COMMON COMPETENCIES AT THE COLLEGE LEVEL: FROM THEORY TO PRACTICE

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Where do things stand in the CEGEP system when it comes to the cross-curricular competencies instituted at the elementary and high school levels by the education reform? It turns out that these competencies have traveled some distance and are now showing up in the CEGEP system under the name of «common competencies.»

As an extension of the work begun on cross-curricular competencies at the elementary and high school levels, the Ministère de l'Éducation, du Loisir et du Sport (MELS) recently defined and disseminated five common competencies relevant to the CEGEP level. «Problem solving,» «Exercising creativity,» «Adapting to new situations,» «Exercising a sense of responsibility,» and «Communicating» are paving the way for common competencies in the CEGEP system. Introduced in a more formal manner in Winter 2010 with the dissemination of the new specifications for general CEGEP education, these common competencies are not intended exclusively for the general education disciplines. They also serve as aims for CEGEP education as a whole. They apply to all programs of study in the regular sector, including technical and pre-university, and are intended to relate as much to specific training courses as to courses in the general education sector. We're talking about an added value in students' education.

Before these common competencies were introduced at the CEGEP level, a call for projects issued by the MELS gave rise to two pilot projects. Thus in 2008-2009 an initial trial was carried out at Cégep Beauce-Appalaches in a technical program, and in 2009-2010 a second trial was conducted at Cégep Marie-Victorin in a pre-university program.[1]

The purpose of this article is to present the broad lines of the trial carried out at Cégep Marie-Victorin. In the context of the project, our mandate was to develop and test various learning activities that would make it possible to teach and assess common competencies in the Science Program, including in its general-education component. Teachers who took part in the trial benefited from partial leave so that they could set up the various learning activities.

ISSUES ASSOCIATED WITH THE COMPETENCY-BASED APPROACH

Our team examined some of the parameters associated with the implementation of the education reform in CEGEPs in 1993 in order to put the present trial in context. We consulted numerous reference sources, including documents produced by the Conseil supérieur de l'éducation and in particular those by the Commission de l'enseignement collégial on conditions for success in college (1995), as well as those by Cécile D'Amour and the PERFORMA working group on assessing learning at the college level (1996). Thus we were in a position to take stock of the current issues associated with a competency-based approach within the CEGEP system in light of the historical background to the approach in Quebec.

A noteworthy issue among those selected is the way the characteristics of student populations have evolved over the years. This factor was introduced into the Commission's report in 1995, but its examination was deepened by Jacques Roy and Nicole Mainguy in 2005 in their study on academic success in the CEGEP setting. This factor gives us cause to adjust our teaching in order to implement stimulating teaching methods that arouse greater student interest. The published literature shows that to do this it is essential to assign importance to the concept of meaning. How do we go

[1] Many individuals contributed to this project's implementation. Daniel Tardif and Simon Langlois took part as teachers of math and physics in the Science program. Bertrand Guibord and Julie Bégin took part as general education teachers of philosophy and physical education. France Côté, with her expertise in the portfolio of knowledge acquisition and in the assessment of competencies, provided support for the process of developing common competencies. Hélène Allaire contributed as assistant director of studies for development in teaching and research. André Laferrière and Susan MacNeil, representing the MELS, acted as project coordinators and facilitators. Last, students at Cégep Marie-Victorin enthusiastically undertook the assignments they were set as part of the project.



about seeing to it that the requirements, the assignments, the projects, and the learning to be accomplished hold meaning for the student? According to the sources we consulted, by implementing learning activities that make students more active, by highlighting the benefits and advantages students will derive from the work required, by devising activities that speak to students' own values, we enable students to better fulfil their developmental potential. This, then, served as the first parameter to take into account in planning the assignments we would give students as part of the project.

Another important issue to consider relates to the role of learning support. Teachers play an important role when it comes to support. The fact that they rub shoulders with students in the classroom enables them to pinpoint students' strengths and weaknesses by giving students permission to err, by providing them with the opportunity to move forward, and by allowing them to turn their errors to advantage. The literature we consulted showed that various kinds of support, formative assessments, supervision methods, and self-assessment mechanisms must be put in place to enable students to better progress throughout their educational careers. This concern too was taken into account in our trial project.

Could it be thanks to this cross-curricular nature that it is possible for disciplinary competency to be deployed? Coming to an awareness of this is important because it grants common competencies their fundamental role in our system's programs of study.

As regards learning assessment, the authors in the literature review indicate that greater consistency is needed between teaching, learning, and assessment activities. In taking account of this issue, we adopted a criterion-based approach for our project, in which expected performance and assessment criteria are clearly specified to students so that they can prepare themselves appropriately.

Finally, it is important to recall that the competency-based approach is closely linked to the performance of complex tasks. Evaluating these complex productions calls for specific instruments. To this end, we consulted several additional documents, including the publications by Scallon (2004), Tardif (2006), and Côté (2009), in order to identify the key assessment parameters in this context. Using assessment charts with overall and analytic descriptive scales that had been developed according to clearly identified assessment criteria enabled teachers to exercise judgment in a qualitative context.

BROADENING THE CONCEPT OF COMPETENCY

In 2011 we can state that there exists a consensus in the CEGEP system regarding the concept of competency. A competency is «a complex situational skill that relies on the effective deployment and combination of a variety of internal and external resources within a given family of situations» (Tardif, 2006). And indeed what makes a person competent regardless of discipline is this multiple deployment entailing among other things adapting, generating ideas, making choices, acting independently, showing sound judgment, seeking out solutions, justifying one's ideas, and so on. In a word, it's a question of a whole range of actions that cut across disciplines. Could it be thanks to this cross-curricular nature that it is possible for disciplinary competency to be deployed? Our understanding of the issue leads us to believe this is so. Coming to an awareness of this is important because it grants common competencies their fundamental role in our system's programs of study.

More precisely, the concept of common competency could be defined as follows:

> An ability to act, succeed, and progress that allows one to apply in varied spheres of activity forms of knowledge (content knowledge, skills, attitudes, etc.) acquired in a specific context.[2]

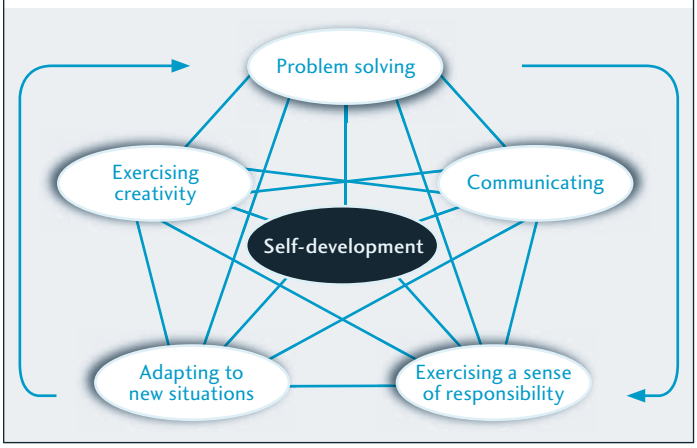
This definition resembles Tardif's quoted above, with the slight difference that application of the common competency is not limited to a family of situations and that the concept of progression is more firmly entrenched, as a reminder that common competencies are subject to lifelong development.

Figure 1 provides a comprehensive diagram of the five common competencies organized around a guiding theme that was define locally, namely self-development. These competencies are distinguished by the fact that they are interdependent, non-hierarchical, and linked in multiple ways. They are not linear but rather synergistic. The guiding theme is at the heart of concerns. It constitutes a target towards which efforts deriving from the various activities carried out by students converge and it creates a synergy that allows each individual to evolve along her or his own path.

[2] Definition drawn from the report of the Comité-conseil de la formation générale, 4 May 2007. This definition is not official yet, however.

FIGURE 1

COMPREHENSIVE DIAGRAM OF MINISTRY STATEMENTS: FIVE COMMON COMPETENCIES



THE EXPERIMENTAL STANCE

A FLEXIBLE APPROACH INTEGRATED INTO THE DISCIPLINE

We opted for the vertical deployment of the common competencies, thus promoting in-depth, integrated work adapted to each of the courses affected by the pilot project, namely the math, physics, philosophy, and physical education courses. More specifically, four distinct projects were devised and then tested, each one tailored to the specific reality of the particular course. This flexible and integrated approach enabled teachers to explore with some degree of freedom the various strategies associated with the development and assessment of the common competencies. This approach made it possible to prevent the assignments associated with the common competencies from ending up as a distinct component dissociated from the students' overall education. All this gave rise to a number of practices, creative ideas, and initiatives on the basis of which readers who work in the system can make connections with their own teaching context.

The teachers involved in the project were free to try out one or more common competencies. The choice was made depending on affinities between the disciplines and the common competencies or the teacher's own affinity with the competencies and interest in them. In sum, all five of the common competencies advanced by the MELS were integrated into the trial.

Each teacher developed her or his own assessment chart with descriptive scales based on assessment criteria that were carefully chosen in accordance with the teaching and learning that had taken place in her or his course. In order to remain consistent with our original intentions, which aimed at an integrated approach for the common competencies in each of the trial disciplines, we incorporated assessment of the common competencies into the disciplinary assessment. Of the assessment criteria used in the different courses, some were designed to verify only disciplinary components; others verified only components emerging from the common competencies; and last, some others were mixed criteria that allowed for examining common competencies aligned with the discipline.

ACHIEVING A BALANCE IN THE ASSIGNMENTS

Throughout the project, we also took great care to take account of the quantity of work involved, for students as well as teachers, in order avoid overloading them. Because the integrated approach makes it possible to prevent a duplication of effort and an increase in activities that are irrelevant to the learning required by each discipline, it most certainly guarantees a balanced workload.

IMPLEMENTING COMMON COMPETENCIES

We will now present an overview of the strategies used as part of the four different projects. Note that the assignments given to students were planned with three complementary dimensions in mind: a production (something carried out, a product); a process (an undertaking, traces), an essay (self-assessment). Among the strategies deployed, the learning portfolio was chosen as representing a method of choice. It was used in various forms in the science and general education courses that were part of the trial.

Philosophy

A mixed portfolio incorporating some activities guided by the teacher and some freer activities chosen by the student was developed so the students could «exercise creativity» in the service of philosophy. This common competency, the only one that clearly deals with ideas and concepts, fits well within a philosophy course. More concretely, a collection of philosophical texts was incorporated into the portfolio along with exercises, questions, tables, certain playful activities, and so on. Meta-reflective breaks calling on students to evaluate their strengths while pinpointing areas for improvement were also planned as part of the process.



Critical judgment, one of the components of the common competency «Exercising a sense of responsibility,» is an integral part of the content of the discipline of philosophy. It was handled more as disciplinary content and was incorporated mainly into the writing of argumentative texts.

Physical Education

A logbook, which is similar to a guided portfolio, was used to enable students to leave traces of their work process in connection with both the disciplinary competency to be developed and the targeted common competencies. The former was «Demonstrate the ability to undertake practice of the physical activity in a health perspective» and the latter were «Exercise creativity» and «Adapt to new situations.» The logbook incorporates diagnostic assessment activities, tables to fill in, overview questions, and numerous activities that promote reflective review.

Concretely speaking, creativity was mainly developed in synergy with the disciplinary content, which requires students to produce a collective dance creation (choreography). Whether by developing a concept around which the choreography subsequently took shape, by exploring the links between the music and the movements, or by creating sets, costumes, and makeup, students had numerous opportunities to develop their creativity. As for the ability to adapt to new situations, it was mainly called upon in improvisational dance activities spread out through the whole session, which enabled students to take stock of their progress. Adaptation was also developed through the complex relationships required by teamwork. Students arrive at CEGEP with very different backgrounds in dance. Some have never danced while some have been taking dance courses since childhood. Adjustment is equally hard for both groups when they are thrown together to plan and produce a collective performance.

Of the strategies designed to promote the development of common competencies, the learning portfolio proved to be a bearer of meaning during this process.

Mathematics

A guided portfolio incorporating activities that allowed for developing and assessing the five common competencies was assigned to students in the calculus course. The portfolio was divided in four with each section having a distinct set of aims, but all students were called on to reflect on their progress.

The first section, which aimed to develop creativity in order to improve disciplinary competency in math, required students to create mathematical «models.» To do so, they had to synthesize and reorganize mathematical concepts in a personalized way on a sheet of paper. Their skill at communicating the information in writing was also developed.

The second section, also science oriented, consisted of solving a mathematical problem associated with another discipline. Applying mathematical concepts from calculus to physics, chemistry, biology, and even economics or for that matter philosophy encouraged the transfer of complex learning. Problem solving was thus encouraged and developed in a different frame of reference. By putting their explanations in writing, students also developed their skills in written communication. The third section focused on the dimensions of adaptation and oral communication. Through a peer-tutoring project, students were put in a position to exercise their common competencies.

Taking account of others' difficulties, implementing methods that allow for harmonious teamwork, analyzing tutoring sessions, and taking stock of the sessions' impact in order to fine tune as needed all provided students with the opportunity to learn how to adapt and better communicate. Students also left traces of these acts in their portfolios.

Finally, the last section, conceived more from the perspective of self-development, consisted of having each individual in the class reflect on the possible choice of a future career in science. Students were called upon to communicate the results of their reflections in a discussion forum. Carrying out this activity called upon a sense of responsibility and the ability to communicate using information technologies.

Physics

The course in which students do their comprehensive examination for a program (*épreuve synthèse de programme*: ESP) serves as a performance venue for graduating students and constitutes the ideal context for taking the measure of the common competencies developed over the course of the CEGEP career.

While the five common competencies could easily have been integrated into the final projects carried out by students as part of this course, the ones chosen for the trial were those that fit more naturally into a scientific process, namely problem solving and communication. They were worked on from both a disciplinary and a broader perspective, which

enabled students to develop their ability to solve problems of different kinds and to solve them in particular through conflict management. Each student prepared a portfolio containing all the traces of the work process that unfolded in connection with the ESP project and the common competencies. These included a formal self-assessment. A logbook that documented lab involvement and lab work also shed light on both common and disciplinary competencies. Finally, an oral presentation allowed for the partial evaluation of mastery of the different competencies.

OVERVIEW OF THE TRIAL

We can assert without hesitation that the trial carried out at Cégep Marie-Victorin proved overall to be a positive experience for both the teaching team that participated in the project and the majority of students. The students thoroughly got engaged in the process and developed their common competencies in the way we had foreseen.

POSITIVE ASPECTS OF THE TRIAL

Right from the start of the reflection process, the teaching team involved in the project deemed that several common competencies were already being addressed in CEGEP programs, at any rate in each of their own courses. This position was reaffirmed throughout the course of our work. Numerous activities that were set up as part of the pilot project had already begun to take root even before this more formal reflection began. These activities proved to be relevant and effective. Teachers deepened them, emphasized their implementation, and had students reflect on them by carefully orchestrating various methods of diagnostic assessment, self-assessment, and reflective review. True, students were already developing common competencies in their CEGEP careers before this trial was launched. But factors related to heightened awareness, their own recognition of having made headway, and their evaluation of the positive impacts of this progress all represent the levers needed to render the process more tangible and operational. Thus students can set personal goals and pursue their own progress with the aim of surpassing themselves. This process of coming to awareness undoubtedly represents for students the most significant aspect of this whole trial.

Of the strategies designed to promote the development of common competencies, the learning portfolio proved to be a bearer of meaning during this process. This tool not only made it possible to develop the common competencies and render students aware of their own progress, but it also provided the opportunity for students to improve their disciplinary competencies. To be creative, to adapt, to problem solve, to communicate one's thoughts, and to develop one's independence and sense of responsibility are surely all things that provide students with a springboard for becoming better at philosophy, physics, and so on.

It is our belief that an effort of this kind at clarifying the specific nature and the common natures of the common competencies would benefit every program of studies.

AREAS FOR IMPROVEMENT

It's clear, despite the success of this trial, that the implementation of any educational project benefits from being revised, nuanced, and refined.

The members of the teaching team involved in the project agree that one more common competency could be developed by college students. The missing competency is «Teamwork.» Too often we require students to work in teams but we do not systematically train them in how to do so. This competency is inevitably common to all training programs and is highly important in any individual's professional life today.

We also pondered the way some common competencies overlap with a given program's general goals. To illustrate, let's take the common competency «Problem solving» in the context of the Science Program. This competency is clearly formulated as part of the program's general goals. Where should we place the distinction between the competency's disciplinary characteristics and its common characteristics? By orienting the development of this competency according to the goals of the Science Program, we give it a specific (disciplinary) nature. In those circumstances, the problem-solving process corresponds to an applied dimension of science. On the other hand, if the development of this common competency is shaped by a self-development perspective, students' training in problem solving should clearly go well beyond the specialized field of sciences: the student should learn how to solve any problems encountered in everyday life.

It is our belief that an effort of this kind at clarifying the specific nature and the common nature of the common competencies would benefit every program of studies. Within the general goals of a given program, are there statements directly linked to the common competencies? It seems important to highlight such overlap in order to ensure that we do not limit ourselves to a strictly disciplinary development of these competencies. Each common competency has a rich,



complementary, cross-disciplinary contribution to make, which has an impact on individuals' everyday lives. These are the aspects it is important not to lose sight of; otherwise some common competencies risk being treated as disciplinary ones, especially when they are associated with a given program's general goals.

Equally, it is important to inquire about the way teachers, who are above all experts in their disciplines, could be equipped to make such cross-curricular forms of learning explicit to students. It seems desirable for professional development exercises to be set up and for teachers to be supported by their educational advising teams in developing specific skills allowing them to take part in a process of this kind.

CONCLUSION

In sum, the balance sheet for the trial conducted at Cégep Marie-Victorin is positive. An approach of gradual implementation was taken in carrying out the project. This often facilitates the implementation of new measures by allowing people to adopt them in a progressive manner.

It is our hope that the work carried out in connection with this trial will have a positive impact on those in the system. We especially hope that the project summary presented here will help teachers identify some courses of action enabling them to adapt the task of developing common competencies at the CEGEP level to their own realities.

REFERENCES

COMMISSION DE L'ENSEIGNEMENT COLLÉGIAL. 1995. *Des conditions de réussite au collégial. Réflexion à partir de points de vue étudiants, Avis au ministre de l'Éducation*. Sainte-Foy, QC: Conseil supérieur de l'éducation.

CÔTÉ, F. 2009. *Le dossier d'étude, pour évaluer autrement… un portfolio d'apprentissage*. Montreal, QC: AQPC.

D'AMOUR, C. and GROUPE DE TRAVAIL DE PERFORMA. 1996. *L'évaluation des apprentissages au collégial: du cours au programme. Booklets 1 and II*. Sherbrooke, QC: PERFORMA.

HERMANN G., M. POIRIER, and P. DESHAIES. 2003. *Projet Enseigner au collégial*. Regroupement des collèges. Sherbrooke, QC: PERFORMA.

ROY, J., and N. MAINGUY, in collaboration with M. GAUTHIER and L. GIROUX. 2005. *Étude comparée sur la réussite scolaire en milieu collégial selon une approche d'écologie sociale*. PAREA research report. Quebec City, QC: Cégep de Sainte-Foy.

SCALLON, G. 2004. *L'évaluation des apprentissages dans une approche par compétences*. Brussells: De Boeck Université.

TARDIF, J. 2006. *L'évaluation des compétences, Documenter le parcours de développement*. Montreal, QC: Chenelière Éducation.

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