

CONSEIL SUPÉRIEUR DE L'ÉDUCATION



**TOWARD AN UPDATED VISION
OF GRADUATE AND POST-DOCTORAL STUDIES**

BRIEF TO THE MINISTER OF EDUCATION, RECREATION AND SPORTS

October 2010

SUMMARY

In its brief *Pour une vision actualisée des formations universitaires aux cycles supérieurs*, the Conseil supérieur de l'éducation maintains that graduate and post-doctoral studies offer individual and collective benefits that stem as much from research and innovation as from highly-trained professionals, researchers and creative individuals. Nearly every sphere of human activity—be it social, economic, scientific or cultural—stands to profit from these valuable assets, which need to be considered in any short- or long-term analysis.

With the advent of a knowledge-based society, the Conseil has been concerned with Québec's place in the competitive international arena of higher education. In 2008, it recommended raising education levels (including both master's and doctoral), an initiative that would moreover require a more in-depth review of graduate and post-doctoral studies. This was meant to define the current state of Québec universities, as the last time this had been done was at the beginning of the 1990s by the Conseil des universités. Indeed, the recent significant increase of graduate programs in Québec validates this concern. Among some of changes observed by the Conseil over this period were a growth in student populations, a wider choice of programs leading to master's or doctoral degrees, the introduction of professional doctoral degree programs, new post-doctoral fellowships in several disciplines and more graduate programs leading to an attestation, a certificate or a diploma (second cycle).

The Conseil therefore wished to define the trends, phenomena and challenges dominating the field of graduate and post-doctoral studies. To this end, the work in preparing this Brief consisted of:

- A quantitative profile of trends in the number of both graduate students and graduate study programs;
- A review of literature and consultation with experts on the various aspects of graduate and post-doctoral studies, namely growth factors and workplace integration of graduates;
- Consultation with key stakeholder representatives;
- A series of interviews with deans and administrators of graduate and post-doctoral studies from every Québec university and at the Université du Québec's main headquarters;
- A review of literature on current trends and characteristics of graduate and post-doctoral studies in other university systems (notably in Europe and the United States).

Following its work and analysis, the Conseil formulated three key objectives that could guide various stakeholder groups in their pursuit of a sustainable and effective development of graduate and post-doctoral studies in Québec:

- To ensure an education offer capable of meeting collective needs both quantitatively and qualitatively, as well as fostering Québec's advancement as a knowledge-based society;
- To foster individual success at the graduate level through relevant programs, financial support and optimal conditions for mentoring, the quality of which is fundamental to graduate student persistence and the fulfilment of individual education goals within a reasonable period of time;
- To promote a sustainable and effective campaign for developing high-quality graduate and post-doctoral studies, primarily by leveraging the concerted effort of various players.

Promoting the Distinctiveness of Graduate and Post-Doctoral Studies In Québec

The macro-social approach used in the preparation of its Brief enabled the Conseil to study the characteristics of various aspects of graduate and post-doctoral studies and define the distinctiveness of the Québec university system in this regard. These aspects highlighted—particularly at the master’s level—the issue of Québec universities’ competitiveness internationally. In fact, recruiting students from within and outside Québec has assumed a strategic role in the development of universities and society in general. In recent years, universities in Québec have indeed seen an increase in their student populations coming from outside its borders. These gains can be tenuous at best, however, and tend to vary with national and global economic fluctuations.

This consequently questions the relevance of university systems sharing curricular models, as was the case of the Bachelor–Master–Doctorate (BMD) system adopted in Europe. This pan-continental system of standardization was met with resistance and criticism. The Conseil deems that the distinctiveness of programs offered by Québec universities is not only rooted in its history and culture, but also embodies an adapted response to individual and collective needs. In addition, the caliber of these programs appears to be a stronger drawing card than their duration. Moreover, the challenge of recognizing foreign educational credentials is not particularly insurmountable, as university players are already working on defining the necessary equivalencies between training received in Québec and elsewhere.

This position underscores the importance of Québec gaining recognition at home and abroad for the distinctiveness and variety of its graduate and post-doctoral studies. In fact, promoting this distinctiveness appears vital to raising education levels, supporting student mobility of those trained in Québec universities, and improving the standing of the latter internationally.

Updating Some Practices In Graduate and Post-Doctoral Studies In Québec

Following its overview of the current state of graduate and post-doctoral studies, the Conseil reaffirmed their relevance to both individuals and society. It believes, however, that updating some practices to ensure the sustainability of their development would be prudent:

- The Conseil associates the special value placed on the **master’s degree** with the fact that in Québec, it has long been considered the highest of degrees. In fact, a well-written and defended master’s thesis has often been a prerequisite for admission to doctoral studies. With the current increase in the number of doctoral programs in Québec universities, however, the relevance of this requirement could be called into question, at least in the case of master’s students with proven considerable research skills. In light of data on the duration of a master’s program and the objective of raising education levels, some are increasingly resorting to an accelerated path between a master’s and a doctorate.
- Although its graduates typically enjoy higher rates of employment, the **doctoral degree** is not without its share of critics, who argue that at times it inadequately prepares students for a career, either in the academic world or outside of it. While the benefits of graduate studies must be considered within a more comprehensive perspective than merely preparing students for the workplace, the Conseil nevertheless encourages the establishment of initiatives designed to develop essential workplace skills in research students. With regard to graduate student persistence, data analysis reveals that almost half of doctoral students do not complete their degree. Reasons for not doing so can cover a broad range of experiences that may or may not be linked to academic failure. Given the considerable cost

of withdrawing at this high level of education—both for the individual and society—it is the opinion of the Conseil that this issue merits further study. As for professional doctoral degrees, while their introduction appears to meet the specialized needs inherent in a knowledge-based society, questions remain concerning their similarities and differences with doctoral programs leading to a Ph.D. Consequently, the Conseil invites Québec universities to collectively agree upon the groundwork leading their creation.

- Confident of the valuable contribution of **post-doctoral fellows** to national research, the Conseil calls for the establishment of favourable conditions for their recruitment and tenure in Québec universities. Post-doctoral studies are generally recognized as specialization in research, yet this is not always reflected in practice, particularly in the area of university funding and taxation of scholarships. Also, fellowship applicants are sometimes denied admission essentially due to time lapses after obtaining their degree. In the opinion of the Conseil, post-doctoral studies should be fully considered as specialization in research—particularly by universities and the Ministère de l'Éducation, du Loisir et du Sport (MELS)—and its definition be amended to ensure admission for any qualified candidate whose research project is fully within the fellowship's scope.
- The recent increase in **graduate attestations, certificates and diplomas** (second cycle) clearly indicates the value they represent for individuals and society. The needs and expectations these credentials meet can be many: upgrading knowledge and work skills, ongoing professional development required by associations, training for one's own personal development or in preparation for admission to a master's program, etc. The individual programs and students themselves—an heterogeneous group that has yet to be well-documented—have additional goals of their own. Moreover, conflicts can arise between program providers (universities) and users (professional associations or employers) at the time these programs are created. Considering they are not always submitted to a formal approval process—as is the case for any program leading to a degree—the Conseil calls on universities to ensure such mechanisms be established.

Lastly, the Conseil emphasized the importance of data and analysis to monitor trends in graduate and post-doctoral studies and ensure the relevance of their response to individual and collective needs. For this reason, and given its stewardship role within the education system, the Conseil recommends the MELS oversee the preparation of periodic studies on graduate students—including fellows and those enrolled in attestation, certificate or diploma programs—to document their paths, motivation and opinions regarding their studies.

Fostering Graduate Student Success In An Optimal Time Frame

In its Brief, the Conseil also expresses its concern with the issue of prolonging or withdrawing from graduate studies. While both are often the result of the interaction of many factors, the Conseil focused on two significant ones: financial support and mentoring of graduate students.

- Various studies have revealed that both graduate students and post-doctoral fellows are susceptible to financial pressures, leading some to prolong if not withdraw from their studies, as this financial stress can divert time and energy away from education plans. Specifically regarding merit scholarships awarded by funding agencies, the Conseil noted that a great number of deserving applicants are declined, and that some disciplines receive less funding than others. Consequently, the Conseil recommends increasing the number of merit scholarships across all disciplines, and that their amounts be indexed.

- In a context where the growth rate of the graduate student population has surpassed that of the faculty, issues related to the availability of supervisors to mentor graduate students have been observed. Moreover, challenges can also arise from the dual relationships between professor/employer and student/employee: In a case where the latter receives payment for his or her participation in a research project of the former, the objectives of training and the production of outcomes may come into conflict. For this reason, many universities have established policies and procedures that clearly outline the rights and responsibilities of each (graduate student/fellow, professor, university). In some cases, new forms of supervision have been added to the traditional dual professor-student relationship model. The Conseil encourages the adoption of these practices.

Ensuring a Sustainable and Effective Development of Graduate and Post-Doctoral Studies

Lastly, the Conseil's examination focused on factors that put at risk the ability of Québec universities to fully carry out their mission of offering relevant and high-quality graduate and post-doctoral studies. Adequate funding of universities, more research grants, and the equitable awarding of the latter between various disciplines as well as increased inter-institutional partnerships are just some of the key levers that could ensure a sustainable and effective development of graduate and post-doctoral studies.

In addition to an updated review of graduate and post-doctoral studies and definitions of their intrinsic issues and challenges, a final analysis has emerged from this Brief: The transformation of graduate studies in Québec is the result of a collective effort to raise education levels and meet individual and collective needs. Moreover, their rich and varied nature reflect the vitality of the universities, and seen in this light these studies unquestionably represent a valuable asset for Québec. The advent of a knowledge-based society demands an ongoing and collective effort toward a sustainable and effective development of graduate and post-doctoral studies. The Conseil therefore invites the Government and all Québec university players to join in this effort.

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The complete text of the brief: **Pour une vision actualisée des formations universitaires aux cycles supérieurs** (in French) is available on the web site of the Conseil supérieur de l'éducation (www.cse.gouv.qc.ca); it is also possible to request a copy by telephone at (418) 643-3851.