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### FORMATIVE ASSESSMENT

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In some environments, the discourse on the formative assessment of learnings is still occasionally tinged with reservations, false beliefs and thoughts on the burden of teaching responsibilities. However, in reading this bulletin, the reader will see that the formative assessment is an essential concept, pedagogically smart and very current.

In the following pages, we will “set the stage” by identifying the concept in its historical evolution and proposing a definition. Thereafter, we will explore resources sorted under different angles of study:

- Formative assessment and metacognition
- Formative assessment in the approach by competency
- Formative assessment and communication
- Discourse and practices in colleges
- Teaching in a ICT environment

We will then conclude with a few resources for those who wish to explore further.

From this reading, the reader should conclude that, in everyday teaching, formative assessment is an essential tool for student success, leading to student motivation, active commitment and empowerment.

#### **Enjoy!**

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Summative evaluation is mandatory and is formally integrated into the responsibilities of teachers. Typically, teachers will plan various means through which they can assess the development of the students' competencies and assign a mark that represent learning. Formative assessment, on the other hand, is not mandatory and, for at least twenty years now, many teachers have been discussing this concept and its applications in the classroom. Spontaneously, we are well aware that formative assessment is essential. All

teachers feel that if their profession consists in helping students to learn, then formative assessment is somewhat "mandatory." But why is this so? And how should it be done?

The concept of formative assessment has greatly evolved since the teaching community started using the expression. In 1967, in a program evaluation context, Michael Scriven recommended using a process for collecting information to improve programs. He called this process "formative evaluation" but this was yet outside of the classroom. (**SCRIVEN, M. "The methodology of evaluation"**, in R.W. Tyler, R.M. GAGNE and M. SCRIVEN (eds), *Perspectives of curriculum evaluation*, Chicago, Rand McNally, 1967.)

Four years later, in 1971, Benjamin Bloom used the term "formative evaluation," but this time, the focus was on student learning rather than that on program management. (**BLOOM, B.S., HASTINGS, J.T. and MADDAUS, G.F. Handbook on formative and summative evaluation of student learning**, New York, McGraw Hill, 1971.)

*The Anglophone community will appreciate that the wording was then "Formative Evaluation." Later, it became "Formative Assessment," under the influence of an article by Sadler, in 1989. Since, the ambiguous distinctions between "Evaluation" and "Assessment" have led to some confusion, many writers considering both as synonymous in the teaching context.*

Since then, the line of thought and pedagogical practices have greatly evolved and, to date, all colleges in Québec have included formative assessment, either explicitly or implicitly, in their success plans, their IPESA, and in their local discussions and classroom practices. The CDC regularly receives requests for documentation on the subject of formative assessment, and this call for information justifies this bulletin.

## Definition

Gérard Scallon is one Québec author whose authority is the most recognized in the area of the evaluation of learning. In 1988, he defined formative assessment as follows:

*"Formative assessment is an ongoing assessment process that aims to ensure the progress of each individual on the path of learning, with the intention of modifying the learning situation or the pace of this progress to make (if applicable) the appropriate improvements or take corrective actions." [this writer's translation]*

(**SCALLON, Gérard. L'évaluation formative des apprentissages. Tome 1: La réflexion**, Québec, P.U.L., 1988, p. 155. [Call number to borrow from the CDC: [706251 V.1](#)])

Later, Scallon further developed this definition by adding the following element:

*"[...] The [teacher's] decision and action, i.e. regulation, **bears either on the learning situation or on the individual himself.**" [this writer's translation]*

(SCALLON, Gérard. *L'évaluation formative*, Saint-Laurent, Éditions du Renouveau pédagogique, 2000, p.21.)

The keywords for Formative Assessment would be:

- Ongoing assessment during learning
- Support
- Individual progress
- Regulation of the pace of learning
- Correction or enrichment of the learning activity by the teacher
- Correction or improvement of the learning by the student

The documents referred to in this bulletin reflect a very rich discourse, imbued with pedagogy and learning psychology, teacher-student relationship and significant communication. These are documents that explore, each in their own way, the methodological issues of the practice of formative assessment in the classroom and elsewhere in teaching, and the relationships between the various moments and functions of assessment. We have sorted them according to the particular insights that each one contributes to.

NOTE: The documents presented in this newsletter were all published after 2000. We are well aware that other relevant texts were published prior to this, but we have chosen to focus on more recent documentation.

## Formative assessment and metacognition

**TALBOT, Laurent. *L'évaluation formative. Comment évaluer pour remédier aux difficultés d'apprentissage*, Paris, Colin, 2009, 191 p. [Call number to borrow from the CDC: [787228](#)]**

This very recent work discusses with method and relevance the issue of formative assessment as it is perceived today. In its initial chapters and in its overall discourse, it is based on the different currents of learning, inspired by social constructivism. The author reminds the readers of the why, what and how of assessment and, more specifically, of formative assessment. One chapter deals specifically with feedback.

According to Laurent Talbot, the theme of formative assessment is essential today. It concerns teachers' practices. Formative assessment is a teaching tool. It enables the teacher to know at any given moment where his or her students are. Without being based on formal processes, formative assessment can be simply implemented and can enable the student with learning difficulties to see a little clearer and regain his self-confidence.

**DURAND, Micheline-Joanne, CHOUINARD, Roch, et al. *L'évaluation des apprentissages : de la planification de la démarche à la communication des résultats*, Montréal, Éditions Hurtubise HMH, Collection Parcours pédagogiques, 2006, 374 p. [Call number to borrow from the CDC: [786533](#)]**

Produced by a team from Université de Montréal under the direction of professors Durand and Chouinard, this work presents the concept of formative assessment through its development in history. The concept first appeared as part of the evaluation

of programs and courses in 1963 and 1967; it was later associated with Bloom's *Mastery Learning* in 1969, then to the Adaptive Dimension in 1997. The influence of the cognitive sciences had the effect of perceiving formative assessment as an invitation for the student to go through a metacognition exercise by bringing him to modify his behaviour during the learning process. (pp.70-72).

**GRÉGOIRE, Jacques. *Évaluer les apprentissages : les apports de la psychologie cognitive***, Bruxelles, De Boeck, Collection Perspectives en éducation et formation, 2008. 240 p. **[Call number to borrow from the CDC : [786839](#)]**

This recent work revisits various aspects of assessment through insights into cognitive psychology. In addition to detailing the role cognitive psychology has played in resolving assessment problems specific to mathematics or reading, one section is dedicated to metacognition. In chapter seven, Gérard Scallon takes up the pedagogical and methodological discourse on formative assessment and studies its shifts and trends, under the fertile influence of cognitive psychology. This reflection leads to the issue of regulation and therefore opens the door to José-Luis Wolfs who, in chapter eight, describes educational practices aimed at encouraging the student to participate in regulating his learnings.

**ST-PIERRE, Lise. « [L'habileté d'autoévaluation: pourquoi et comment la développer](#) », *Pédagogie collégiale*, vol. 18, No. 1, Oct. 2004, p.33-38.**

Within the framework of competency development, Lise St-Pierre presents the practice of self-evaluation by students as a way of developing intellectual independence. She demonstrates that this goal of education partly hinges on the framework of formative assessment that fosters progressive development, accountability and intellectual independence. To this end, the qualitative tools, including descriptive scales, prove themselves to be relevant from a formative assessment standpoint. These tools support critical thinking, assist in developing judgment and propose the exploration of leads for improvement. Descriptive scales set out the evaluation criteria and the different levels where the student may be. Moreover, they ensure a certain fairness, are adaptable to authentic situations and give the assessor's judgement its due place.

## **Formative assessment in the competency based approach**

**TARDIF, Jacques. *L'évaluation des compétences. Documenter le parcours de développement***, Montréal, Chenelière Éducation, 2006, 363 p. **[Call number to borrow from the CDC: [786417](#) ]**

In this work , Jacques Tardif develops a very judicious line of thought in connection with one of the fundamental principles of the evaluation of competencies. In his opinion, the first principle that should be respected regards our obligation to report on progress with a development goal. The author mentions the sporadic or episodic character of assessments that are lodged in immediacy and that remain silent on the changes that occur in the development or evolution towards clearly defined focuses of learning. Tardif then adds:

"The student must, in reference to a cognitive model of learning, be regularly informed of his progress, evolution and learnings relative to the development of each targeted competency."

It is the very essence of formative assessment to regularly give students information on their progress. (pp.105–106).

**SCALLON, Gérard. *L'évaluation des apprentissages dans une approche par compétences*, Saint-Laurent, Éditions du Renouveau Pédagogique, 2004, 342 p. [Call number to borrow from the CDC: [729607](#)]**

Gérard Scallon is, admittedly, the reference author in Québec on formative assessment. His name is found in several other texts, yet another sign of his credibility. This manual, dedicated to the evaluation of competencies, deals with formative assessment under several aspects: the use of descriptive scales to guide the judgement of the teacher and student, the evaluation of know-how and self-management skills, the portfolio, self-evaluation, the impact of formative assessment on metacognition, regulation and support needed to achieve success.

In the key section of this work, Scallon discusses the issue of integrating the assessment to learning. Prior to this work, several other authors had also stated that formative assessment should be integrated, even injected, into learning activities. In this work, Scallon gives a reminder of the need, in the competency approach, to contextualize the student's learning. Learning and formative assessment are based on a variety of situations proposed to students. If they have failed, either totally or partly, there must be feedback from the teacher for the individual or the group. Feedback will be qualified as corrective if it corresponds to relevant adjustments. Regardless of the learning situations, we can only pass judgement on the student's learning if we have followed the progression of this learning, which presumes that several learning situations have been used as guidelines throughout the student's process. It is only later that the final report, which is called the summative evaluation, will be relevant. The development of a competency cannot be inferred exclusively at the completion of a learning period. It must have been evaluated in a ongoing or cumulative way to guide the teacher's judgement on this inference.

**LEROUX, Julie Lyne. *[L'évaluation des compétences au collégial : Un regard sur des pratiques évaluatives](#)*. Research report. *Programme d'aide à la recherche sur l'enseignement et l'apprentissage (PAREA)* Saint-Hyacinthe CEGEP 2010. 326 pages**

This document constitutes a research report that resulted in re-examining evaluation practices implemented by college-level teachers to assess skills in the classroom. The aim is to describe and analyze evaluation practices used by college teachers regarding dimensions concerning the intent and timing of evaluations, the assessment tasks as well as instruments and roles for assessing learning.

The research methodology based on multiple case studies is of a qualitative nature and involves participation of 12 teachers from nine different CEGEPs, from either the general

program or from pre-university or technical programs. The research presents several new findings concerning skill-based evaluation practices. The report which covers the entire scope of contemporary problems regarding skill evaluation practices is well founded and proposes a comprehensive overview of the formative evaluation issue.

Leroux's document has its place in this Bulletin on the issue of formative evaluations. The report devotes a significant place to formative evaluations and to different conditions that promote student commitment to self-assessment and peer assessments.

Observations clearly demonstrate the student's active role and his accountability regarding his assessment. Beginning with a document review, this document examines formative evaluation based on various aspects of its application in teaching, including self-assessments, the integration of formative evaluations in the entire learning process, conditions for using and implementing these assessments, tools and strategies including descriptive scale assessment grids, planning and timing devoted to formative evaluations.

The report describes the impact of formative evaluation on student involvement and motivation and on developing their self-sufficiency. There is also a study of teaching practices regarding formative evaluations that can be formal (or planned) as well as informal (spontaneous, based on the dynamics observed by the teacher). We find, for instance, that if all teachers involved practice formative evaluations to allow students to have an active role in developing their skills, few use the evaluations to deal with developing attitudes or self-management skills.

A comprehensive bibliography precedes the presentation of summary tables on various aspects of observation in this study. These tables include specific data on formative evaluations.

**LEROUX, Julie Lyne.** [Comment des enseignants du collégial évaluent-ils les compétences?](#) Saint-Hyacinthe CEGEP March 2010. 17 pages.

This interpretative paper constitutes a 17-page summary on the PAREA research described above and titled *L'évaluation des compétences au collégial : Un regard sur des pratiques évaluatives*. This research is associated with a doctoral thesis on education presented in 2009 at the University of Sherbrooke. It includes the context that gave rise to the original research, the problematics, the objectives and a sampling of principal results.

The author describes and analyzes assessment practices developed in modifying college-level teaching that contribute to evaluating learning processes in a program focusing on developing skills.

Research data presented show that evaluation practices used by teachers integrate formative evaluations. As was the case for the original research, this article deals with the entire question of assessment practices. However, it devotes significant space to presenting and commenting observations on teaching practices regarding formative evaluations. The author describes these practices from the point of view of the objectives, the frequency and timing of evaluations, the conditions and forms of formative evaluations. It describes tasks given to students to help observe skills, assessment instruments and evaluation grids.

In addition to a relevant bibliography, the author ends her article with summary tables that outline various components of assessments practices including formative evaluation practices.

**LEROUX, J.L. et N. BIGRAS.** [L'évaluation des compétences : une réalité accessible dans nos collèges](#), Québec, Cégep de St-Hyacinthe, Regroupement des collèges PERFORMA, 2003, 176 p.

This document is the report of an action research dealing with the design of tools for the evaluation of learnings and the description of levels of success in a competency context. Specifically, it contains many examples of scales with descriptive statements (for internship, lab, classroom, final project settings) and formative assessment tools. The sixth chapter introduces certain concepts and practices of formative assessment. In it, the authors present a definition of formative assessment followed by examples of assessment tools developed to support regulation in a learning situation.

## **Formative assessment and communication**

Collectif dirigé par **Michel D. LAURIER.** *Évaluation et communication. De l'évaluation formative à l'évaluation informative*, Outremont, Les Éditions Québecor, 2003.  
**[Call number to borrow from the CDC: [729296](#)]**

To be formative, assessment must first be informative. This is the thesis that is developed in this collective work of several authors including Gérard Scallon, dealing with various aspects of formative, diagnostic and summative assessment. The subject is approached in a communication perspective.

The first part shows that a transition can be made from a formative assessment, when we recognize its limitations and difficulties, to an informative assessment. This transition puts the emphasis on the feedback that the student receives on his actions while learning. In this work, we find leads concerning the use of feedback to better take into account the learning process and a contextualisation of formative assessment within the framework of the competency approach. In this framework, the notion of competency becomes a frame of reference for a constructivist-type assessment process where the student is informed of his learning process through problem-solving activities.

**PARÉ, Yvon.** « [Vidéo et évaluation formative et sommative de la communication professionnel-client](#). » dans : *Enseigner au collégial, une profession à partager*, Actes du 26e colloque annuel de l'AQPC, Montréal, 2006.

This workshop report deals with the pedagogical application of video recordings as part of a communications course intended for students in the technical sector. In this context, the author discusses, among other subjects, the qualities of a formative assessment supported by a video recording. He states that it is fundamental that the student receive feedback based on facts and a list of the professional behaviours expected. Therefore, the feedback given will always be based on an objective (recorded by the camera) and professional (the expected behaviours) reference. This workshop notably describes the qualities that the feedback given to students must have and the scenarios for reviewing learnings based on the competencies expected in the professional environment.

## Discourse and practices in colleges

**BELLEAU, Jacques.** [L'évaluation formative : réflexion sur une approche différente de la relation maître-élève](#), Cégep de Lévis-Lauzon, June 2000.

Jacques Belleau, educational consultant at the time of publication, prepared this excellent document intended for the teachers at his college. It contains a contextualisation of the assessment of learning in its various functions, a discussion of the influence of the assessment on teaching methods, motivation, education, communication and feedback. On this last aspect, Belleau presents a comparative table of two types of feedback in formative assessment: active feedback and ineffective feedback. A detailed discussion follows on the implementation of formative assessment in the classroom. Belleau describes several tools and concrete strategies, all useful to teachers in various contexts. References relevant to formative assessment complete the document.

**BELLEAU, Jacques.** [Planification de mon enseignement](#), Cégep de Lévis-Lauzon, June 2000.

Intended for teachers, this guide deals indirectly with formative assessment in the context of the teaching plan. In this work, Belleau describes various phases of the thought process during the planning of the components of a syllabus. The assessment of learning, including formative assessment, is included among the essential elements of planning.

**CÉGEP DE RIMOUSKI.** Service de développement pédagogique. « [L'évaluation formative](#) », *PédagoTrucs*, No. 5, March 2002.

In its list of pedagogical animation tools, the Cégep de Rimouski published this booklet on formative assessment. Included are short texts on the rationale behind formative assessment, the distinctions with summative evaluation, the ways of doing formative assessment, the consequences of using it and examples of approaches to the formative assessment in the classroom.



**CÉGEP DE RIMOUSKI.** Service de développement pédagogique. « [La pédagogie de projet](#) », *PédagoTrucs*, No. 30, March 2005.

This booklet deals with project-based pedagogy and develops the idea that assessment must be an integral part of the learning process. Project must foster ongoing and formative assessment in order to provide a profile of the evolution of student learning. In this work, formative assessment is presented as an essential condition to the success of project-based pedagogy.

**CÉGEP DE SHERBROOKE.** [L'évaluation formative et l'évaluation sommative](#). Extract of Mr. François Vasseur's commentary at a Pedagogical Meeting in November 2005.

This one-page summary describes the evolution of teacher and student judgement during an ongoing assessment process. In this process, formative assessment can be useful, in part, to summative evaluation.

## Teaching in an IT environment (Information Technology)

**DESAUTELS, Luc.** [Lire, écrire et philosopher...au lab d'info](#), Actes du Colloque conjoint APOP-AQPC, June 2002.

Luc Desautels puts online the PowerPoint presentation that accompanied his presentation at the joint APOP-AQPC conference in June 2002. In it, he demonstrates the advantage of using, within the framework of a philosophy course, a rich IT environment to make the students very involved in their education. He uses simple software programs that are easily available such as Word, Explorer, PowerPoint, Netquiz, Crisscross Words and Copilote. This type of environment enables the teacher to offer a variety of approaches to suit various learning styles and facilitate an ongoing improvement of quality; it also offers the student the opportunity to write and self-correct. Desautels shows how this IT environment can help offer solutions for some students' difficulties with reading and writing, and keep them motivated. The issue of formative assessment is approached as the author describes his pedagogical process.

**PICARD, Florent Picard.** [Évaluation formative et sommative en utilisant un système intégré de gestion pédagogique](#). Videoconference Capture of a communication held on the 10th of January 2007 IN «Colloque qui URL!» Colloquium, from [APOP](#).

Florent Picard, a teacher in Business Administration, produced this document to show how DECclic, the integrated system of pedagogical management, can serve as a basis for formative assessment and summative evaluation. The document shows how to create a formative or summative exam using ExamStudio.

## Further exploration into the subject

Sous la direction de **Linda K. ALLAL** et **Louise LAFORTUNE**. **Jugement professionnel en évaluation : pratiques enseignantes au Québec et à Genève**, Québec, Presses de l'Université du Québec, 2008, 254 p. [Call number to borrow from the CDC: [786997](#)]

This work reports on the results of research conducted both in Québec and in Geneva on professional judgment in the teaching field. After having provided a definition of the concept, the authors deal with the application of professional judgement in all teaching activities including formative assessment where professional judgement aims to provide support for learning. It is in this context that the author deals, in a somewhat minor fashion, with the issue of formative assessment in the classroom. This book should be particularly useful to individuals who train teachers in using their professional judgment in the evaluation of competencies.

**MORRISSETTE, Joëlle.** «**La portée d'une perspective socioculturelle de l'évaluation formative : vers l'élargissement d'une conceptualisation**», *Mesure et évaluation en éducation*, vol. 32, No. 2, 2009, pp.1-28. [To obtain a [copy of this article](#)]

This study, rather less accessible because of its language and its theoretical approach, deals with the contribution of a socio-cultural perspective to formative assessment research. The author targets classroom interactions as being the "place" where support to learning is cooperatively built based on shared meanings and implied norms that are continuously negotiated.

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## To go a bit further

We recommend the following bibliography, available directly from the CDC's catalogue, on the topic of «formative assessment»: Access the CDC's online catalogue:

<http://catalogue.cdc.qc.ca> , Click on "**Start search**", then click on "**Suggestions**": «**Formative assessment**».

***This bibliography is updated on an ongoing basis!***

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## Recently published / New acquisitions at the CDC

The following are a few examples of new acquisitions at the CDC. The complete list of new works at the CDC may be consulted on the [CDC online catalogue](#).

**ALDRICH, Clark.** **Learning Online with Games, Simulations, and Virtual Worlds : Strategies for Online Instruction**, Jossey-Bass, 2009, 134 p. [Call number to borrow from the CDC: [787501](#)]

**CHRISTIENSEN HUGHES, Julia et Joy MIGHTY (Eds.).** **Taking Stock : Research on Teaching and Learning in Higher Education**, McGill-Queen's University Press, 2010, 277p. [Call number to borrow from the CDC: [787419](#)]

**FILTEAU, Suzanne.** [La Créativité, tout le monde sait ce que c'est!?!](#) [Poster from Poster Sessions held at the 2010 ACFAS, ARC and AQPC Colloquiums. [Poster in PDF format](#) or [in JPG format](#).

**FINKELSTEIN, Jonathan. Learning in real time : Synchronous teaching and learning online**, Jossey-Bass, 2006, 157 p. [To Borrow this document from the CDC : [787492](#) ]

**PALLOFF, Rena and Keith PRATT. Assessing the online learner : Resources and strategies for faculty**, Jossey-Bass, 2009, 153 p. [To Borrow this document from the CDC : [787504](#)]

**POELLHUBER, Bruno. [Projet Cégeps en réseau Rapport final de la phase I : volet technopédagogique de la recherche](#)**, CEFRIO, 2010.

**POTVIN, Christian. [L'Évaluation de compétences à l'aide de logiciels de conception d'évaluation informatisée en techniques de l'informatique au collégial](#)**. Master Degree Essay, Faculté d'éducation, Université de Sherbrooke, 2010.

**ROY, Jacques** (principal researcher), Josée Bouchard andt Marie-Anne Touchette, **[Valeur des collégiens et réussite scolaire : Filles et garçons au collège : des univers parallèles ? : étude sur la problématique des genres et la réussite scolaire en milieu collégial](#)**, Cégep de Ste-Foy, 2010. [[PAREA REPORT](#)]

**SMITH, Robin. M. Conquering the content : A step-by-step guide to online course design**, Jossey-Bass, 2008, 153 p. [To Borrow this document from the CDC : [787486](#)]

**WEST, James. A. and Margaret L. WEST. Using wikis for collaboration in online learning : The power of the read-write web**, Jossey-Bass, 2009, 142 p. [To Borrow this document from the CDC : [787498](#)]

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*Have a nice semester!*