

**Position Paper regarding the recommendation from the CEEC
Council of Career Programs
Approved April 20, 2015**

BACKGROUND:

The Commission d'évaluation de l'enseignement collégial (CEEC) Recommendation to Dawson College regarding the Institutional Student Evaluation Policy (ISEP)

2011 : «Évaluation de l'application de la politique institutionnelle d'évaluation des apprentissages (PIEA) du Collège Dawson » (Rapport d'évaluation, CEEC, Dec. 2011)

In 2008, Dawson conducted a self-evaluation of ISEP¹ and submitted its final report to the CEEC. The CEEC issued its report of this self-evaluation to Dawson in 2011 with several recommendations. One of the recommendations was:

La Commission recommande au Collège de s'assurer que, dans tous les cours, il y a une évaluation finale de cours qui permet de mesurer l'atteinte des objectifs selon les standards. (p.13)

Following its visit to Dawson, the CEEC stated in its report:

«La Commission a constaté lors de la visite qu'il n'y a pas toujours d'évaluation finale dans tous les cours et que les évaluations finales de cours ne sont pas toutes des évaluations synthèses. De plus, le pourcentage attribué à la majorité des évaluations finales varie souvent entre 20 et 25%, ce qui ne permet pas à l'évaluation d'avoir une valeur significative, et le niveau taxonomique de certaines activités d'évaluation n'est pas toujours approprié aux objectifs du cours. (page 13)

2014: « Politique institutionnelle d'évaluation des apprentissages du Collège Dawson » (Rapport d'évaluation, CEEC, Mars 2014)

In 2011, the Dawson Board of Governors approved a revision of ISEP (proposed by the ISEP sub-committee of Senate and approved by Senate). This revision was submitted to the CEEC for their consideration. The CEEC produced its report of the revised ISEP in 2014, with the following recommendation:

La Commission recommande au Collège Dawson de s'assurer que dans tous les cours il y a une évaluation finale du type synthèse et que cette évaluation a un poids suffisant pour être déterminante dans la réussite d'un cours. (p.2)

Relevant sections of ISEP (version adopted by the Board of Governors Sept. 26, 2011):

Objective #3 (page 6):

To ensure that mechanisms exist for the development and application of suitable and equitable methods of evaluating student learning, for each course and each program in the College.

Role of Teachers (page 8):

To design evaluation instruments which demonstrate students' attainment of objectives.

Role of Departments (page 9):

Verify that the means of evaluation specified in the course outline for each course are fair and that the evaluation process is appropriate to the objectives and standards of the course and program.

¹ Dawson's self-evaluation of ISEP found that the evaluation process of some courses was not appropriate to the objectives and standards (i.e., the results of three program evaluations showed that some courses did not assess or only partially assessed the assigned competencies and only 50% of students who were surveyed indicated that all of their courses included tests and/or assignments that reflected the course objectives) (pages 132, 133, 138, 184-185).

On October 20, 2014, the Council of Career Programs formed a Task Force to consider the pedagogical implications of implementing this recommendation for career programs. The Task Force membership included:

Liz Charles, Educational Researcher
Rob Cassidy, Educational Consultant, OID
Leigh Shapiro, Interior Design
Michael Dellar, Civil Engineering Technology
David Weeks, Industrial Design
Boris Lorkovic, Electronics Engineering Technology
Barbara Kelly, Professional Theatre
Elke Fiebich-Flores, Nursing
Karen Gabriele, Biomedical Laboratory Technology

Preamble

Taking the key aspects of the CEEC's recommendation, that the final evaluation of the course should measure the achievement of objectives according to the standards and have sufficient weight to determine the success in a course, the Task Force systematically examined each in the context of courses in career programs.

The following is a description of various assessment methodologies that are relevant in career programs and courses. There may be some generalities that could also apply to courses in other types of programs.

1. Final Evaluation: Learning vs. Assessment

The fundamental preoccupation of all education institutions must be student learning. Any assessment should be tied directly to the learning process and aligned with the learning objectives. Without this relationship, assessment can not necessarily guarantee that students have actually learned.

Learning is a process, and therefore, constructing the knowledge and skills required to gain mastery of the course competencies is developed over time. Learning is best accomplished when it is supported by a large measure of formative feedback as opposed to a single summative assessment. This statement is backed by research in the fields of learning and instruction (Hattie & Timperley, 2007; Hattie & Gan, 2011). As stated on the University of Reading, Engage in Feedback website, *"Feedback is an essential part of effective learning. It helps students understand the subject being studied and gives them clear guidance on how to improve their learning"* (Park, et al., n.d.). According to Bellon et al. (1991), *"Academic feedback is more strongly and consistently related to achievement than any other teaching behaviour"*.

Giving feedback as part of an assessment process is complex and has to be carefully designed so that it works within the framework of promoting learning as well as evaluating the learner. The goal is to use assessment to support and measure learning and not merely to gauge how well a student can succeed on an exam.

The wording of the CEEC recommendation raises concerns insofar as it could unintentionally prescribe unproductive pedagogical practices. As an exaggerated example, it could be used to condone and even prescribe cramming at the end of a course for a major final exam—an assessment technique known to be of little value to meaningful learning. It is well established in the psychology and education fields that this mode of learning lacks depth and effectiveness (e.g., see

Bransford et al., 1999). Additionally, students who experience exam anxiety are particularly disadvantaged on an exam despite having learned the material. Therefore, this type of “high stakes” learning may be appropriate in some courses, but should not be mandated for all courses.

It is essential that the assessment methodology does not undermine learning. As teachers, we are most interested in assessing learning. Building favorable conditions which facilitate learning and ultimately competency attainment is our essential goal and the primary objective of an educational institution.

2. Type of instructional experiences that lead to meaningful learning

There is growing evidence that learning is best promoted when students have opportunities to actively engage with the course material (Freeman et al., 2014; others). Colloquially, this means that students learn best from “hands-on” experiences, from concrete cases studies and from solving “authentic” problems that are set within a real context. Career students have such opportunities in the structure of their programs, including stages and internships. It is our experience that assessing this type of learning is not necessarily conducive to a single final assessment. In fact, in some instances the experience of learning, particularly in Career programs, requires integration of skills and attitudes that become “habits of mind.” This means the development of ways of thinking and acting that are “taken for granted”. For instance, basic skills become so ingrained that they are apparent only in the fact that they are necessary in order to demonstrate higher level skills. This is a classic example of gaining expertise, which is characterized by a reduction of the mental effort required to perform a task (e.g., see Sweller, 1994). This means that low-level tasks become automated so that the learner can attend to the more complex aspects of the task.

3. Complexities in assessing Ministerial competencies in relation to course objectives:

The type of assessment used must be linked and appropriate to the competencies in the course and the course objectives.

The measurement of learning in a course will depend to a large degree on the nature of the competencies in the course and the specific course objectives in relation to these competencies, i.e., whether the competencies are fully or partially addressed in the course, whether they are linked (horizontally or vertically) with other courses, and the type of assessment that would be most appropriate in assessing student attainment of the competencies.

The reality of many courses in career programs is that competencies are often spread over several courses and semesters (horizontally and vertically). As well, there are often several competencies in any one course. The ideal methodology for assessing competencies that overlap or that are integrated is by assessing the interaction of the parts, rather than as individual or separate pieces. This concept is often evident in the methodology and assessment design in Career programs.

Typically in Career programs, the acquisition of knowledge can be categorized in three different levels: declarative, procedural and conditional. Assessment methods should be designed to be appropriate to the kind of learning and knowledge acquisition that is associated with the competencies and objectives of the course.

As a result, a wide range of models exist in Career programs to assess student attainment of competencies in the context of the course objectives. In courses which are primarily skill based, a substantial assessment at the end of the course is appropriate to evaluate student learning. In other courses, alternative models have been developed to assess student learning which, because of the

nature of the course objectives or competencies, do not lend themselves to a single substantial assessment activity at one point in time.

Models which could fit a “final assessment” paradigm

The following examples describe some assessment models found in courses of career programs which would may include a final assessment of substantial weight:

a. Linear threshold model

Some competencies have an outcome which is clear, measurable and concrete. Students are building skills during their formative work and are expected to reach a specified level (threshold) of acceptable performance which is measurable. This type of linear learning would appropriately fit into a model of a single final assessment.

b. Project-based model:

In many Career program courses, students are expected to demonstrate the synthesis of knowledge and skills through the completion of one or more projects. This could comprise an entire semester's work and may include a presentation, a written document and an actual product. Students may be assessed throughout the semester at different intervals as they develop their project. Since a project represents a comprehensive way of assessing student attainment of competencies and course objectives, we consider that a project based model is equivalent to a final assessment, even if it is not a single assessment at the end of a course.

Models which would not fit a “final assessment” paradigm

There are other cases in which the assessment of learning is not conducive to a final assessment isolated to one moment in time at the end of a course. In these cases, student learning is not organized in a linear fashion leading to a measureable outcome, or the courses are characterized as having competencies and/or objectives which develop in a distributed fashion within the program.

c. Developmental trajectories model:

Some competencies are open-ended and cannot always be properly assessed in a single final assessment. This is usually typical of creative competencies which do not have a clear endpoint. The focus of assessment is on a developmental aspect of student learning or growth. In these cases, students are best assessed in an on-going way rather than their performance on an exam on one day. This type of trajectory development requires an assessment methodology which follows student growth and evolution continuously throughout a course in terms of the development of student learning and application of knowledge which cumulatively will lead to competency attainment.

d. Module model:

In some cases, it may not be possible to synthesize all of the components of a course into one assessment. For example when the components are completed in modular fashion and constructing one single examination to assess all modules is not appropriate for the Cegep level technology. In another example, components may be introduced initially and assessed separately at that point because a higher level synthesis of the components will be assessed at a more advanced level. In these cases it may be necessary to have a number of assessments at different times, which cumulatively will cover all course objectives.

e. Multi-course model:

In some cases, competencies are linked horizontally to other courses in the same semester, which will require an assessment methodology that incorporates the students' work across

several courses at the same time. This model could take the form of a project with each course assessing the aspect of the project which is relevant to the particular course. There could be one central course which forms a nucleus of different competencies that are developed and assessed in other courses, as students synthesize complex information, apply skills and move towards a level of expertise. As well, courses that share the same competencies may have complementary assessments that are happening at different points in time.

Since this model often develops multiple and overlapping competencies in the context of more than one course, it is often necessary to assess students at a variety of stages of development and in a distributed fashion. For example, the responsibility of developing and assessing a competency/objective to a certain standard may initially reside in one course and then be transferred to another. To ensure that the assessment activities are coherent, timely and working in conjunction with each other, assessment of a competency/objective may be ongoing and coordinated across several courses, rather than being one cumulative activity localized to a single course. Additionally, the workload can be demanding due to large practical projects spread over several courses, necessitating a coordinated assessment strategy among those courses, and precluding each course from conducting single final assessments at the end of the semester.

4. Definitions

a. Final assessment of a course:

The final assessment of a course must be appropriate to the course objectives. Therefore, the definition of a “final assessment” could vary depending on the course and the discipline.

As seen above, an assessment methodology which attests to the successful completion of a course does not necessarily need to be a single assessment, nor should it be restricted to an assessment which takes place only at the end of a course. The main criterion is that students are assessed in a way that verifies they have attained the course objectives to an acceptable standard. The exact methodology used should be designed to fit the competencies and objectives of the course and the pedagogical approach employed in the course.

b. Sufficient weight to determine success

The recommendation also states that the final assessment must be of sufficient weight to determine whether a student passes the course. The term, “sufficient weight” could imply a particular percentage of grades obtained but should not be limited to only this definition. Teachers may assign a particular standard which signifies the level at which student achievement is sufficient to pass a course. In some cases, because of the nature of professional requirements, the “notwithstanding” clause of ISEP can be used to define specific components which are absolute requirements to pass a course.

Examples of this are:

- Passing different components of a course individually (lab component and theory component)
- Passing individual tests throughout the semester or obtaining a minimum 60% in all tests or passing the final theory exam
- Passing certain competencies that are considered “critical” on a practical exam

Whatever the nature of the final assessment (as a combination of assessments or a single assessment) or the weight necessary to determine passing a course, the conditions must be clearly stated in the course outline.

5. Recommendations to the College

The Task Force, after considerable deliberation, reflection and investigation of our programs has found the following: We believe the spirit of the CEEC recommendation has pedagogical value and good intention. The letter of the CEEC statement, however, does not fit the entire range and complexity of career program pedagogies.

We believe that any assessment policies or implementations thereof that derive from the CEEC recommendations should have a positive impact on pedagogy and learning, rather than a negative one. Task Force members agreed that having a heavily weighted, single assessment at the end of a course may disadvantage student learning in certain circumstances in the career program sector. We believe the nature of a final assessment should be sensitive to the pedagogical design of the course and its context within a program.

We respectfully recommend to the College that:

- with respect to the notion of program approach and competency-based learning, the College recognizes the value of the various pedagogical approaches taken within the career programs.
- the definition of final assessment be broad enough to accommodate the best practices – the pedagogical approaches and assessment mechanisms – that career programs use to achieve the spirit of the CEEC recommendation.
- the available mechanisms ‘to determine success in a course’ be expanded beyond assigning a sufficient weight to include mechanisms that respect the pedagogical approaches and context of the career programs.

References

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