for a given type of evaluation, a given type of course or in the comprehensive program assessment? What indicators could be used to identify the objects of evaluation that are not directly accessible? Answers to these questions are specific for each type of evaluation, and we can only provide general directions in the search for answers.

⁶⁶ Translated from Mireille Houart, *Évaluer des compétences. Oui, mais... comment?*, Département Éducation et Technologie, FUNDP – Namur, p. 1. [<http://www.det.fundp.ac.be/~mho/evaluation.htm>].

General steps recommended for an evaluation plan

Activity 6:	Planning the evaluation for the final exam
Activity 6.1:	The training objective
Activity 6.2:	The objects of evaluation, performance indicators and evaluation criteria
Activity 6.3:	The evaluation task
Activity 6.4:	The marking grid
Activity 6.5:	Communicating the results

Learning tools:

Learning tool 6.A: Procedures for developing an evaluation plan and tools for collecting data and making judgments:

1. Analyze the training objective
 - 1.1 Characterize the training objective
 - 1.2 Formulate the training objective targeted in a course as a final integrating objective
2. Select and identify the objects to be evaluated
 - 2.1 Choose the objects of the evaluation or essential learning to be evaluated
 - 2.2 Select indicators that will allow for observation of the demonstration of this learning
 - 2.3 Validate the connection between indicators and the objects of evaluation
 - 2.4 Determine the evaluation criteria, i.e. the components of learning to be evaluated
3. Choose and validate evaluation tasks and tools
 - 3.1 Determine evaluation tasks suitable to the learning to be evaluated
 - 3.2 Specify the realization context of the evaluation task or tasks
 - 3.3 Guarantee the validity and reliability of the tools used
4. Develop the tools for data collection and the evaluation judgment
 - 4.1 Build the tools for the collection of observable data: marking grids and rating scales
 - 4.2 Select judgment and rating methods to apply to student learning
5. Communicate the results and provide students with feedback

Chapter Synopsis:

Learning tool 6.B:	Tasks for the analysis of a training objective
Learning tool 6.C:	Tool for the analysis of a competency
Learning tool 6.D:	Tasks to identify objects to be evaluated
Learning tool 6.E:	Tasks appropriate for the evaluation of learning.
Learning tool 6.F:	Description of an authentic situation
Learning tool 6.G:	Guidelines for choosing evaluation methods
Learning tool 6.H:	Tasks to build data collection tools
Learning tool 6.I:	Sample marking grid designed at Cégep Saint-Laurent
Learning tool 6.J:	Task to communicate evaluation results

Documents:

Document 6.A:	The evaluation in authentic situations: tools
Document 6.B:	“Evaluating competencies. Yes, but... how? “

Activity 6

Planning the evaluation for the final exam

Heading	Evaluation plan for the final course test
Objectives	<p>Identify the procedures for developing an evaluation plan.</p> <p>Determine the prerequisites: training objective, subject matter, objects of evaluation, indicators and evaluation criteria.</p> <p>Develop an evaluation plan.</p>
Description	<p>This activity makes it possible to adopt a general approach for planning evaluations based on the following steps:</p> <ul style="list-style-type: none">— Analyze the training objective— Select and specify the objects to be evaluated— Choose and validate the tasks and evaluation tools— Develop the tools required for data collection and judgments on evaluations— Communicate the results and provide students with feedback <p>The application requires the mobilization of prior concepts and knowledge relative to the development of an evaluation plan.</p>
Unfolding	<p>Activity 6.1</p> <p><i>Training objective</i> <i>(Tasks 1-2 of procedures for Learning tool 6.A)</i></p> <p>A. Presentation, clarification and group exchanges on procedures for developing an evaluation plan (Tool 6.A): <i>Procedures for developing an evaluation plan and tools for collecting data and making judgments</i></p> <p>B. Analysis of a training objective: it is recommended to use the pedagogical material supplied by the participants. Identify only one competency for the evaluation plan and only one competency per work team</p> <p>Learning tool 6.B: Tasks for the analysis of a training objective, Learning tool 6.C: Tool for the analysis of a competency</p> <p>Please note — Use the data taken from the general evaluation strategy if the activity has already been done.</p> <p>Activity 6.2</p> <p><i>The objects of evaluation, performance indicators and evaluation criteria</i> <i>(Tasks 3-4-5-6 procedures for Tool 6.A)</i></p> <p>C. Choose the objects to be evaluated. Refer to Tool 6.D: Identify the objects to be evaluated. (Task 3)</p> <p>D. Select indicators that allow for the observation of learning. (Task 4)</p> <p>E. Validate the connection between the indicators and objects of evaluation.</p>

	<p>(Task 5)</p> <p>F. Determine the evaluation criteria and the qualities targeted by the learning to be evaluated. (Task 6)</p> <p>Activity 6.3</p> <p><i>The evaluation task</i></p> <p><i>(Tasks 7-8-9 procedures for Tool 6.A)</i></p> <p>G. Determine the appropriate evaluation task or evaluation method. Use Tool 6.E: Appropriate tasks for the evaluation of learning.</p> <p>Support documentation for this activity:</p> <p>Tool 6.F: Definition of an authentic situation</p> <p>Tool 6.G: Guidelines for choosing evaluation methods</p> <p>Support documentation:</p> <p>Document 6.A: The evaluation in authentic situations: tools</p> <p>H. Document 6.B: “Evaluate competencies. Yes, but... how?” Personal assessment of learning and sharing of findings with group</p> <p>Activity 6.4</p> <p><i>The marking grid</i></p> <p><i>(Tasks 10-11 procedures for Tool 6.A)</i></p> <p>I. Infer and judge if the student has acquired the necessary learning, develop one or more tools for the collection of observable data compiled in a marking grid.</p> <ol style="list-style-type: none"> 1. Presentation, clarification and group exchanges on procedures for developing a marking grid using Tool 6.H: Tasks to build data collection tools. 2. Evaluate a training objective studied in the preceding stages of the current activity, complete the marking grid recommended in Tool 6.H. 3. Analyze the sample marking grid using Tool 6.I: Sample marking grid designed at Cégep Saint-Laurent <p>J. Personal assessment of learning and sharing of findings with group.</p> <p>Activity 6.5</p> <p><i>Communicating the results</i></p> <p><i>(Task 12 procedures for Tool 6.A)</i></p> <p>K. Reading of document, Tool 6.J: Tasks to communicate evaluation results and provide students with feedback.</p> <p>L. Exchange and discussion on the repercussions of the evaluation results relative to the following topics:</p> <ul style="list-style-type: none"> — how to communicate the results of the summative evaluation, — summary of feedback characteristics, — affective dimension of feedback.
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	M. Personal assessment of learning and group discussion on differences in: — attitudes and reactions of the teachers who communicate evaluation results — attitudes and reactions of the students who receive evaluation results
Moderator's role	To create a climate favourable to reflection and discussion. To make sure the required material is at hand. To be available to coach the work teams. To implement all stages of the evaluation plan's development process. To help the participants validate their evaluation practices.
Participants' role	To support interaction with other participants. To apply work processes. To establish links. To specify personal choices regarding evaluation practices.
Pedagogical material	Tool 6.A: Procedures for developing an evaluation plan and tools for collecting data and making judgments: Tool 6.B: Tasks for the analysis of a training objective Tool 6.C: Tool for the analysis of a competency Tool 6.D: Tasks for identifying objects to be evaluated Tool 6.E: Appropriate tasks for the evaluation of learning Tool 6.F: The definition of an authentic situation Tool 6.G: Guidelines for choosing evaluation methods Tool 6.H: Tasks to build data collection tools. Tool 6.I: Sample marking grid designed at Cégep Saint-Laurent Tool 6.J: Task to communicate evaluation results
Support documentation	Document 6.A: The evaluation in authentic situations: tools Document 6.B: “Evaluate competencies. Yes, but... how?”
Comments	The complete development of an evaluation plan for a final test in a course requires time. The activity will be more effective if it is distributed over several group meetings.
Approximate duration	Activity 6.1: 2-3 hours, depending on the in-depth level Activity 6.2: 3 hours Activity 6.3: 3 hours Activity 6.4: 3 hours Activity 6.5: 1 hour



Tool 6.A

Procedures for developing an evaluation plan and tools to collect data and make judgments

General approach⁶⁷

Development process	Tasks to be completed
Stage 1: To analyze the training objective	<ol style="list-style-type: none">1. Characterize the training objective:<ol style="list-style-type: none">1.1. Connect the training objective with the statement(s) and components of the competency(ies) identified by the ministerial specifications.1.2. Formulate, if need be, the targeted training objective in the course as a final integrating objective.2. Determine the nature and role of this training objective.
Stage 2: To choose and specify the objects to be evaluated	<ol style="list-style-type: none">3. Choose the objects of the evaluation or essential learning to be evaluated.4. Select indicators that make it possible for the demonstration of learning to be observed.5. Validate the connection between the indicators and the objects of evaluation.6. Determine the evaluation criteria or required qualities of the learning to be evaluated.
Stage 3: To choose and validate the evaluation tasks	<ol style="list-style-type: none">7. Determine the appropriate evaluation task(s) for the learning to be evaluated.8. Identify the achievement context of evaluation task(s).9. Guarantee the validity and reliability of the tools used.
Stage 4: To develop tools to collect data and make a judgment on the evaluation	<ol style="list-style-type: none">10. Build the tools for the collection of observable data: marking grids and rating scales.11. Select the judgment and rating methods to apply to student learning.
Stage 5: To communicate the results and provide students with feedback	<ol style="list-style-type: none">12. Communicate the results of the summative evaluations; Provide students with feedback.

⁶⁷ Approach developed by Hermann Guy and Michel Poirier within the scope of a training activity dealing with the assessment of a competency, Collège de Valleyfield, CPE/C Performa, Université de Sherbrooke, 2001.

Evaluation plan

Competency:

Analysis of the training objective (nature, role, connection to the objectives of other courses)		
Objects of evaluation (essential learning)	Indicators of learning (process, product, speech, attitude)	Evaluation criteria (qualities, characteristics)
Evaluation task(s) (evaluation methods)		The realization context

Tool 6.B

Tasks for the analysis of a training objective⁶⁸

Task 1: Characterize the training objective

To characterize this objective, we must:

1. **Connect the course's training objective to the statement(s) and components of competency(ies) identified in the ministerial specifications.**

The analysis of the training objective is the first stage in the development of an evaluation tool for the course. The training objective targeted in a course refers in whole or in part to the statement(s) and components of the competencies identified in the ministerial specifications.

This stage implies the comparison of the training objectives of the course to the ministerial statement(s) of competencies targeted by the course.

There are two possible scenarios:

A. The training objective comprises only one competency:

- if a single competency is developed in the course (1 competency = 1 course),
- if certain components of a single competency are developed (1 competency = several courses),

Thus the training objective generally corresponds to the statement of competency described in the ministerial specifications and refers to some or all the components of this statement.

B. The training objective encompasses several competencies:

- if several components from different competencies are developed (N competencies = N courses),
- if several competencies are developed in the same course (N competencies = 1 course),

Thus the training objective becomes a final integrating objective.

The teachers responsible for drafting the course's framework plan generally formulate this objective during the program development stage.

2. **Formulate the course's training objective as a final integrating objective, if need be.**

In the case where a training objective with an integrating nature was not formulated during the program development, it is possible to include it in the course planning stage. The formulation of a final integrating objective proves to be necessary to bring together competencies or parts of competencies that are targeted in a course. This approach makes it possible to respect the final, multidimensional and integrating character of a competency. The following page presents the characteristics of a final integrating objective.

⁶⁸ Hermann Guy and Michel Poirier, *Activité de perfectionnement portant sur l'évaluation d'une compétence*, Collège de Valleyfield, CPE/C Performa, Université de Sherbrooke, Summer of 2003.

Characteristics of a final integrating objective or integrating objective⁶⁹

“In training determined by its results,
based on competency development,
built through a curricular approach,
and organized around a program approach,
each course must target a final integrating objective.

Every objective points to a change or development. It identifies the nature and orientation, the content, the implications and impact. It is similar to an integrating objective:

by nature, it is a high level objective: it relates to the development of abilities to understand in depth, to compare, analyze, reason, resolve problems, make decisions, perform complex actions, make critical judgments, communicate, cooperate, demonstrate, and take charge of one’s evolution;

it is oriented toward integration and competency: personal integration of the subject matter, transfer of knowledge when performing actions, development of the potential to intervene in an adapted and effective way;

its content is multidimensional: intellectual development, cognitive development, psychomotor and technical development, socioaffective development;

its scope is determined using specific guidelines as to the field or fields of learning, the types of learning situations, the learning context and the implementation of learning, as well as the results targeted by the learning;

its impact is defined by the expectations regarding the demonstration of this integration or competency.

The achievement of a final integrating objective or objective of competency requires:

the acquisition of knowledge, skills, personal conduct and their integration in knowledge to think, knowledge to act, and knowledge to be;

the capacity to intervene in an autonomous, adequate and effective way;

within a specific role and relative to a specific field or area of intervention, when we have delegated responsibilities,

when faced with problem situations ...

we must be able to carry out activities and tasks so we can analyze, explain and transform them.”

Usually, the wording of the final integrating objective is identical or inspired by one or more of the competencies targeted in the course. If a competency spans more than one course or if a course contributes to the development of more than one competency, the final integrating objective should correspond to a meaningful part of that(those) competency(ies) and respect its(their) nature.

⁶⁹ Translated from François Vasseur and others, L’”objectif intégrateur”, “Journée pédagogique portant sur l’élaboration d’un système d’évaluation des apprentissages dans le cadre de la nouvelle PIEA”, 1998, p. 15.

First example of an analysis of a training objective

Training objective: “To draft French texts”.

To draft French texts, more precisely **abstracts**, the student must be able to:

- analyze the mandate
- analyze the original text, according to a specific method
- develop a drafting plan
- reformulate the essence of the original text
- structure and write a faithful abstract
- apply grammar, spelling and syntax rules

Although certain rules relating to the analysis of the mandate, the structure of the texts and the application of grammar, spelling, syntax and typographic rules are common to all written texts. This competency opens the door to several writing concepts used in courses such as the minutes of a meeting, reviews, press releases, reports, internal newsletters, etc.

Initially the course will propose a thorough review of key grammar rules essential for the mastery of the language in question. Then, as concepts are reviewed, they will be applied within simple phrases followed by complex phrases, then paragraphs and, finally, texts such as abstracts.

Second example of an analysis of a training objective

(refers to several competencies)

The course *Algorithmique et Programmation I* introduces students to problem-solving, algorithms and programming.

This course targets competency **016W – Produire des algorithmes** (**To develop algorithms**) and, secondarily, competency **016S – Exploiter un langage de programmation structure** (**To use a structured programming language**) and **016X – Produire une interface utilisateur** (**To develop a user interface**). Components of the two secondary competencies developed in the course act as pillars for the competency of developing algorithms. They allow the student to apply his algorithms to a programming language and to complete the analysis and development until the validation of the program.

This course is the first course in the “analysis and development” axis and has no prerequisites. It is a basic course for all programming courses and a prerequisite for the course *Algorithmique et Programmation II*. This course will allow the student to put into practice problem solving using an analytical approach and a procedure to develop algorithms to produce a program. The programming environment is the Delphi oracle, chosen for its ease of acquisition and its degree of correspondence with the selected algorithmic approach. The student will then use simple debugging procedures and program validation.

Clarification of a competency

The competency **To develop algorithms** is one of the stages in the process of analysis and development, one of the tasks of the computer technician. The first stage relates to problem analysis and the gathering of elements to resolve it. The second stage consists in sectioning the problem into modules and then applying a gradually refined algorithm to each of these modules. These algorithms must be validated through manual execution. The next stage consists in translating these algorithms into a programming language. The resulting program will then have to be debugged and validated to reach a final product.

To help the student get a better grasp of the production stage of an algorithm and its connection to analysis and programming, the course will include components of the two secondary competencies *Exploiter un langage de programmation structurée (To use a structured programming language)* and *Produire une interface utilisateur (To develop a user interface)* so students will not only understand the algorithm but also realistically validate the results of their work.

Problems presented to the students will be simple enough to allow them to slowly acquire an analytical approach and to continue this training in the course *Algorithmique et Programmation II* by working on more complex problems. The competencies in this course are a prerequisite for learning the knowledge and skills required for the tasks in *Design and development of computer applications*.

Task 2: Determine the nature and role of this training objective

Determination of the nature and role of the training objective targeted in a course is based on the analysis of ministerial documents⁷⁰ that identify the competency(ies) to be developed in the course.

This analysis is generally included in the documents written at the end of the elaboration process for a local study program (general plan, local program specifications). Examples of this type of analysis are found below. They are guides to instructional planning. Tool 6.C is used to analyze a competency.

These analyses are also used to direct planning activities for the evaluation of learning based on competency development. In this context, an analysis of the nature and role of the training objective is done to guide the different tasks carried out for developing an evaluation activity.

The following table proposes questions to better grasp and complete the analysis of the training objective.

Questions for the analysis of the training objective ⁷¹	Links to the tasks for developing an evaluation activity
1. Concerning the nature of the training objective	
Analysis of the statement of competency(ies) developed in the course	
For each statement of competency: <ul style="list-style-type: none">— What is the essential learning targeted by each statement? What learning skill will become an object to be evaluated?— What kind of production does each competency require?— What type of process or approach does it require?	<ul style="list-style-type: none">— Choice of objects to be evaluated— Selection of indicators (product, process, speech)
Analysis of the components of a competency	
For each statement of competency: <ul style="list-style-type: none">— What is the essential learning targeted by each statement? What learning skill will become an object to be evaluated?— What actions must the student be able to perform for mastering the essential learning to be validated?— What resources must the student mobilize to succeed in performing the required actions?	<ul style="list-style-type: none">— Choice of objects to be evaluated— Selection of indicators— Mobilization of resources to carry out evaluation tasks

⁷⁰ Index cards show competencies written as objectives and standards.

⁷¹ This can be connected to one or more competencies identified in the ministerial specifications. The analysis of components in relation to objectives and standards must take into account the connection between components.

Analysis of the realization context	
<p>According to the ministerial definition:</p> <ul style="list-style-type: none"> — Which contexts could be considered for developing evaluation situations? — What are the conditions and what support and assistance will be provided to the student during the evaluation? 	<ul style="list-style-type: none"> — Determination of evaluation tasks — Clarification of the realization context
Analysis of the performance criteria	
<p>According to performance criteria:</p> <ul style="list-style-type: none"> — What qualities or characteristics must we rely on in order to judge accomplishments during the realization of evaluation tasks? — Which performance criteria are most closely connected to the evaluation tasks? — Which ministerial performance criteria can be regrouped? — What performance criteria must be refined or adapted to the nature of the evaluation tasks? 	<ul style="list-style-type: none"> — Determination of evaluation criteria — Selection of indicators — Determination of evaluation task(s) — Determination of evaluation criteria — Determination of evaluation criteria
2. Role of the training objective	
Analyze information contained in general plans and local program specifications	
<p>According to information on the role of the course in the study program:</p> <ul style="list-style-type: none"> — What is the chronological position of the course relative to the development of the competency(ies) targeted by the training objective? — At the beginning? At the end? — If the course contributes to the development of more than one competency, what exactly does the course contribute to the development of each competency? 	<ul style="list-style-type: none"> — Choice of objects to be evaluated (minimum requirements) — Choice of objects to be evaluated
<p>According to decisions made by the development team:</p> <ul style="list-style-type: none"> — What is the extent of learning in the course? — Are there expectations, minimum requirements for the learning to achieve in the course? — Does the proposed learning constitute a final stage in a course or program? — Does the recommended learning represent a stage in the training program? 	<ul style="list-style-type: none"> — Choice of objects to be evaluated (minimum requirements)

Example of an analysis of the training objective

Program: Nursing

Competency targeted: 01Q3: "To refer to a concept in nursing to define one's professional practice."

Course presentation:

- This course is presented at the beginning of the nursing care program. It targets competency 01Q3 "To refer to a concept in nursing to define one's professional practice", the first competency on the "Work Processes" training axis. It is a prerequisite for all other nursing courses in subsequent trimesters.
- It allows the student to acquire knowledge in nursing in order to intervene in various care giving contexts.
- This competency enables the students to develop their concept of the person and health care in their professional practice and to resolve problems in nursing with the help of work-related problem resolution processes.

Clarification of the competency:

- This course targets the profession's socialisation process. The competency relates to the basics of professional practice: concept of the person, health care and the nursing environment. Additionally, it requires reference to the Virginia Henderson care model and the adoption of a care giving approach.

Competency: 01Q3 "To refer to a concept in nursing to define one's professional practice"		
Objects of evaluation	Learning indicators	Evaluation criteria
<i>Reference to the Virginia Henderson conceptual model</i> Adopting a care-giving approach	<ul style="list-style-type: none">— Adoption of attitudes and behaviours in agreement with the model— Use of work tools in agreement with the model— Implementation of the stages in care giving:<ul style="list-style-type: none">○ Data collection○ Analysis and interpretation of data○ Planning of care:<ul style="list-style-type: none">■ formulation of objectives and interventions■ partnership between the nurse / the client and close relatives— Evaluation of the approach	<ul style="list-style-type: none">— Obvious demonstration of pertinent attitudes— Correct use of the tools— Stringent respect— Adequate use of information sources— Accurate formulation of problems and their causes— Suitable formulation— Adapted communication— Adequate use of evaluation criteria

The realization context:

- Based on a conceptual model of the nursing discipline
- With the help or work tools and reference works
- Using terminology proper to the discipline and to health sciences

Evaluation methods:

Refer initially to the teaching approach that directs the choice of evaluation methods:

- The approach used in this course will gradually bring the student to acquire and integrate various concepts of professional practice. For that purpose, various concepts will be introduced using presentations, group discussions and reflection. Moreover, the labs will allow for the use of the problem solving process using case studies, problem-based learning, role-playing and practical exercises.
- Given the nature of the competency, the course will deal in part with the experience of using a care-giving approach in simple situations.
- In subsequent sessions, the students will be encouraged to develop their mastery of using a care-giving approach in a variety of increasingly complex contexts.

Means selected:

1. Case study (simple situation)
2. Simulation in the lab: care giving approach: to carry out data collection

Tool 6.C

Tool for the analysis of a competency⁷²

<i>Dimensions →</i>	Nature How does the ministère define the competency?	Role How and where does this competency fit within the whole of the training?	Contribution How does the competency contribute to training in the program?
<i>Document ↓</i>			
Ministerial description of the competency (objective / standard index card)			
— <i>Statement of competency</i>	What is the student's capacity to act as described by <i>the action verb</i> ?	What competencies are acquired concurrently ?	What previous difficulties can the acquisition of this competency resolve?
	Is the object or product of the action designated as <i>direct object</i> ?	To what other competencies is this competency closely linked ? With what other competencies can the competency be grouped ?	This competency enables us to introduce what changes to student training?
	To which fields of knowledge is the capacity for action connected? Cognitive/psychomotor /socioaffective?	What are the competencies with which this competency forms a sequence ?	
	At what taxonomic level do we find the capacity for action?	Are there one or more competencies that are absolute prerequisites for this competency?	
	To what family of situations is the capacity for action connected? Work, training, life situation?	In which other competencies is the learning that was acquired for this competency reinvested ? In what way?	

⁷² Translated from Hermann Guy and Michel Poirier, *Activité de perfectionnement portant sur l'évaluation d'une compétence*, Collège de Sherbrooke, CPE/C Performa, Université de Sherbrooke, Summer 2002.

<i>Dimensions →</i>	Nature	Role	Contribution
<i>Tools ↓</i>	How does the ministère define the competency?	How and where does this competency fit within the whole of the training?	How does the competency contribute to training in the program?
Ministerial description of the competency (objective / standard index card)			
— Refer to <i>action verbs</i> and <i>direct objects</i> . Validate these details according to the data in <i>AST</i> and the <i>table of correspondence</i> .	What details does the information contained in these documents provide on the skills, knowledge and attitudes mobilized by the competency?		
— Also refer to <i>realization context</i> and <i>performance criteria</i> .			
— Components of the competency	What is the importance, depth and extent of each component relative to the development of the competency?		
	Do the components include: — The stages of acquisition of the competency (the process)? — The components of the competency (mini-tasks or products)?		

<i>Dimensions →</i>	Nature		
<i>Tools↓</i>	How does the ministère define the competency?		
Ministerial description of the competency (objective / standard index card)			
— Realization context	<p>Under what conditions can the competency be demonstrated:</p> <ul style="list-style-type: none"> — environment (location, milieu...)? — the context (starting from...)? — the clientele (for/to whom...)? — level of autonomy (as an individual, in a team, in collaborative work...)? — support offered to students (to assist): tools, learning activities, references? — limitations (on..., for..)? — rules to be respected? <p>What is the time and place for this demonstration of competency?</p> <ul style="list-style-type: none"> — During training, on the final test, at the end of the training? 		

<i>Dimensions →</i>	Nature		
<i>Tools ↓</i>	How does the ministère define the competency?		
— Performance criteria			
— Refer to <i>nouns</i> for indicators — Refer to <i>adjectives</i> for the required performances (criteria)	<p>What are the essential criteria for evaluating the acquisition of elements of the competency?</p> <ul style="list-style-type: none"> — What are the indicators or the aspects to be observed? — What are the required performances? 		
	<p>What information on the contents is provided by the criteria?</p> <ul style="list-style-type: none"> — Knowledge, skills, attitudes? 		
— Learning activities			
	<p>What information is available on:</p> <ul style="list-style-type: none"> — administrative details (title, weighting, units, prerequisite studies)? — essential content? 		

Tool 6.D

Task 3: Identify the essential objects and/or essential learning to be evaluated⁷³

For administering a summative evaluation on the attainment of a training objective that is competency-based, we must identify beforehand the learning to be evaluated. In the assessment of competencies, this learning is integrating and multidimensional by nature.

Learning⁷⁴ can deal with:

- “**Learning models and representations** of reality that students develop and integrate by acquiring knowledge, adapting it, deepening their knowledge and relating it to situations in the workplace or a given field;
- **ways of analyzing and interpreting** situations and problems;
- **the capacity to act in a procedural fashion** that the student develops and integrates by acquiring work techniques, psychomotor skills, control of instruments, by automating and connecting them to each other and to situations in a given domain or field of intervention;
- **steps, strategies, procedures** for problem resolution and management of one’s interventions;
- **personal behaviours and attitudes** that students have developed and integrated by being put in control of their own learning, dealing with problem situations, communication, cooperation and responsibility;
- **conduct that is** cultural, social and professional.”

Examples of objects of essential learning:

- Establishment of communications adapted to the needs of the client and his family
- Communication of care-giving information to the care-giving team and other healthcare professionals in the field
- Resolution of nursing problems using a scientific approach
- Collection and compilation of forestry information and data using computer tools
- Analysis of bio-physiological data and management constraints in forest management
- Use of adequate terminology and good grammar in drafting a technical report

The analysis of the elements of competency provides useful and pertinent information in determining the objects of learning. Validation of mastery over this learning is connected to:

- The goals and training objectives (*cf.* Ministerial specifications, exit profile, competency, objective or final integrating objectives for each course, etc.);
- The contribution they make to a further stage of the training (either within the current course or in a subsequent course).

For those who prefer a different approach to the classification of learning, a typology developed at Cégep de La Pocatière is outlined below.

⁷³ Translated from Hermann Guy and Michel Poirier, *Activité de perfectionnement portant sur l'évaluation d'une compétence*, Collège de Valleyfield, CPE/C Performa, Université de Sherbrooke, Summer 2003.

⁷⁴ The typology suggested here is translated from François Vasseur and others, “Journée pédagogique portant sur l’élaboration d’un système d’évaluation des apprentissages dans le cadre de la nouvelle PIEA”, 1998, p. 16-17.

The dimensions of learning ⁷⁵		
Dimensions	Types of objects of learning	Examples of objects in nursing care
Knowledge to think	— knowledge of various fields and domains, of learning models and representations of reality, ways of analyzing and interpreting cases and problems	— PPS, drugs, digestive system ... — Approach to care giving, care giving models... — Data collection during the patient's initial evaluation, during clinical monitoring...
Knowledge to act	— capacity for procedural action in real life, work procedures, psychomotor skills, mastery of instruments — steps, strategies, procedures <ul style="list-style-type: none">○ problem resolution○ intervention management<ul style="list-style-type: none">■ planning■ achievement■ evaluation	— report, administering medication, ... — displacement of patient, injections — verification of solutions/serums — intervention in various types of clinical situations and contexts: <ul style="list-style-type: none">○ promoting prevention○ therapeutic process○ medical rehabilitation and quality of life
Knowing how to be (personal conduct)	— personal behaviour and attitudes in a situation requiring: <ul style="list-style-type: none">○ assuming control for training○ confronting problem situations○ communication○ cooperation○ exercising responsibility — conduct that is cultural, social and professional	— motivation, commitment to the task... — stress management, ... — attentive to patient characteristics, ... — cooperation with the work team — punctuality, honesty, confidentiality

⁷⁵ Table translated from François Vasseur and others, "Journée pédagogique portant sur l'élaboration d'un système d'évaluation des apprentissages dans le cadre de la nouvelle PIEA", ITA de La Pocatière, 1998, p. 16 and 17.

Other examples of key learning classified according to the typology in use at Cégep de La Pocatière

Knowledge to think:

- To plan the drafting of various types of texts;
- To organize the required information, collected beforehand, in order to write an informative text;
- To reflect and develop a personal thesis relative to a problem or a given subject;
- To plan and structure a report;
- To connect certain communication situations;
- To develop, as the sender, communication that is clear and adapted to the situation at hand;
- To self-evaluate texts by adopting the recipient's perspective;
- To recognize personal, linguistic, socio-cultural and *contextual* factors that enrich and limit written communication.

Knowledge to act:

- To write various types of texts;
- To read various types of texts;
- To seek information;
- To use verbal and para-verbal components judiciously;
- To develop a work project plan;
- To correct errors relative to the code;
- To orally present a written work or research results;
- To locate certain formal elements within a text;
- To identify the macro- and micro-structure of a text.

Knowledge to become (personal conduct):

- To take control of one's learning;
- To manage work periods within a learning process;
- To be concerned with the quality of work carried out; stringency and rigour;
- To be autonomous in the execution of certain tasks;
- To be receptive to feedback on exercises carried out.

Task 4: Select indicators that will allow for the observable demonstration of learning

Learning acquired by a person is not directly observable. To be able to judge its existence, we must have access to *observable demonstrations*. By observable demonstrations, we mean behaviours, actions, comments, processes and productions that make it possible, when the student is required to accomplish a task, to infer the learning or competencies, which are the target of evaluation.

Observable demonstrations can be classified in three types of indicators:

- process:** how the student behaves when put in a situation where he must act: procedure, technique, method, etc.;
- product:** what the student grasps when put in a situation where he must act: object, image, construction, etc.;
- speech:** what the student says when put in a situation where he must justify, explain, present, critique, etc., whether orally or in writing

The process used by students to resolve the problem and *the product* or result they achieve, are two types of indicators of their capacity to use and apply their learning. *Their speech*, written or oral reveals what they have acquired (their knowledge in memory) and their awareness of this knowledge.

Examples of indicators:

- in reference to the process: “use of a recognized budgetary planning approach”;
- in reference to the product: “presentation of the data and results in table formats”;
- in reference to speech: “explanation of a small company’s economic operations”.

Object: Resolution of nursing problems based on a scientific approach

Indicators for this object:

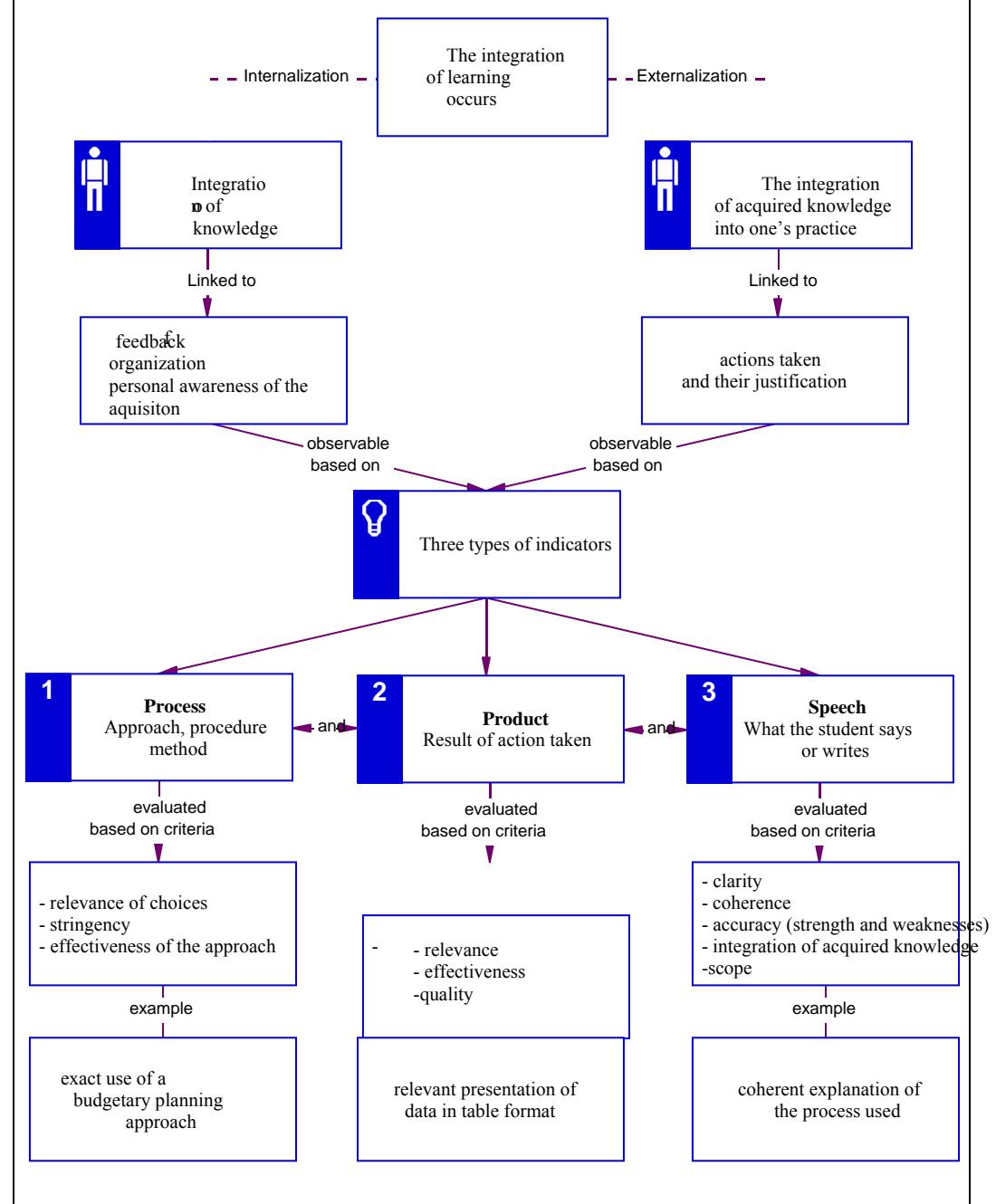
- Data collection according to the Virginia Henderson model and in conformity with the client’s condition
- Analysis and interpretation of the client’s case based on scientific knowledge and in relation to other health problems
- Identification and formulation of the nursing diagnosis based on the taxonomy provided by the North American Nursing Diagnosis, Montreal chapter (ANADIM)
- Planning and execution of interventions adapted to the client’s situation and consistent with the implemented approach
- Evaluation of the approach used

Object: Collection and compilation of forestry information and data using computer tools

Indicators for this object:

- Locating the property
- Analysis of the photographs of different lots
- Evaluation of the areas
- Identification of plantings
- Production of a plan of the lot, identifying the various plantings

An evaluation based on indicators must specify the properties, characteristics and qualities of the indicators. These are the evaluation criteria.



Translated from Pierre Deshaies,
November 1998.

Task 5: Validate the connection between indicators and objects to be evaluated

To complete the selection of indicators, the teacher or teaching team must validate the connection between the indicators and the essential learning to be evaluated.

The following questions can guide this validation exercise:⁷⁶

- Do all the indicators reveal what we want to evaluate? To what degree?
- Are the indicators the same or are there different types?
 - Process
 - Product
 - Speech
- When we observe student demonstrations, to what extent can the indicator infer that they have effectively acquired the desired learning?
- Does each indicator provide information on the object being evaluated in its totality and all its complexity or only on a more or less important part of it?
- For each object being evaluated, can we limit ourselves to one or more selected indicators or is it preferable to use several indicators? If yes, which ones?

Task 6: Determine the evaluation criteria and desired qualities of the learning to be evaluated

To make an evaluation we need precise criteria (qualities) relative to the indicators used for dimensions of the targeted learning. The criteria relate to the expected qualities of the learning we want to evaluate. They must be highly consistent with what was pursued and taught.

Qualities usually sought after:

for the processes:

- procedural method used
- relevance
- stringency
- creativity
- effectiveness
- ...

for the products:

- relevance
- effectiveness
- quality
- realism
- ...

for speech:

- clarity
- coherence
- relevance
- accuracy of topic and choice of terms
- ...

Examples:

- exact use of a recognized approach for budgetary planning
- effective representation of the data and results in table format
- explanation of a small company's economic operations
- accurate identification by the student of problem cases
- explicit modeling of situations using pertinent concepts
- implementation of an explicit resolution process
- effective problem resolution
- accurate analysis of results, data and situations
- justified self-evaluation

- highlighting of personal examples
- justified criticism of an inaccurate performance
- correct relationship between the components of the case
- correct relationship between the concepts and procedures
- pertinent use of knowledge in real life cases
- appropriate adaptation of procedures to new case situations
- richness of concepts, procedures and attitudes displayed
- ...

Tool 6.E

Task 7: Determine appropriate tasks⁷⁷ for the evaluation of learning

Having identified the targeted indicators and qualities, the teacher or teaching team then develops one of the evaluation tasks for the objects described.

When it comes to evaluating competencies, the evaluation tasks are generally complex and call upon several types of knowledge and resources. They are authentic insofar as the realization context is as close as possible to situations in real life, higher studies or the workplace.

These tasks must be developed for the purpose of soliciting “observable demonstrations” of learning by the student. They must also make it possible to collect data relating to the indicators and selected criteria.

The development of a complex evaluation task generally includes:

- a description of the initial situation;
- instructions relative to actions that will be undertaken;
- precise details as to expected results and presentation methods for the results⁷⁸.

If the evaluation of an object includes more than one task, it is necessary to consider the arrangement of these tasks and the realization context (*cf.* task 8).

Examples of complex tasks that students are required to carry out⁷⁹:

- Structuring a set of data, concepts, techniques, etc. (in a table, diagram, etc.)
- Production of a plan (plan of a text, a research plan, intervention plan in a professional field, etc.)
- Analysis, interpretation of results, data, etc., according to a context, based on a theoretical framework, etc.
- Inductive, deductive reasoning
- Developing arguments
- Critical analysis
- Writing different types of texts
- Producing a summary on a theme, based on various sources
- Research: problematics, methodology, data collection, data processing, interpreting results, etc.
- Intervention with a person or group of persons: analysis of the situation, determining problematics, planning the intervention, carrying out the intervention, use of technical resources, evaluating the results of the intervention
- Problem resolution
- Evaluating a process or production in a given domain or field of activity
- Public presentation (performance, sports, presentation, etc.)
- Composition, creation

⁷⁷ Translated by Hermann Guy and Michel Poirier, *Activité de perfectionnement portant sur l'évaluation d'une compétence*, Collège de Valleyfield, CPE/C Performa, Université de Sherbrooke, summer 2003.

⁷⁸ For example, to develop a typical complex ‘problem situation’ task, refer to the chart presented and the problem situation examples in Pôle de l’Est, *Processus de planification d’un cours centré sur le développement de compétences*, p. 91, 1996, p. 303-305.

⁷⁹ List of complex tasks generally required of students in D’Amour and others, *L’évaluation des apprentissages au collégial : du cours au programme*, Fascicule III-IV, 2^e volet-Doc. D1.2b, Avenues quant au comment faire. Comment faire l’évaluation des apprentissages? Comment faire l’animation pédagogique sur ce thème?, 1997.

The choice and development of evaluation tasks must respect as much as possible criteria relating to integration and authenticity and focus on the competency. In relation to the situations in which the evaluation tasks will be carried out, Mitchell (1989)⁸⁰ suggests the following process:

- Begin by identifying tasks that can be carried out in real situations (ex.: work placement, probation environment, etc.);
- If real situations are not possible, choose sample situations that relate to real tasks (ex.: partial work placement, laboratory, role playing, projects, etc.);
- If it is not possible to select situations characterized by a ‘quasi real’ context, evaluate the student’s performance in simulated situations (ex.: problem situations, placing in context, case study, authentic problems, etc.) by evaluating when knowledge is used to solve problems or deal concretely with situations (in depth treatment).

<i>Continuum of appropriate tasks for evaluating a competency</i>					
Less appropriate tasks	→			More appropriate tasks	
<ul style="list-style-type: none"> — Multiple choice — True or false 	<ul style="list-style-type: none"> — Exercises — Simple problem 	<ul style="list-style-type: none"> — Open questions — Problems — Essays 	<ul style="list-style-type: none"> — Problem situations — Analyses — Projects — Case study — Simulation — Role play — Production 	<ul style="list-style-type: none"> — Portfolio — Integrated strategy — Set of interventions within a training period 	
Reasoning (rational)					
Evaluation of isolated knowledge	Evaluation of isolated skills	Risk of knowledge and skills remaining isolated	<ul style="list-style-type: none"> — Integration — Authenticity — Focus on the competency 	Evaluation system based on the integration of knowledge, its development and the evaluation of the competency in its totality	

Translated from Pôle de test, *Processus de planification centré sur le développement d'une compétence*, 1996, p. 163.

⁸⁰ Adapted from L. Mitchell, “Evaluation of competency”, quoted by J. Burke, *Competency Based Education and Training*, NY, The Palmer Press, 1989.

Task 8: Specify the realization context for tasks used to evaluate learning

These are the conditions and context relating to the type of test used to evaluate a competency. The realization context makes it possible to accurately define and understand the scope of the competency or each of the targeted competencies. It contributes to setting limits and understanding the degree of required complexity.

The realization context specifies:

- on what to base the exercise of the competency
- what to use to help exercise the competency
- in what environment to exercise the competency

Examples:

Carry out an artistic production:

- Individually
- As part of a practical test
- Within a creative or interpretive context
- Based on fundamental language elements or techniques appropriate to the method employed
- Using all available tools that could prove necessary

Treat a topical subject from an interdisciplinary perspective:

- Individually
- Based on an imposed subject or subject of choice (free selection)
- In a scientific essay (1,500 to 2,000 words)
- In an oral or written report
- Using all pertinent reference manuals

Decisions relating to how we determine the realization context impact the choice of evaluation tasks. These decisions take into account the minimal requirements established when the objects of evaluation were selected.

Task 9: Assure the validity and reliability of tools used

The validity and reliability of evaluation tools

The last stage of developing an evaluation consists of assuring the validity and reliability of the instruments to be used.

Validity of an evaluation tool

We satisfy the **validity of content** requirements by presenting students with situations, tasks or problems that are as representative as possible of the competencies described in the exit profile for their study program and that correspond to the minimal entry-level requirements in the labour market or university.

Ecological validity, the character of an experiment or an evaluation that takes place in a normal environment, has a sufficient duration to correspond to real practice and calls into play behaviour that is significantly representative of what is required of a novice on the labour market or at university. (Tremblay, G., 1994)

It is necessary to verify the validity of an evaluation tool: *does the instrument measure what it claims to measure?* When evaluating a competency, a tool is considered valid:

- if the evaluation situation forces students to use rich and pertinent knowledge;
- if the evaluation context is similar to an authentic context;
- if the student must use in-depth analysis of problem situations
- if the problem presented gives students the opportunity to demonstrate what they have truly developed in terms of competency;
- if the evaluation criteria are similar to those in real life (they result from an analysis of the targeted competency).

Reliability of an evaluation tool

This refers to a tool's ability to measure with the same accuracy each time it is administered. (Legendre, R., 1993) The reliability of an instrument is determined by asking: *Is a student who is declared competent (or non-competent) following an evaluation really competent (or non-competent)?* An evaluation is reliable if the evaluation performed does not vary from one teacher to another and if the judgment rendered proves accurate over the medium term. It is highly beneficial to:

- verify the total competency in diverse situations (performances);
- develop detailed evaluation scales;
- assure that criteria and evaluations among teachers are comparable;
- use exemplary performances to identify the criteria;
- make sure that judgments are rendered by teachers entitled to do so;
- ensure assimilation of the criteria by the teacher and the student;
- require justification with regard to the conceptual and procedural knowledge of the performances and decisions (provides clues on the generalization required for a competency);
- use student perception as a reliability index (if the students feel that the evaluation is unfair, that it deals with details, that it was 'a surprise', etc., then we should question its reliability);
- compare long-term performances with performance in real-life situations (training period, work place, university, etc.) or other performances over the long term.

It is not necessary to use all these means, employing a selected number of them will assure the reliability and validity of our instruments.

Tool 6.F

Description of an authentic situation

In recent educational writings, we often find the expression “authentic evaluation”, which refers to the characteristics and context in which an evaluation task takes place. In an authentic evaluation students demonstrate their mastery of the competency as directly as possible. They do this in context and based on tasks with significant similarities to real situations that call the targeted competency into play.

This *authenticity of task and context* can manifest itself in various ways: stimuli, complexity of the task, time allotted for accomplishing the task, accessible resources, amount of control the student has over the task realization process, quality and performance criteria, requirements, consequences, etc. Wiggins (1999)⁸¹ offers the following suggestions for making an evaluation situation authentic:

1. it must deal with important questions and problems that are stimulating and valid, students must use their knowledge to achieve performances in an effective and creative manner;
2. it incorporates characteristics of real-life situations facing “professionals”;
3. it requires that students accomplish non-routine tasks involving various types of “real problems”;
4. it requires that students carry out a concrete production or performance;
5. it is evaluated based on clear criteria or standards that students understand;
6. it can involve interactions between the evaluator and the person being evaluated (providing assistance, clues, resources, etc.);
7. it requires that the student deal with both the process and the product, as both impact the student’s quality of work;
8. it promotes an opportunity for students to demonstrate creative and personal skills;
9. it provides enough clues to make the situation seem “real”, without giving away too much information on “resolving” the situation.

⁸¹ Adapted from Grant Wiggins, “The case for authentic assessment”, *Practical Assessment, Research & Evaluation*, vol. 2, n° 2, 1999. [<http://ericae.net/pare/getvn.asp?v=2&n=2>].

Characteristics of an authentic situation⁸²

- The evaluation contains only contextualized tasks.
- The evaluation deals with complex problems.
- The evaluation must contribute to the further development of student competencies.
- The evaluation requires the functional use of disciplinary knowledge.
- There is no arbitrarily determined time constraint during the evaluation of competencies.
- The task and its requirements are known prior to the evaluation situation.
- The evaluation requires some form of peer collaboration.
- Marking takes into account the student's cognitive and metacognitive strategies.
- Marking takes into account only major errors in a perspective of building competencies.
- Marking criteria are determined on the basis of the cognitive requirements of targeted competencies.
- Self-evaluation is a part of the evaluation process.
- The marking criteria are numerous and provide extensive information on competencies assessed.

⁸² Adapted from Grant P. Wiggins, "Teaching to the (Authentic) Test", *Educational Leadership*, vol. 46, n° 7, 1989, p. 41-50.

The authentic evaluation⁸³

A number of authors have summarized the characteristics of this type of evaluation*:

- The authentic evaluation is integrated in the learning.
- It is administered via problem situations that:
 - resemble real life
 - integrate several disciplines
 - include obstacles
 - constitute stimulating challenges
 - take into account student interests and their prior knowledge
 - do not have arbitrarily established time constraints
 - result in a production destined for the public
 - require from the students:
 - a mobilization of their knowledge
 - a definition of a personal approach
 - a regulation
 - a cognitive commitment
 - a form of interaction with their peers and the teacher
 - the production of an original response
- combine various evaluation means that help students grasp the multiple facets of learning (observation, interview, analysis of productions, etc.).
- involve active student participation.
- contribute to the further development of competencies (they are learning opportunities).
- call on the teacher's judgments to use evaluation criteria that are:
 - multiple
 - known in advance by the students

(See next page for a table showing the differences between traditional tests and authentic tasks)

* Inspired by publications by the following authors:

⁸³ Taken from [<http://recit.csbe.qc.ca/scnat/reforme/evaluationauthentique.html>].

DEPOVER, Christian et Bernadette NOËL, "L'évaluation des compétences et des processus cognitifs ", *Pédagogie en développement*, De Boeck Université, 1999.

JONNAERT, Philippe et Cécile VANDER BORGHT, *Créer des conditions d'apprentissage*, De Boeck Université, 1999.

LOUIS, Roland, *L'évaluation des apprentissages : Théorie et pratique*, Éditions Études Vivantes, Laval, 1999.

PERRENOUD, Philippe, "L'évaluation des élèves ", *Pédagogie en développement*, De Boeck Université, 1998.

TARDIF, Jacques, *Intégrer les nouvelles technologies de l'information*, ESF éditeur, Paris, 1998.

WIGGINS, Grant, *Assessing student performance*, San Francisco, Jossey-Bass, 1993.

Key differences between traditional tests and authentic tasks

Traditional tests	Authentic tasks	Indicators of authenticity
Require only exact answers.	Require a quality product or output and its justification.	We evaluate if students can explain, apply, adjust or justify answers without being limited to exact responses produced using facts or algorithms.
Must not be known in advance to ensure their validity.	Are known in advance, as much as possible; imply a degree of excellence to accomplish common tasks that are demanding and predictable; there are no “traps”.	The evaluation tasks, criteria and standards are predictable or known (a story, a theatre play, an engine to repair, a proposal for a customer, etc.).
Are disconnected from the context and realistic requirements.	Require that knowledge be connected to the real world; the student must “experience” history, sciences etc., based on realistic simulations or real situations.	The task is a challenge and presents a set of true constraints that are common to professionals, citizens or consumers.
Contain isolated elements that require recognition or the use of known skills.	Constitute integrated challenges where knowledge and judgment combine in an inventive manner to shape a quality product or output.	Even though the task has a “correct” answer, it offers multiple facets and is not routine. We must clarify a problem, proceed by trial and error, adjusting and adapting to the case or facts in question, etc.
Are simplified to allow for easy and reliable marking.	Involve complex tasks, criteria and requirements.	The task involves major aspects of the output required or challenges common to individuals in a same field of studies, rather than those that are easy to mark. It does not sacrifice validity in favour of reliability.

Allow for only one attempt.	Are iterative: the essential tasks, types and requirements are recurrent.	The work is designed to establish if, over time, the student has acquired a true or artificial mastery of the subject matter, real knowledge or simply a familiarity with the subject matter.
Are dependent on highly technical correlations.	Have an obvious value; they involve tasks that have been validated based on roles common to adults and challenges in the discipline.	The task appears valid and fair at first glance. It therefore arouses interest and perseverance; it seems suitable and stimulating for students and teaching personnel.
Make it possible to obtain a grade.	Provide useful diagnostic feedback (sometimes concomitant); the student can confirm the results and make required adjustments.	The evaluation is not limited to only verifying the output but to future improvements. The student is perceived as the primary “consumer” of the information.

Taken from Grant Wiggins, *Educative Assessment: Designing Assessments to Inform and Improve Student Performance*, San Francisco, Jossey-Bass, 1998.

Tool 6.G

Guidelines for choosing evaluation methods

Evaluation activities (François Lasnier)⁸⁴	
Type of activities	<i>Actions</i>
Informal formative, non interactive (activities without tools)	<ul style="list-style-type: none"> — I ask students to write down what they know about the disciplinary content to be worked on, and if they carried out similar tasks (activation of prior acquisitions). — I observe what students do, without any specific goal in mind, and I relate my observations to them. — Following the informal observation, I provide one or more students with clues on how to complete a certain part of the task. — I ask students to use a specific learning strategy. — During the execution of the task, I correct understanding or execution errors (individually or collectively).
Informal formative, interactive with the teacher (activities without tools)	<ul style="list-style-type: none"> — I discuss with students what they know or don't know about the disciplinary content to be worked on and any similar tasks already completed (activation of prior acquisitions). — I ask the student to repeat his understanding of what I said or the instructions for carrying out the task. — I plan “question & answer” sessions. — I ask students to identify their errors and to comment on them. — I ask the student to explain what he is doing and how he is doing it; I help him make the connections to the capacities required by the targeted competency. — I ask the student to choose a learning strategy and explain its usefulness for the situation in question.

⁸⁴ Translated from François Lasnier, *Réussir la formation par compétences*, Guérin, 2000, p. 434-437.

Informal formative, interactive among the students	<ul style="list-style-type: none"> — I plan “question & answer” sessions between the members of a work team. — I ask the students, in groups of 2 or 3, to compare their results on a task or an activity and to explain their results to others. — I ask the students, in teams, to explain and discuss the steps they used to carry out their task or activity (metacognition, verbalized out loud). — I ask the students, in teams, to identify any individual or collective errors they have observed in the tasks.
Type of activities	<i>Actions</i>
Formal formative (with tools)	<ul style="list-style-type: none"> — I ask for “objectification” with questions on subjects such as (what I liked, what I didn’t like, what I learned, how I learned, what strategies I used, the amount of effort, the quality of effort, the approach used based on the capacities of the solicited competency). — I use an “observation grid” that refers to the evaluation criteria to identify which capacity or competency the student has mastered (checklist, comments, quantitative or qualitative descriptive scale, or other types of observation grids). — I ask the student to complete a self-evaluation grid (several possible types – see examples in the chapter on “Evaluation”). <ul style="list-style-type: none"> ○ Checklist (presence or absence of a criterion). ○ List of comments (on the criteria for mastering a competency). ○ Degree of use of certain learning strategies. ○ List of sub-criteria derived from the criteria needed for success (partial success only). ○ List dealing with the overall criteria for successful mastery of a competency. ○ List of criteria with a qualitative scale. ○ List of criteria with a quantitative scale. ○ List of criteria with a descriptive scale. — I evaluate student tasks by using one type of grid among possible grid types. — I ask students to compare the result of their task with a typical task result.

<p>Preparing for the summative evaluation</p> <p>(formative evaluation as a preparation stage for the certification evaluation)</p>	<ul style="list-style-type: none"> — Take into account the realization context. — Take into account the evaluation criteria (drafted by the MEQ). — Describe the mastery levels for each criterion (descriptive scale grades). — Establish a success threshold for each criterion. <p>Note. Make sure there is a very close link between the formal formative evaluation, the preparatory stage to the summative evaluation, and the final test.</p>
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Comparison of various evaluation methods

Criteria	Methods	Objective test	Oral test	Performance Evaluation⁸⁵
Goal	Sampling of knowledge with a maximum of reliability and efficiency	Evaluation of intellectual skills or the mastery of knowledge	Evaluation of knowledge during teaching	Evaluation of the ability to transfer knowledge and apply it to the situation in question
Type of tasks	Verification of elements — Multiple choice — True or false — Text to complete — Pairing	Writing task	Open questions with progressive deepening	<i>Written text</i> or natural event structuring the type of performance required
Student's answer	Reading, evaluation, choice	Organization, composition	Oral answer	Plan, construction, original answer
Grading	Total of exact answers	Judgment on comprehension	Evaluation on value of the answer	Validation that the attributes are present, evaluation of the demonstration and the performance
Main advantages	Efficiency: can evaluate several elements frequently	Can measure complex objectives on the cognitive level	Relation between evaluation and teaching	Provides rich data on performance and skills
Potential source of inefficiency	Weakness of grade value, importance given to facts and low-level skills, weak content in sample	Low quality exercises, writing skills confused with knowledge, does not meet required criteria	Weak questions, students lack desire to answer questions, few questions	Weak sampling, vague criteria, lack of criteria, weak measurement conditions

⁸⁵ Evaluation based on a production or a realization making it possible to verify student's competency.

Influence on learning	Encourages memorization if properly constructed; can encourage treatment skills	Encourages treatment skills and writing skills	Stimulates participation; provides immediate feedback to the teacher and the student	Provides an opportunity to use knowledge and skills to resolve authentic situations
Key to success	Practice doing tests Ability to speak Speed	Planned writing exercises Shaping the answer Reading time	Sampling of questions	Systematic preparation of performance; implementation; clear expectations; clearly defined criteria

The notion of complex production⁸⁶

What does “complex production” mean? And what distinguishes it from other realities that may be the object of the evaluation.

Let's imagine, for example, a problem to resolve in the field of electric circuitry. We are faced with a complex network of resistances, some of which are arranged in series, others in parallel mode. The network is supplied by a power source with its own internal resistance. We are asked to determine the electromotive force needed to supply a current of “x” amperes. Solving this type of problem requires a variety of knowledge and different skills. It is relatively easy to identify this as a truly complex process, especially when the required task is new for the individual. But the required response, in terms of “production” or “product” is relatively simple, since it is simply a matter of writing down a number representing a certain number of volts. If necessary, this answer could be chosen from several other proposed answers, which would make the problem a “multiple choice question”.

The above example shows us quite clearly that the resolution of certain problems, and similarly several other tasks, can call upon complex processes that lead to a product that, in itself, can seem very simple: a short or multiple choice answer.

Process and product are therefore two distinct entities. We should also understand that, in many situations, the evaluation of the product or result of a process does not present any particular difficulties, since there is a “universally accepted” answer that makes it possible to objectively code the student's answer: the answer is either good or bad, which makes it easy to judge. As for evaluating the process that led to a particular answer, we must take into consideration a certain number of aspects. In the case of an incorrect answer, we might want to attribute a few points for getting part of a solution to the problem right. Conversely, when dealing with a correct answer, we might want to appreciate the choice of one strategy over another for its “elegance” or its “efficiency”. Whatever approach we used, the evaluation of a problem resolution process (in keeping with our example) will not necessarily be based on purely objective choices.

If a complex process can lead to an answer that is very simple in appearance (for example, write a word or a number, pick one answer from several proposed ones), there are still many other cases where the product itself is complex. For instance: write an adventure story, perform a piece of music, recite a poem, build a television set, carry out a laboratory set-up, execute a figure skating technique, etc. Each of these examples can be considered a performance or a product (or production). There should be no difficulty in admitting that the processes leading to “writing an adventure story” or “performing a piece of music” offer varying degrees of complexity. But, in each case, the product itself is complex, both in terms of its execution and in terms of its evaluation.

To begin with, there is no single model that enables us to grade the complex productions mentioned in the examples above according to the “good—bad” dichotomy or according to progressive scales,. An adventure story and the performance of a piece of music both include several distinct aspects or dimensions that must be taken into consideration to render a judgment on their quality. Secondly, an individual who commits himself to one of these productions is usually placed in a situation of relative autonomy. This means it is up to the individual to call on the pertinent components in his own repertory of knowledge to carry out the production.

The tasks included in the evaluation of complex productions must therefore involve the least amount of coaching possible, while imposing constraints that will serve as reference points for evaluation. (...) For example, if we ask a student to write an adventure story, we can include a certain number of constraints or

⁸⁶ Translated from Gérard Scallon, *L'évaluation formative des apprentissages*, Presses de l'Université Laval, 1988, p. 152-154.

dimensions: creation of one or more characters, conception of a threatening situation, appropriate use of communication tools relative to story telling, respect of syntax rules, spelling, etc.

At the end of a long learning process, all these implicit *constraints* must be part of the student's repertory without having to necessarily remind him explicitly. In certain cases, we can add other constraints to be respected: tense of verbs, figures of speech, length of story, etc. These constraints, of course, take away a certain amount of autonomy in the realization of the production. The required autonomy in a complex production makes students responsible for calling on their basic knowledge and skills and gives them a margin for manoeuvre in the realization of their production.

Instrument 6.H

Task 10: Construction of tools for collecting observable data: marking grids and rating scales

To infer and judge if a student has achieved the required learning in the course, the teacher or teaching team must develop one or more tools that will enable the collection of observable data during the evaluation tasks.

The marking grid

The observation grid is a measurement tool that helps us collect this data. The observation grid makes it possible to note the particularities of a product, a process, a speech or an attitude. It provides us with a list of indicators as well as a method for recording the observations.

Sometimes we use the expression “observation grid” and sometimes the term “marking grid”. What distinguishes them in reality is their ultimate use.

The observation grid serves mainly to gather factual information. It is used repeatedly with certain themes or learning objects to render an eventual evaluation judgment, usually a formative evaluation, which therefore takes place during the learning process.

The marking grid serves mainly to render a judgment based on indicators and criteria in a summative evaluation situation. Both grids can refer to the same observable manifestations.

The observation grid is generally composed of a list of indicators and criteria and a rating grid that makes it possible to achieve an analytical grading by examining the product, the process, the speech or the attitude as regards each evaluation criterion.

The rating scale

The rating scale is an integral part of the observation grid. It is presented in the form of a continuum, it makes it possible to rate the quality or quantity of behaviour(s) described by the indicators. There are different kinds of rating scales: regular scales such as graphic, as well as numeric, figure and descriptive scales. This latter type of scale is by far the most useful and reliable in evaluating a competency. For all indicators and criteria, it “describes a set of performances ranging from what is acceptable to what is not acceptable”. The performance description is done to clarify for students what is considered an effective realization of the task and what is not.⁸⁷

Here is an example of a marking grid.

⁸⁷ Translated from Louis Roland, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, 1999, p. 95.

Proposed marking grid

Name: _____ Course: _____

Marking grid

Evaluation object: Example: marking grid for the final course test

Evaluation means: Table showing the evaluation plan and the marking grid

Indicators	Weighting	Criteria	Rating scale		
Marking ⇒	/20		16-20	12-15	0-11
Marking ⇒	/20		16-20	12-15	0-11
Marking ⇒	/20		16-20	12-15	0-11
Note: On 100: By letter: Examiner:	Comments, observations:				

Proposed marking grid

Name: _____ Course: _____

Marking grid

Evaluation object: Example: marking grid for the final course test

Evaluation means: Table showing the evaluation plan and the marking grid

Indicators	Weighting	Criteria	Rating scale		
1. Analyzes the training objective		Pertinent analysis of the training objective	Identification and connection of <i>all</i> components of the objective.	Identification and <i>partial</i> relative positioning of components of the objective. The essential elements are identified.	Identification and <i>incomplete</i> relative positioning of components of the objective.
Marking ↳	/20		16-20	12-15	0-11
2. Specifies the objects of evaluation		Pertinent choice of objects of evaluation	The objects have a global and integrating nature. They integrate all the components of the competency. They contribute to the implementation of the targeted competency.	The objects have a specific character and integrate a few components of the competency. They contribute to some degree to the implementation of the targeted competency.	The objects have a specific character and integrate only slightly or not at all, the components of the competency. They contribute only slightly or not at all to the implementation of the targeted competency.
Marking ↳	/20		16-20	12-15	0-11
3. Identifies the indicators		Sufficient and adequate choice of indicators	The indicators are in sufficient number. The indicators allow for observable demonstration of the objects.	The indicators are in sufficient number. Most of the indicators allow for observable demonstration of the objects.	The indicators are insufficient in number. The indicators allow only slightly or not at all the observable demonstration of the objects.

Indicators	Weighting	Criteria	Rating scale		
4. Specifies the evaluation criteria		Adequate choice of evaluation criteria	The criteria provide good descriptions of the qualities relating to the indicators.	Most of the criteria provide good descriptions of the qualities relating to the indicators.	Some of the criteria provide good descriptions of the qualities relating to the indicators.
Marking ↡	/20		16-20	12-15	0-11
5. Indicates evaluation methods (one or more)		Pertinent choice of evaluation methods	The methods chosen (one or more) correspond very well to the nature of the training objective.	The methods chosen (one or more) correspond correctly to the nature of the training objective.	The methods chosen (one or more) correspond very little to the nature of the training objective.
Marking ↡	/20		16-20	12-15	0-11
6. Designs a marking grid		Adequate marking grid	<p>The tool includes and correctly formulates all the components of a marking grid (4/4) :</p> <ul style="list-style-type: none"> — Indicators <input type="checkbox"/> — Criteria <input type="checkbox"/> — Scale <input type="checkbox"/> — Weighting and marking <input type="checkbox"/> 	<p>The tool includes and correctly formulates a majority of the components of a marking grid (3/4) :</p> <ul style="list-style-type: none"> — Indicators <input type="checkbox"/> — Criteria <input type="checkbox"/> — Scale <input type="checkbox"/> — Weighting and marking <input type="checkbox"/> 	<p>The tool includes and correctly formulates some of the components of a marking grid: (2/4 or less)</p> <ul style="list-style-type: none"> — Indicators <input type="checkbox"/> — Criteria <input type="checkbox"/> — Scale <input type="checkbox"/> — Weighting and marking <input type="checkbox"/>
Marking ↡	/20		16-20	12-15	0-11
Grade: On 100: By letter: Examiner:	Comments, observations :				

Translated from a Grid devised by Hermann Guy and Michel Poirier.

Another example of a marking grid

Marking grid⁸⁸

Student's name: _____

Name of work: _____

Date: _____

<i>Criteria</i>	<i>Rating scale</i>		
Relevance of the task	The task is relevant: it allows the student to demonstrate the targeted competency(ies).	The task is relevant: it allows the student to demonstrate a portion of the targeted competency(ies).	The task is not relevant: it does not relate to the targeted competency(ies).
	5	3	0
Quality of the task description	All of the following components are present: — The object of evaluation — The realization context (duration, material, work methods: individual or in teams) The explanations are detailed.	One of the following components is missing: — The object of evaluation — The realization context (duration, material, work methods: individually or in teams) The explanations are summary.	Two or more of the following components are missing: — The object of evaluation — realization context (duration, material, work methods: individually or in teams) The explanations are very summary.
	/20	15-12	9-6
Representativeness of the statements included in the observation grid	All the selected observable components (statements) relate to the object of evaluation.	Most of the selected observable components (statements) relate to the object of evaluation.	Few selected observable components (statements) relate to the object of evaluation.
	10-8	6-4	2-0
	The list of statements is complete (all the important behaviours are present).	The list of statements is incomplete (some important behaviours are missing).	The list of statements is incomplete (most important behaviours are missing).
	10-8	6-4	2-0
	The statements are grouped as criteria. The groupings are pertinent.	The statements are grouped as criteria. The groupings are more or less pertinent.	The statements are not grouped as criteria. The groupings are not pertinent.
	/30	10	6
88 Translated from Joanne Munn, <i>L'évaluation des compétences, pas si compliqué que cela</i> , Notes de cours, Performa, Fall 2001.			

<i>Criteria</i>	<i>Rating scale</i>		
Respects writing rules	All statements describe observable and/or measurable behaviours.	Some statements describe behaviours that are difficult to observe and/or measure.	Several statements describe behaviours that are difficult to observe and/or measure.
	5-4	3-2	1-0
	All statements are clear and univocal. Sentences are complete and written in the affirmative mode.	Most statements are clear and univocal. Sentences are complete and written in the affirmative mode.	Several statements are difficult to understand or the statements are written in abridged form, ex: use of key words and incomplete sentences.
	5	3	0
	The choice of rating scale is consistent with the object of evaluation.	The choice of rating scale is more or less consistent with the object of evaluation.	The choice of rating scale is not consistent with the object of evaluation.
	5	3	0
/20	The grid includes all the important components: — statements — rating scales — space for student name and user — points attributed	One of the important components is missing: — statements — rating scales — space for student name and user — points attributed	Two or more important components are missing: — statements — rating scales — space for student name and user — points attributed
	5-4	3-2	1-0
The quality of the observation grid's page setup	The page setup is excellent and facilitates the user's task: arrangement, characters used, statement sequence etc.	The page setup is good. Some improvements are required to facilitate the user's task.	The page setup has gaps that complicate the user's task.
/10	10-8	6-4	2-0

<i>Criteria</i>	<i>Rating scale</i>		
Critical analysis of work	At least one strength and one weakness are identified. The explanations are very pertinent: possible improvements are identified.	At least one strength and one weakness are identified. The explanations are pertinent but summary.	At least one strength and one weakness are identified, but generally the explanations are only somewhat pertinent or not at all, or no strength or weakness is identified.
/20	20-18	15-12	5-0
/100			

Examiner:

Comments:

Task 11: Choosing the judgment and marking method to evaluate student learning

The collection of observable data on student performance helps the teacher or teaching team evaluate the progress of student learning. The complex, multidimensional and integrating character of evaluation tasks generally requires that a judgment be rendered based on an overall set of indicators and criteria.

This judgment can be applied to:

- Each indicator and criterion and the application of mathematical weighting. See the example presented in tool 6.1 “Example of a marking grid designed at Cégep de Saint-Laurent”.
- Each indicator and criterion and a verification that the minimal level has been reached (success threshold), followed by mathematical weighting.
- The learning described by a set of indicators and criteria. The judgment and the determination of the rating are derived from the various performance levels achieved for a set of indicators and criteria.

Within the scope of a global judgment, certain tools have been tried in the network⁸⁹:

- Student profile with minimum competency threshold⁹⁰ (see following pages)
- Student profile according to various levels of success⁹¹ (see following pages)

Based on the selected method or methods, the judgment should be rendered on a combination or integration of evaluated learning rather than on its juxtaposition.

Here is an example of a marking grid.

⁸⁹ For a general approach as to the development of these tools, consult Houle et autres, *Les grilles d'observation pour évaluer les apprentissages, Pédagogie collégiale*, vol. 11, n° 4, p. 12.

⁹⁰ See example for a course given at l'ITA de La Pocatière and developed by Mélanie Cyr et Gaston Gagnon.

⁹¹ See example for a training period given at Cégep de Saint-Hyacinthe developed by Julie-Lyne Leroux in collaboration with members of the department of Techniques d'éducation à l'enfance.

Example of a marking grid

Targeted competencies: Research and design of a recommendation and participation report for a seminar

Purpose of evaluation: Develop a written report and manage a research seminar

Evaluation means: The research seminar and handing in the written report

Student's name: _____

Name of work: _____

<i>Indicators</i>	<i>Weighting</i>	<i>Criteria</i>	<i>Rating scale</i>		
Presents a recommendation report in compliance with rules		Clear and structured presentation of contents: <ul style="list-style-type: none"> — Introductory pages (thank you notes, list of tables, list of graphics, etc.); — Introduction; — Development (chapters); — Conclusion; — Annex; — Glossary; — Bibliography; — Index. 	The contents are very pertinent. The presentation is well structured.	The contents are rather pertinent and the presentation is rather well structured.	The contents are not pertinent and the presentation is not sufficiently structured.
		/25	20-25	14-19	0-13
Properly drafts a long report		Written report respects language and vocabulary rules: <ul style="list-style-type: none"> — Application of the various rules (spelling, grammar, syntax and typography); — Sentence structure; — Syntax; — Proper use of tense; — Handling of relationship indicators; — Use of relative pronouns; — Punctuation. 	The overall report is written in correct and clear English. Sentences are error free and written using a sophisticated vocabulary.	Most of the elements of the report are written in correct and clear English. Most of the sentences are complete and written using correct vocabulary with few mistakes.	Several elements of the report are hard to understand and are written in language that is incorrect and not very sophisticated.
	/25		20-25	14-19	0-13

<i>Indicators</i>	<i>Weighting</i>	<i>Criteria</i>	<i>Rating scale</i>		
Presents a page setup adapted to a complex report	<i>/25</i>	Choice and respect of page setup standards for a complex report: <ul style="list-style-type: none"> — Presentation page; — Adequate page numbering; — Typographical grading; — Grading of headings; — Choice of font; — Order of presentation of elements; — Complementary documents: annexes, bibliographical references, synoptic tables; — Production of a table or graphic; — Use of advanced word processing functions for an automated page setup (styles, imported spreadsheet files, graphic illustrations). 	Most of the page setup criteria are respected. The order and choice of graphic elements are very pertinent.	Most of the page setup criteria are respected, but the order and choice of graphic elements could be improved or added to.	Little respect for page setup criteria. Too many gaps and several necessary graphics are missing from the report.
			20-25	14-19	0-13
Presents and structures a research seminar		Complete presentation of the overall research leading to the development of the recommendation report: <ul style="list-style-type: none"> — Visual effects, presentation supports; — Verbal communication; — Non verbal communication; — Richness of content; — Knowledge of subject; — Interest; — Originality. 	All the observable elements are judiciously respected and the presentation is well structured.	Most of the observable elements are respected and the presentation is generally well structured.	Few observable elements are respected and adapted to the seminar's needs.
	<i>/25</i>		20-25	14-19	0-13
	MARKING:		/100		

Student profile and minimum threshold of competency

(Example: course: *Exercising the profession of horse trainer*, Mélanie Cyr, ITA de La Pocatière, fall 2000)⁹²

Optimal level A = 90 %	Intermediate level B = 75 %	Minimal level C = 60 %	Insufficient level D = 50 %	Non-existent level E = 40 %
The student is able to ask himself all the basic pertinent questions when various problem situations occur and can analyze the situation in-depth. His explanations are complete and attest to his ability to establish links between what he has learned in theory and what he must do in practice. The student executes very well all the techniques for the training, management and well being of horses, including working out and planning the breaking in of a colt and an adequate training program. The student is able to rigorously carry out all the recommendations of a more experienced trainer.	The student is able to ask himself all the basic pertinent questions when various problem situations occur and can adequately analyze the situation. His explanations are complete and attest to his ability to establish links between what he has learned in theory and what he must do in practice. The student executes well all the techniques for the training, management and well being of horses, including working out and planning the breaking in of a colt and an adequate training program. The student is able to rigorously carry out all the recommendations of a more experienced trainer.	The student is able to ask himself the basic pertinent questions when various problem situations occur and can analyze the situation summarily. His explanations are adequate and attest to his ability to establish links between what he has learned in theory and what he must do in practice. The student correctly executes all the techniques for the training, management and well being of horses, including working out and planning the breaking in of a colt and an adequate training program. The student is able to rigorously carry out all the recommendations of a more experienced trainer.	The student is able to ask himself some basic pertinent questions when various problem situations occur, but is unable to analyze the situation. His explanations are vague and attest to his inability to establish links between what he has learned in theory and what he must do in practice. The student is unable to correctly execute some of the techniques for the training, management and well being of horses, including working out and planning the breaking in of a colt and an adequate training program. The student is able to carry out most of the recommendations of a more experienced trainer.	The student is unable to ask himself basic pertinent questions when various problem situations occur and is unable to analyze the situation. His explanations are nonexistent and attest to his inability to establish links between what he has learned in theory and what he must do in practice. The student is unable to execute the techniques for the training, management and well being of horses, including working out and planning the breaking in of a colt and an adequate training program. The student is unable to carry out the recommendations of a more experienced trainer.

⁹² Translated from G. Gagnon et autres, *Odyssée de l'évaluation, Profil de l'élève et seuil minimal de compétence*, Exemple, ITA La Pocatière, 2001.

Optimal level A = 90 %	Intermediary level B = 75 %	Minimal level C = 60 %	Insufficient level D = 50 %	Non-existent E = 40 %
The student is able to recognize a horse's major qualities and faults.	The student is able to recognize a horse's major qualities and faults.	The student is able to recognize a horse's major qualities and faults.	The student is able to recognize some of a horse's qualities and faults.	The student is unable to recognize a minimum of a horse's qualities and faults.
The student always adopts a good attitude with horses, is able to recognize his errors, accepts criticism and learns from the above.	The student always adopts a good attitude with horses, is able to recognize his errors and accepts criticism.	The student always adopts a good attitude with horses, is able to recognize his errors and accepts criticism.	The student does not always adopt a good attitude with horses and is unable to recognize his errors or accept criticism.	The student never adopts a good attitude with horses and is unable to recognize his errors or accept criticism.
He demonstrates a very strong will to always learn more.	He demonstrates a strong will to always learn more.	He sometimes demonstrates a will to learn more.	He does not demonstrate a strong will to always learn more.	He does not demonstrate a strong will to always learn more.
The student constantly demonstrates a capacity for responsibility, autonomy, commitment and professionalism.	The student frequently demonstrates a capacity for responsibility, autonomy, commitment and professionalism.	The student occasionally demonstrates a capacity for responsibility, autonomy, commitment and professionalism.	The student rarely demonstrates a capacity for responsibility, autonomy, commitment and professionalism.	The student never demonstrates a capacity for responsibility, autonomy, commitment and professionalism.
The student has a very good understanding of the world of horse racing and can fit in easily.	The student has a good understanding of the world of horse racing and can fit in without difficulty.	The student has a good understanding of the world of horse racing and can fit in without too much difficulty.	The student is able to understand the world of horse racing, but has difficulty fitting in.	The student has difficulty understanding the world of horse racing and has difficulty fitting in.
The student communicates and converses very well with colleagues.	The student communicates and converses well with colleagues whenever necessary.	The student communicates and converses with colleagues when necessary, but there can be constraints.	The student experiences frequent difficulties in communicating and conversing with colleagues.	The student does not communicate with his colleagues.
All of the above can be achieved without any supervision.	All of the above can be achieved with minor supervision.	All of the above can be achieved with frequent supervision.	Some of the above can be achieved only with a high level of supervision.	None of the above can be achieved even with a high level of supervision.

Decision Algorithm

Example: Profile of a minimal success level – 60 % ⁹³

		Criteria	
		Performance level	
		→	↓
Superior Competency Level			<p>A.1 Appropriate determination of the child's needs that are to be met</p> <p>A.2 Develop and maintain a significant relationship with the children</p> <p>A.3 Ability to intervene in a democratic fashion on the spot</p>
Medium Competency Level	*		<p>B.1 Proper and rigorous application of universal precautions</p> <p>B.2 Providing hygienic care</p>
Minimal Competency Level	*	*	<p>B.3 Treatment for illness, disease and accidents</p>
Insufficient Competency Level	*	*	<p>C.1 Analysis of the animation process</p> <p>C.2 Make sure the animation provides a healthy and safe framework</p> <p>C.3 Animation activities / Animation techniques</p> <p>C.4 Animation activities/ Student attitude</p>
	*	*	<p>D.1 Preparation for conferences</p> <p>D.2 Active participation in work meetings</p>
	*	*	<p>D.3 Manifestation of openness in work meetings</p>
	*	*	<p>E.1 Degree of fluidity and flexibility of planned activities</p>
	*	*	<p>E.2 D Degree of fluidity and flexibility during routine and waiting periods</p>
	*	*	<p>E.3 Evaluation of creative process during routine and waiting periods</p>
	*	*	<p>F.1 Regularity and completeness in compiling works</p> <p>F.2 Punctuality and respect for number of "stage" hours</p>
	*	*	<p>F.3 Stringent respect for professional secret</p>
			<p>G.1 Rigorous compilation of the stage assessment ...</p>

The success level is presented in the shaded areas: 03/20 superior, 01/20 medium, 16/20 minimal, 0/20 insufficient.

* Achieving this level of performance implies the failure of a stage.

⁹³ Translated from Julie Lyne Leroux, *Profil de niveau minimal, stage d'animation (322-A52-Hv)*, Cégep de Saint-Hyacinthe.

Tool 6.I

Sample marking grid designed
at Cégep Saint-Laurent

Design Team

Céline Dufour, Monique Hébert, Marie-Paule Lachaîne,
Chantal Laperrrière, Isabelle Senkus, Lise Vendette

Faculty of Nursing
180-50Q-SL

Evaluation manual for clinical teaching

Competency 01QL
To provide support for people requiring
nursing care in mental health

Session: _____

Student's name: _____

Rating: _____ %

Professor's name: _____

February 2003

01QL – Providing nursing care in mental health

REALIZATION CONTEXT

- Within the legal framework of professional practice
- To promote health, the prevention of illness, treatment and rehabilitation
- In a hospital centre (HP) or other resource centre (ex: transition homes)
- In collaboration with mental health associations and organizations
- Based on:
 - Laws applicable to the clientele, the care and services offered
 - A person's health record and an intervention plan
- With the help of:
 - Data collection tools or evaluation grids
 - Administrative documents
 - Didactic material
 - Treatment and information transmission equipment
 - Reference works
- While respecting:
 - Individual ethics and ethical rules
 - Legislation in effect
- By referring to the therapeutic approach adopted in that professional field

Overall profile: “Professional attitude”

Rating for (student name): _____

PRESENTATION OF THE WORK PLACEMENT GRID								
• This overall profile assesses the final integrating objective for course 50Q-01QL.								
• It contains 35 performance criteria and 7 criteria relating to professional attitudes.								
• The work placement marking includes only an evaluation of the 35 performance criteria. The evaluation of professional attitudes is done on a qualitative level. However, the non-achievement of certain professional attitudes can lead to failure of a work placement. These attitudes are identified by an asterisk.								
• Similarly, an INSUFFICIENT mark on a performance criteria identified with an asterisk is reason enough to receive failure in the work placement.	Superior competency level Total:							
• The acquisitions of previous sessions MUST BE MAINTAINED. Failure to do so will result in the student being removed from the work placement. The student must then complete a pedagogical prescription in order to reintegrate into the work environment.	Average competency level Total:							
• Any critical incident that could affect the physical or psychological safety of a client and his family can result in a failure in the work placement or the overall training periods that make up the session.	Minimal competency level Total:							
• To be given access to the final course test, the student must have obtained a passing grade in all the training periods.	Insufficient competency level Total:							

Superior level of competency Total :	*		1.1 Collects information from various sources
	*		1.2 Assembles information collected into pertinent groups
	*		2.1 Uses evaluation methods and tools
	*		2.2 Performs data collection
	*		2.3 Evaluates functional autonomy
	*		2.4 Involves family/friends in the partnership perspective
	*		3.1 Verifies physical, psychological parameters and diagnostic tests
	*		3.2 Interprets results obtained
	*		3.3 Signals important changes in a timely fashion to provide effective interventions
	*		4.1 Determines when problems are of a medical nature and those to be treated in collaboration
	*		5.1 Establishes objectives of medical care
	*		5.2 Plans medical interventions
	*		5.3 Organizes care giving activities
	*		6.1 Manifests helpful attitudes
	*		6.2 Uses an approach that is suitable to the specific client/family characteristics.
	*		6.3 Provides support adapted to the clinical situation
	*		6.4 Applies supervisory and security measures
	*		6.5 Uses specific care and evaluation methods
	*		6.6 Applies specific care program protocols
	*		6.7 Assists the client/family and reinforces student autonomy
	*		6.8 Applies teaching programs
	*		6.9 Evaluates the results of his teaching
	*		7.1 Respects the rules for the preparation, administration and registration of medication
	*		7.2 Determines the conditions for application of the prescription
	*		7.3 Identifies alternative solutions for medication
	*		7.4 Transmits information to the client/family on the medication
	*		7.5 Provides supervision and a follow up after administration
	*		8.1 Evaluates results obtained and needs met with the client/family
	*		8.2 Modifies the care giving plan
	*		8.3 Evaluates care giving activities entrusted to others
	*		9.1 Keeps proper notes on file
	*		9.2 Provides a report when he or she the unit
	*		9.3 Applies administrative procedures
	*		9.4 Collaborates with the care giving team and the interdisciplinary team
	*		9.5 Guides the client/family to the resources appropriate to the situation

* An asterisk indicates failure at this stage

Grid for interpretation of results

MARK	Superior (number of criteria)	Average (number of criteria)	Minimal (number of criteria)	Insufficient (number of criteria)
100 %	35	-	-	-
95 %	≥ 30 (including 7.1, 8.2, 9.1, 9.2)	5	-	-
90 %	≥ 20 (including 7.1, 8.2, 9.1, 9.2)	15	-	-
85 %	≥ 10 (including 7.1, 8.2, 9.1, 9.2)	25	-	-
80 %	≥ 5 (including 7.1, 8.2, 9.1, 9.2)	25	≤ 5	-
75 %	≥ 3 (including 7.1, 8.2, 9.1)	20	≤ 11	≤ 1
70 %	≥ 3 (including 7.1, 8.2, 9.1)	15	≤ 14	≤ 3
65 %	≥ 3 (including 7.1, 8.2, 9.1)	8	≤ 19	≤ 5
60 %	≥ 3 (including 7.1, 8.2, 9.1)	-	≤ 25	≤ 7
55 %	<3	-	-	>5

Integrated evaluation and marking grid

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the evaluation manual on clinical teaching)		
Elements of competency	Criteria		Rating scale			
	Indicator	Quality(ies)	Insufficient	Minimal	Average	Superior
1. To seek information in order to ensure continuity	1.1 Collects information from various sources before the initial contact with the client and then makes daily entries in the institution's work plan.	Complete and adequate consultation of information sources.	Few available information sources were adequately consulted (files, inter-service report, care plan, cardex, care team, interdisciplinary team, etc....).	Main available information sources were adequately consulted (file, inter-service report, care plan, cardex, care team, interdisciplinary team, etc....).	Most available information sources were adequately consulted (file, inter-service report, care plan, cardex, care team, interdisciplinary team, etc....).	All available information sources were adequately consulted (file, inter-service report, care plan, cardex, care team, interdisciplinary team, etc....).
Marking ⇒						
		Entering of pertinent information.	Key pertinent information sources were not entered.	All pertinent information sources were entered before the initial contact. Several non-pertinent elements were entered.	All pertinent information sources were entered before the initial contact. One or two non-pertinent elements were entered.	All pertinent information sources were entered before the initial contact. No non-pertinent elements were entered.
Marking ⇒						
	1.2 Connects the collected information.	Pertinent connection of information.	The essential information has not been connected in a relevant manner.	60% of essential information was connected in a relevant manner.	75% of essential information was connected in a relevant manner.	All essential information was connected in a relevant manner.
Marking ⇒						
2. To conduct an initial evaluation of the person or update data	2.1 Uses evaluation tools and methods in an appropriate context.	Appropriate use of evaluation tools and methods.	Inadequate use of evaluation tools and methods or Adequate use of evaluation tools and methods in an inappropriate context.	Adequate use of evaluation tools and methods in an appropriate context in most cases.	Adequate use of evaluation tools and methods in an appropriate context in almost all cases.	Adequate use of evaluation tools and methods in an appropriate context in all cases.
Marking ⇒						
Comments, observations						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)			Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of clinical teaching evaluation manual)	
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
	2.2 Collects bio-physiological and psychosocial information from the client/family.	Collects all relevant information in an autonomous manner.	The main data elements are not collected. or The main data elements are collected but require constant supervision.	All relevant information has been collected with little or no supervision.	All relevant information has been collected with minimal supervision in a complex context.	All relevant information is collected without supervision in a complex context.
Marking ⇒						
	2.3 Evaluates functional independence.	Pertinent evaluation of the client/family.	The key relevant elements of the client/family were not evaluated.	The main pertinent client/family elements were evaluated.	All pertinent client/family elements were evaluated.	All pertinent elements were evaluated. Feedback is provided to the client/family.
Marking ⇒						
	2.4 Involves the family/close relatives in a partnership perspective.	Systematic involvement.	Family involvement in a partnership perspective on rare occasions.	Family involvement in a partnership perspective in 60% of cases.	Family involvement in a partnership perspective in 75% of cases.	Family involvement in a partnership perspective in all cases.
Marking ⇒						
3. To ensure a clinical surveillance	3.1 Validates the client's physical and psychological parameters as well as his diagnostic tests.	Relevant validation	The main pertinent elements were not validated.	The main pertinent elements are validated. Several validated elements are not pertinent.	All key pertinent elements are validated. One or two validated elements are not pertinent.	All pertinent elements are validated.
Marking ⇒						
Comments, observations:						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support to persons requiring nursing care in mental health		Realization context: According to MEQ specification (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
		Thorough verification done autonomously.	The verification of elements is not thorough or The verification is thorough but requires constant supervision.	The verification of elements is thorough but requires some supervision.	The verification of elements is thorough without supervision.	The verification of elements is thorough, systematic and without supervision.
Marking ⇒						
	3.2 Interpretation of results.	Correctly interprets the results.	Incorrectly interprets the results relative to the clinical situation.	Correctly interprets the results relative to the clinical situation in most cases.	Correctly interprets the results relative to the clinical situation in all cases.	Correctly interprets the results relative to the clinical situation in all cases and provides systematic follow-up.
Marking ⇒						
	3.3 Points out any important changes in a timely manner to allow for an effective intervention.	Communication of pertinent changes.	All pertinent elements of change have not been pointed out or were pointed out but not in a timely manner that would allow for an effective intervention.	The main pertinent elements of change have been pointed out in a timely manner that allows for an effective intervention.	All pertinent elements of change have been pointed out in a timely manner that allows for an effective intervention.	All the pertinent elements of change have been pointed out in a timely manner that allows for an effective intervention and there is an anticipation of the changes.
Marking ⇒						
4. To identify care giving needs	4.1 Identifies problems relating to the nursing field and those that require collective involvement	Identification of relevant problems in an autonomous manner.	The main relevant problems are identified with regular supervision.	The main relevant problems are identified with some supervision.	The main relevant problems are identified without supervision.	The main relevant problems are identified without supervision and a systematic follow-up is initiated.
Marking ⇒						
Comments, observations:						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)			Final integrating objective: (O1QL) Providing support to persons requiring nursing care in mental health	Realization context: According to MEQ specification (p. 2 of the clinical teaching evaluation manual)			
Elements of competency	Criteria		Rating scale				
	Indicators	Quality(ies)	Insufficient	Minimal	Average	Superior	
		Identification of problem priority.	Priority problems are not identified.			Priority problems are identified	
Marking ⇒							
5. To plan the care and work activities	5.1 Establishes nursing care objectives by taking into consideration the expectations of the client/family and also the clinical situation.	Identification of realistic care objectives in an autonomous fashion.	Realistic care objectives are identified, with regular supervision.	Realistic care objectives are identified, with some supervision.		Realistic care objectives are identified without supervision.	
Marking ⇒							
		Precise formulation of care objectives in an autonomous fashion.	The care objectives are accurately formulated, with regular supervision.	The care objectives are accurately formulated, with some supervision.		The care objectives are accurately formulated without supervision.	
Marking ⇒							
5. To plan the care and work activities. (CONTINUED)	5.2 Plans nursing interventions.	Identification of pertinent interventions in an autonomous manner.	Pertinent interventions are identified, with regular supervision.	Pertinent interventions are identified, with some supervision.	Pertinent interventions are identified without supervision.	Pertinent interventions are identified without supervision and the student initiates innovative relevant interventions.	
Comments, observations:							

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
	5.3 Organizes care activities.	Effective organization of care activities in an autonomous manner.	Care activities are organized in an effective¹ manner but require regular supervision.	Care activities are organized in an efficient and autonomous manner in 70% of cases.	Care activities are organized in an efficient² and autonomous manner in 70% of cases.	Care activities are organized in an efficient and autonomous manner in all cases.
Marking ⇒						
6. To carry out interventions	6.1 Manifests helpful attitudes (empathy, respect, authenticity, compassion, hope) with the client/family.	Manifestation of helpful attitudes.	Difficulty manifesting helpful attitudes.	Manifestation of helpful attitudes in most cases.	Manifestation of helpful attitudes in almost all cases.	Manifestation of helpful attitudes in all cases.
Marking ⇒						
	6.2 Uses an approach suitable to the specific client/family characteristics.	Manifestation of an approach adapted to the client/family	Manifestation of an approach not adapted to the client/family.	Manifestation of an approach adapted to the client/family in a current care situation.	Manifestation of an approach adapted to the client/family, with supervision, in a crisis situation.	Manifestation of an approach adapted to the client/family, without supervision, in a crisis situation.
Marking ⇒						
1. EFFECTIVE: the right intervention with the proper material in a reasonable time frame 2. EFFICIENT: effective and with low investment (time, material)						
Comments, observations:						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Appreciation scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
6. To carry out interventions (CONTINUED)	6.3 Carries out a conversation adapted to the clinical situation.	Use of pertinent verbal and non-verbal communication techniques and relational strategies ¹ .	Use of verbal communication techniques only in a current care situation.	Use of pertinent verbal and non-verbal communication techniques and relational strategies in a current care situation.	Use of pertinent verbal and non-verbal communication techniques and relational strategies with some supervision in a crisis situation.	Use of pertinent verbal and non-verbal communication techniques and relational strategies in an autonomous manner in a crisis situation.
Marking ⇒						
	6.4 Applies surveillance and security measures.	Thorough application of surveillance and security measures in an autonomous manner.	The application of surveillance and security measures is thorough, with regular supervision in a current care situation.	The application of surveillance and security measures is thorough, with some supervision in a current care situation.	The application of surveillance and security measures is thorough, with some supervision in a crisis situation.	The application of surveillance and security measures is thorough and autonomous in a crisis situation.
Marking ⇒						
	6.5 Carries out specific care and evaluation methods.	Thorough execution of care and evaluation measures in an autonomous manner.	Thorough execution of care and evaluation measures, with regular supervision.	Thorough execution of care and evaluation measures, with some supervision.		Thorough execution of care and evaluation measures without supervision.
Marking ⇒						
	6.6 Applies specific care protocol and/or programs.	Thorough application of care programs and/or protocol in an autonomous manner.	Thorough application of care programs and/or protocol, with regular supervision.	Thorough application of care programs and/or protocol, with some supervision.		Thorough application of care programs and/or protocol without supervision.
Marking ⇒						
1. RELATIONAL STRATEGIES: welcome, support, exploration, search for precision, immediacy, confrontation.						
Comments, observations:						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
6. To carry out interventions (CONTINUED)	6.7 Assists the client/family and reinforces independence.	Assistance suited to the client/family's clinical condition.	The assistance is suited to the client/family's clinical condition, with regular supervision in a current care situation.	The assistance is suited to the client/family's clinical condition, with some supervision in a current care situation.	The assistance is suited to the client/family's clinical condition, without supervision in a current care situation.	The assistance is suited to the client/family's clinical condition, with some supervision in a crisis situation.
Marking ⇒						
	6.8 Applies teaching programs according to the client/family's needs.	Exact content	Inexact content			Exact content
Marking ⇒						
		Content is pertinent to the clinical situation, completed in an autonomous manner.	Content is pertinent to the clinical situation, with constant supervision.	Content is pertinent to the clinical situation, with regular supervision.	Content is pertinent to the clinical situation, with some supervision.	Content is pertinent to the clinical situation, without supervision.
Marking ⇒						
		Timing is appropriate.	Timing is appropriate in less than 60% of cases.	Timing is appropriate in 60% of cases.	Timing is appropriate in 75% of cases.	Timing is appropriate in all cases.
Marking ⇒						
Comments, observations:						

Nº and name of course: 180.50Q-SL Nº of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
6. To carry out interventions (CONTINUED)	6.9 Evaluates the results of his teaching.	Pertinent evaluation of the clinical situation in an autonomous manner.	The evaluation is pertinent to the clinical situation, with regular supervision.	The evaluation is pertinent to the clinical situation, with some supervision.	X	The evaluation is pertinent to the clinical situation, without supervision.
Marking ⇒					X	
7. Administers medication	7.1 Respects all the rules of preparation, how to administer and register medication.	Pertinent knowledge (classification, therapeutic effect, main side effects, interaction with other medication, compatibility) of the medication.	Knowledge of the medication is not pertinent in all cases.	X	X	Knowledge of the medication is pertinent in all cases.
Marking ⇒				X	X	
		Thorough verification of the prescription in an autonomous manner.	The verification of the prescription is thorough, with some supervision.	X	X	The verification of the prescription is thorough in all cases.
Marking ⇒				X	X	
Comments, observations:						

N° et name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context: According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
7. To administer medication (CONTINUED)		Preparation and dosing done with dexterity	Preparation and dosing are done with difficulty	Preparation and dosing are done with dexterity in most cases	X X X X	Preparation and dosing are done with dexterity in all cases
Marking ⇒					X X X X	
		Preparation and dosing done in secure manner	Preparation and dosing done in non secure manner	X X X X	X X X X	Preparation and dosing done in secure manner in all cases
Marking ⇒				X X X X	X X X X	
		Stringent registration of medication done autonomously	Registration of medication is stringent, with some supervision	X X X X	X X X X	Registration of medication is stringent, without supervision
Marking ⇒				X X X X	X X X X	
	7.2 Determines proper conditions of application for prescription	Decision whether or not to administer the medication is made autonomously	Decision whether or not to administer the medication is pertinent, with regular supervision	Decision whether or not to administer the medication is pertinent, with some supervision	X X X X	Decision whether or not to administer the medication is pertinent, without supervision
Marking ⇒					X X X X	
Comments, observations						

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
7. To administer medication (CONTINUED)	7.3 Identifies alternatives to the medication	Pertinent alternatives to the medication	Few pertinent alternatives to the medication	Pertinent alternatives to the medication in most cases	Pertinent alternatives to the medication in almost all cases	Pertinent alternatives to the medication in all cases
Marking ⇒						
	7.4 Conveys information on the medication to the client/family	Conveys relevant information	Little relevant information is conveyed	Relevant information is conveyed in most cases	Relevant information is conveyed in almost all cases.	Relevant information is conveyed in all cases.
Marking ⇒						
		Conveys complete information	The key elements of information are not conveyed	The key elements of information are conveyed.	The majority of key elements of information are conveyed	Nearly all the key elements of information are conveyed
Marking ⇒						
	7.5 Carries out surveillance and follow-ups after administering the medication	Appropriate surveillance elements and follow-ups	Appropriate surveillance elements but follow-ups are missing or inappropriate	The main surveillance elements and the follow-ups are appropriate	Most of the surveillance elements and the follow-ups are appropriate	Nearly all the surveillance elements and the follow-ups are appropriate
Marking ⇒						
Comments, observation:						

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
8. To evaluate interventions and the results of care	8.1 Evaluates results obtained with the client/family and relative to satisfaction of needs	Accurate appreciation of results obtained	Accurate appreciation of results obtained in less than 75% of cases Or Inaccurate appreciation	Accurate appreciation of results obtained in 75% of cases		Accurate appreciation of results obtained in all cases
Marking ⇒						
		Systematic verification of satisfaction of client/family's needs	Verification is not systematic.			Verification is systematic
Marking ⇒						
	8.2 Modifies the care plan	Relevant changes done autonomously	Relevant changes completed with supervision			Relevant changes done without supervision
Marking ⇒						
		Appropriate delay for changes	Delay in changes is inappropriate			Delay in changes is appropriate
Marking ⇒						
Comments, observations:						

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
8. To evaluate interventions and results of care (CONTINUED)	8.3 Evaluates the care activities entrusted to other persons	Accurate evaluation without supervision	The evaluation is accurate with constant supervision	The evaluation is accurate with regular supervision	The evaluation is accurate with some supervision	The evaluation is accurate without supervision
Marking ⇒						
		Effective follow-up done autonomously	The follow-up is effective with constant supervision	The follow-up is effective with regular supervision	The follow-up is effective with some supervision	The follow-up is effective without supervision
Marking ⇒						
Marking ⇒						
Comments, observations:						

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
9. To assure continuity of care and follow-up	9.1 Keeps accurate notes on file according to the model appropriate for the environment	Keeping pertinent notes	Less than 75% of essential information is present in the notes	75% of essential information is present in the notes		All essential information is present in the notes
Marking ⇒						
	Precise note-taking (including terminology) without supervision	Precise note-taking, with regular supervision	Precise note-taking, with some supervision			Precise note-taking without supervision
Marking ⇒						
	Precise note-taking done autonomously	Precise note-taking, with regular supervision	Precise note-taking, with some supervision			Precise note-taking without supervision
Marking ⇒						
	Notes are written (spelling, readability) in acceptable English	Notes are not written in acceptable English				Notes are written in acceptable English
Marking ⇒						
Comments, observations:						

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)			Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale				
	Indicators	Quality(s)	Insufficient	Minimal	Average	Superior	
9. To assure continuity of care and follow-up (CONTINUED)	9.2 Provides a report when leaving the unit	Report contains pertinent information	The essential information is not present in the report				All essential information is present in the report
Marking ⇒							
		Report content is accurate without supervision	The report content is accurate with regular supervision				The report content is accurate without supervision
Marking ⇒							
		Report content is concise without supervision	The report content is concise with regular supervision				The report content is concise without supervision
Marking ⇒							
Marking ⇒							
Comments, observations:							

N° and name of course: 180.50Q-SL N° of learning sequences: 3 or 6 (bloc A)		Final integrating objective: (O1QL) Providing support for persons requiring nursing care in mental health		Realization context : According to MEQ specifications (p. 2 of the clinical teaching evaluation manual)		
Elements of competency	Criteria		Rating scale			
	Indicators	Quality (ies)	Insufficient	Minimal	Average	Superior
9. To assure care continuity and follow-up (CONTINUED)	9.3 Applies administrative procedures to particular situations	Thorough application of administrative procedures done autonomously	Application is thorough, with regular supervision	Application is thorough, with some supervision	X X	Application is thorough without supervision
Marking ⇒					X X	
	9.4 Collaboration with the care-giving team and the multidisciplinary team	Adequate collaboration	Collaboration is not adequate	Collaboration is adequate in the majority of cases	Collaboration is adequate in almost all cases	Collaboration is adequate in all cases
Marking ⇒						
		Search for solutions when faced with particular problems	Search for solutions is rare	Search for solutions is done in the majority of cases	Search for solutions is done in almost all cases	Search for solutions is done in all cases
Marking ⇒						
	9.5 Orients the client/family toward resources appropriate to the situation	Appropriate orientation done autonomously	Orientation is appropriate with constant supervision	Orientation is appropriate with regular supervision	Orientation is appropriate with some supervision	Orientation is appropriate without supervision
Comments, observations:						

Note: In the original document, there is an additional page entitled *Critical Incidents* in which teachers can take note of events not included in this grid.

Tool 6.J

“The perception students have of their own competency seems to have a greater influence on their motivation and therefore, on their commitment to the task, than their actual competency” (Tardif, 1992)

Task 12 Communicate evaluation results and provide students with feedback Communicating results and feedback

- A. How to communicate the results of summative evaluations**
- B. Summary of feedback characteristics**
- C. The affective dimension of feedback**

A. How to communicate the results of summative evaluations⁹⁴

The following text illustrates the major impact resulting from the various ways of conveying results to students and proposes possible methods for teachers to counter any negative impact.

“I’m hopeless in math”, “I just can’t seem to learn how to spell”, “Languages are not my thing”, “Don’t pay attention to my pronunciation, I know it’s pathetic”...

Most teachers realize how limiting such statements are, how deeply rooted and enduring such beliefs can be, and the disastrous consequences they have on the learning of children or adolescents who affirm them as well as how much energy must be devoted to deal with them. ... In fact, the perception students have of their own competency seems to have a greater influence on their motivation and, therefore on their commitment to the task, than their actual competency (Tardif, 1992).

Therefore “if an individual, particularly during childhood, shows a tendency to comply with the judgment and identity conferred upon him by his entourage, he may very well end up by confirming these to varying degrees” (Kourilsky, 1999). Consequently, it is our role as educators to do everything in our power to prevent these negative beliefs from taking root.

The communication of results plays a major role in the perception students have of their own competency. Whether communicating results from grading, comments or assigned points, one important guideline is to act in a non-prejudicial manner toward the student, to help him every way we can to maintain a positive image, or at the very least not to tarnish his image. Strangely enough, it seems that obtaining an “insufficient” grading or a score of 2/10 on a writing assignment is less damaging to a student’s image than the comment: writing ability = not yet acquired. In other words, it is less painful for a student to fail a test in English than to be told he is incompetent in writing. What is at stake is the development of our students’ self image, and that is of great importance. Should we not therefore support the communication of results in a contextualized form?

Another argument in favour of contextualized communication of results is its profoundly inferential nature, as reiterated by M. Romainville (2000). “To evaluate competencies is make fundamental inferences: based on the given student performance, I then judge that he has probably mastered a given

⁹⁴ Translated from Mireille Houart, *Évaluer des compétences. Oui, mais... comment?*, Département Éducation et Technologie, FUNDP – Namur, p. 11. [<http://www.det.fundp.ac.be/~mho/evaluation.htm>].

competency [...]. The broader the competency, the greater the inference and therefore, the greater the probability for error.”

For example, to evaluate in a summative manner a competency such as reading implies that the competency itself must be observed in a specific context. For instance, the task could involve a series of questions based on an informational text. Based on the student’s performance on this test, to infer his competency in reading is an ENORMOUS leap. (If a student does not succeed, is it because of gaps in his reading skills or is it due to difficulties in his ability to draft answers?) Noting that the student has passed or failed the exercise does not, in itself, carry much inference. Would it not therefore be more adequate, when communicating the results, to refer to the required task rather than declare a student incompetent in reading? The competency grid, used internally, would then greatly benefit teachers during the learning stage, the preparation of the evaluation and the analysis of student results.

Should we banish the summative evaluation of knowledge and skills?

An analysis of the temporal model described below would probably lead us to reserve summative evaluations exclusively for the assessment of competencies and to cease conducting any summative evaluation of isolated knowledge and skills. Pedagogically speaking this “recommendation” is roadworthy and yet, if we were to impose it straight off, in such a radical fashion, would this not pose a great risk?

There is a fear among teachers that: “Formative evaluations are all very nice, but students will no longer study...”, “If it doesn’t count, the students won’t work”. “They only work if there are points involved”. “They already finish their homework on the bus to school ... now they probably won’t even hand it in!”

To shed some light on this matter, let us discuss briefly a motivational factor noted by R. Viau (1994). This factor is the **perception a student has of the value of an activity**, that is, the judgment he makes on the importance or usefulness of an activity relative to the goals he is pursuing. If the activity in question corresponds, for example, to the resolution of 15 homework equations, the study of Latin vocabulary, or the correction of a dictation with justification of grammatical agreements, the underlying question is: “Why should I do what the teacher asks me to do? Why should I study specific information or train to develop a particular skill, if not to obtain a good grade?”

Research results show that, most students are in school to pursue:

- performance goals exclusively (they want to complete successfully the activity for the grade, the diploma, etc.) The students express this in statements such as: “Does this homework count?”, “How many points for the exercises?” “I scored 9 ½ on the test!”).
- learning purposes exclusively (they place a high value on an activity because it enables them to learn more on the subject, for example, the (rare) student who prepares for a test by studying all the pages of the syllabus, even though the teacher has excluded some of them).
- a combination of both learning and performance goals.

Eliminating the grading system overnight risks destabilizing and de-motivating those who pursue performance goals exclusively. Does this mean we are to remain locked into a rigid school system that has conditioned our students for too many years already?

One solution would implement a **class spirit oriented to formative evaluations** (identify, value and learn from errors, give less importance to points, stop reinforcing only correct answers, show interest in the process, etc.) with a view to helping students pursue goals and progress at school. The presence of grades can be maintained for a period of time, given that evolution takes time. I personally experimented with this hypothesis and found that it took at least one trimester (from September to December) for my 4th year students to progressively come around to the logic of the formative evaluation (Houart et Vastersavendts, 1995).

To opt for a subtle alchemy, a well-blended cocktail of summative and formative evaluation of knowledge and skills fits in very well with the formative evaluation philosophy. The teacher can, for example, take into account the successes and ignore failures as long as the student demonstrates that he has overcome his difficulties. Implementing such practices favours the evolution of student concepts, while maintaining the ‘pressure’ that encourages them to study.

The works of Viau, described above, offer further encouragement for taking the time needed in class to show students how the subject matter can be useful to them or, even better, generate student interest in the task to accomplish via class discussions, or better still, create links between student preoccupations and what they are in the process of learning. But here we are exceeding here the specific scope of competency assessment.

In addition, if the implementation of a competency requires the mobilization of a set of resources, I don’t see why we should not allow ourselves to evaluate, at least partially, in summative fashion, the mastery of these resources, and therefore, this knowledge and these skills.”

B. Summary of feedback characteristics⁹⁵

“Feedback is probably the best way of influencing a person’s competencies in a learning situation.”

This statement by Louise Lafortune (2001) sheds light on the various characteristics of effective feedback.

“According to Wlodkowski and Ginsberg (1995), feedback is information provided to a person in a learning situation about the quality of his work. Feedback impacts a learner’s motivation and helps him better evaluate his progress, understand his performance, maintain his efforts, and receive encouragement. The authors add that feedback is probably the best way to impact a person’s competencies in a learning situation. Feedback can take several forms and be more elaborate than a few words on an individual’s progress. The following paragraphs outline general feedback characteristics according to Wlodkowski and Ginsberg.

Feedback for information rather than control

We must favour feedback that encourages increased effectiveness, creativity and autonomy. For example, “You identified three major information items. I appreciate the clarity of your work”, rather than “You have made progress and you are meeting the objectives that I established for this course.”

Feedback based on objectives that have been agreed upon beforehand

Persons in a learning situation appreciate feedback that provides them with information on their degree of attainment of pre-determined objectives. This enables them to clarify the criteria used to evaluate their learning and identify what remains to be accomplished for their learning to be even more effective. This information can then be used to guide their efforts, practice and performance.

⁹⁵ Translated from L. D. C. Lafortune, *Accompagnement socioconstructiviste. Pour s'approprier une réforme en éducation*, Sainte-Foy, Presses de l'Université du Québec, 2001, p. 109 and 110.

Well-targeted feedback is constructive

It is difficult to improve performance if general terms are used to describe the progress. Most people prefer to receive detailed comments and precise suggestions, which are more likely to help them improve.

Quantitative feedback

Quantitative feedback can be advantageous if it corresponds to the learning context. It must be precise and provide proof that minor improvements have taken place. Highlighting these minor improvements can have long-term effects.

Feedback given at opportune moments (without excessive delay)

This refers to feedback given in an opportune moment rather than immediately. A delay in feedback can sometimes allow for a better learning experience. For example, some people are ill at ease if they are immediately corrected after completing a task. In some cases, a delay can help lessen anxiety, for instance, judging a public performance. In general, feedback must be given without delay, but we must take into account the fact that sometimes a delay can be beneficial.

Frequent feedback

Frequent feedback is more useful when learning a new concept. Generally speaking, feedback should be given when the individual has the best chance of improving. It becomes more difficult to modify one's way of doing things when errors have accumulated.

Positive feedback

Positive feedback emphasizes improvements and progress rather than deficiencies and errors. It is an excellent form of feedback, since it increases the subject's intrinsic motivation, his well-being, his perception of his own competency as well as his positive attitude toward the person giving the feedback. Negative feedback, for its part, leads to discouragement. Even if a person has committed errors, we can use positive feedback by indicating that the number of errors has been reduced from what it was previously. Positive feedback can be used at the same time as constructive feedback.

Personal and differentiated feedback

Differentiated feedback is feedback that uses self-comparison and emphasizes the personal improvement observed since the last learning activity. In the learning of a skill or a procedure, evaluating small progresses can be encouraging. The timing of this feedback can be important. The authors also recommend that we ask learners what type of feedback they prefer. It is important to be able to recognize the best time to give feedback. We sometimes realize that the person receiving feedback is not disposed to accept the comments at that time. It is also important to make sure that the feedback has been well understood.

Wlodkowsky (1988) suggests a number of effective feedback characteristics. According to him, effective feedback must:

- be sincere
- provide details and highlight subtleties
- be shared among members of a group
- be given out in measured portions
- be presented publicly or privately, depending on the context
- be respectful”

C. The affective dimension of feedback⁹⁶

Roland Louis (1999) underscores the importance of taking into account the affective dimension of feedback, which has a major influence particularly on student motivation.

“We recognize that there is feedback that deals predominantly with the affective dimension, particularly motivational characteristics that influence the manner in which a student approaches a task and identifies the strategies needed to accomplish it. This type of feedback tries to motivate the student to effectively undertake a task and succeed at it.

The works of Chunk and Cox (1986) on the impact of feedback in relation the student’s effort to accomplish a task, to the perception he has of his competency relative to the task and his effectiveness to succeed at it, strike a chord in us. Included is a summary of results of the studies proposed by Viau (1994, p. 60 and 61).

Feedback on student effort to accomplish a task improves the opinion they have of their competency to accomplish the task (Schunk, 1982).

The students who received feedback on their abilities (for example: you succeed because you are good in arithmetic) saw the opinion they had of their competency improve more rapidly than that of students who had either received feedback on their efforts (for example: you succeed because you work hard), or feedback on both their efforts and their ability (for example: you succeed because you work hard and you are good in arithmetic) (Schunk, 1983).

In the study, the three groups of students received feedback in the following manner. Those who got feedback on their abilities on two separate occasions, those who got feedback on their abilities, then later, feedback on their efforts; and those who got feedback on their efforts on two separate occasions. Students who received the ability-ability feedback sequence, or ability-effort feedback sequence improved the opinion they had of their competency more than students who had received the effort-effort feedback sequence (Schunk, 1984).

A few characteristics of effective feedback

Wiggins (1993) proposes a set of essential characteristics for effective feedback. We have listed those that we believe can be applied to a general class context. To be effective, feedback should:

1. Provide the student with information that confirms whether or not the task was accomplished and identify the support needed.

The student needs external feedback to exercise control and make the adjustments needed to successfully accomplish the task. Feedback that specifies a situation without providing the student with a guide for doing better would be ineffective. Even worse is feedback that deals with generalities without any relation to progress achieved: “If you put forth a little more effort, you would succeed in accomplishing the task.”

2. Compare current accomplishments, the orientation of the task and desired results.

The student needs guidance and validation relative to what he does and what he plans to do in order to meet expected results.

3. Be as immediate as possible, understandable and directly usable by the student.

⁹⁶ Translated from Roland Louis, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, 1999, p. 112 and 113.

Feedback given too late is not effective. If the student cannot understand the feedback it is useless. For example: A teacher returns a corrected paper to a student who submitted the work two weeks earlier, with the following comment in the margin: “This paragraph is not clear.”

4. Evaluate the student’s progress in relation to the accomplishment of the task.

The student’s progress should not be evaluated in relation to other students. Rather, it is important to provide the student with details, examples showing what should be done versus what is being done to achieve the desired results.

5. Use descriptive language

For example: “You performed an addition instead of a subtraction; that is probably why you got a higher number”. Feedback that evaluates a student in comparison to others is ineffective: “You are the only one to have gotten this result.”

6. Make a diagnosis and recommendations specific to the error that has been observed.

For example: “You performed an addition instead of a subtraction; that is probably why you got a higher number.”

7. Allow the student to see tangible results from his efforts.

Within a school context, one tangible result is the difference in grade between an initial assignment and a later assignment where efforts have been invested into the mix. Feedback should help the student realize that the efforts he made following the first task are worthwhile.

Document 6.A

Evaluation in an authentic situation: tools⁹⁷

Chapter 3 of this learning kit, “The vision and impact of study programs centered on competencies”, initially introduced the concept and foundations of the authentic evaluation. Document 6. A specifies the tools that support this type of evaluation in a text (p. 83-94) by Roland Louis (1999).

Tools for an evaluation in an authentic situation

The measurement of complex performances can be done in two ways: based on specific tasks proposed to the student, or through the use of a portfolio.

Measuring based on specific tasks

When developing the necessary tasks to measure complex performances, the teacher must consider the organizational characteristics and types of performance required by the task.

The tasks can be subdivided, on the organizational level, into tasks done within class periods and tasks performed outside the classroom period. The tasks can be designed for individual or group accomplishments. In the context of an authentic evaluation, we generally resort to situational tasks. In placing the student in contextualized situations, these tasks will not only call on declarative or procedural knowledge, but conditional knowledge as well.

Several authors have proposed tasks that make it possible to measure high-level intellectual skills in students. Marzano and others (1993) for instance, suggest a set of situational tasks that make it possible to measure complex performances. These authors classify the tasks according to the *type of performance* they induce in the student. They present tasks involving *comparison, classification, induction and deduction*, tasks dealing with *analysis of errors, arguments, putting divergent ideas into perspective*, tasks involving *decision-making, development of definitions, historical or scientific research, problem resolution* and tasks dealing with *invention*.

The ministère de l’Éducation du Québec, in study programs developed for the entire Province, defines the intellectual operations that high-school students must be able to master upon completion of the study program. Here are a few examples.

⁹⁷ Translated from Roland Louis, *L'évaluation des apprentissages en classe : Théorie et pratique*, Éditions Études Vivantes, 1999, p. 83-97.

Table 7.1 Examples of intellectual operations linked to a discipline

Discipline	Selected intellectual operations
Mathematics	Put in mathematical form (illustrate, transpose, translate, etc.), Perform operations (calculate, solve, transpose, verify, etc.), Analyze or synthesize (deduce, conclude, prove and explain).
French	Write a speech — Choose, organize and apply. Comprehension of speech — Identify, explain and react.
English as a second language	Language comprehension — Deduce, discover, repeat, research and compare. Drafting a speech — Rephrase, question, state and discuss.
Physical sciences	Characterize, connect and resolve problems.
History	Describe, analyze and synthesize.
Geography	Situate (locate an area or geographic location), Describe (characterize, recognize a geographic location) Connect (establish a relation of similarities, differences or interdependence and specify the causes or consequences of two or more geographic locations).

Task development

Figure 7.1 shows an example of an inductive task, adapted from Marzano and others (1993). We will use this task to shed light on its general structure. That is:

— a problem situation that contextualizes the task. Situating the task is designed to give the student a better representation of the task and stimulate his interest for the activity.

Example:

Supermarkets spend a lot of money each week to distribute advertising material promoting their sales. Each supermarket states that it has better prices than its competitors.

We should mention that the problem situation goes beyond this text. We can consider the overall task as a complete problem situation. However, an initial scenario, like the one in the example, is useful for the neophyte student.

<p>Supermarkets spend a lot of money each week to distribute advertising material promoting their sales. Each supermarket states that it has better prices than its competitors.</p>	problem situation
<p>You are asked to study a group of advertising circulars from several supermarkets in order to:</p> <ul style="list-style-type: none"> — find identical articles being advertised; — determine if supermarkets, on the whole, offer lower prices than local grocers and compensate for the low price by the higher price of another item. 	actions
<p>When considering the price, pay attention to the weight, size or quality of the merchandise.</p> <p>Take note of how supermarkets present their ads (items, prices) and entice the consumer to buy in their store rather than the competitor's.</p>	instructions
<p>Based on your analysis, formulate at least two conclusions on the perception that writers of circulars have of consumers. A perception that guides them in their desire to attract customers to supermarkets.</p> <p>Your conclusions can begin with sentences such as:</p> <ul style="list-style-type: none"> — The specialists who write these advertising circulars must think that consumers... — The specialists who write these advertising circulars for supermarkets must believe that... 	expected results
<p>Support each conclusion with examples taken from the advertising circulars.</p> <p>You must present your work to your team in order to consolidate the information and prepare a report for the local radio station that will be broadcast next month.</p>	application context
<p>You work will be assessed based on the attached rating scale.</p>	rating scale

Figure 7.1 Example of an introductory task

- The principal actions that must be undertaken by the student. The task must be clearly identified with the complex abilities that the student must use.

Example:

You are asked to study a group of advertising circulars from several supermarkets in order to:

- locate the identical items being advertised;
- determine if the supermarkets, on the whole, offer low prices than local grocers, and if the low price of a given item is offset by the higher price of another item.

Based on your analysis, formulate at least two conclusions concerning the perceptions that the writers of these circulars have of consumers and that guide them in their goal of attracting customers to supermarkets.

Example:

When considering price, pay attention to weight, size and quality of the merchandise.

Take note of how supermarkets present their ads (items, prices) and entice the consumer to buy in their store rather than the competitor's.

- The characteristics of the results expected for this task.

Example:

Your conclusions can begin with sentences such as:

- The specialists who write these advertising circulars must think that consumers...
- The specialists who write these advertising circulars for supermarkets must believe that...

Support each conclusion with examples taken from the advertising circulars.

- the definition of an audience and the real context of application of the results of actions.

Example:

You must present your work to your team in order to consolidate the information and prepare a report for the local radio station, which will be broadcast next month

- the rating scale.

The instructions and details of the work may vary depending on student characteristics. For elementary level students and those enrolled in a special class, particular care must be given to the instructions and details. For students at a more advanced level, the teacher may provide less frequent instructions and details, or none at all, based on targeted goals. This will result in a situation where the student will have to resolve a problem that is more or less undefined and vague. As underlined by Frederiksen (1984) and Bennett (1993), the problems that we experience in real life are generally vague and undetermined.

Developing a rating scale

Given the importance of a rating scale in the development of a task, we believe it is necessary to look a little more closely at this tool.

Measuring performances, whether complex or not, whether in an authentic situation or not, means using evaluation tasks with rating scales that allow judges to make judgments.

In their approach to rating student performance, judges use well-defined criteria with which they are familiar. The term “rubric” is increasingly common when naming these criteria. This term comes from the Latin *rubrica*, which means “red earth, ochre”, the substance used in Antiquity to mark important events. These rubrics represent for us, the critical or essential attributes of the competency we wish to measure. Each rubric or dimension of the competency describes a set of observable performances that range from the highest performance level to the lowest one.

In order to better evaluate the student's progress towards his goal and help him improve in his learning process, the authors define performance according to a scale of three, four or five levels. In the following pages, we provide some examples⁹⁸ of rubrics and performance levels in use in some school environments. These tools are presented for the sole purpose of promoting a better idea of the type of tools that can measure complex performances.

⁹⁸ We thank the students enrolled in initial master class training at the Université de Sherbrooke (third year, fall 1997) who provided us with these examples.

We will also provide examples of tools devised to measure complex performances. According to the characteristics of the task, we classify these tools based on whether or not they induce a more or less authentic evaluation situation.

Example 1: Measuring mathematical performance (Problem resolution)

The period for garage sales coincides with the arrival of the nice weather. Your mother calls on you to ask you to help her get the items ready that she wants to sell on the following day, Saturday.

She wants to put 20 square-shaped vases for sale, each one measures 10 cm in width. She would like to sell 30 flowerpot holders. Each one measures 20 cm in length and 15 cm in width. She also would like to get rid of the 50 knick-knacks lying around the basement. These knick-knacks measure on average 5 square centimetres each. Your mother only has two tables on which to display these articles. One table measures 150 cm by 60 cm and the other, 125 cm by 95 cm. The sale permit granted by the municipality cost \$5 and stipulates that only one table is allowed.

Your mother asks you to:

- pick the right table and set it up;
- price each article for sale by category, knowing she wants to make a \$50 profit.

She also expects you to list on a piece of paper, all the articles for sale, the quantity, the price per unit, total sales and total profit made.

Your work will be evaluated based on the following grid⁹⁹ (see figure 7.2):

R1. Mastery of the mathematical content	<ul style="list-style-type: none"> — Applies the appropriate concepts, operations and transformation rules with ease and without error. — Applies the concepts, operations and transformation rules that were studied well, but with minimal errors, — Makes several errors in the use of concepts, operations and transformation rules that were studied. . — Makes numerous application errors. 	4 3 2 1
R2. Capacity to solve problems	<p>a) Effective use of information:</p> <ul style="list-style-type: none"> — Accurately identifies all the pertinent information and highlights the missing information. — Identifies all pertinent information. — Identifies most of the pertinent information. — Omits some pertinent information. <p>b) Problem resolution process:</p> <ul style="list-style-type: none"> — Presents an effective and very satisfactory solution to the problem. — Presents an acceptable solution to the problem. — Presents a solution that is not quite acceptable. — Does not succeed in finding a solution. 	4 3 2 1 4 3 2 1
R3. Capacity to communicate	<ul style="list-style-type: none"> — Communicates the results clearly and accurately while making effective use of communication support. — Communicates the results clearly with adequate use of communication support. — The communication of results is not quite clear. — The communication of results is incomprehensible. 	4 3 2 1

⁹⁹ A student situated at level 1 or 2 can, with the teacher's help, accede to a superior level (3 or 4).

Figure 7.2 Rating grid for the resolution of mathematical problems (example 1)

The choice of headings for the example grid obviously expresses some of the evaluator's expectations with regard to observable performances. Another evaluator might suggest different headings. Let us look at what these headings evaluate.

Mastery of mathematical content: This dimension is designed to evaluate procedural knowledge linked to concepts, operations and transformation rules studied in class.

Capacity to resolve problems: This dimension has to do with evaluating performance in the resolution of more or less complex problems. This dimension is very important because it helps determine if the student is able to apply declarative, procedural and conditional knowledge to find a solution to a problem found in everyday life.

Communication: The importance of this dimension is justified insofar as we believe that communication is an important component of any social context. Problem resolution becomes interesting when the individual is able to communicate the resolution effectively and even convince others of its value.

Example 2: Measuring French proficiency (written communication)

At Sainte-Justine hospital there are a number of hospitalized children that are 10 years old. They can neither go back home nor go to school. Our school wants to offer a collection of stories of interest to children of this age. You must write a story that will get their attention. The best texts will become part of a collection to be published by the hospital and provided to the children for free.

Your short story cannot exceed two pages in length. It may deal with a true story or an imaginary one. The story must be pleasant and amusing.

The panel selecting the texts will use the following grid (see figure 7.3):

R1. Text organization		
	The text is perfectly structured: all the ideas are well put together, there are no contradictions, there is very good use of verb tenses.	4
	The text is well structured: all the ideas are well put together, there are few contradictions, and there is good use of verb tenses.	3
	The text is not well structured: certain ideas are poorly presented; there is incorrect use of verb tenses.	2
	The text is very poorly structured and incoherent.	1

R2. Sentence organization	<p>The punctuation marks are adequate and all the sentences are well constructed.</p> <p>There are a few punctuation mistakes (2 or 3), but all the sentences make sense and are well constructed.</p> <p>There are several punctuation mistakes (less than 7) and some sentences are not well constructed.</p> <p>Nearly all the sentences present errors of construction and meaning (more than 7 errors).</p>	4 3 2 1
R3. Respect of lexicon	<p>The words are written correctly (less than 2 mistakes).</p> <p>Most words are written correctly (between 1 and 7 mistakes).</p> <p>Several words are written incorrectly (between 7 and 15 mistakes).</p> <p>Nearly all the words are misspelled (more than 15 mistakes).</p>	4 3 2 1
R4. Respect of grammar rules	<p>The agreements of gender and number are correct as well as the verb endings (less than 2 mistakes).</p> <p>The agreements of gender and number are correct as well as the verb endings (between 1 and 7 mistakes).</p> <p>There are several mistakes in both cases (between 7 and 15 mistakes).</p> <p>There are way too many mistakes in both cases.</p>	4 3 2 1
R5. Story interest	<p>The story is very interesting, amusing and original.</p> <p>The story is rather interesting, amusing and original.</p> <p>The story is interesting, but lacks originality.</p> <p>The story is not very interesting.</p>	4 3 2 1

Figure 7.3 Rating grid for written communication in French (example 2)

Example 3: Performance in history (critical analysis)

Task

The new Secretary General of the United Nations has retained your services to draw a composite of one of the many conflicts taking place in the last fifty years. He is insistent that the thinking of young people like you is the best way to further reflection on how to resolve world conflicts. He therefore asks you to select a contemporary conflict that raises questions for you and to draft a critical analysis in official report format for him. Following this you will be invited to present your conclusions in front of a study committee set up for the occasion.

Instructions

Your work includes a written report and an oral report. You will work in teams of two.

Your written report should be approximately six pages long. It must be typed, double-spaced and handed in by end of May. In this report, the reader must see that there is a critique of the information being offered. In other words, you must add a personal touch to your analysis.

In the oral presentation, one of the team members will present a summary of the key facts of the conflict; the other will put the situation into perspective. You will be allotted 10 minutes to present to the class.

Unfolding:

- Form a two-person team.
- Describe the problematics of the conflict.
- Develop a hypothesis linked to the problematics.
- Conduct research at the library.
- Compare and analyze the different viewpoints exposed in writings you consulted and summarize them.
- Confirm or describe the starting hypothesis.
- Write a report according to the rules studied.
- You are at liberty, throughout the task, to consult your teacher and ask for assistance.
- The Secretary General will rate your report according to the attached grid (see figure 7.4).

R1. Respect of historical setting	The stages of the historical setting are entirely respected. The stages of the historical setting are partially respected. The stages of the historical setting are not well respected. The stages of the historical setting are not respected at all.	4 3 2 1
R2. Quality of the critical analysis	The report highlights the conflict's essential points and presents a coherent assessment. The report highlights most of the essential points of the conflict and presents a coherent assessment. The report highlights some of the conflict's essential points and presents a somewhat coherent assessment. It is difficult to determine the conflict's essential points and the resulting assessment is either incoherent or absent.	4 3 2 1
R3. Oral communication	The communication is clear and easily comprehensible for the audience. Certain elements of the communication are ambiguous, but it remains comprehensible for the audience. The ambiguity of the message makes its comprehension difficult for the audience. The communication is confusing and disjointed.	4 3 2 1
R4. Written communication	The written report has fewer than 5 mistakes. The written report has between 5 and 10 mistakes. The written report has between 10 and 15 mistakes. The written report has more than 15 mistakes.	4 3 2 1

Figure 7.4 Rating grid for a critical analysis in history (example 3)

Importance of the student rating grid

One of the functions of the rating grid is to help students become aware of the characteristics of a task that is accomplished effectively. It also helps students achieve more effective self-regulation in the achievement of the task. It will especially help the student determine the type of feedback needed. It may not be evident but the use of rating grids can help re-orient students from a perspective of graded results (grades expressed in percentages) where the grade itself seems to be the goal; to a model that encourages students to identify the realization stages of a performance. The teacher should therefore not only introduce a rating grid for the task, but also pay particular attention to teaching the students how to make effective use of it. However, grids like the one presented here, are relatively complex for students, particularly those in elementary school.

The teacher should begin with more simple grids when used as objects of teaching. We suggest that the teacher begin with checklists. [...]

Later, the teacher can introduce the students to more complex grids. The teacher could, for instance, ask the students to construct a rating grid for an oral presentation that will be given in class.

Developing the stages of a task

We have seen several examples of tasks that reflect authentic situations as much as possible. Experience has shown that when it is time to develop tasks of this nature, difficulties often arise. The steps outlined below have been tested with students in master classes. They helped the students develop authentic evaluation tasks.

Step 1: Determine the content of the discipline. The first stage consists in determining the *content of the discipline*, which will be the object of an evaluation, and the *academic level* in question. For example, a teacher might be interested in the drafting of a speech for a fourth year elementary school French course. Another might choose photosynthesis in biology, for a first year high school course.

Step 2: Determine the action based on the performance to be evaluated. Since the performance observed will be the work or production of a student, we must identify at this stage what type of production will elicit the type of performance from the student that we wish to observe. The production or work must call upon the student's declarative, procedural and conditional knowledge. For instance, the teacher could choose a *written argument* for the student's production. In science or mathematics, it could be the *construction of a double entry table, a graph, a model, a process*, etc. In social sciences, the teacher might choose the *construction of a route, the development of a plan or geographic map, the production of a report, a document*, etc.

Step 3: Identify the necessary knowledge. At this stage, it is necessary, by describing them as performances, to identify the *declarative, procedural and conditional knowledge* required by the student to successfully accomplish the task. In an actual evaluation, declarative and procedural knowledge is easier to identify. Procedural knowledge often underlies declarative knowledge.

Example 1 Procedural knowledge in mathematics: to accurately resolve a set of equations of the second degree.

In this example, the declarative knowledge (necessary mathematical calculations) is part of the resolution process. If we want the final answer to deal with conditional knowledge, the performance can be defined in the following way (example 2):

Example 2 Conditional knowledge: to choose and validate a solution that resolves the given problem as effectively as possible.

To evaluate conditional knowledge as in the previous example, we must be sure that the problem variables are not limited to equations of the 2nd degree. The teacher must see to it that the student's judgment is used to identify the best solution among several. There may be situations where the teacher will be forced to limit himself to declarative knowledge. This may not be the ideal situation and the classroom will cause certain limitations. In the following example, the teacher has just presented declarative knowledge and wants to verify if the students learned it well. See example 3.

Example 3 Declarative knowledge in history: proper timeline, comments and explanation on the main causes for the Patriots' rebellion.

We must keep in mind that for learning to endure, the student must be able to implement all three types of knowledge.

Step 4: Select the required intellectual operations. It is now time to select the type of intellectual operation that the task will solicit from the student. Here are a few examples of possible intellectual operations: *to compare, deduce, analyze, classify, argue, resolve a problem, make a decision, take different perspectives into account, and experiment.*

We have also included examples of intellectual operations adopted by the MEQ with regard to the teaching of specific disciplines in high school. So, the teacher can refer to study programs when choosing intellectual operations. We should emphasize here that the complexity of the performance increases based on the number of intellectual operations required for the task. Therefore the first time we develop a task for an authentic situation, it is easier to select two intellectual operations only.

Let us return to example 1 above. We could reason that the resolution of equations would be useful in a *classification or problem solving* task. We therefore call upon these two intellectual operations (to classify and resolve a problem) in relation to procedural knowledge.

In example 3, the teacher could choose to divide the declarative knowledge of history into two intellectual operations: *to make deductions and to prepare an argument.*

Stage 5: Write up the task. When writing up the task, think of a problem situation that is as realistic as possible and sufficiently authentic given the preoccupation of the students. Reflect on the motivation and interest that the problem situation will generate in the student. We should also take the practical use of the student's production or work into consideration. The production or construction could be in relation to a recipient or an event.

Stage 6: Develop a rating grid. Once the content of the task is spelled out, we must define a rating grid to evaluate the effectiveness achieved by the student. Since tasks generally require a production or work on the part of the student that are destined to a recipient, it is important to include the dimension "communication" in the grid. Communication recognizes the way in which the student constructs and communicates his production or work while bearing in mind the characteristics of the recipient. We will therefore find rubrics in the grid that relate to *intellectual operations* relative to disciplinary content and *communication*.

For each selected rubric, the grid lists performances ranging from acceptable to unacceptable. Performance descriptions specify to students what is required to effectively realize the task and what is not required. Ratings of 1, 2, 3, and 4 are the norm for grade performance levels. These symbols make it possible to position the observed performance on the scale. Of course, the teacher can translate these ratings into grades, by weighting them or not. We believe that by

drawing students' attention to the description of performances rather than the rating, we reduce the possibility that students accomplish a task only to get a good grade.

Stage 7: Validate the content of the task. There are two ways of validating the content of the task. We can put the text aside for a while, and then review it to make sure that the task still adequately reflects the desired content. The following grid (see figure 7.6).is an example of learning that we could teach that also corresponds well to the requirements of validation found in chapter 9. The other way of proceeding would be to resort to the expertise of another person, presenting them with a grid and asking them to adapt or complete it depending on the need.

Teaching content:			
Student schooling level (order and class):			
Performance to evaluate:			
Type of knowledge involved:			
Intellectual operations required by the task:			
<i>Scale : 1 = No 2 = A little 3 = Yes</i>			
<i>Congruence</i>			
Is there congruence:			
Between the task and the teaching?	1	2	3
Between the task and the performance to evaluate?	1	2	3
Between the task and the types of knowledge selected?	1	2	3
Between the task and the targeted intellectual operations?	1	2	3
Does the task call on several intellectual dimensions?	1	2	3
Does the task require work or a production from the student?	1	2	3
Does the task interest the students?	1	2	3
Would the students be motivated to succeed in this task?	1	2	3
Does the task generate student-teacher interaction?	1	2	3
Does the time allotted correspond to a real situation?	1	2	3
Does the rating scale provide a good description of every possible performance?	1	2	3
Does the grid adequately take into account the various intellectual operations identified?	1	2	3
Does the grid risk encouraging students to work for a grade more than rise to the challenge?	1	2	3
On the whole, does the task risk penalizing and/or favouring certain groups of students?	1	2	3

Figure 7.6 Example of a validation grid for an evaluation task in an authentic situation

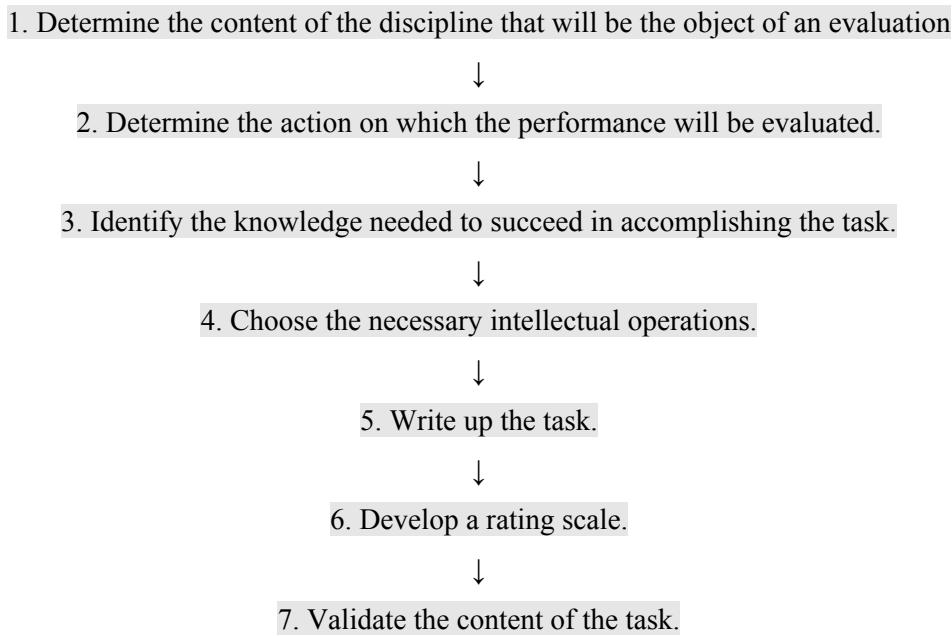


Figure 7.7 Summary of the development stages of a task

Figure 7.7 allows for a better visualisation of the preceding stages.

The characteristics of a task

When the time comes to choose and/or develop a task, the teacher should take into account the characteristics listed below. Specialists in the measurement of complex performances are unanimous in selecting these characteristics. Popham (1995) also agrees that tasks should contain those presented here, which can be found in the ‘validation of content’ grid seen in figure 7.6.

The task should be:

- able to be generalized: The student’s performance of a task can be generalized to similar tasks.
- authentic: The task represents a situation that the student can experience in real life, outside the school environment.
- multidisciplinary: The task involves many aspects of learning, not just one.
- connected to teaching: The student’s performance on the task should be a consequence of teaching received.

Document 6.B

“Evaluating competencies. Yes, but... how?”¹⁰⁰

How to evaluate my students’ competencies? How to be sure that the problem situation used to evaluate their competencies belongs to the same group of situations developed during the learning process?

Whether they are general, specific, basic or the result of profound reflection, these questions reveal a widespread concern. The competency approach in education raises profound questions among teachers relative to the delicate and uncomfortable task of evaluating student competencies, even though this is inherent to their profession.

After a tortuous journey through the literature on the subject, from Perrenoud to Roegiers, from Romainville and Paquay to Tardif and many others, after attending conferences and training sessions, a three-day immersion in elaborate training on the subject specifically geared to educational advisors, and many hours of exchanging ideas among colleagues and teachers, I was able to identify guidelines (not certainties as there are no such things in education) and clues relative to the assessment of competencies, in a competency-centered program.

The purpose of this article is to share these with the reader in the hope that they lead to further reflection, debate, discussions and arrangements; that they be clarified and adjusted; that the ideas be contested and lead to new questions; as long as they are not used as standards, rules or models.

Can we speak of evaluation?

Can we truly speak of evaluation? You can rest assured that I will not be providing a precise meaning for the terminology generally in use today, which includes: evaluation, validation, information, verification, regulation, assessment and rating. However, the term “evaluation” seems to encompass realities that are far too varied to allow for a coherent discussion on the subject, whether among colleagues or with students. This is why it seems necessary to clarify the purpose of the activity when using the term. For the time being, associating the word with a qualifier will suffice. Thus, we will speak more precisely of:

- **Formative evaluation** is an evaluation that takes place during the learning process for the purpose of educating via a two-fold regulation. On one hand, a **regulation of the student’s learning**: under the teacher’s guidance, student results and the analysis of errors enable the student to become aware of his acquired knowledge, the learning still to cover, the process itself, resolution strategies, erroneous procedures and work methods. On the other hand, a **regulation of professor’s teaching**: to provide supplementary exercises, re-explain a rule, improve note-taking by students, increase time for acquisition, move on to next learning sequence ...;
- **Summative evaluation** refers to any evaluation taking place at the end of a learning session. The student’s performance on this evaluation is then added to the scores of previous tests by the professor, to determine if the student has achieved a passing grade.

¹⁰⁰ Translated from Mireille Houart, *Évaluer des compétences. Oui, mais... comment?*, Département Éducation et Technologie, FUNDP – Namur. [<http://www.det.fundp.ac.be/~mho/evaluation.htm>].

The student's overall results on summative evaluations will create the database from which the teacher will decide the final grade for the course. The certification at the end of the year or cycle is the responsibility of the professorial body that meets regularly for this purpose.

From this point on, we will take this initial guideline into account by identifying the nature of evaluations when referring to them.

Temporal model of formative and summative evaluations

Every component of a competency after some structuring can become the object of an evaluation. The distribution of declarative, procedural and conditional knowledge is not fortuitous, it seems, and working these different dimensions explicitly in class favours the transfer of learning (Tardif, 1999) and, consequently, competency development.

I stress the fact that it seems essential that the student distinguish conceptually the difference between the formative evaluation, done during the learning process, and the summative evaluation, done at the end of the learning process. Paradoxically as we will see later on, in reality we have to work with compromises.

To do so, let us begin by considering two very distinct phases.

During training, the evaluation contributes to student development; it is a learning tool and an integral part of the process. Learning takes place, to a certain extent, when assisted by evaluations that use a variety of methods:

- The **initial formative evaluation** (if administered) is used essentially to provide information for the teacher on the student's initial concepts and current level of skills, and to collect information on prior acquisitions before undertaking the new learning sequence;
- The **interactive formative evaluations** correspond to frequent teacher/student interactions and student/student interactions. These events constitute informal evaluations, probably the most enriching and constructive ones in the learning process;
- The **selective formative evaluations** make it possible to test the acquisition of a particular knowledge or skill required to implement the competency or, more likely, the competencies targeted by the learning sequence (see box).

For example, let us consider the competency of written expression in a Dutch language course: Write a letter to your best friend describing your last summer holiday. To accomplish this task, the student must mobilize knowledge, skills and personal conduct that can be described as follows: (the list is not exhaustive)

Declarative knowledge:

- specific vocabulary used in letter writing
- vocabulary associated with the beach, the mountain, pastimes, summer job

Procedural knowledge:

- procedures for writing a letter
- procedures for writing verbs in the past tense

Conditional knowledge:

- when to use specific verb tenses
- skills: writing verbs in the past tense

Attitudes:

- interested in sharing experiences
- interested in the person to whom we are writing

- The formative evaluations for entire learning sequences provide students with the opportunity to exercise their competencies in real problem situations. They can be used as a sort of dress rehearsal for the general certification evaluation, a “practice” evaluation.

During all of these evaluations, student errors become advantages that we can put to good use (for example: “*Thank you Peter and Gloria. Thanks to you, I got the chance to clarify an important element ...*” “*During the learning process, an error is not considered a mistake but a normal provisional state on which we can elaborate future assimilations*” (Pantanella, 1992). Errors further progress. Therefore, oral and written tests, homework, preparation and reports are seen as real learning tools and marking these creates the opportunity to elicit metacognition during which students and teachers discuss errors, approaches, mechanisms, processes and strategies used.

To illustrate the link between error management and metacognition, let us review a few simple examples taken from my family and professional experience. In my son’s grade 2 class, the teacher asked the following classic geography question: “Name five countries on the 60th parallel south”. Several students answered incorrectly including my son. When he got home after school, he asked me to help him find the correct answer.

Not knowing exactly how to help him, I asked him how correction had been done in class, expecting to be able to point out his lack of attention. However, he explained during the “group correction, the teacher asked Anthony, who is a ‘good’ student, to name the five countries (answer the question). My son added that he had wanted to write the answer down but was told by the teacher instead to redo the exercise at home.” To redo the exercise is precisely what we were trying to do, but unable to. This method of correction did not teach my son, Laurent, how to answer the question. Whereas highlighting the steps used to find the answer by asking students (who answered incorrectly and correctly) **how** they completed the exercise (what reference maps did they use, how did they identify the 60th parallel south, etc.) would have undoubtedly allowed students to identify their errors (for example, confusing north and south, or meridian and parallel,

not knowing what a parallel is, not choosing the appropriate map in the Atlas ...) and progress could have been achieved.

In grade 3 at elementary school, my daughter is learning written calculations. One day, she comes home with a question that requires ten calculations. Three results are crossed out and her score of 7/10 is qualified by the following comment: "In grade 3 at elementary school, a girl has to work hard. Sylvie, you can do better!" Trying to help my daughter by using my own pedagogical principles, I asked her what process she had used to reach a total of 517 when adding 436 and 171."

Initially, she replied: "I am certainly not going to tell you, since it was incorrect!" As with most students, she was resistant to discussing her behaviour. She was implying that: "Since 517 is not the correct answer, there is no need to pay any further attention to it, just give me the correct answer and let's forget about it". However, convinced of the usefulness of my question, I persisted and explained that it was important for me to understand her reasoning, adding that she scored 7 out of 10 correctly, so she should be able to explain how she solved the incorrect ones. My argument worked. She began to describe the steps she followed: $6 + 1 = 7$; $3 + 7 = 10$, I wrote down 1 and carried over the zero (instead of: I wrote down 0 and carried over the 1). In that simple statement, we quickly found her error in calculation. In both cases, the error resulted from carrying over 10. Once identified, this procedural error was easily explained and we avoided having to carry out the two initial possibilities: one, to re-explain the entire procedure for addition or two, scold the child and ask that she be more attentive next time. Both possibilities would have been useless and even quite discouraging for Sylvie.

Here is another (rather incredible) true example: Naima, a 4th year science student got all the answers in a true/false biology test wrong (0/14!). During the correction, I was curious as to how she selected her answers and so I asked her: "What process did you use to answer question 1?" Imagine my surprise when her answer made me realize that all her errors were caused by her weakness in orthography. She was probably dyslexic. For Naima, "True" looked like "Frue" and "False" looked like "Talse". So naturally, since the answers required only a T or F, she had inverted these letters and in fact, had scored 14/14, a perfect score! This simple question made it possible for Naima to receive her rightful score on her biology test, and also to rectify (probably for life) a learning difficulty.

Finally, I would like offer an example of a collective moment in metacognition. During a three-hour chemistry class, 5th year, while correcting an oral formative evaluation on the assessment of reactions (for the non-initiated reader, this has to do with a problem solving competency proper to chemists, that involves up to seven resolution stages), I decided to review the types of errors committed by my 22 students. We moved from one resolution stage to the other, for a single problem, the one that produced the greatest number of errors and was the most enriching to analyze. The process went something like this: Who also made an error at this stage? What happened to you Magali? What about you, John? Fatima, how did you reach this result? Together, we identified resolution strategies and analyzed errors. I wrote the resolutions down on the blackboard as the discussion progressed. I also suggested that the students take notes and highlight the areas where they had experienced difficulties. During the subsequent summative evaluation, my students performed admirably well. I asked them to identify the components they felt had contributed to the successful outcome. Several students listed the notes taken during the formative evaluation. Obviously, this type of correction takes a considerable investment of time, but in all cases mentioned above, the impact both on results and student motivation has been extraordinary and encouraged me to pursue this activity.

In these four examples, we can see that analyzing how a student answers questions and paying attention to the processes he uses and not just the resulting product (the almighty correct answer)

allows a teacher to qualify his opinion on the student. And instead of comments like: “*He did not study the entire subject matter*”, “*There is something she did not understand*”, “*he is not very quick*”, a teacher can view students in a more image-enhancing perspective which in turn, furthers their progress.

To complete the formative evaluation picture, let us include one more principle found in all the books on the subject yet still very far from reaching consensus: **student errors should not be penalized or counted**. Could this be an out-and-out invention by researchers true only in the “best of pedagogical worlds?” A world where every student conscientiously does his homework and takes pleasure in memorizing lessons in order to master competencies ... and not just to get a good grade! We are tempted to believe this when we examine this facet of the formative evaluation without considering subtle differentiation or complexity. In fact, not penalizing or counting an error does not mean that grades are not assigned. On the contrary, it is because of errors that the student is able to identify his level of success; errors also contribute very definitely to the student’s extrinsic motivation (*cf infra*). However, this principle implies that during the learning process, the student has the “right to be wrong”. Since a quick calculation is more effective than a lengthy speech, let us take the following example. During the training, Amaury receives 1/10 for his work on a graph (he did not understand the concept of graduated scale, forgot how to calculate the sizes on the x- and y-axis and made an error in the conversion of units. During the correction, Amaury analyzes his errors, does supplementary exercises and sets up a memory jogger for himself. On the next oral test, he scores 8/10. In summary, does Amaury deserve an average of 4.5 (for both tests) or 8/10? Using competency-centered logic, our goal is to determine if the student has acquired the competency, is it not?

Whatever methods the teacher uses to inject a spirit, culture or philosophy of formative evaluation into his classroom, the resulting non-judgmental atmosphere of trust that results, the “right to be wrong” that prevails and the analysis of errors provide students with a secure learning environment and metacognitive opportunities that facilitate learning.

To adopt this work ethic is to say goodbye to a certain power and authority: “*Be quiet, study, do your homework ... or else... watch out for your grades*”. It also implies a change in student mentality that has been conditioned by the system. Both will require time. We will return to this issue later.

At the end of training, the summative evaluation resembles the final formative evaluation given after each stage of learning. Student performance on this test is recorded and allows the teacher to evaluate if the student has succeeded or failed during the course of the year, and at year-end. When all students succeed the formative evaluation for a given stage, it can be considered a summative evaluation (students would add: “*grades do count*”). To my mind, the fact that students have acquired new learning seems more important than the validation of their competencies.

In addition, the summative evaluation can prove to have formative value, even if this is not the purpose of the test.

Summative evaluation and learning: two inseparable entities

In discussing summative evaluations of competencies, we must also discuss learning that develops the competencies: both concepts are inseparable! From an ethical point of view, how could we conceive of a teacher evaluating competencies in a summative manner without having implemented a methodology centered on competency development? It seems obvious and even trivial and yet

Didn’t the introduction of transversal competencies in school during the first level of reform (a few years ago) manifest itself concretely in most schools by a change in report cards to include

summative evaluations of a few carefully selected transversal competencies (to be calm in class, respect others, reasoning skills, spelling skills, ...). In most of these cases, these transversal competencies were not training objectives and did not entail any modification in teaching practices.

"This notion of transversal competency has gained importance in the report card, but that's all. There has been nothing to support it."

My intention in this paragraph is to stress the importance of learning. It seems to me that if the formative evaluation is an intrinsic part of a competency-based program and deserves our full support, then summative evaluations could adapt to current systems in the short term. Even though many teachers and pedagogues may be justified in denouncing the added academic logistics this implies, such as the frequency of report cards, the time needed for exams, the report card format (Perrenoud, 1999; Tardif, 1999), I do believe that designing new report cards in haste, means incurring a replay of difficulties seen during the first stage of reform which resulted in mass confusion among teachers.

"I taught second grade for a short period of time and I remember being asked one day, to complete these transversal competencies for the first time...well we ended up playing a game of "vogelpik". Over a period of two or three hours we darted back and forth between: was this good, was that good, was it very good? We were asked to complete some information cards but not all. So we did that and then we did nothing. We worked without direction for several hours during the staff meeting and it served no purpose at all. How can we expect to motivate our colleagues when the whole exercise led to nothing?"

On the other hand, it should be possible to initiate negotiations with the school establishment and management team, to adapt the structure to their specific needs. The three previous examples show how local specifications can make it possible to work within existing structures while remaining consistent with students.

The day before report cards were due, I often found myself without a single summative evaluation result. So, to provide the family with information on the work of their children and avoid last-minute evaluations that would damage my credibility in the eyes of my students and the spirit of formative evaluation I wished to instil, I made the following agreement with my students, their parents, management and my colleagues: I would enter all results achieved during each period (in the report card) and circle only those that I would take into account at the end of the year for the purpose of evaluating the student's success.

Teachers related two other examples to me during a training course. One found himself facing the same difficulty just before the Christmas session (non completion of a learning sequence) and asked management to postpone the exam for the classes involved. A minor scheduling change made it possible for this teacher to administer the test one month later. Another teacher was not satisfied with the current report card format so he attached a logbook describing individual student learning progress for his course.

How to assess competencies in a summative manner.

The question is too broad and touches on at least five successive dimensions. As a teacher:

On one hand, what evaluation tool should I design to assess student competencies?

On the other hand, how do I

- rate the completed production? and
- establish a threshold for success? then

- interpret the overall “summative evaluations” at year’s end to decide if a student passes or fails the course? and finally,
- communicate test results to the student, their parents and the teaching personnel?

What tool to use to assess competencies in a summative manner

Our analysis of some definitions of competency lets us identify certain key elements. On one hand, the implementation of one or several competencies takes place through action, in the accomplishment of a task and the resolution of a problem. On the other, the problem or situation requires the mobilization of various resources: knowledge, skills and attitudes.

Consequently, one means of collecting information on student competencies is to have them perform a complex and global task. Others refer to the tasks as complex and integrated (Delory, 2000). All the authors agree on this point. Yet, it is this very fact that is problematic. The task must not be identical to those introduced in the learning stages, nor should it be fundamentally different. If the task is identical or too similar, the student would simply reproduce behaviour (and not demonstrate a competency). If the task is too dissimilar, the student may have to mobilize knowledge and skills not covered during the training.

This issue gives rise to a sensitive question concerning the difficulty for teachers to select a complex task from the same family of tasks covered in the learning phase. We find ourselves at the heart of the transfer problem: "*A complex and demanding phenomenon on the cognitive level that is difficult to circumscribe using tools that are designed to reduce this complexity to a few variables or factors.*" (Tardif, 1999).

We can illustrate this complexity using a specific competency in a mathematics course: "To transform a problem into an equation of the 1st degree in order to find a solution." To evaluate this competency, the mathematics professor could choose a problem such as the following:

"The Orval Brasserie employees currently work 40 hours a week and produce 800,000 bottles. They would like to reduce the workweek to 36 hours, whereas the Abbey monks would like to increase the production to 320,760 litres of beer per week. For both goals to be met, hourly production would have to be increased. Calculate the number of 33-cl bottles of beer that would have to be produced additionally per hour."

This deals with a global and complex situation. For the student to grasp the meaning, he must mobilize specific knowledge (1 litre = 100 cl), mobilize skills (division, conversion of litres to centilitres, how to calculate the number of bottles of beer given the total volume of beer and the bottle capacity, establish an equation of the 1st degree, enter the data and variables), cognitive operations relating to the problem (understanding the problem, visualizing it, translating, ...) and attitudes ((keep working at solving the problem even while feeling it will not be resolved, concentrate, take a step back from the problem, avoid emotional involvement,...)).

It is probable that even if students performed many exercises of this type during the learning phase, in a summative evaluation, a student like Julian who is unfamiliar with media jargon may get hung up on certain terms (go to a 36-hour week); a student like Valentine could be stumped by the expression "hourly production"; and Morgan may be able to solve the problem successfully without having to transform the problem into equation format

As it turns out, this problem can be easily solved (in a manner of speaking) with the following equation $(20\,000 + x) \cdot 36 = 972\,000$. Some students can find the answer without resorting to an equation, which is the targeted competency for this situation. In addition, the problem calls on many other transversal competencies, such as analyzing and understanding the message.

A teacher who comes up against these situations will notice that Julian and Valentine failed to resolve the problem, whereas Morgan succeeded. Might he then conclude that Julian and Valentine cannot translate the problem into an equation, while Morgan can? Certainly not! The two who did not succeed were hindered by a lack of comprehension of the problem and were not able to demonstrate the competency whereas Morgan did succeed but he did not demonstrate the desired competency either.

As we can see, the question of choosing complex and global tasks for the targeted competencies is particularly sensitive, difficult and demanding. There is a latent risk of discrepancies between the teacher's intention when developing the task and the understanding of the student who has to treat the information. It seems possible to reduce this grey area relative to transfer by taking certain precautions: understanding the student's history, ensuring that each student is capable of

decoding the data relative to the problem and keeping the tricky pitfalls exclusively for the formative evaluations. To do away with this grey area completely is, of course, Utopian.

The inherent difficulties of this example should cause us to seriously question our ability to connect a task to an exact description of a competency that is effectively demonstrated and, we should therefore arm ourselves with a good measure of caution, humility and modesty when administering summative evaluations.

It would no doubt prove extremely interesting during a formative evaluation, to explore the intellectual processes or difficulties of Julian, Valentine and Morgan possess. It would no doubt provide a real opportunity to enrich our sum of learning in various fields.

How to rate student productions

Relative to criteria

To illustrate the importance of using criteria, let us leave the school environment for a moment.

To appreciate the quality of wine, an unenlightened wine-lover will rely on his personal taste (I like it or I don't). The educated wine-taster uses an oenological set of criteria such as colour, intensity and transparency, aroma, level of alcohol, the use of tannin, the degree of acidity, the subtle and aromatic aftertaste, or he uses more global criteria such as balance.

In both cases, the evaluator uses criteria to render a judgment. The wine-lover unconsciously uses vague criteria, contrary to the more scientific wine taster who refers to a well-defined criteria grid. In both cases, "rating" and "judgment" are connected to criteria. **We cannot evaluate without using criteria!**

Moreover, the more the reference criteria are detailed and precise, the more the evaluation appears refined and coherent. Additionally, when two different evaluators define a list of criteria together, they increase their odds of understanding each other and finding a common ground of agreement.

Discuss the criteria and ensure they are understood

The same applies to the summative evaluation of a competency within the school environment. When students look at their marked tests and express a lack of understanding and a feeling of injustice – which greatly disturbs and hinders a pedagogical relationship – is it not due to lack of clear and precise knowledge of the evaluation criteria? Comments like: "*it's not fair*", "*his rating is too tough*", and "*Three points off for that, it's disgusting!*" support this fact.

However, even transparency of criteria has its limitations. The famous and ancestral experiments in docimology reveal a number of adverse effects (stereotyping, ranking and positioning subsequent to marking, etc.) that leave no teacher exempt from subjectivity during evaluations. It seems plausible that promoting self-evaluation, co-evaluation and peer evaluation practices in the classroom during training would minimize these negative effects.

As for summative evaluations, the mere awareness of subjectivity that haunts every evaluator should guarantee modesty and humility. I have attended staff meetings where students were given failure grades even though they were only lacking a few points! Is this right, especially, if the criteria are not clear?

Develop criteria during the learning phase

Let us go back again to the above example. A teacher who wants his students to develop this "valuable" wine-tasting competency will slowly introduce criteria connected to the three senses (sight, smell and taste) in the sampling sessions, i.e. the learning sequences.

A true formative effort implies we develop the criteria grid for a given competency with the collaboration of the class, clarify our viewpoint and take into account those of the students, i.e. we negotiate. To have students participate in the definition of the evaluation criteria places them at the heart of the task, the process involved, the realization stages and the quality of the production. It will no doubt influence their performances and contribute to the advancement of their understanding of the role of the teacher, learning and the task to be completed. In my opinion, this is an essential stage in the learning process. In order to make this a tangible reality, a few examples of competencies with matching criteria and corresponding indicators are provided in Annex 2.

How to establish the threshold of success

Some authors use the terms “level of requirement”, “level of mastery”, etc. I much prefer the term “threshold of success” which refers directly to performance. The expression “level of mastery” refers more to a targeted competency than a task to accomplish. And in fact, what is measured is the performance, which in turn will be used by the teacher to infer mastery of the competency (*cf. infra*).

Using a set of criteria, how can we determine concretely if the student has succeeded or failed in accomplishing the required task? The goal of this section is not to provide a neatly packaged procedure. There are as many ways of doing this as there are productions to evaluate. The point is to remain open to all avenues. This way, using common sense, logic and intuition, we can attribute a weight to each criterion and establish a reasonable success threshold, keeping in mind the evolutionary nature of competencies:

- identify the eventual indispensable criteria (if they are not met, the work is a failure);
- identify the fundamental criteria, the minimal criteria and those relative to proficiency (improvement);
- weight each criteria based on its characteristics;
- determine the level of requirement of each indispensable criterion, taking into account the evolutionary nature of competencies (the competency of students cannot be compared with that of experts).

Isn't this how teachers normally proceed when marking assignments, whether dealing with competencies or not?

During the learning phase, all these decisions can be discussed in class (for example within the scope of self-evaluation), or at least clarified in depth so there is transparency with students.

How to manage a series of “summative evaluations” and determine if a student has passed or failed the course

Again, the problem is not new or specific to the assessment of competencies! Final success in a course has always depended on the total of many “tests”. The onus is on the teacher to evaluate the overall results in order to decide on the student's success or failure at the end of the year. This task is very difficult for many professors. After having coached, guided, trained, stimulated and encouraged their students throughout the perilous learning journey, they now find themselves forced to play a radically different role, that of judge.

There is no universal recipe or procedure for this, since each situation is different and unique. To want to answer this question at all costs has been described by B. de Hennin (1987) as an unachievable ideal given there is no one solution. In fact, many solutions are possible although none may be perfect. Thus, to seek a panacea merely aggravates the problem. In order to avoid reaching this stage, everyone is encouraged to develop their own solution with thoroughness and

transparency. This will minimize the arbitrary nature of decisions with the understanding that no one solution will be completely satisfactory.

So as not to leave the reader without a clue as to the solution, here are a few suggestions to assist in decision-making, especially when there is risk of failure.

- focus on what is essential: does the fact that the student has not yet developed certain competencies in a satisfactory manner constitute a real handicap for his success next year or in the next stage?
- discuss: co-evaluation with the student on his journey so far, a private conversation can help the teacher finetune his knowledge of the student.
- seek information from colleagues, broaden your knowledge: all additional information on the student and his progress will facilitate decision-making.

Self-criticism

If I were to play the devil's advocate, I could say that the above is not very innovative as concerns pedagogical matters. Effectively, new tools such as the portfolio, the logbook, the progressive file and more revolutionary methods such as the authentic evaluations and the integration of evaluations into the daily class work are not even mentioned. These approaches seem both pertinent and particularly well adapted to a competency-based pedagogy and their use with students fits in perfectly with formative evaluations, possibly with summative evaluations as well. However, within the scope of this article, I chose to select a more familiar path, closer to current practices in the field. A statement by P. Watzlawick (1975) guided my decision: "*The beginning of any change requires a particular intervention and paradoxically, the best intervention will be the one that adheres to the following advice: "Go easy!"*"

Sections 2), 3) and 4) of this text could be classified as being extremely technical. As stated quite accurately by J. André (1998), we should not only "*place cognitive learners in problem situations that force them to face insurmountable obstacles and evaluate them with the help of criteria-based grids!*" We should also equip ourselves with tools, without going overboard in our use of pedagogical hardware. Let us not forget that behind every great student is a sensible and emotional person, and it is highly recommended to take a person's uniqueness into consideration during an evaluation.

Finally, the idea of developing and discussing criteria and thresholds of success with students seems to go against one major objective of the reform, which is to standardize requirements so that all students are "treated" in equivalent fashion. However, discussing criteria and levels of requirements with colleagues and developing evaluation strategies with other professors within a discipline or in a trans-disciplinary fashion for the purpose of harmonizing practices and diminishing the workload, should reduce the unacceptable gaps between schools. We will probably not see the benefits of this collaboration for several years to come.

A few more bulk questions

During an exchange session with colleagues, several other questions were raised: Are there competencies exercised during the learning process that should not be evaluated in summative manner but simply observed and evaluated in formative fashion? Is there a way to certify students who succeed in acquiring systematic knowledge and skills in an isolated manner, yet are unable to mobilize these acquired resources to solve a problem or accomplish a task?

How do we define evaluation criteria, based on what method?

How do we determine the number of criteria required for a competency to meet “exhaustiveness” and “feasibility” requirements at marking time?

- If the summative evaluation must deal with at least three performances per criteria, how do we manage training, multiple formative evaluations and at least three evaluations for each criterion per course, during one class period a week?
- What is the role of external tests when evaluating competencies?
- The teacher may not have summative evaluation results for report cards due to the timeframe needed for the learning sequences. Under these circumstances, how do we react in order to remain consistent with our students, have the parents be patient as regards results and still respect the conventions of the institution?

As we can see, the methodology of competency assessment is far from simple. As mentioned by P. Meirieu (1991), when faced with a difficult task, an individual who tries to do it all sometimes resigns himself to doing nothing. I would add that given the magnitude of the work and the number of questions to work on, anyone who would limit himself to work done in class would become quite discouraged very quickly. Would this not be a good time therefore to undertake micro-adaptations, to experiment in class, to collaborate with colleagues, to exchange and share evaluation practices? Briefly stated, to adopt a cre-actor stance (a combination of creator and actor) coined by J. Donnay (1999). If the ongoing reform is at the origin of such initiatives, then long live the reform!"

Chapter 7 A comprehensive program assessment

If I had to do a comprehensive assessment...¹⁰¹

Transparency

- Initially I would like to know what a comprehensive assessment is. What is its role? Is it used to validate my ability to synthesize, to give me the opportunity to do a synthesis or other?
- I would like to know what will be evaluated, the evaluation methods used and the relative importance of the various components, from the very start of the program.
- I would like to know the test methods used, the consequences for failure in a course section, and conditions for rewriting an exam.
- I would like to know in advance what will be evaluated and what is at stake.
- I would like to know from the start – the beginning of the program – what the objects of the test are and I would like to be reminded of them during the course of the program.

Author's note:

The statements shown here are the spontaneous thoughts of teachers on comprehensive program assessment. They were collected by Cécile D'Amour during a series of ten professional development courses. Participants were given a few minutes to identify the characteristics of a comprehensive assessment that would validate their learning at the end of the program.

Connection to learning objectives and training

- The test at the end of a program should not be a complete surprise. The evaluation of learning done during the course should have prevented me from making it to the final evaluation without being sufficiently prepared. Weaknesses in my learning should have been identified and communicated to me.
- The test should be a logical continuation of the training. It should be relevant to the training both in terms of content and type of tasks.
- There should be a connection, a common thread between the courses, the evaluations within the course and the comprehensive program assessment, so that progressive integration can take place.
- The whole of the program should be taken into consideration; the test should reflect the same proportion of disciplines as found in the program.
- From the start of the program, I should be given opportunities to participate in activities that assist in the integration of learning.

Objects of the evaluation

- It should be a general test that encompasses the whole and not just a “part” of the learning; it should validate the mastery of essential learning.
- It should not only test knowledge.

¹⁰¹ Translated from *Pédagogie collégiale*, vol. 10, n° 1, October 1996.

- I would like it to be an opportunity for me to demonstrate my autonomy and my thoroughness, particularly as this autonomy applies to learning. At the end of a pre-university program for example, I should know how to acquire new learning on my own.
- The test should cover multidimensional objects and call into play several competencies.
- I would like the evaluation to deal with how I judge what I am doing, to evaluate my critical sense of judgment.

Evaluation methods

- We could use case studies, actual situations.
- The test should contain several sections to respect the scope and diversity of what is being evaluated. These sections could be classified as to the nature of the tasks and the time when they are “administered”. Even for pre-university levels, the tasks in a test must connect to real life situations.
- I would like the test to be in a format other than a written exam with time limitations.
- Several of my productions or processes should be taken into account, and observations should be made from several perspectives.
- I would like the tasks and conditions in which the test will be carried out to be authentic relative to the situations I will encounter in my professional practice. For example, the use of teamwork.

An interesting and stimulating challenge

- The first thing I would like is that we stop calling it a “test”.
- I would like to see the test presented as a challenge rather than an obligation; an activity that is both interesting and enriching.
- I would like an “authentic” evaluation, not a “phoney” one; I would hope that professors have faith in the evaluations (meaningful within the program and not just in keeping with ministerial demands).
- I would make room for personal expression.

The level of difficulty and requirements

- The level of difficulty for a test should be comparable to all other tests leading to similar certification.
- Professors who teach the program should be able to “pass” the test themselves; the student should not be asked to do something that the teacher cannot do.
- The requirements should be appropriate; success should be linked to minimum requirements in order to enter the labour market.

The timeframe for a comprehensive program assessment

- I would like the test to be given at the end of the program because until that moment, I am still learning. However, the test could be spread over a certain period of time (several days, one or two weeks).
- I would like the test to be given at the end of the program, without delay.
- It should not encroach on my vacation time.

Several of these reflections remain current. It would be interesting to validate them after several years of use within the college network in the implementation of the comprehensive program assessment.

To begin this chapter, we will review certain basic concepts and procedures along with a few examples of tools currently in use. Our interest in discussing this topic here has a lot to do with the qualitative analysis of comprehensive program assessments. This is why we are including three grids used to validate evaluation of learning practices within the program, that are to be used as pedagogical material in specific learning activities.

Chapter Synopsis:

Activity 7: Evaluating a comprehensive program assessment

Tools:

- Tool 7.A: A definition of the comprehensive program assessment
- Tool 7.B: Objects of evaluation: essential learning
Exit profile
What is evaluated is being taught
The grid of shared teaching responsibilities
- Tool 7.C: A good comprehensive program assessment:
Conditions
Student preparation during the program
Choosing the type of evaluation test
Example of a comprehensive program assessment
- Tool 7.D: Three grids for the evaluation or self-evaluation of a comprehensive program assessment

Document:

- Document 7.A: The evaluation of learning at college level: from course to program
- Complementary document 5: “The evaluation of learning at college level: from course to program”

Activity 7

Evaluating a comprehensive program assessment

Heading	Evaluating a comprehensive program assessment
Objectives	<p>Redefine the comprehensive program assessment.</p> <p>Validate the choice of tools used.</p> <p>Evaluate a comprehensive assessment.</p> <p>Reflect on current evaluation practices within the program framework.</p>
Description	<p>The implementation of a comprehensive program assessment is a complex activity from a program perspective. It is an opportunity to turn a critical eye on our evaluation by analyzing the components of the examination or test:</p> <ul style="list-style-type: none">— Data relative to the program: essential learning as per the exit profile and the grid of shared teaching responsibilities.— Data relative to the evaluation test:<ul style="list-style-type: none">○ respect for the nature of a comprehensive assessment,○ coherence between evaluation and training,○ the criteria-based evaluation,○ accuracy of the evaluation judgment and validity of the evaluation; relevance and thoroughness of the judgment development process,○ stability of the evaluation judgment and results from one student to the next and from one version to another,○ requirements concerning the student's relationship to the comprehensive assessment,○ administrative implementation methods.
Unfolding	<ol style="list-style-type: none">A. Prerequisite: ask participants to provide a comprehensive assessment of their program.B. Pooling and discussions on the definition of a comprehensive program assessment. Has the perception of this program requirement evolved since its implementation? (Tool 7.A).C. In small work teams, evaluate the nature, relevance and thoroughness of tools used to collect data relative to the program: the exit profile and the grid of shared teaching responsibilities (Tool 7. B).D. Choose a comprehensive program assessment provided by a participant. Only one comprehensive assessment per work team. Working in teams of 4 to 6 people, proceed to the evaluation of this assessment using the three grids provided (Tool 7.D).E. Finish by reflecting and analyzing actual practices used in programs where participants teach. Do an analysis of difficulties encountered and enjoyable activities shared.
Moderator's role	To fully understand the content of the three evaluation grids.

	<p>To create a climate favourable to reflection.</p> <p>To encourage questioning.</p> <p>To support interaction between participants.</p> <p>At the end of the meeting, to proceed to a common validation of personal evaluation practices.</p>
Participants' role	<p>To openly discuss and analyze evaluation practices.</p> <p>To support interaction between participants.</p> <p>To validate their frame of reference.</p>
Pedagogical material	<p>Tool 7.A: A definition of the comprehensive program assessment</p> <p>Tool 7.B: Objects of evaluation: essential learning Exit profile What is evaluated is being taught The grid of shared teaching responsibilities</p> <p>Tool 7.C: A good comprehensive program assessment: Conditions Student preparation throughout the program Choosing the type of test Example of a comprehensive program assessment</p> <p>Tool 7.D: Three grids for the evaluation or self-evaluation of a comprehensive program assessment</p>
Support documentation	<p>Review the documents in chapter 6, the data remains valid in the comprehensive program assessment.</p> <p>Pay particular attention to documents dealing with authentic evaluations.</p>
Complementary document	Complementary document 5: “The evaluation of learning at college level: from course to program”
Approximate duration	Minimum: 3 hours

Tool 7.A

Definition of a comprehensive program assessment¹⁰²

A comprehensive program assessment (CPA) is a summative evaluation activity that takes place at the end of a program, whose role is to certify the level of development of final competencies resulting from student integration of essential learning acquired during the study program.

For a clearer picture, let us review the components. The comprehensive program assessment is:

- **an evaluation activity** To develop a CPA is to select and build a tool; it is also to create an evaluation activity and all that it entails: plan and carry out the tasks required for the development of the test, implement methods for collecting data and preparing candidates, identify methods for recourse and rewriting exams, select, train and provide evaluators with a framework, implement a review process of the test, its adjustment and the development of subsequent tests, etc.
- **a summative evaluation whose role is to certify** It is a component of the validation of study that attests to the achievement of student learning relative to the established program goal.
A criteria-based evaluation is necessary to certify the result of learning activities versus the targeted goal rather than the results of other students. This presupposes that minimum requirements have been established and communicated to the students from the start.
- **at program end** If the CPA validates results of acquired learning in the program, it is only fair and logical that it take place at the end of the training and that the evaluation judgment on the student be left until the very end, i.e. when the student has had an opportunity to acquire all essential learning.
- **the level of development** It is beneficial for both for the student, the instructor and others in the specific field (labour market or university) that the CPA establish the level of competency development resulting from integrated learning acquired in the program and not merely provide a “pass or fail” observation.

¹⁰² Translated from Cécile D'Amour, *L'évaluation des apprentissages au collégial: du cours au programme*, Fascicule III-IV, 2^e volet. Avenues quant au comment faire. Comment faire l'évaluation des apprentissages?, Comment faire l'animation pédagogique sur ce thème?, Performa collégial, Doc. E.4.3, January 1997.

- **of final competencies**

Final competencies in a program integrate all the competencies targeted by the program and covered during the course. They are complex in nature.

It is due to the learning acquired (from various types of knowledge) and its integration that the student has the capacity to act in the many situations he will encounter in his training, in the labour market or at university.
- **resulting from the integration**

The word *integration* covers a broad range, including *the integration of acquisitions in a specific system for the student*: retention, comparison, organization, personal acquisition i.e., making it his own, awareness of his acquired knowledge, the extent and limitations of this knowledge, awareness of his weaknesses, development of concepts and personal values linked to future fields of intervention; and what belongs to the *integration of acquired learning into practice* (speech or action). It is not a question of re-evaluating learning in relation to each course but rather its integration.
- **by the student**

This implies that care must be taken to ensure the judgment represents the result of individual student learning even if some tasks within the framework of the test may have been achieved through team effort.

In addition, it is expected that the training and teaching objectives achieved be identical for all students, with each student achieving his own level of integration. When dealing with competencies that all students in the program should have developed, the CPA must leave room for the personal character of the training results for each student.
- **of essential learning acquired during the program**

A study program is made up of two components, specific and general training; mastery of competencies and integrating objectives should attest to the integration of learning achieved for both aspects of the program.

Tool 7.B

Objects of evaluation: essential learning The exit profile

What the CPA evaluates is the result of the integration of learning. It is not a question of evaluating what has already been evaluated in previous courses or of evaluating everything that was covered in the program. In order to identify objects of evaluation that are significant for the CPA, we must first identify essential learning.

Essential learning

Essential learning consists in a sufficient amount of fundamental learning to allow official certification at end of program. Essential learning is complex and multidimensional learning that has been constructed during the training through the on-going integration of learning achieved in many courses. Essential learning refers to global expectations at end of training and to the most fundamental knowledge as well as that which determines effective behaviour in the labour market or at university.

The exit profile includes the essential learning for a program

The exit profile must correspond to the *level of competency* that we expect to see in an entry-level technician in the labour market or in a graduate who undertakes higher education. This level of competency becomes *the object* to which the CPA refers.

The regrouping of this learning into separate dimensions

From a perspective of basic education we can define essential learning and classify it according to various dimensions. Basic training should be centered on five parameters:

- an exit profile based on essential learning and not essential subject matters;
- the essential learning can be generic and trans-disciplinary;
- the essential learning is dependent on the specific original contribution of each discipline as to its fundamental and essential concepts, methods, approaches and historical benchmarks;
- this learning must facilitate the continuous development of the person; and finally,
- this learning must favour the dynamic social integration of the person.

Basic training is expressed along two axes:

- a *trans-disciplinary* field (axis 1): training goals, attitudes, work methods, cognitive skills, oral and written communication skills;
- a *disciplinary* field (axis 2): concepts and approaches proper to various program disciplines.

What is an exit profile?

An exit profile includes the **educational objectives** that are defined for a given study program within a given **training program**.

Types of educational objectives:

- educational goals in general training
- educational goals in specific training
- general program objectives
- general educational goals in technical training

- objectives and standards determined by the ministère
- basic training
- professional socioaffective attitudes or capacities
- training elements of an establishment's educational project
- institutional orientations relative to basic training

Why an exit profile?

The exit profile is a training plan that primarily answers the question: *what type of person do we want to train?* An exit profile allows us:

- to explicitly define **training objectives** for a given study program;
- to establish **links** between the different courses within a discipline and different disciplines within the same program;
- to focus on what is **essential** to the training objectives; to facilitate **the integration of learning**;
- to identify **the contribution** of each course to the graduate profile;
- to define **explicitly** what will be **taught** and to share responsibilities for instruction (in which courses will the statements relative to the exit profile be taught?).

An exit profile includes:

- **a trans-disciplinary field (axis 1 of basic training) :**
 - work methods (ex.: to take notes, work in teams, manage time)
 - study methods (ex.: schematization, summaries)
 - cognitive skills (ex.: to analyze, synthesize, deduce, interpret) and intellectual processes (problem solving, decision-making)
 - oral and written communication skills
- **a disciplinary field (axis 2 of basic training) :**
 - essential knowledge: disciplinary concepts and methods specific for each program course

The content of the exit profile:

- is considered to be essential
- is considered as not having been acquired or completely acquired (that is why it is evaluated)
- is the subject of explicit instruction

Moreover, what is included must be the result of:

- planning
- teaching
- evaluation of learning

A reflection on comprehensive program assessments, and more globally on study programs as a whole, leads us to take into account the integration of learning, basic education or the development of the person, and the overall program approach.

Exit profile: Study program: Plastic arts (500.04)

Basic training

Integrating objectives	Axis 1: trans-disciplinary aspect (personal development)						Axis 2: disciplinary aspect (basics, concepts and approaches)		
	Personal attitudes		Procedures and study methods		Intellectual skills and processes		Oral and written communication	Concepts, principles, theories	Procedural knowledge
— To produce visual and artistic meaning	1.1 Displays intellectual curiosity and openness of spirit.	2.1 Can establish study and research goals	3.1 Shows proof of observation and analysis.	4.1 Drafts written communications that comply with rules for structuring text, spelling, syntax and grammar.	5.1 Identifies visual qualities from the sensory world and understands the interactive role they play.	6.1 Connects the formal, structural and semantic elements interacting in visual and artistic languages.			
— To use the components and methods of organization for visual language	1.2 Is interested in various forms of artistic expression.	2.2 Uses reading and listening strategies to identify pertinent information in documented sources	3.2 Can produce summaries.	4.2 Communicates orally using appropriate terminology and rules for this type of communication.	5.2 Produces plastic visuals from observations and a summary of visual qualities from the sensory world.	6.2 Chooses and conceives work methods and artistic research based on his creative process.			
— To use one's creativity.	1.3 Calls upon daring, playful spirit and imagination.	2.3 Takes notes in a clear and orderly way.	3.3 Is able to explain an artistic phenomenon.	4.3 Makes use of a variety of documentary sources.	5.3 Involves sensory perceptions in productions.	6.3 Plans technical stages for achieving the visual and artistic work.			
— To conceive and produce various forms of images both stationary and in motion.	1.4 Shows commitment in his process	2.4 Locates, organizes, interprets and re-uses information from a variety of sources.	3.4 Uses critical arguments thoroughly.	4.4 Uses word processing software.	5.4 Identifies the components of visual language.	6.4 Uses a variety of tools, materials, procedures and technologies, exploiting their strengths and respecting their limits.			

Basic training (continued)

Integrating objectives	Axis 1: trans-disciplinary aspect (personal development)					Axis 2: disciplinary aspect (basics, concepts and approaches)				
	Personal attitudes		Procedures and study methods	Intellectual skills and processes	Oral and written communication	Concepts, principles, theories	Procedural knowledge			
— To establish links between the object of analysis, subject matter, tools and technical processes.	1.5	Achieves tasks autonomously and displays initiative.	2.5	Applies an intellectual work methodology.	3.5	Identifies problems.	5.5	Identifies organization methods for visual language.	6.5	Uses an analytical model in the history of art.
— To analyze, explain and critique various artistic productions from the visual arts world.	1.6	Acts with discipline, determination and perseverance.	2.6	Manages his time and stress effectively.	3.6	Displays an ability to make choices.	5.6	Knows the key theoretical concepts of colour.	6.6	Communicates orally or in writing on the production process of his images and their meaning.
— Awareness of what is at stake individually, socially, politically and historically with artistic creativity.	1.7	Displays a strong code of ethics.	2.7	Uses teamwork procedures.	3.7	Resolves specific problems by connecting knowledge from different fields.	5.7	Recognizes the specifics of various art forms.	6.7	Accomplishes the principal tasks required to organize an exhibition of works.

What is evaluated is being taught

The grid of shared teaching responsibilities

Once essential learning and learning indicators used in the summative evaluation have been defined, it is necessary to make sure that what is being evaluated has been taught. As seen in the exit profile definition, what is retained is essential learning and these “learning objects” must be included in instructional planning, the teaching content and the evaluation of learning.

The various learning objectives must be understood implicitly. The grid of shared teaching responsibilities helps ensure this and establishes a progression of learning throughout the program. It highlights what is taught, in which course it will be taught and the type of instruction used, explicit, practical or transference.

Explicit instruction (E):

The direct instruction of knowledge, skills and attitudes resulting from the planning of teaching activities, the structuring and sequencing of the content and the evaluation of this knowledge.

Practical instruction (P):

Practical application of the methods and procedures taught during the explicit instruction. The student is expected to apply learning he acquired previously.

It will probably be necessary to review the instructional stages of explicit teaching either to review the learning or to provide feedback to the student.

Transfer-type instruction (T):

Knowledge, skills and attitudes already taught are used in another context or in a broader context. The ability to transfer knowledge means to apply knowledge and skills to situations that are different from those which prevailed at the time of the initial training. In the following pages, we will see a sample grid of shared teaching responsibilities.

Example: Grid of shared teaching responsibilities

Exit profile statements	Section 1						Section 2						Section 3						Section 4						Section 5						Section 6						General training	
Program																																						
Forest management																																						
E = Explicit instruction																																						
P = Practical instruction																																						
T = Transfer																																						
1.1 Displays consistent quality of spoken and written English.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
1.2 Is autonomous in the acquisition of knowledge.			E			E																																
1.3 Adopts a positive attitude vis-à-vis change.	E			P	P																																	
1.4 Ability to analyze situations by identifying the key components of the problem.																																						
2.1 Is attentive to his safety and the safety of others.	E			P	P																																	
2.2 Is methodical, conscientious, precise and timely.	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P								
2.3 Displays determination and responsibility for the task to be achieved.	E	P	P	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P								
2.4 Demonstrates an ease of adaptation for rapid changes in situations.																																						
2.5 Participates actively in the work environment and freely expresses his opinion.																																						

Example: Grid of shared teaching responsibilities (cont'd)

Exit profile statements	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	General training	
Program	190-FGN-03 Analysis of work functions 190-FGH-03 Characteristics of the wood 420-FHA-04 Computer concepts	190-FGQ-05 Measurements of logs and wood products 190-FGU-03 First cutting procedures	190-FGR-03 Software specialized in the transformation of forest products	190-FGW-03 Data acquisition procedures 190-FGT-04 Classification of softwood	190-FGY-03 Characteristics of products derived from wood 1 190-FGY-06 Assembling and joining processes 1 190-FGZ-05 Wood treatment and drying	3 350-FHA-03 Communication and direction of work team 1 190-FGX-04 Classification of hardwood and white pine 1 190-FHA-07 Problem resolution relative to transformation of wood products	4 410-FHB-03 Company dynamics and environment 1 190-FHC-03 Management of finished products and residues 1 190-FHD-04 Health and safety at work 1 190-FHE-03 Resolution of problems in work organization 1 190-FHF-03 Inventory management 1 190-FHH-05 Production volume of a transformation unit 1 190-FHJ-03 Production costs 1 190-FHK-06 Logistics of a transformation unit 1 190-FHL-10 Efficiency of a transformation unit 1 190-FHM-10 Production programming and control	6 601-XYZ-04 French 6 604-XYZ-03 English 3 340-XYZ-03 Philosophy 1 109-XYZ-02 Physical education abc-XYZ-03 Complementary course
Forest management								
E = Explicit instruction								
P = Practical instruction								
T = Transfer								
2.6 Is concerned with environmental protection and restoration	E	P	P	P	P	P		
2.7 Has confidence in his resources.	E	P	P	P	P	P		
3.1 Uses and integrates the knowledge of various specialty fields and applies them to his field of study.			E	P	E	P		
3.2 Uses a problem solving steps adapted to the given situations.			E	P	P	P		
3.3 Displays critical judgment in the evaluation of situations and decision-making.		E	P	E	P	E		
3.4 Reasons and argues with determination on subjects related to his professional field of activity or knowledge		E	P	P	P	P		

Example: Grid of shared teaching responsibilities (cont'd)

Exit profile statement	Section 1		Section 2		Section 3		Section 4		Section 5		Section 6		General training	
Program														
Forest management														
E = Explicit instruction														
P = Practical instruction														
T = Transfer														
3.5 Takes notes that are precise and orderly for interpretation, the writing and drafting of a report.		E P	P	E P	E P	P	P	P	P	P	P	P	P	
4.1 Uses accurate terminology to write technical reports and to orally express an opinion.	E P	E P	E P	E P	E P	E P	E P	E P	E P	E P	E P	E P	E P	
4.2 Writes texts that conform to spelling and grammar rules, and the syntax particular to the language.	P	P	P	P	P	P	P	P	P	P	P	P	P	
4.3 Consults and uses technical documents in English (for French students)					E P	P	P	P	P	P	P	P	P	
4.4 Verbally communicates an opinion, a directive, a report on teamwork or a presentation.	P		P	P		P	P	P	P	P	P	P	P	
4.5 Analyzes, explains and critiques with coherent and accurate text.	P		P	P		P	P	P	P	P	P	P	P	

Example: Grid of shared teaching responsibilities (cont'd)

Exit profile statements	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	General training
Program							
Forest management							
E = Explicit instruction							
P = Practical instruction							
T = Transfer							
5.1 Interprets the information in outlines and drawings and establishes operating standards.							
5.2 Applies the principles of metrology.	E P	E P		E P	E P		
5.3 Applies the concepts of anatomy, physics, mechanics, forest chemistry to characterize wood and its by-products.	E P	P		P E P	E P		
5.4 Applies the concepts of cutting, drying, joining and assembling.		E		P P	E E		
5.5 Applies the concepts of measurement and the classification rules for hardwood and softwood.	E P			E P	P P		
5.6 Identifies the equipment and the tools used in the transformation of wood products.	E		E E	P	E E		
6.1 Manages supply and finished products for a transformation unit.					P P		
	190-FGN-03 Analysis of work functions	190-FGH-03 Characteristics of the wood	420-FHA-04 Computer concepts	190-FGQ-05 Measurements of logs and wood products	190-FGR-03 Software specialized in the transformation of forest products	190-FGW-03 Data processing techniques	190-FGT-04 Classification of softwood
				190-FGY-03 Data acquisition procedures	190-FGY-06 Assembling and joining processes	1 190-FGY-05 Wood treatment and drying	3 350-FHA-03 Communication and direction of work team
					1 190-FGX-04 Classification of hardwood and white pine	1 190-FHA-07 Problem resolution relative to transformation of wood products	4 410-FHB-04 Supervision of personnel
						4 410-FHB-03 Company dynamics and environment	1 190-FHC-03 Management of finished products and residues
							1 190-FHD-04 Health and safety at work
							1 190-FHE-03 Resolution of problems in work organization
							1 190-FHE-03 Inventory management
							1 190-FHI-04 Planting layout
							1 190-FHH-05 Production volume of a transformation unit
							1 190-FHL-10 Efficiency of a transformation unit
							1 190-FHM-10 Production programming and control
							6 601-XYZ-04 French
							6 604-XYZ-03 English
							3 340-XYZ-03 Philosophy
							1 109-XYZ-02 Physical education
							abc-XYZ-03 Complementary course

Example: Grid of shared teaching responsibilities (cont'd)

Exit profile statements	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	General training
Program							
Forest management							
E = Explicit instruction							
P = Practical instruction							
T = Transfer							
6.2 Establishes data collection protocol , collects and compiles information on wood transformation processes with or without using computer tools.	P	E	P	P	P	P	
6.3 Carries out a data analysis, evaluates the gaps relative to the objectives and plans the necessary interventions.	P	E	P	P	P	P	
6.4 Ensures quality control at each stage of the process, applies the necessary corrective measures and follows up.			P	E	P	P	
6.5 Organizes and supervises the execution of work within a transformation unit.			E		E	P	
7.1 Behaves professionally, giving priority to health and safety, protection and respect of standards.				E	E	T	
	190-FGN-03 Analysis of work functions	190-FGH-03 Characteristics of the wood	420-FHA-04 Computer concepts	190-FGQ-05 Measurements of logs and wood products	190-FGR-03 Software specialized in the transformation of forest products	190-FGW-03 Data acquisition procedures	190-FGT-04 Classification of softwood
	190-FGU-03 First cutting procedures				190-FGV-03 Characteristics of products derived from wood	1 190-FGY-06 Assembling and joining processes	3 350-FHA-03 Communication and direction of work team
						1 190-FGX-04 Classification of hardwood and white pine	1 190-FHA-07 Problem resolution relative to transformation of wood products
						4 410-FHB-04 Supervision of personnel	4 410-FHB-03 Company dynamics and environment
							1 190-FHC-03 Management of finished products and residues
							1 190-FHD-04 Health and safety at work
							1 190-FHE-03 Resolution of problems in work organization
							1 190-FHF-03 Inventory management
							1 190-FGH-04 Planting layout
							1 190-FHH-05 Production volume of a transformation unit
							1 190-FHI-03 Production costs
							1 190-FHK-06 Logistics of a transformation unit
							1 190-FHL-10 Efficiency of a transformation unit
							1 190-FHM-10 Production programming and control
							6 601-XYZ-04 French
							6 604-XYZ-03 English
							3 340-XYZ-03 Philosophy
							1 109-XYZ-02 Physical education
							abc-XYZ-03 Complementary course

Example: Grid of shared teaching responsibilities (cont'd)

Exit profile statements	Section 1						Section 2						Section 3						Section 4						Section 5						Section 6					
Program							190-FGN-03 Analysis of work functions																													
Forest management							190-FGH-03 Characteristics of the wood																													
E = Explicit instruction							420-FHA-04 Computer concepts																													
P = Practical instruction							190-FGQ-05 Measurements of logs and wood products																													
T = Transfer							190-FGU-03 First cutting procedures																													
7.2 Collaborates with different participants involved in the transformation of wood products.	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
7.3 Listens, respects the opinion of others and offers his opinion to move forward.	P																																			
7.4 Evaluates his professional experiences for the purpose of ongoing improvement.																																				

Tool 7.C

Is it a valid comprehensive program assessment?

“A comprehensive assessment designed to attest to the development of competencies targeted in a study program must necessarily go beyond the totality or summary of the learning covered in the course. Located at the end of the program, it must also validate the result of individual training based on the level of competency achieved. For this, the comprehensive assessment must verify if the competencies targeted in the program were effectively developed.

The comprehensive assessment cannot be built on the basis of different things to be learned or be considered the sum of important knowledge that the student has to master. It must be built on the basis of the competencies targeted by the overall training program and analyzed using standards that define the level of expected competency. The test is not a synthesis, a digest of all that was learned. If this were the case, we could not determine the level of competency achieved based on cumulative learning.

The test cannot be an abstract of all things learned. It must focus on the ability to confront situations that are relatively complex. These situations are chosen based on the requirements demanded for entry level in the labour market or at university. The test must validate both the specific and the general training. Indeed, competencies developed in general training will determine the use of English documents (for French students) in certain situations, of deductive reasoning needed to identify the problem, and the quality of the texts to be produced. The problem situation is thus selected according to its propensity to require the broadest use of the competency and its components developed throughout the training program.

Competencies developed via specific training can be seen more clearly in tasks to be accomplished, whereas those developed through general training can be seen clearly in the ability to process the problem situation. However, all the competencies necessary for resolution of the problem are implicitly present in the chosen situation. The comprehensive assessment must essentially allow for the observation of the capacity to resolve relatively complex problems. To achieve this, the test must:

- introduce problem situations that are realistic;
- introduce situations representative of those encountered by beginners and neophytes;
- allow for a judgment to be rendered on the level of competency achieved.

In fact, a valid comprehensive assessment is not a collection of components that belong to prior tests and lower levels of training. These have already been evaluated. The assessment is not an abstract of prior learning evaluations. It is the evaluation of a higher level of training. The comprehensive assessment must allow the observation of student performance at every step of the problem solving process.

To accomplish this, the task must be:

- relatively complex;
- definitely new;
- representative of situations awaiting the graduate;
- sufficiently problematic to be a valid attestation of competencies developed by the program.

To perform a comprehensive assessment is to use an evaluation strategy, not for assessing learning but for assessing competency development. As in the case for the evaluation of learning, it will be necessary to distinguish between a learning situation and an evaluation. We very often believe that the most complex situation a student has to face is work placement. This is certainly possible. However, for a test to be valid the situations presented must represent real life situations and the learning must have enabled development of the competencies prior to their assessment. It is a test, a task that the student must accomplish that allows for the observation and qualification of specific competencies. This task is not to be predetermined, but rather developed by the student himself in relation to the problems presented to him.”¹⁰³

Preparing students throughout the program

Like other training interventions, the evaluation of learning is conceived and conducted within a program perspective. Evaluation methods among courses should display consistency and connections that motivate students to focus their efforts on learning and help integrate learning rather than compartmentalize it.

These evaluation methods are conceived by taking into account the student level of development, a level that increases as students advance in the program. They maximize the development of self-evaluation skills and metacognition. Within each course, evaluation activities support learning so that each course effectively contributes what is expected and so the different forms of learning acquired in the various courses are integrated to the whole as effectively as possible. The results of the summative evaluation carried out in each course accurately reflect the degree of *mastery of the acquired learning* for each student. In this way, subsequent courses can count on a certain basic acquired knowledge. When many courses contribute to the same objective, we have to design both the formative and summative evaluations with regard to the whole of the courses in order to best achieve overall objectives.

In short, *all evaluation interventions contribute in their own fashion to the integration of learning throughout the program*. At program end, the comprehensive assessment can officially validate the acquisition of essential learning for each student and its integration during the training period. As stated by Jacques Laliberté (1995):

“The comprehensive assessment will allow students to demonstrate their ability to integrate and transfer learning. It is the most elaborate and complete stage in a program progression where students will have had many occasions and varied contexts to develop and demonstrate their abilities.”

¹⁰³ Translated from Michel Saint-Onge, *Pour une épreuve synthèse de programme utile*, Les cahiers du Renouveau, cahier n° 3, Collège Montmorency.

Choosing the type of evaluation test

The CPA can take various forms: project at end of studies, research, simulation, case study, portfolio, resolution of complex problems, complex productions, practical demonstrations, summary exam accompanied by practical activities, work production, etc.

In the context of competency assessment, evaluation tasks are generally complex and mobilize several types of knowledge and resources. They are authentic in that the achievement context for the tasks represents real life, the workplace, or higher education. These tasks allow for “observable demonstrations” of learning achieved by the student. They must also allow for the collection of data that corresponds to the selected indicators and criteria.

The development of a complex evaluation task generally includes:

- a description of the initial situation;
- instructions on actions to be performed;
- precise details on expected results and method for presenting these results¹⁰⁴.

Examples of complex tasks that students can be asked to accomplish¹⁰⁵:

- design and production of a plan (research plan, intervention plan for a professional field, etc.)
- analysis, interpretation of results based on the context, a theoretical framework, etc.
- production of a summary on a topic, using various sources
- within a research framework: elaborate the problem situation, develop the methodology, data collection, data processing, interpretation of the results, etc.
- within the framework of a group or personal intervention: analyze the situation, determine the problem situation, plan of an intervention, implement the intervention, use technical resources, evaluate the results of the intervention;
- problem resolution;
- evaluation of a process or a production in a given field, in a field of activities;
- public presentation (art interpretation, sport presentation, etc.);
- composition, creation.

In the context of competency development, the choice and development of evaluation tasks must conform as much as possible to integration and authenticity criteria and focus on competency. With regard to situations that ensure the validity of evaluation tasks, Mitchell (1989)¹⁰⁶ proposes the following:

- initially look for tasks that can be carried out in real life situations (ex.: training in the workplace, probation, etc.);
- in the absence of real life situations, choose sample situations that relate to real tasks (ex.: partial training in the workplace, laboratory, role play, projects, etc.);

¹⁰⁴ For example, for the development of a complex task such as a “problem situation”, refer to the index card included and to the examples of problem situations presented in Pôle de l’Est, *Processus de planification d’un cours centré sur le développement de compétence*, 1996, p. 91, p. 303-305

¹⁰⁵ List of complex tasks generally requested of students in D’Amour and others, *L’évaluation des apprentissages au collégial : du cours au programme*, Fascicule III-IV, 2^e volet-Doc. D.12b, Avenues quant au comment faire. Comment faire l’évaluation des apprentissages? Comment faire l’animation pédagogique sur ce thème?, 1997.

¹⁰⁶ Adapted from L. Mitchell. “Evaluation of competency”, cited by J. Burke, *Competency Based Education and Training*, NY, The Palmer Press, 1989.

- In the absence of situations dealing with “real contexts”, evaluate student performance in simulated situations (for example, problem situations, case studies, authentic problems, etc.) by evaluating the learning used to resolve problems or deal concretely with situations (in-depth treatment).

The type of test selected must ensure that:

- methods used provide students with an opportunity to demonstrate what has been acquired in training;
- suggested tasks take into account the student’s level of integration at the end of the study program;
- proposed tasks are authentic;
- proposed tasks are truly representative of those encountered by a novice.

An example of a comprehensive program assessment is provided on the next page.

Example of a comprehensive program assessment

Presentation of the Plastic/Visual arts program (500.04)

The Visual arts (500.04) program is a pre-university training program designed primarily for those who wish to continue their studies in the visual arts.

This general-purpose training is required for entry into the following university programs: Visual arts, Teaching Art, History of art, Photography, Graphic arts, Design, Applied design, Multi-disciplinary arts, Cinematography and Scenography.

Integrating objectives of the program Plastic arts (500.04)

- To produce visual and artistic meaning.
- To use components and methods of organization for visual language. Develop creativity,
- To conceive and produce images (stationary and in motion) in various forms.
- To establish links between the object of analysis, the subject matter, tools and technical processes.
- To analyze, explain and critique various artistic productions from the world of visual arts.
- To be aware of the individual, social, political and historical stakes relative to artistic creativity.

Summary of a comprehensive program assessment

The comprehensive program assessment is presented to the student in the following manner:

A. Production and distribution

1. Create an artistic work in visual arts. This work will attest to the integration of student knowledge and skills who has reached the end of his training program.
2. Showcase the work of program graduates in a professional context, within the framework of a collective exhibition.

B. Process and speech

3. Write an informative text on the work presented.
 - a) Document the process used to produce the work.
 - b) Analyze and situate it within the context of the history of art.

This part of the test is carried out through the use of a written text presented orally during a round table discussion or any other public presentation deemed appropriate.

Detailed description of a comprehensive program assessment

The work

Objective:

The student demonstrates his integration of knowledge and ability to produce visual meaning through the production of a work in the field of visual arts. He displays skills in conceiving and realizing a work of art by using tools, materials, techniques and processes specific to his field of knowledge.

Form and content:

The work produced within the framework of this integration activity is subjective, new and achieved in a discipline of the student's choice within the visual arts milieu. He makes his choice in consultation with the teacher and selects from the following: sculpture, installation, painting, drawing, digital photography, or video. He can choose one of these disciplines or integrate two or more.

The collective exhibition

Objectives:

The principal objective of this activity is to have the student showcase his work to the public in a professional context. The student must therefore display skills in organizing an exhibition of his work while taking into account all the aspects of such an activity. The student participates actively in all stages of realization: from the technical preparation to the exhibition of his work, from the promotion of the event to the communication of information on the work he is displaying.

Form and content:

An exhibition of works from each student within the group at the Musée régional de Rimouski or any other location deemed to be professional and appropriate. This exhibition includes communication normally used within these contexts:

- Press release
- Photographs of works on display
- Invitation, poster
- Summary texts of artistic approach used by the artists
- Interpretative texts for the public

Student tasks and responsibilities:

A. Individual responsibilities:

- To produce the work to be exhibited
- To draft a short informative text on the work
- To photograph the work to be exhibited
- To collaborate in all the stages of the project
- To offer assistance to other students in the group
- To help assemble exhibition, under the supervision students selected to oversee this task
- To attend the opening of the exhibition
- To draft a written text that will be presented orally during a round table discussion

B. Shared responsibilities for small groups:

- Advertising material: poster and invitation; press material: press release and interviews; interpretative sheets for the exhibition room: texts and index cards for work identification; planning of the physical layout of the exhibition, assembly and posting
- Assembly plans of and lighting
- Identification, packing and transport of the works; technical assembly of the work; lighting for the works
- Preparation of preview: invitation mailing list
- Reception for guests and a short speech to introduce the exhibition

C. Responsibilities shared by entire course-group:

- To maintain a climate favourable to the expression of individual viewpoints, while respecting the ethics relative to this type of activity
- To ensure the project maintains a professional quality

Written communication

Objectives:

The role of written communication is to validate student integration of knowledge and skills on a theoretical and historical basis. The written text also reflects the student's capacity to adequately use the language, to consult varied documented sources and to apply a methodology to work and research.

Form and content:

Create a text of approximately six pages (double spaced) using data processing software and print five copies on laser printer.

The text contains the following sections:

1. The process:
stages reached and choices made in the realization of the work
2. Problematics:
working hypotheses, research venues and aesthetic choices
3. Description and analysis of the work:
formal, structured and semantic components interacting in the visual arts
4. Positioning of the work within a historical context of art:
relationship between a student's work and a trend in art, a school of art or a movement in the history of art
5. Documentary sources consulted:
complete mediography including at least two English references

The round table

Objective:

This main purpose of the activity is to validate student communication skills and ability to defend his arguments.

The student reads his written communication to the entire group and to jury members for the comprehensive program assessment.

Form and content:

The oral presentation of the written communication is done at a round table involving the group and the jury. The activity is held over two course periods and students take turns presenting their text, following a schedule established by the professor.

Each student is given a certain timeframe to give his presentation. He can add visual documents to his presentation or any other communication tool that enhances and clarifies the presentation.

At the end of their presentation, students answer questions from the audience. A discussion time is set aside at the end of the individual interventions. Those in attendance and the participants in the round table then initiate a discussion based on the ideas communicated during the presentation.

Realization context

The production of work to be exhibited

When the introductory courses and preparation for the integration project are over, students work individually or in small teams. There are regular meetings with the teacher and occasional meetings with the course group.

The production of work is done in a workshop and is supervised by the teacher. Work continues in a regular way outside the reserved period on the student's schedule (while respecting the weighting assigned to the course).

The student maintains a logbook during the realization of this project. It is regularly reviewed by the teacher so that individual student process can be monitored.

The collective exhibition

The teacher advises students of the various forms that this part of the integration project can assume. Following this presentation, the group uses critical thinking to help select the methods to accomplish this portion of the comprehensive program assessment.

When preparation begins for the collective exhibition, group meetings are more frequent and this continues until the end of the project.

Students work in teams and collaborate on the production of the exhibition. The teacher provides supervision.

Written communication (presented orally)

Once the exhibition is open, the student continues his work individually, meeting the teacher regularly for support in completing his written work.

The course group reconvenes during the last two weeks of the trimester for the oral presentations on the written work. This is followed by individual and collective formative evaluations of the project.

An evaluation of the comprehensive program assessment

Individual student production is evaluated by a jury comprised of three teachers within the program and if possible, a representative from the professional field.

Stages of realization

1. Preparatory stages for the realization of the integration project:
 - Methodology and pedagogical formula used for this activity
 - Rules and code of ethics for teamwork
 - Planning of work to be realized
 - Schedule for meetings
2. Choice and definition of problematics of the individual project, approved by the teacher
3. Planning of individual approach for the realization of the project:
 - Preliminary work (drafts, technical tests, models, prototypes, ...)
 - Documentary research
 - Choice of process, procedures, tools and materials
4. Establishment of timetable for individual meetings:
 - Regular formative evaluation on the approach used and partial results achieved within the process of actualization
5. Production of the work in a workshop
6. Planning of the collective exhibition
7. Distribution of tasks inherent to the preparation of an exhibition:
 - Preparation of the communication promotional material for the event: posters and invitations, press releases and photographs of works on display
 - Drafting of the interpretive texts for the exhibition hall
 - Sketch of proposed exhibition (layout of the exhibition area)
8. The exhibition:
 - Preparatory steps for transport and packaging of work.
 - Transporting works
 - Final exhibition plan
 - Exhibition and hanging up of works
 - Lighting
 - Placing the interpretive texts and identification cardboards
 - Preparatory steps for a private viewing of the exhibition
 - Welcoming guests at the private viewing
 - Media interviews
 - Dismantling of the exhibition, packaging and transportation for the return trip

9. Drafting of the written communication for the round table:

Documentary research

Detailed outline of text

Drafting and computer processing of text

10 Presentation of the written communication

1. Individual and collective formative evaluation of the integrating project

2. Summative evaluation of the integrating project by a jury

Cégep de Rimouski, 1999

Tool 7.D

Three grids in support of the evaluation and self-evaluation of a comprehensive program assessment¹⁰⁷

1. Checklist for the documents required in the evaluation of a CPA
2. Summary description of the CPA
3. CPA evaluation grid

¹⁰⁷ Translated from Cécile D'Amour and the Research Group at Performa, *L'évaluation des apprentissages au collégial du cours au programme*, [s. l.], 1996 [http://www.educ.usherb.ca/performa/documents/fiches/D_Amour_et_al.htm], Université de Sherbrooke, Performa.

**Grid 1: Checklist of documents necessary
for the evaluation of a CPA**
Evaluation of a comprehensive program assessment

In terms of the following components, the document is:	complete	incomplete	missing
Program data			
1. Exit profile:			
— Essential learning required in general training			
— Essential learning required in specific training			
2. Grid of shared teaching responsibilities relative to specific training			
including those of general training			
“Test” data			
3. <i>General information</i>			
a) Number of sections			
b) Sequence of sections			
c) Relative importance of sections			
d) Methods used to make a judgment on the overall test based on the results obtained in each section			
e) Ways of providing student feedback			
4. <i>Information on individual sections of the test</i>			
a) Evaluated objects and integration dimensions covered			
b) Evaluation methods (ex.: project, problem situation, etc.)			
c) Learning indicators			
d) Evaluation criteria and their relative importance			
e) Minimum requirements for each section (success thresholds)			

With regard to the following aspects, the document is:	complete	incomplete	missing
<i>General conditions</i>			
f) Admission requirements for the CPA			
g) Passing requirement			
h) Conditions for success			
i) Conditions for rewriting			
Data on student preparation			
5. Information relative to the CPA that will be communicated to students (what information? when? how?)			
6. Preliminary preparation throughout the program: Effective training and evaluation methods on level of learning integration in the course			
7. Immediate student preparation (in particular for an “integrating activity” in a course)			
8. Preparation for rewriting for students who fail			
Comments by the creative team			
9. On the choices made (which ones? how? why?)			
10. On the relationship between the selected indicators and the acquired knowledge to be evaluated			
11. On the aspects to be improved in later versions of the CPA			
12. On the evaluation methods for CPA experimentation			
13. On the methods to consider during later development of equivalent versions of the test			

Grid 2a: Summary description of the CPA
Evaluation of a comprehensive program assessment

General information (refer to Grid 1, component 3)

	<i>Summary description of each component</i>
a) Number of sections	
b) Sequence of sections	
c) Relative importance of sections	
d) What ensures that the student is truly given an opportunity to demonstrate his acquired knowledge	
e) Methods for rendering a judgment on the overall test based on the results obtained in each section	
f) Student feedback	

Evaluation Grid 2b: Summary description of the CPA

General information (refer to Grid 1, component 4)

	Summary description of each component
a) Evaluated objects and dimensions of integration that are covered	
b) Methods of evaluation (project, problem situation, training in the workplace, problem resolution, etc.)	
c) Learning indicators	
d) Evaluation criteria and relative importance	
e) Minimum requirements for each section (success thresholds)	

Evaluation grid 2c: Summary description of the CPA

Information on general conditions (refer to Grid 1, component 4f, g, h, i):

Summary description of each component	
a) Admission requirements	
b) <i>Passing requirements</i>	
c) Conditions for <i>success</i>	
d) Conditions for <i>rewriting</i>	

Grid 3: Qualitative analysis of a CPA

Presentation

This grid is a tool used in the evaluation of a CPA test. It makes it possible to systemize the analysis of the test and record partial judgments that will be rendered for the final assessment of the whole. During the experimentation period of a CPA, the grid can also be used in a formative perspective to support the development of more satisfactory tests.

All evaluation grids are based on choices. This particular frame of reference refers to the summative evaluation and the integration of learning (components of the frame of reference that are valid for the evaluation both from a course perspective and a program perspective) as well as the definition and particular requirements of the CPA.

The requirements, which a CPA must respect, are numerous because of the nature of this test (summative evaluation at end of program) and its objectives (fundamental, indicative of student ability to transfer knowledge and resulting from the integration of varied learning acquired in the two program components).

The relative importance of the requirements varies according to the perspective.

Some are impossible to circumvent:

- on **an ethical** level (fairness and equity, for example); and
- on **the methodological** level (validity of the evaluation tools and the soundness of judgment, for example);

Others are of great importance:

- on **the pedagogical** level (the challenging and motivational character of the CPA and the feedback provided);

And one is highly significant:

- on the **practical** level (the efficiency of the operation).

It is noteworthy that all data recorded in the CPA file (data on the program data, on the test itself and on the students' preparation as well as comments of the creative team – see Grid n° 1) are used to make a judgment on the CPA test in question, but this data is not considered in isolation. Indeed, to judge whether each requirement relative to the CPA is respected, there is much data that must be taken into account simultaneously, as well as any interactions.

Codes used for marking judgments

For the overall judgment on the test

- U** “unsatisfactory”: certain requirements were not met and must be achieved or improved.
- P** “passing”: basic requirements are all met minimally (and some more than minimally) but improvements are expected.
- S** “satisfactory”: all requirements are met (more than minimally).
- VS** “very satisfactory”: all requirements are met more than minimally and on the whole characterized by a high level of quality.

For the judgment relative to each requirement

- NM** “not met”.
- MM** “minimally met”.
- SM** “satisfactorily met”.

Grid 4: Qualitative analysis of a CPA

Evaluation grid for the comprehensive assessment of a program

Overall judgment based on all the partial judgments recorded below.

Unsatisfactory: _____ *Passing:* _____ *Satisfactory:* _____ *Very satisfactory:* _____

Requirement ¹⁰⁸	NM	MM	SM
Data relative to the program			
1. Includes the essential learning for the program = <i>Exit profile</i> = Clear, concise and organized presentation			
2. Includes information to indicate at what moment and in what course it was achieved = Grid of shared teaching responsibilities = Information on relationships between fields of learning = Information on the progress of learning			
There is a consensus on the subject of this data for teachers involved in			
3. the specific training			
4. the overall program			
Data relative to the evaluation test			
A. Respect for the particular nature of a CPA			
5. Objects of evaluation selected for the CPA are representative of essential learning for the program			
6. The objects selected call upon learning achieved within the whole program (both components)			

¹⁰⁸ NM = not met

MM = minimally met

SM = satisfactorily met

Requirement ¹⁰⁹	NM	MM	SM
7. Objects retained for the CPA cover the required fields and the choices made in the subject matter are justified.			
8. The various dimensions of learning integration are present = Integration of acquired knowledge (retention, organization, personal acquisition, awareness of the acquired learning) = Integration of acquired learning into practices (in actions accomplished and arguments to support them)			
B. Consistency between evaluation and training			
9. Providing effective training so students acquire the necessary learning and reach the level of integration required by the test. We make sure what is evaluated has been taught.			
C. Criteria-based evaluation			
10. The evaluation judgment is criteria-based.			
11. The evaluation criteria are clearly defined.			
12. The minimum requirements are clearly defined.			
13. The requirement level is reasonable and corresponds to what could be expected from a graduate student.			
14. The requirement level is comparable to other CPAs.			
D. Accuracy of the evaluation judgment			
15. <i>Through the validity of the evaluation tool</i> The number, nature and sequence of the indicators in sections of the test, the authenticity of the tasks, the quality of the tools and the relevance of general conditions are likely to allow for an accurate judgment on what is being evaluated.			

¹⁰⁹ NM = not met

MM = minimally met

SM = satisfactorily met

Requirement¹¹⁰	NM	MM	SM
16. <i>Through the relevance and the thoroughness of the judgment development process</i> The choice of evaluators, their work methods and supervision, how judgment is formed for each test section and for the whole test, and the benchmarks used for the judgments (evaluation criteria, definition of the minimum requirements) are likely to support the accuracy of the judgment.			
E. Stability of the evaluation judgment and its results			
17. <i>From one student to another, from one team of evaluators to another.</i> Conditions relative to the exercise of judgment are established in order to support the stability of the judgment.			
18 <i>From one test version to another</i> Various versions of the test are designed to ensure the reliability of test results regardless of the version used.			
F. Requirements concerning student relationship to the CPA			
19. The test is designed to offer students a real opportunity to demonstrate acquired learning (nature of the test, latitude given students, opportunity to be heard, etc.).			
20. The test is designed so that results accurately reflect the degree of mastery achieved by students at the end of the program.			
21. The test is designed so that results accurately reflect the degree of mastery of a particular student , while taking into account the singular character of the integration achieved.			
22. The nature of the test is such that it becomes a meaningful student activity, a challenge, a stimulating and motivating undertaking.			

¹¹⁰ NM = not met

MM = minimally met

SM = satisfactorily met

Requirement¹¹¹	NM	MM	SM
23. Measures are taken so that rules that impact the activity are known and understood by the students.			
24. Evaluations done during courses are designed to give students an accurate picture of their progress in the attainment of learning evaluated by the CPA.			
25. Methods to provide students with feedback on the test are identified. The main purpose is to help students understand the judgment made by the evaluators, but they also provide a clear understanding of the learning they have acquired, at the very moment they enter a new phase in their ongoing training.			
26. Measures are taken so that students who fail the CPA can adequately prepare for rewriting it.			
G. Requirements relative to the overall CPA			
27. The elaborated CPA is the result of a consensus among teachers involved.			
28. in the specific training			
29. in the overall program			
30. The elaborated CPA complies with policies relative to the evaluation of learning.			
31. The CPA operation is efficient: it is carried out correctly while respecting the responsibilities, time and effort required by teachers and students alike.			

¹¹¹ NM = not met

MM = minimally met

SM = satisfactorily met

Complementary documents

Complementary document 1

Student perceptions and expectations¹¹²

Summary

Initially, we discuss how students experience learning evaluations, then we examine the impact that the evaluation of learning is likely to have on student life: at school (their perception of school and evaluations as well as their study habits) and on their future (aspirations, plans for higher studies and career). Finally, we look at student expectations regarding evaluations and this in turn tells us something about their concepts.

In drafting its opinion for the ministere de l'Éducation titled *Des conditions de réussite pour le collégial*, the Conseil supérieur de l'éducation met with students in their immediate environment. During the interviews, the Conseil spoke with students enrolled in one of three pre-university or twelve technical programs, from 19 public colleges and 4 private institutions throughout the region. Under the heading "Conditions for success in college", we asked students what they thought of learning evaluations and teacher-student relationships.

The document produced by the CSE (Conseil supérieur de l'éducation) as a result of these meetings became our main source of information on student perceptions and expectations (for this section and section B.3).

Perceptions and feelings with regard to the evaluation of learning

The CSE reports that students expressed "critical points of view" on the way the evaluation of learning is carried out (CSE, 1995, p. 59).

In section C.4 we present the teaching practices that students are most critical of.

Let us keep in mind that students feel that certain aspects of current evaluations, due to their nature, can result in **serious prejudices to them**. In this respect, what the students dislike about evaluations is that their purpose is to "select and control above all, and control badly, which results in a serious bias toward students" (CSE, 1995, p. 59) as well as "the loss of a meaningful evaluation as it rests too heavily on the subjectivity of individuals [...] a source of serious prejudice against students" (*ibid.*, p. 60). (Refer also to Wiggins, 1993)

The likely impact of the evaluation of learning on students

Impact of evaluation methods on concepts, attitudes, study habits and performance

Many studies tend to show that summative evaluation methods (content, tools, criteria, requirements) have a **major impact on student learning strategies and study habits** (*cf.* Howe et Ménard, 1993, p. 65-67; Roy, 1991, p. 121-125).

Evaluation methods also **impact student conceptions**: they convey messages on school, training, evaluations, etc. When there is no consistency between the implicit message conveyed by the methods and the teacher's message, the latter "shoots himself in the foot", say Howe and Ménard (1993, p. 66).

¹¹² Translated from Cécile D'Amour and Groupe de travail at Performa, *L'évaluation des apprentissages au collégial : du cours au programme*, [s. l.]. Booklet I. La problématique, April 1996, p. 11-17.

In fact, it seems that the message, which carries the greatest weight and influence on student concepts, arises from evaluations methods. This message is counterproductive if it does not support the efforts of teaching personnel i.e., training that is in-depth, long-lasting and that leads to change in a student; and student commitment to his studies and a serious belief in evaluation of learning activities. Some of the evaluation methods and attitudes of evaluators that transmit **counterproductive messages** are: (and the list is not exhaustive)

- continuous summative evaluation practices, such as: many juxtaposed stages of summative evaluations, each dealing with small sections of the whole — not to mention the practice of giving points for attendance to courses, a practice strongly denounced by students (CSE, 1995, p. 59);

(These practices result in the standardization of summative evaluations; and as such, encourage the student to be content with short-term surface learning.)

- comments and behaviour that give the impression that the goal of an academic activity is evaluation rather than learning;

(It appears that students who think the teacher is pursuing evaluation goals believe the latter is simply trying to validate learning results rather than develop student knowledge, deepen understanding and develop competency [*cf.* Dweck, 1989, cited by Tardif, 1995, p. 187].)

- forecast of poor student evaluation results (weak, average, or strong chances of failure) mentioned by the teacher;

(Students say that attitudes like these can make them “hate the content and even the total academic experience.” [CSE, 1995, p. 88].)

- evaluation tools and remedial requirements that do not correspond to training objectives, for example, the practice of “exams packed with difficult questions” or using a conformist approach, that is devoid of critical meaning, just to get “good grades” (CSE, 1995, p. 59);

(Students have reported the de-motivating effect that evaluations of this nature have on them.)

- a wide variation in concepts and methods of evaluation, such as “contradictory approaches from one teacher to another”, and evaluations “that depend too much on a person’s subjectivity”. (CSE, 1995, p. 59 and 60).

(These characteristics result in a “loss of meaning for the evaluation” which in turn can lead to student de-motivation and an increase in misunderstanding [*ibid.*, p. 60].)

To avoid such counterproductive effects, we must ensure that evaluation methods transmit messages that are consistent with educational objectives. This presupposes that the goals are clearly established and transmitted to students. Cégep science professors Dedic and Rosenfield (1994) studied this question and came up with interesting results.

Impact of evaluation results on personal aspirations, higher studies and career plans

One of the main messages conveyed by students in the CSE meeting, focused on the **power of “grades”** and the **distinction** between evaluation of learning at college level and selection for entry into university programs.

“Considering the power that grades have, we (the students) believe that measures have to be taken to grade more accurately and ensure equity in evaluations. Also, with regard to the validation of studies, colleges should not be concerned with university quotas during the evaluation and should focus strictly on the attainment of established objectives.” (CSE, 1995, p. 60)

Based on the use that **universities and/or employers make of grades**, they will have an impact on both study and career paths.

They can also impact any **aspirations** students may have (or had) relative to a specific discipline or a particular field of activity. Studies on career advancement (particularly in mathematics and science) show that students limit future opportunities because they believe, in light of poor evaluation results (not necessarily failures), that a certain discipline or field of activity is “not for them”. Given this impact — that influences the student from within and without — we can understand how a “poorly managed” evaluation can “cause serious damage” to a student” (CSE, 1995, p. 60).

Voicing expectations

Comments made during CSE meetings held in the student environment provide information on student concepts and expectations relative to teachers’ competence and attitude, their interventions and the evaluation of learning. According to the CSE, these **expectations** are for the most part, **justified**.

Relative to the evaluation of learning, **students want** “an evaluation that helps them understand the subject matter rather than one limited to the purposes of controlling and sanctioning” (CSE, 1995, p. 86); they list their expectations as follows (*ibid.*, p. 59 and 60):

- an evaluation that grades fairly, that is equitable;
- an evaluation that provides information on personal strengths and weaknesses;
- an evaluation that includes the integration of various knowledge;
- an evaluation that facilitates progress, that is part of the learning process and encourages growth;
- rather than an evaluation that selects and controls above all, and exercises bad control at that.

As we can see from the evaluation practices brought to our attention by students (*cf.* section C.4), there is a convergence between student perspective and what we read in current literature on the evaluation of learning. In both cases, great importance is given to the support of learning and the requirements for a quality evaluation that is accurate and fair (*cf.* section C.2).

Finally, students expressed their expectations and concepts regarding other teaching practices – the evaluation of learning cannot be disconnected, either for the student or the teacher, from the whole of teaching practices. In the following section, B.3, we will review expectations with respect to teacher attitudes and student-teacher relationships. Expectations relative to teaching practices are covered in section C.1 (p. 27 and 28).

Relational and affective dimensions

Summary

Initially, we look at the teacher-student relationship within learning evaluation situations. We examine how students see this relationship and how important it is for them. We then take a quick look at the factors to be considered for three delicate affective issues involving both the teacher and the student, where they come face to face, experience shared ideas and opposing views: topics of fairness, self-assertion and the cohabitation of guide and judge within the teacher.

Comment — In this section and the preceding one, our principal source of information on the expectations and perceptions of cégep students is the *Avis sur les conditions de réussite au collégial*, which was produced by the CSE subsequent to meetings held with the student body.

The teacher-student relationship as seen by the student

It is interesting to note, that a teacher's ability to enter in a relationship with students, is one of the three elements students use to **gauge competency** in teachers (CSE, 1995, p. 84).

We see that the teacher-student relationship is at the heart of student **concerns**. Indeed, in addition to disciplinary competency, three of the five major concerns that students have with teaching personnel touch upon this relationship: teacher availability and personal contact with students (*ibid.*, p. 84), a teacher-student relationship marked by respect (*ibid.*, p. 85 et 86), and student-teacher reciprocity with regard to self-discipline and demands (*ibid.*, p. 86 et 87).

In the field of evaluation of learning, these required qualities are of prime importance because the evaluation is an act of **communication** (refer to Hadji, 1990, who refers in turn to Watzlawick).

In dealing with **respect** in the teacher-student relationship, students who took part in the CSE consultation would particularly like to see:

“the presence of an assistant rather than a judge, a guide rather than a boss, a person who controls the course and not his students, who treats them as adults not children, who demonstrates a respectful attitude and is not arrogant or scornful [...]” (CSE, 1995, p. 85).

With regard to **self-discipline and demands**, students appreciate teachers who are demanding, but want it to be reciprocal:

“To demand yes, but under the following conditions: to be as demanding of themselves; to demand development and not control; to show reasonable limits and exert reasonable pressures; within the overall perspective of requirements imposed on students; remembering to give clear instructions; showing the usefulness and providing feedback on the results in an atmosphere of confidence, complicity and negotiation.” (CSE, 1995, p. 87)

In connection with another student concern — teaching approaches that allow the greatest number of students to grasp the subject matter — we find more comments on the teacher-student relationship in the evaluation of learning.

Students have:

“asserted, on many occasions, the right to make mistakes [...], and also the right to benefit from the mistakes, to receive feedback on examinations and work, that is timely and thorough” (*ibid.*, p. 86)

Moreover, students value ...:

“When the teacher’s behaviour motivates them not “to give up”; also teachers who share in the pride of student success or progress, however slight that progress may be.” (*ibid.*, p. 86)

Students also express their appreciation for teachers who display openness. It is seen as a “sign of respect for their right to be treated as “individuals” involved in a learning process.” (*ibid.*, p. 86)

The following thoughts concern, either directly or indirectly, the evaluation of learning. We note that **students wish for**:

- Teachers who display thoroughness, who are as demanding of themselves as they are of their students;
- Teachers who are accomplices more than judges;
- Teachers who treat them like adults and not children;
- A climate of confidence and mutual respect;
- Reasonable requirements;
- Requirements related to development rather than control;
- Clear instructions, explicit meaning and usefulness;
- Recognition that learning is a process, the right of students to make mistakes and to learn from these mistakes;
- Thorough and timely feedback on work and exams.

Three delicate affective issues

The teacher-student relationship has an affective dimension. In matters relating to the evaluation of learning, the emotional stakes are generally even higher than in the other aspects of the relationship. There are indeed few **relationships that are more delicate** than those that require the giving or receiving of criticism.

We identify three delicate affective “areas” for the teacher and the students, where they come face to face, where they share experiences with common and opposing facets – like both sides of a coin. These three areas are: fairness, self-assertion, and the cohabitation of guide and judge within the teacher.

What follows is only a sample of writings on these questions. We have limited ourselves to formulating certain perceptions and indicating certain references **for the purpose of drawing attention to questions that we consider important**.

Fairness

Students expect the evaluation of learning process to be fair and equitable (CSE, 1995, p. 59).

Teachers are responsible for the process and must therefore ensure it is fair for the student. This is a heavy burden of responsibility that could become confusing (*cf.* Howe et Ménard, 1993, p. 62). A large part of the difficulty resides in the exercise of judgment: how does one make a valid judgment, ensuring treatment that is fair and equitable for students, while dealing with the subjectivity that is necessarily present?

Self-assertion

In a learning process, the student's self-esteem is often shaken up. He achieves mastery of a concept, a principle, a theory or method, develops a certain amount of self-confidence and feels personal pride. He must then turn around and immediately master another subject or a more complex task through training that includes mistakes or errors, which results in fear and self-doubts with regard to his ability to learn and succeed.

The students hope that the following attitudes will be present in their teachers. They want to be treated in a "respectful manner" and not in an "arrogant and disdainful" manner (CSE, 1995, p. 85); they want the right to make mistakes and to learn from feedback resulting from these mistakes (*ibid.*, p. 86); they want teachers who can share in their pride for progress achieved (*ibid.*).

The formative evaluation is a situation where we should see complicity between students and teachers.

The evaluation of learning is also a situation where the teachers can assert themselves. They are the ones who make judgments, who render *their* judgment. This is a type of power. The wording of the evaluation judgment touches upon teachers' concepts relative to the extent and exercise of their authority (*cf.* Morissette, 1993).

The reconciliation of the roles of guide and judge

In college instruction, excluding standard ministerial examinations, the teachers in charge of student training almost always carry out the evaluation of learning. The role of guide and judge are now the responsibility of one and the same person. This situation can have its advantages but it can also cause difficulties. We have identified two such difficulties:

- How can the student feel confident in sharing his difficulties with the teacher, without fearing that revelations made during the course of learning will impact the summative evaluation judgment?
- How can the teacher be close to the student, to support him in his learning (not only from a cognitive perspective but also an affective level) and yet be sufficiently "distant" to judge student learning accurately? (*cf.* Mc Donald, 1993 et Wiggins, 1993)

Complementary document 2

Alternate ways of designing and evaluating learning

Lecture notes by:

Jacques Laliberté, member of the Groupe de recherche-action PERFORMA, Université de Sherbrooke, *Pédagogie collégiale*, vol. 8, n° 3, March 1995.

In the United States, limitations in the extremely widespread use of standardized tests have led specialists and teachers to seek other ways of evaluating¹¹³ student learning. Another reason is the growing influence of cognitivist and constructivist concepts of learning and the influence of a curriculum based on competency development (*Competence-based education*) or, in broader terms, education based on targeted results (*Outcome-based education*). This has had a major effect on our neighbours to the South, impacting the way they view and implement evaluations of learning.

In February 1991, in an article entitled “Évaluation, dites-vous? Non, {assessment}...” and published in *Pédagogie collégiale* (vol. 4, n° 3, p. 36-39), Paul Forcier analyzed the essential characteristics of the reform of evaluation of learning practices in the United States. This article is still relevant today and remains current; what started as an incipient trend has now grown into a widespread movement.

It is useful to keep in mind the American terminology found in the documentation. In much of the current writing, the term *assessment* has a generic meaning and is used to describe all types of evaluations. Some authors use the term to refer to the “new ways of evaluating” learning that we have just mentioned.

Underlying these “new ways” are concerns about evaluating what students can do with their knowledge, skills and abilities, their attitudes and mindset (preoccupation with integration and transfer of learning); evaluating their capacity to demonstrate mastery of a competency, to resolve a difficult problem and carry out a complex task; evaluating their capacity for higher thought; evaluating their degree of achievement as regards precise and known standards; and to make the evaluation as authentic as possible through the contextualization of the tests, tasks and problems used for evaluation purposes.

The three descriptive documents presented here, including one recently published in the United States, relate to this trend and identify new forms of evaluation that should inspire us and cause us to reflect on our actions. All this is happening at a time when a climate of renewal is prevalent in colleges and when many are questioning the way we currently design and perform evaluations of learning.

Catherine Taylor, (“Assessment for Measurement or Standards: The Peril and Promise of Large-Scale Assessment Reform”, *American Educational Research Journal*, vol. 31, n° 2, summer 1994, p. 231-262.

¹¹³ In the American documentation, the expression “*alternative assessment*” is used to describe practices which are not invariably new but which seem new relative to very widespread conventional practices. It is this context that I speak about “new ways to evaluate”.

In a recent article with a weighty title that implies a very technical perspective, Catherine Taylor challenges us to make an in-depth reflection on the purpose of the evaluation of learning and in, the final analysis, on the philosophy of education that underlies evaluation practices and instructional rating systems currently used in academic institutions. Towards the end of the article, the author gets to the heart of the matter by asking if we are going to continue to design tools to classify and compare students, or will we develop and implement an evaluation system to help us determine if students are reaching complex learning objectives. (Refers to p. 254) Further on, she adds that: “We must begin to believe that the *majority* of students are fully capable of learning and succeeding and that the “*dramatic differences*” we observe in student performances result from conditions that have no relationship to the student’s ability to learn” (refers to p. 255). These conditions and differences must be taken into account.

This statement is another way of presenting the concept of ‘*educability*’ proposed by Meirieu as the driving force behind professional activity of the teacher. A natural corollary being: the appropriate design and implementation of differentiated instruction, if we are serious about respecting the heterogeneity of classroom groups.

The article by Catherine Taylor focuses on the evaluation of learning and relates primarily to considerations of a far-reaching methodological nature: requirements for the validity and reliability of tool design and the interpretation of results; the choice and use of criteria and standards; the nature and connotations of the professional judgment to be exercised.

Taylor begins with the premise that in the United States, teachers and legislators are looking for systems of assessment that require students to participate in problem solving and complex tasks. The tasks require the recourse to higher thought, rather than the simple demonstration of *discrete knowledge* and the skill to apply this knowledge (p. 232). The evaluation approaches, means and methods, which are being used more and more frequently, are the *authentic, performance and portfolio assisted evaluations*.

According to the author, we must become aware that when it comes to large scale implementation of evaluations, teachers and legislators ask that we design tests or tools that will provide two incompatible end results:

- a) Identify if students master the standards and desired performances; or are at least show progress in this direction;
- b) Provide *relative measurements* of students, schools and school districts or States in relation to an output scale (p. 232). On this subject, Taylor fears that applying a model based on measurement to performance assessment development on a large scale will ultimately undermine the efforts made on a national scale to improve the quality of education for all students (p. 233).

In her article, Taylor compares the essential characteristics, major goals, practical and pedagogical consequences of two models of evaluation of learning: *the made-to-measure model* (the primary model in the United States for over sixty years) and *the model based on standards* (currently building strength in the United States).

In the first model, we seek to identify observable differences in people. We postulate that we can situate an individual, relative to a given characteristic or feature, and relative to the “normal” distribution curve. This famous curve that gave birth to psychometric procedures used to establish the reliability of tests and to ensure stringency and validity in the interpretation of results. (p. 236-242). In *the made-to-measure model*, it is the individual differentiation and classification that take precedence over the identification of precise student expectations. Taylor describes excellence by saying: “it is determined by the fact that someone has a higher grade or score than all others who took the same exam”, or passed the same test, we could add ...

The *model based on standard* rests on four concepts:

- we can identify general public standards and work toward reaching them;
- the majority of students can assimilate and meet the standards;
- very different student performances and demonstrations can reflect the same standards;
- teachers can be trained to assimilate the standards and become reliable judges and consistent observers of a variety of student performances (p. 243).

We see how these two models differ significantly from one another. The author, recalling and underlining the limitations of traditional testing, also underlines the challenges facing theorists and experts in performance-based evaluations: to ensure the reliability and accuracy similar types of evaluations; to identify essential performances for specific disciplines; to establish standards and criteria relative to these performances; to obtain sample performances that reflect these standards and criteria; to communicate the whole experience to the general public; ... (p. 247-253). This will naturally entail several consequences and requirements on a pedagogical level (p. 254-259).

There seems to be a two-fold lesson in Taylor's writings.

- On the one hand, the type of evaluation we recommend and use must correspond to the educational goals targeted;
- On the other hand, a performance-based evaluation that is credible and provides results, must not only relate to authentic (real life) situations and the fundamentals of a discipline; it must also contain demanding criteria and high standards. In addition, it must take place in an educational environment where everything is done to help students reach these standards and meet the criteria in their productions or demonstrations that may vary from one student to another, yet remain intrinsically adequate.

We are far from behaving automatically, or lowering standards...

Jean (Ed) MacGregor, "Student Self-Evaluation: Fostering Reflective Learning", *New Directions for Teaching and Learning*, n° 56, winter 1993, 123 p.

Several commentators emphasize that through the judicious use of criteria and standards, a competency-based approach could contribute to developing students' ability to self-evaluate (with thoroughness, precision and without indulgence) their learning and behaviour. Those interested in self-evaluation will benefit from the article on this question in the periodical *New Directions for Teaching and Learning*. The article presents elements to justify this teaching practice, including possible implementation methods, and also creates an awareness of potential benefits for both students and teachers. The entire issue is a worthwhile read. In addition to the preliminary note, it brings together seven different authors. Each one's contribution is worth reading and commenting on, however, we will limit ourselves to highlighting only certain aspects of this collection of texts.

For Edith Kusnic and Mary Lou Finley, "the expression *student self-evaluation* refers to written productions that come in many forms, and to the process that leads to this type of production by students. As a process, self-assessment demands that students reflect on what they have learned and produce a written work on the subject. Student self-evaluation is a powerful learning tool. Students' written self-assessment provides a description and analysis for them and for us". (p. 8).

Two fundamental characteristics stand out from this quotation: the importance of writing in student self-assessments and the relationship between the assessment and the quality of student learning. Throughout the issue, these two facets are found in various forms.

In their article (p. 5-14), Kusnic and Finley point out, or let us infer some of the positive benefits of exercises and tasks relating to students writing self-evaluations of their learning. This can:

- help students use their knowledge;
- help students develop the capacity for *self-reflection* and establish an active and meaningful rapport with the subject matter in question;
- help students strengthen their analytical abilities, their ability to summarize and evaluate; to find meaning in what they have learned and to explore the connection between this knowledge and previously acquired knowledge and ideas; to become more aware of their values and ways in which they are developed; to provide in depth learning and establish links between students and the content of their studies; to develop the capacity, competency and self-assurance necessary for effective learning throughout their life;
- provide students with a new form of feedback on learning and useful data for evaluating the results of education and instruction;
- teach students to be at the centre and in control of their learning experience (refer to p. 5 to 9).

For his part, Carl J. Waluconis (p. 15-33) describes various contexts for student self-evaluations. Self-evaluations can be designed to:

- cover a short period of time;
- refer to work that is spread out over several weeks;
- relate to the entire course;
- cover more than one course.

The author supplements the article with excerpts of texts written by students.

To conclude this rather quick presentation, I would like to draw the reader's attention to the appendix (p. 101-117), which contains:

- examples of tasks, advice and directives for student self-evaluation exercises;
- examples of wide-ranging student self-evaluations;
- lists of additional resources of theoretical works on student development and the value of self-reflection; practical approaches and studies that refer specifically to student self-evaluations.

It should be noted that the examples provided in this appendix are taken from the post secondary level, with the majority, if not all, referring to the first years of university studies.

Grant P. Wiggins, *Assessing Student Performance. Exploring the Purpose and Limits of Testing*, San Francisco (CA), Jossey-Bass Publishers, 1993, XX and p. 316

In response to the question: "In the American documentation that you have read recently, is there is *one* book in particular that you would recommend for the evaluation of learning of students in a competency-based approach?", my reply would be to read the work of Grant P. Wiggins, *Assessing Student Performance...*". I suspect that this book can, in many ways, help deepen our understanding of what American specialists call an *assessment* when they refer to new trends in the conception and implementation of evaluations of student learning. Moreover, *Assessing Student Performance...* can provide a very rich source of inspiration for the professional practice of teachers and educational advisors working with them.

We cannot do justice to the contents of the work here. However, to provide as tangible an outline as possible, I would like to draw attention to certain topics selected by Wiggins from which every reader can benefit depending on his personal level of interest, concerns and beliefs.

1. We find a critique on the traditional testing that is widely used in the United States. Standardized tests do have value but they are limited in the following ways: an unjustified focus on simple factual knowledge; the simplification and removal of tasks from their contexts in order to ensure greater precision in rating; a creationist concept of intelligence that translates into evaluation practices where it is more important to classify students in relation to each other rather than the quality of the performance relative to clearly identified standards; ... (refers mainly to chapters 1, 3, 4 and 5).
2. We promote a broad and exacting concept of *assessment* defined as “a complete analysis of a performance, a personal analysis based on a judgment and comprising several aspects.” As expressed over thirty years ago by Lee Cronbach, professor at Stanford University and dean of American psychometrics: an *assessment* requires the use of a variety of procedures, relies mainly on observation (of the performance) and requires the integration of diverse information in a *summary judgment*.” (p. 13)
3. From the point of view of *assessment*, the professor becomes more of an ally to the student than a judge (p. 14). Wiggins states that “justifiable *assessments* do not differ from tests simply because they are more complex. Questions relative to rights and accountability are crucial: in an adequate *assessment*, student rights come first” (p. 22). What is the nature of these rights? Wiggins helps us understand this through the help of two documents: the first is a set of principles adopted by the New Zealand Ministry of Education that puts *assessment* at the service of better learning (p. 26 et 27); the second is a Declaration of the rights of students with regard to *assessments* that Wiggins himself wrote (p. 28) and presented to several teachers in workshops, but regrettfully, was not well-received...
4. When we want to evaluate a student’s intellectual progress, we are stymied by eight dilemmas that Wiggins summarizes (p. 37-45). For example:
 - we must be concerned with what the students know, but we must also assess if the knowledge has meaning for them;
 - we must establish a balance between an evaluation of the mastery students have over ideas and projects of others and an assessment of their mastery over their own ideas and projects.
5. Wiggins identifies nine concepts that should be considered if we wish to implement *assessment* systems; among these:
 - an authentic system of evaluation must rest on criteria and known standards that are clear, public and not arbitrary;
 - the degree of student comprehension is better evaluated by following up on the questions they ask rather than limiting ourselves to rating their answers;
 - we should evaluate the intellectual integrity of students and other mindsets they might have; beyond cases of cheating, we should also take into account student capacity to recognize the gaps in their knowledge and to express their perplexity with regard to a particular question or problem.

6. To ensure the evaluation has a positive effect on the student's motivation to learn, Wiggins makes several recommendations. Among these:
 - evaluate student progress and achievements; for this, you should base your ratings on models of exemplary performance that students are pursuing, each on his own path (p. 171 et 172);
 - design an evaluation system in which the proportional weighting can vary: at the beginning, we can give greater preponderance to effort and progress; then subsequently, focus more keenly on performance and achievement (p. 172 and 173).
7. The author attaches a great importance to student feedback. He compares the characteristics of effective feedback to ineffective feedback (p. 198 et 199). He reminds us of the requirements that any information system, designed to provide maximum support for performance, must have. Eight requirements are proposed by T. F. Gilbert in his work entitled *Human Competence* (New York, McGraw Hill, 1978, p. 178 and 179). They are presented in the form of eight stages going from the identification of expected achievements (n° 1), to an activity designed to bring specific corrective measures to poor performance (n° 8), while describing the manner in which the performance will be evaluated and reasons for the procedure (n° 3) and the identification of people with exemplary performances and the available resources to be used so we can become exemplary in our own performances (n° 5).
8. The last point I would like to highlight: the work is interesting and useful based on the examples and tools it features:
 - examples of complex tasks;
 - a list of criteria formulated by Lauren Resnick and that we can connect to higher order thinking, p. 215);
 - a list of criteria to judge the authenticity of tests and exams that target the evaluation of student intellectual abilities (p. 239 et 240);
 - a list of performance standards (p. 286-288).

After reading this work, it is not surprising that Grant Wiggins wrote a widely distributed article entitled: “Creating Tests Worth Taking” (*Educational Leadership*, vol. 49, n° 8, May 1992, p. 26-33) and has since become a figurehead within the movement actively promoting “authentic” evaluations.

Source : *Le Relais. Journal pédagogique de l'Assemblée générale*, Performa collégial, Université de Sherbrooke, vol. 4, n° 1, January 1995, p. 37-49.

Complementary document 3

The principles of evaluation in competency-based learning (CBL) linked to the principles of CBL ¹¹⁵	
<p>The preceding sections allowed us to analyze certain aspects of the formative evaluation and the certification (summative) evaluation. In this section, you will find a synthesis of certain principles of evaluation in competency-based learning. Some principles refer specifically to the formative evaluation, others the summative evaluation, and some are applicable to both types. The principles are presented in order to establish a link between the principles of evaluation in competency-based learning [CBL] and the CBL principles discussed in Chapter 6. In the table, the last principles of evaluation are not placed against the CBL principles because they are of a general nature.</p>	
Coherence	<p>We cannot separate evaluations from learning. Evaluations, just like teaching, exist to support learning.</p> <p>We should be able to observe a similarity between the integrating tasks used for learning and those used for formative evaluations in the preparation stage for the end of the cycle and in the summative evaluation at the end of the cycle.</p>
Global Application	<p>The evaluation of a competency is achieved through integrating tasks that involve all the components (abilities) of the competency.</p>
Global Integration	<p>To evaluate the integration of a competency, we should use the evaluation criteria defined in the specifications for that competency. Contrary to a widespread misconception in competency-based learning, evaluations do present a greater degree of subjectivity than purely objective evaluations, such as multiple choice questions or short replies. This explains why integrating evaluation tasks are more inclusive. Performing more subjective evaluations will add to the stress levels for both the teacher and the student. Educators will have to adjust to these new forms of evaluation.</p>

¹¹⁵ Translated from François Lasnier, *Réussir la formation par compétences*, Guérin, 2000, p. 229-232.

Construction	<p>One cannot dissociate the formative evaluation during the course of learning and the summative evaluation at end of cycle. There must be a <i>continuum</i>. The formative evaluation, even though it often relates to aspects of the competency (developmental stage), must also include formal formative evaluation aspects relating to the integration of the components of the competency (integration stage).</p> <p>In formative evaluations, we should evaluate a component or a competency using more than one criterion. The judgment on competency development is rendered when the evaluation criteria are applied. A judgment on the development of the components of the competency (abilities) is based on the component evaluation criteria resulting from the demonstrations connected to each component of the competency. We should also evaluate the learning strategies associated with a component or a competency.</p> <p>In order to respect the spirit of the formative evaluation in competency-based learning, the learner must clearly understand the evaluation criteria prior to the actual evaluation, so that he may prepare for the accomplishment of the evaluation task or learning task. Ideally, in formal evaluations, the learner must have on hand, the descriptive evaluation grid to be used for the summative evaluation at the end of the cycle or any other grid used for formative evaluations.</p>
Meaning	<p>The evaluation of a competency is done by placing the student in circumstances that conform to the realization context and asking him to carry out meaningful tasks.</p> <p>The student must feel responsible for his own evaluation; he must be involved in self-evaluation exercises.</p>
Rotation	<p>As an evaluator, we make a judgment on the degree of development of the components of a competency and on the competency as a whole.</p> <p>Although the evaluation must be complete, in a formative evaluation, all components of a competency must be evaluated by integrating tasks in order to facilitate their integration. This does not exclude occasionally carrying out evaluations, based on learning activities that focus on only one component, to correct errors and improve its utilization.</p>

Integration	<p>The evaluation in competency-based learning requires that we focus mainly on the evaluation of the competency and its components and not on declarative knowledge used to activate the competency. This knowledge will generally be evaluated indirectly, because it is integrated in the components (a competency does not work in a vacuum, i.e. it manifests itself in a specific context associated with a family of situations and the totality of knowledge linked to a given disciplinary content). Thus, the evaluator does not simply want to know if the student has appropriated some declaratory knowledge, but if he knows how to apply this knowledge. (This principle does not exclude the possibility of evaluating disciplinary content on occasion within a formative evaluation.)</p> <p>In competency-based learning, the complexity of evaluating comes from the fact that we must evaluate a complex situation linked to a competency that combines components of an intellectual, emotional, social and sometimes psychomotor nature. However, the use of precise criteria and appropriate grids greatly facilitates the task.</p> <p>The principal danger is to evaluate a series of criteria without taking into account the integrating aspect of the components of a competency (possible solution: to take both the process and the product into account and include criteria relative to integration). To evaluate the acquisition of a competency through the use of an integrating task does not consist in designing an examination that covers the totality of the disciplinary content (as was done in the 1940's), but rather developing an evaluation that validates the integration of the components of a competency. This principle requires the choice of a disciplinary content to develop an integrating task.</p>
Distinction	<p>The evaluation in competency-based learning should relate to the process (how the evaluated person carries out the task while calling upon the components of a competency) and to the finished product (qualitative results of the task). Thus, we require evaluation criteria that allow for a judgment on both these facets of the evaluation.</p>
Iteration	<p>A competency must be evaluated several times to allow the student to correct his errors and acquire stability in its acquisition.</p>
General comments	<p>Competency-based learning requires a criteria-based evaluation, i.e. one that uses criteria that specify the expected results. We recognize that a criteria-based evaluation and normative evaluation are not in direct opposition, except in their underlying principles. As a result, a criteria-based evaluation could very well be transposed into a normative evaluation, if we use a numerical scale corresponding to the various levels of the criteria-based grid. In fact, what distinguishes these types of evaluation is more the goal of the evaluator than the procedure used to develop the measurement tools. In a criteria-based evaluation, we want the learner to be able to compare his degree of mastery of a competency based on a description of the various levels of a precise criterion, i.e. an expected result. These criteria constitute a reference for the learner relative to what he must master and improve upon, whereas in a normative evaluation, regardless of the measurement procedure used, we want to be able to classify those being evaluated from the strongest to the weakest, or by intervals. In this case, the results for the person evaluated are interpreted according to standards (table of standards, usually detailed by means of percentiles) that compare them to others who were evaluated, rather than rate them on their level of mastery. The interpretation of student results based on a comparison with the class average is also a good example of</p>

	<p>a normative evaluation. The normative evaluation does not harmonize with the concept of competency-based learning.</p> <p>Criteria used to evaluate a competency in the summative evaluation and with certain formal formative evaluations are more or less derived from evaluation criteria linked to components found in demonstrations. Criteria for the evaluation of a competency are more global than evaluation criteria for the components. They are the result of a selection of a group of evaluation criteria used for the components. They can also be designed to allow for a global judgment on the degree of acquisition of the competency. It is difficult to incorporate more than 7 criteria (± 2), unless the evaluator can make several observations successively, as with interactive tasks or training in the workplace. If the task is evaluated through direct observation (in real time), it is difficult to effectively observe more than 5 criteria at the same time (even if the number of subjects being observed is very small).</p>
<i>General comments (cont'd)</i>	<p>Given that learning is gradual (we learn through successive layering), the evaluation of a competency should not to be seen as a dichotomy (success-failure), but should be able to describe the mastery of a competency or a component in varying degrees. A 'dichotomy-based' vision of evaluation could negatively impact the learner's motivation (you are a good student or you are not). If used, rating is done through the use of descriptive grids, qualitative or qualitative-quantitative, depending on the rating system appropriate for the environment. We are currently seeing a move towards the abolition of rating. It is often replaced by criteria-based grids with descriptive scales identifying the varying degrees of acquisition relative to each criterion used in the evaluation of the competency.</p> <p>A descriptive evaluation grid can clearly identify the expected threshold of success. Contrary to what has been said and written, an evaluation criterion does not represent a minimal threshold of success. The threshold of success is set according to the levels in the evaluation grid and, therefore, according to the levels of mastery of a given criterion. We must however be very careful relative to the setting of the expected threshold of success. It is practically impossible to set a threshold with certainty without having personally experienced the instruction, training and the evaluation of a competency. Consequently, it is strongly recommended to validate the use of a descriptive grid and to set the threshold of success for a criterion only after a good experience of it. As for the weighting of the criteria to guide the validation, the trend is to not assign weight to them because it interferes with the global judgment regarding the degree of mastery of the competency. However, not weighting the criteria increases the subjectivity of the evaluation.</p> <p>During the evaluation of a competency or of a component of an affective nature, we must consider ethical constraints. Given that commitment to an attitude or a behaviour rests on a system of personal values, we can only require evaluation activities from the learner that correspond to the primary levels of the affective domain (receipt of information, response or discussion on the attitude or behaviour, evaluation of the impact of the attitude, identification of the advantages and disadvantages for oneself and others, recognition of desired behaviours, choice of immediate action).</p> <p>All things considered, we can select affective abilities from high taxonomic levels for learning activities, but to evaluate them would be highly debatable, except on rare occasions, as in the case of professional competencies and in certain technical or university programs connected to the profession.</p>

Basic definition of principles relating to competency-based learning¹¹⁶

Global:	analysis of elements starting from a complete situation (complex situation, overall picture, global approach).
Construction:	actualization of previously acquired knowledge, development of links between prior knowledge and new learning, organization of information.
Rotation:	global —specific — global; competency — abilities— competency; integrating task —specific learning activity — integrating task.
Application:	learning by doing.
Distinction:	between the content and the process for a competency.
Meaning:	meaningful and motivating situations for the learner.
Coherence:	coherent relationship between teaching activities, learning activities, evaluation activities and the competency.
Integration:	components under study are connected to each other and to the competency; the learner develops a competency by using the components of the competency in an integrated manner.
Iteration :	the learner is subjected on many occasions to the same type of integrating tasks connected to the competency or the same disciplinary content.

¹¹⁶ Translated from François Lasnier, “Un modèle intégré pour l’apprentissage d’une compétence”, *Pédagogie collégiale*, vol. 15, n° 1, October 2001, p. 28-33.

Complementary document 4

From planning stages to the evaluation plan

for the final course test

When the time comes for preparing the evaluation plan for final course test, many decisions have already been made in the first stages of the program development process. Choices to be made for the evaluation of learning rely on this previous information.

To clarify the context of decisions relative to determining the final course test, it is wise to keep in mind the whole development process with regard to the program as well as the course. The information collected in these stages has a cumulative effect that impacts both the context and the content of the evaluation plan for the final course test.

We will outline the development process, first for the program and then for the course. After this, a clarification of each stage is provided, followed by a realization context (contextual tools for assistance purposes) and accompanied by examples in the last column of the table below.

To draft the evaluation plan for the final course test, the teacher must have on hand all the relevant documents or refer to the stages of the development process to validate his choices in the evaluation of learning.

Development process	Explanation	Realization context
1. With regard to the program <i>Analysis of the totality of the competencies</i> <ul style="list-style-type: none"> — Analysis using one of the competencies — Overall picture of the competencies 	Local interpretation of competencies in order to ensure a univocal reading	<ul style="list-style-type: none"> — Based on ministerial specifications — With the help of tools to analyze a competency — With the help of the competency matrix
<ul style="list-style-type: none"> — Choice of essential contents 	<ul style="list-style-type: none"> — Local development of the third column of the ministerial specifications — “Recall” also applies to essential contents 	<ul style="list-style-type: none"> — When one competency requires the review of another competency, it should be labelled as “improvement, enrichment or recall”
Definition of the training axes <ul style="list-style-type: none"> — Learning axes — Grouping of competencies around the axes 		
<i>Distribution of the competencies over time</i>	<ul style="list-style-type: none"> — Distribution of the competencies into six program trimesters — Identification of the number of hours by competency, by course 	<ul style="list-style-type: none"> — Tool: program matrix — Logical diagram of the competencies — Logical diagram of the course
<i>Relationship objective / course</i>	<ul style="list-style-type: none"> — Shows how competencies will be developed in the courses 	<ul style="list-style-type: none"> — Using the table provided by the ministère

2. With regard to the course <i>Analysis of the training objective</i>	— Clarification of the competency	— Integrating diagram
	— Meaning and range of the competency — Univocal interpretation	
— For several competencies in the course		
— Overall picture of the competencies introduced in the course	— Establish links between the competencies or components of the competencies and justify them (in order to ensure integration)	— To illustrate graphically (overall picture) interrelation of the competencies by identifying the links between them
— Determine a final integrating objective	<p>Corresponds to the competency in the case of a course/a competency</p> <p>If a competency is spread out over more than one course or if one course contributes to the development of more than one competency, we must ensure that the desired integrating objective corresponds to the meaningful portion of the competency and respects its nature</p>	<p>An objective is considered an “integrating objective” when:</p> <ul style="list-style-type: none"> — it coordinates achievements, contexts and practical applications, processing behaviours that seem to be the most determining and characteristic. — it reveals what is essentially at stake in the training — it develops a dynamic, stable and durable system of knowledge (what, how and when).

<i>Choice of learning objects</i>	<ul style="list-style-type: none"> — Identify essential learning that must be mastered in order to achieve the integrating objective — Learning objects are drawn from the essential content (identified at the time of the study of each competency) — When there are several competencies in a course, the student must retain the essential content for each part of the competency that will become learning objects during a given course. — The “improvement, enrichment or recall activities” are also essential content. 	<ul style="list-style-type: none"> — Please refer to I.A and I.B — Integrating diagram of the course
<i>Unfolding of the learning</i>	<ul style="list-style-type: none"> — Establish the progression of learning targeting the mastery of learning defined in II.B — The last sequence provides unquestionable clues regarding the content of the final course test 	<ul style="list-style-type: none"> — Choice of course section: <ul style="list-style-type: none"> ○ Holistic approach ○ Analytical approach
<i>General evaluation of learning strategy for a course</i>	<p>A general evaluation strategy identifies for each learning sequence:</p> <ul style="list-style-type: none"> — The final integrating objective for each section of the course — The list of evaluation activities — The objects of evaluation — The means of evaluating — The types of evaluation — Weighting 	

<p>Evaluation plan for the final course test</p> <p>A. Analyze the training objective</p> <ol style="list-style-type: none"> 1. Characterize the training objective 2. Identify the true nature of this objective 	<p>The evaluation plan is based on the choices made in the activity planning stages developed earlier</p> <ul style="list-style-type: none"> — How are the various components of the competency integrated — What competency are we referring to? — Which type of production derives from this objective? 	
<p>B. Select and render operational the objects to be evaluated</p> <ol style="list-style-type: none"> 1. Identify essential objects and learning for evaluation 2. Select indicators that allow for the observation of demonstrations of this learning 	<ul style="list-style-type: none"> — Link to the integrating objective that defines the expected result at the end of the course — Link to essential content of each training sequence — Not all objects of learning are objects of evaluation. Do not evaluate what has been previously evaluated. — Nature of the indicators: process, product, speech — The indicators are actions that demonstrate mastery of the competency. 	<ul style="list-style-type: none"> — Analysis of the components of the competency and the performance criteria — See the progression of learning in the course sections — To ensure students are guided towards the action, use verbs in the present tense.
<p>3. Identify the evaluation criteria</p>	<ul style="list-style-type: none"> — Expected quality is directly linked to indicators 	
<p>4. Specify the realization context</p>	<ul style="list-style-type: none"> — Specifies circumstances when the competency should be used, for what purpose and in what environment 	

<p>C. Select evaluation methods or the type of test and design the evaluation tools</p> <ol style="list-style-type: none"> 1. Determine the most appropriate means of evaluation for the type of training objective 2. Develop the tools which will be used for the evaluation 	<ul style="list-style-type: none"> — Identify the evaluation task or choose the methods that conform to the criteria of integration, authenticity and focus on the competency as much as possible. — Corresponds to the all documentation and activities relating to the evaluation methods 	<ul style="list-style-type: none"> — The methods used must allow for the evaluation of integrated learning. — Concept to keep in mind: the authentic evaluation — Select a problem situation
<p>D. Develop tools to assist in the evaluation judgment</p> <ol style="list-style-type: none"> 1. Design the necessary tools: observation and correction grid 2. Develop a rating scale relative to the evaluation criteria 	<p>The observation grid is made up indicators, criteria and a rating scale that makes it possible to carry out an analytical correction by examining the product, the process, the speech and the attitude according to each criteria of evaluation.</p>	<p>The observation grid is a formative evaluation tool and the correction grid is a summative evaluation tool.</p>

Complementary document 5

The evaluation of learning at college level: from course to program¹¹⁷

This text is an excerpt of a research file that is impossible to overlook. A product of Performa, it is available at every college and at Université de Sherbrooke's website.

A Performa college file containing the following documents:

- *Présentation du dossier*, [s. l.], [s. l.], April 1996, Presentation, Table of contents, iii and 16 p.
- *Fascicule I. La problématique*, [s. l.], avril 1996, Présentation, Table des matières, ii et 66 p.
Fascicule II. Cadre de référence. Première partie : Les questions préalables. Première édition, [s. l.], April 1996, Presentation, Table of contents, List of tables, ii and 85 p.
- *Fascicule III-IV – 1^{er} volet. Avenues quant au comment faire. Comment faire l'évaluation des apprentissages. Comment faire l'animation pédagogique sur ce thème*. [s. l.], January 1997, Presentation, Table of contents, vi and multiple pagination.
- *Fascicule III-IV – 2^e volet. Avenues quant au comment faire. Comment faire l'évaluation des apprentissages. Comment faire l'animation pédagogique sur ce thème*. [s. l.], January 1997, Presentation, Table of contents and multiple pagination.
- *Appendices*, [s. l.], January 1997, Table of contents and multiple pagination.

Notes on the authors of the texts

Content description

- Information on the file: its origin, recipients, content, format, usefulness and limitations, p. 1-7;
- Work perspectives that are used to study the question of evaluation of learning with teaching personnel: A systematic approach p. 8-11, an approach of “research-action”, p. 12-16.
 - *The evaluation of learning as a component of teaching* that is linked to other components such as: a) the orientation of the training and the course; b) planning relative to the course and relative to the program; c) the pedagogical and didactic interventions and d) a critical review of practices, p. 3-5;
 - *Principal participants in the evaluation of learning :*
 - **The teachers:** perceptions and feelings that a number of them share in evaluating learning; concepts, beliefs and values on which their practices rest; the impact that the evaluation of learning can have on their professional activity, p. 6-10;
 - **the students:** their perceptions and feelings on the evaluation of learning; the impact the evaluation is likely to have on them and their expectations, which were discussed during a consultation held by the Conseil supérieur de l'éducation on this subject, p. 11-14;
 - The relational and affective dimensions that characterize the evaluation of learning are two-fold: how students perceive the teacher-student relationship and three delicate affective issues to be taken into account: the fairness of the evaluation process, the self-assertion of the two groups of participants and the cohabitation of the guide and the judge within the role of teacher, p. 15-18;

- The practical context for the evaluation of learning marked by :
 - *The evolution of the teaching profession*, p. 23-29;
 - *The paradigm shift in the world of evaluation of learning*, p. 30-43;
 - *Certain outstanding features of college instruction in Québec*, p. 44-47;
 - *The evaluation of learning in college instruction in Québec*, p. 48-55;
- The problem divided into two segments:
 - *What is the problem and how to resolve it*, p. 56-60;
 - *How does research provide elements for the solution to the problem*, p. 61-66.
- The concepts and beliefs affect the frame of reference relative to the evaluation of learning: an evaluation of learning marked by the new paradigm, p. 15-17; an evaluation carried out in a professional manner, p. 17; an evaluation carried out from a program perspective, p. 17-18.

Comment : The page numbering in this booklet jumps from page 5 to page 15 as this space had been reserved for other concepts and beliefs listed in the table of contents. However, on page 5 it is noted that the drafting of sections A. 1 and A. 2 were not yet complete and will be “distributed at a later date”;

- The nature, function and follow-up to the evaluation of learning are detailed in the 2nd portion of this booklet under three main headings: a) what is evaluation of learning, p. 21-36; b) for whom and for what purpose should the evaluation of learning be used (and not used), p. 37-42; c) where does the evaluation of learning lead, p. 43-44;
- The units of training (course and program) and the objects of evaluation are the focus of the third section, p. 45-64. The objects of evaluation are extensively analyzed in this section, p. 47-64.
- Distinctions are established between objects of the formative evaluation and those of the summative evaluation. The author states that “these two types of objects of evaluation are included within a network of components relative to what the training must contain (goals, learning objectives, minimum requirements), what the training is (training effectively presented learning effectively achieved) and the ways in which these results can be evaluated (indicators and demonstrations of the learning acquired by the student)” p. 47;
- Six general principles were retained as guiding principles “to guide all evaluations of learning: Two general perspectives (professionalism and collective responsibility); the assertion of the two-fold purpose of the evaluation of learning (support and certification); two principles referring to ethical requirements of summative evaluations and formative evaluations; and a last principle relating to the methodological requirements of the operation”. p. 66 The first part of section p. 66-69 is devoted to listing the six general principles, the connection between these principles and their origin. The second part p. 70-85 deals with the use of the general principles. This use is summarized as: “Each individual general principle is used with a certain number of precise principles. In this way, the system comprises 37 principles in all: 6 general principles and 31 secondary principles that further explain the meaning of the first 6. It is the fourth general principle relating to the ethical requirements of the summative evaluation that produces the greatest number secondary principles, a total of 12, grouped around four topics: fairness, accuracy, equity and the appearance of these qualities” p. 70;
- General suggestions [N = 5] on teaching activities for the evaluation of learning and the comprehensive program assessment (CPA);
- Integrated learning: A series of documents on teaching activities for this theme and a second series on means of intervention and components of reflection relative to the problem of integrating the learning and/or relative to the frame of reference for this concept;

- The evaluation of learning: Tools for teaching activities; a document dealing with the planning activities for the whole of the evaluation of leaning and a series of documents suggesting alternate venues for the formative evaluation;
- The development of a summative evaluation tool: Tools for teaching activities that facilitate reflection on the relative importance of criteria and their use; and other material to help develop and draft a summative evaluation tool; a series of documents recommending components for a frame of reference on the methodological aspects of the evaluation of learning, particularly from a summative perspective;
- The CPA merits elaborate handling: a) tools for teaching activities; b) information concerning the official guidelines for a CPA; c) focus on the dynamics and results of work carried out within the college network on the CPA; d) components for a frame of reference on the CPA; e) documents concerning the “exit profile” as a reference for selecting CPA objects; f) materials that could prove useful when it comes to developing a CPA or performing a critical review.

Descriptors

Comprehensive program assessment / evaluation of learning/ formative evaluation / summative evaluation / teacher training / integrated learning / teacher improvement / teaching profession / exit profile / research-action

COMPREHENSIVE PROGRAM ASSESSMENT

- Given that the title of the file is “The evaluation of learning at college level: from course to program”, we should not be surprised to see that the comprehensive program assessment (CPA) is a subject developed at length. Approximately two thirds of Booklet III-IV – 2nd section is devoted exclusively to this topic. It is also discussed, directly and indirectly in the 1st section of the Booklet. Two others sections recommend “paths” on the road to evaluation of learning.
- In addition, all thoughts on the subject of the CPA, all recommendations and practical suggestions must relate to the frame of reference for evaluations presented in Booklet II. The authors develop their thoughts based on “prerequisite questions” dealing with certain realities or aspects such as: nature, role and follow-up of learning evaluations; the units of training and objects of evaluation; the guiding principles in administering evaluations. All things considered, Booklet II allows for an even greater clarification of the theoretical foundation of actions relative to the CPA.
- The official guidelines for a CPA [cf. Booklet III-IV – 2nd portion, Doc. E.2.1, 4 p.], in section E.4 of the 2nd section of Booklet III-IV identify components for a frame of reference relative to the CPA. Three documents, respectively dated March, June and September 1996, facilitate conceptualization and are recommended by the authors of file # 4. Two definitions of a CPA are suggested, then developed further in the June and September 1996 documents:
 - “The CPA is a summative evaluation activity whose objective is to attest to the integration of essential learning by the student at the end of a study program”. *id.*, “One step closer towards a frame of reference on the CPA”, Doc. E.4.2].
 - “The comprehensive program assessment” within a program is a summative evaluation activity whose goal is to attest the level of development of the competencies of graduates at the end of the study program — development of competencies resulting from the integration by the student of the learning acquired in the program”. [*id.*, “an operational definition of the CPA”, Doc E.4.3]. Let us note that in the presentation of this second definition, Cécile D’Amour states she is hoping “to establish a junction between two types of CPA formulation: One based on integrated learning and the other based on competencies [*ibid.*]

- In addition and in keeping with this definition the authors propose elements for reflection and make suggestions:
 - general work prospects in the CPA file [*id.*, Doc. E.4.1, p. 3];
 - the concept of the evaluation of learning that must be present for the development and implementation of a CPA [*id.*, Doc. E.4.1, p. 1-3 et p. 10 et 11; Doc. E.4.2, p. 6-10];
 - the relationship between a CPA and integrated learning [*id.*, Doc. E.4.1, p. 6-7];
 - the development of comprehensive program assessments, their validation, testing and evaluation [*id.*, Doc. E.4.1, p. 8 and 9 and all of document E.4.2, 11 p.]
- The CPA made its appearance in college instruction in 1993, without any kind of groundwork and without any precise details other than those that could be found analyzing College Education Regulations (CER, 1993). Participants in the college network, particularly educational advisors and academic deans had to gradually provide learning models of a CPA or what they thought a CPA should be. The file includes background on the initial arduous progression of this question. Education historians would be very interested and could benefit from an analysis of the documentary sections collected by the authors that validate certain theoretical advances but also from the variegated portrait (no negative connotation intended) of concrete initiatives taken in a number of colleges relative to the CPA. The principal texts and documents are:
 - two working papers reflecting current thinking and concerns of the Groupe de travail PERFORMA [*cf.* Appendices 6.2 a et b];
 - a presentation of the main trends and characteristics brought to light in college institutions on the CPA according to three axes: regulatory, conceptual and procedural [*cf.* Booklet III-IV, 2nd portion, Doc. E.3.1, June 1996, 14 p.];
 - the draft of a typology of practices and documented work relative to the development of the CPA, April 1996 [*id.*, Doc. E.3.2, 2 p.];
 - a list of works undertaken outside the college framework, dated February 1996: at Fédération des cégeps, at Performa and Délégation collégiale (Regroupement des collèges Performa) as well as the Association québécoise de pédagogie collégiale, AQPC [*id.*, Doc. E.3.3, 2 p.];
 - an analysis of the current status relative to the CPA dated February 1996 [*id.*, Doc. E.3.4, 7 p.];
 - a synthesis of material coming from the college network and used for case studies on CPA within the framework of professional development courses on CPA by Performa in 1996 [*id.*, Doc. E.3.5, 4 p.]. Concerning this improvement session, the following information is also provided in the booklet that contains the Appendix:
 - outlines of the September 1996 seminars on CPA [Appendix 4.1, 3 p.]; Evaluation of the seminars [Appendix 4.2, 7 p.].

- For those who would like to organize information sessions, teaching and professional development on the CPA, the following material is available:
 - suggestions by the members of the Performa work group on the evaluation of learning with suggestions on improving sessions offered to teaching personnel on the evaluation of learning [*cf.* Booklet III-IV, 1st section, Doc. A.1 a, 3 p.];
 - two types of practical exercises to facilitate sensitization and teaching professional development [*id.*, Doc. A.1 b, 4 p.];
 - “problem-based learning” and “cooperative learning” as pertinent educational strategies for teaching professional development of [*id.*, Doc. A.1 c et d];
 - “case studies: inductive and deductive approach” excerpt from participation booklet at Performa seminars on the CPA, September 1996 [*id.*, Doc. A.1 e];
 - “educational goals of general training” [*cf.* Booklet III-IV, 2nd section, Doc. E.2.2, 7 p.];
 - “overall picture: training-learning activities with integrated results”: two diagrams developed during Performa seminars on CPA September 1996 [*cf.* Booklet III-IV, 1st section, Doc. B.2.3, 3 p.];
 - *continuum* and categorization of integrating objectives [*id.*, B.2.4a, 3 p.];
 - “key competencies in designing exit profiles that lead to the development of a CPA in an economic and equivalent fashion” [*id.*, Doc. B.2.4 b, 2 p.];
 - “to plan learning evaluations within a course or program” [*id.*, Doc. C.2.1 a, 2 p.].