

DIALOGUE BETWEEN RESEARCH AND PRACTICE IN EDUCATION: A KEY TO SUCCESS



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Educational research and educational practice: Some say these two solitudes are worlds apart. On one side we have researchers, producers and subscribers of theories that are sometimes obscure—but never clear—, method-oriented finicky people producing results that are as detailed as they are inapplicable. On the other hand we have pragmatic teachers, experts in their fields, strong supporters of trial and error pedagogy, who have developed a rich and practical experience over the years, one that is impossible to transmit because it is essentially singular. But enough of clichés! What if reality were different?

The Conseil supérieur de l'éducation¹ (CSE) spent the last 20 months taking a closer look at the interrelations between research and practice in education, believing it had unveiled a major connection to an issue that has preoccupied it for at least a decade: Educational success. Was it possible that the intensity and quality of these relationships were key elements of this success?

In its 2005-2006 annual report on the state and needs in education², the CSE stressed the interface zones that support or are likely to favour exchanges between research and practice in education. While recognizing the autonomy of these two sectors, the CSE refused to accept their respective isolation.

From the outset, the Conseil reiterated its conviction that these interface zones could be instrumental in the increase and dissemination of long-lasting innovations, the distribution of research results, the appropriation of these results by practitioners and, ultimately, the improvement of educational practices, including the success of a greater number of pupils and students.

As it turns out, the pedagogical reforms that began in cégeps over ten years ago make it even more urgent to develop these interfaces between research and practice if we are to promote their mutual growth. It is after all, unimaginable that research be deprived of input from practitioners and, similarly, that practitioners be unaware of research. In its reflections, the CSE asked the three following questions:

1. Do researchers in education understand, take into account and use the innovations and new knowledge emerging from current educational practices?
2. Do educational practitioners know, understand and use the results of research in education?
3. Do researchers and practitioners have access to interfaces for exchanging views on innovation and for establishing links between research and practice?

¹ This text is taken from a conference given by the author at the ARC's Belles rencontres, on January 11, 2006. The considerations on elementary and high schools were limited to concentrate on situations that are observable in colleges.

² The report entitled *Le dialogue entre la recherche et la pratique en éducation: une clé pour la réussite* can be downloaded from [www.cse.gouv.qc.ca] or can be obtained by calling 418-643-3850.

The CSE provided more or less detailed answers to these three questions depending on the level of education in question as well as the time and resources at its disposal. The Conseil first proceeded with a vast documentation search in order to retrace the evolution of educational research in Québec since 1960. In conjunction with CRIFPE (Centre de recherche interuniversitaire sur la formation et la profession), it conducted a survey among elementary and high school teachers and consulted some thirty professors at collegial level. It also received input from a certain number of spokespersons or representatives of organizations whose objective is to facilitate relations between research and practice in education.

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THE DEVELOPMENT AND INTERCONNECTIONS BETWEEN RESEARCH, PRACTICE AND INNOVATION IN EDUCATION

Research in education is relatively young in Québec. It began progressing slowly in the second half of the 1960s with the creation of faculties and departments in Education or the Faculty of Education. In cégeps, born at the same period, the pedagogical tools were, to a large extent, the result of individual and collective research.



The MEQ (Ministère de l'Éducation du Québec) was a driving force particularly between 1972 and 1978. Research subsidy programs were initiated in colleges in 1972, followed by subsidies for pedagogical innovation (PROSIP) in 1973. Reviewing a summary of activities during the 70's shows that research was based on a linear model that did not support interaction between theory and practice, between research and its practical application: The first and foremost value remained "expert knowledge".

Then in the 80's, research in education began to diversify. Several fields emerged such as evaluation, didactics, foundations, psychopedagogy, andragogy, etc. But this explosion distanced researchers even further from practitioners. Research was now part of the logic of the university culture and, increasingly, it met the requirements for a teaching career as well as those of the subsidizing organizations.

Another explanation for the rapprochement between the research community and practitioners is the trend towards greater professionalization among teachers.

Colleges also began acknowledging research activities. In 1979, the CSE noted that "the needs of teachers, students, and the education community in general seem to justify diversified research and experimentation activities". It therefore seems important for the Conseil to "reevaluate the components of the teachers' task, particularly those who already have experience, adding research and experimentation to the mix".

The 90's witnessed a greater openness for research in educational practice, in spite of the persistent tendency to favour the knowledge of experts. We also realized that research in education must

be done somewhere other than in laboratories and that knowledge destined for the training of future teachers must be constructed with the input of the practitioners themselves. This new alignment corresponds with a reorientation of the educational departments' mission with regard to teachers' professional training; a reorientation that itself resulted from the movement to professionalize teaching at the turn of the 90's. At the core of professionalization there exists the conviction that it rests on knowledge of a higher order, itself based on scientific research. During this decade a partnership developed between faculties and teaching institutions to initiate research-action projects or collaborative research projects.

In collegial teaching, the government's recognition of research activities in the *Loi sur les collèges* echoes the pedagogical renewal begun in 1993. The new orientations result in major developments in disciplinary research, technological research and innovation.

Another explanation for the rapprochement between the research community and practitioners is the trend among teachers towards greater professionalization. We will not go over the progress made in this area since the CSE provides this information elsewhere. I will mention a major result of this movement, the publication in 2001 of the ministerial repository on professional competencies used as a basis for approving university training programs for elementary and high school teachers. One of the twelve competencies that any future teacher must master deals precisely with his professional development, among others, and his capacity to use research results and to collaborate with researchers in order to improve his personal educational practice. I would like to emphasize that there is no such document for college³ and university professors and there is good reason to question this state of affairs.

At the end of this initial period of reflection, we have noticed a double and undeniable convergence in the development of research in education and the professionalization of teaching. This convergence is not yet complete; it is not even assured or very visible. The gap between both worlds is real and could well be caused by the prevailing model used to transfer research knowledge to practitioners, a model still used for training teachers (Tardif, Lessard and Gauthier). According to Yves Lenoir of the Université de Sherbrooke, this model "has very little relation to the requirements of professional training".

LINKS BETWEEN RESEARCH AND PRACTICE: A STATUS REPORT

An empirical or exhaustive description of the state of links and interfaces between research and practice was too vast an undertaking, given the time and resources at the CSE's disposal. The Conseil would have liked to further its empirical exploration on the use of practical knowledge by researchers in education. This aspect could only be approached through research information, which revealed that researchers in education are increasingly receptive to knowledge resulting from the practice of teaching. This is a major effect of the previously described convergence. However, the

³ Editor's Note: Although not official, an equivalent of this document in the collegial network has been produced by PERFORMA based on the work of a research group. It outlines the profile of competencies of collegial teachers which includes the teacher's participation in the collegial research network and that of education as a whole.



Conseil was unable to determine the magnitude and the effect of this convergence. On the other hand, it was able to examine two questions more closely:

1. How do teachers use the knowledge and results derived from research in education?
2. What is the status of the interfaces between the teaching environment and research in education?

DOES RESEARCH IN EDUCATION NOURISH PRACTICE?

The Conseil examined this question at the elementary and secondary school levels, and also at the collegial level. The results obtained at the collegial level are the ones presented here.

Even though an in-depth survey conducted by the Conseil at elementary and high school levels provided a wealth of information on the subject, consultations among college professors provided us with insufficient information with regard to ease of access to research in education and its degree of practical use. There is very little investigation being done in this field. On the other hand, these consultations shed some light on concerns for conditions that facilitate research in general and pedagogical research in particular. Other indications made it possible for the CSE to answer, albeit only partially, the question of access and use of research in education by college professors.

- 1st indication– Cégep professors have more schooling: Two-thirds have 18 or 19 years of scholarship, which favours the use of research as noted at elementary and secondary levels.
- 2nd indication– The publication *Pédagogie collégiale*, containing articles written by researchers and practitioners who experiment with new educational strategies, is widely available in academic circles.
- 3rd indication– The annual AQPC convention (Association québécoise de pédagogie collégiale) welcomes between 800 and 1,000 people. Communications deal mainly with experimental and innovative work in pedagogy as well as research in the field.
- 4th indication– Cégeps benefit from the services of the CDC (Centre de documentation collégiale) that provides access to collegial research results. Several professors file their work there.
- 5th indication – the ARC (Association pour la recherche au collégial) is a major meeting place for researchers in general, including researchers in education.

In summary, a number of efforts are being put forth to ensure distribution and access to research. Are teachers putting these results to good use?

Beyond these questions, research in education at the collegial level is facing more global difficulties, as is the case with research in general. These issues are not related to legal acknowledgement which has already been achieved, but rather to the

effective recognition of this mission in colleges. Of course, this involves access to subsidy programs, the reconciliation of research and teaching activities, the lack of resources and support as well as the difficulty in participating in dissemination activities, notably symposiums. In addition there is also a debate among college teachers, in particular, regarding the importance that research should be given in the exercise of the teaching profession.

In summary, a number of efforts are being put forth to ensure distribution and access to research. Are teachers putting these results to good use?

At the end of this analysis, we are able to provide answers to our initial questions: More and more university researchers are taking the practical knowledge of teachers into account; however, there is no way to measure to what extent this trend is the result of a convergence between the development of research and the professionalization of teaching. Even though circumstances at collegial level are not as well known as those found in elementary and secondary⁴ levels, various indications lead us to believe that college teachers benefit from good access to information. We firmly believe the use of research studies is even greater, given the link (noted at the secondary level) between usage and level of education, which is usually much higher in teachers at collegial level. This hypothesis has not been confirmed.

⁴ The great majority of elementary and secondary level teachers declare that they have access to information sources connected to research; two-thirds state they have consulted these sources, including one-third who do it often or very often, and, among those who have consulted them, 75% have used them in one way or another in their practice.



[...] educational advisors play a central and predominant role in this respect.

INTERFACES BETWEEN RESEARCH AND EDUCATIONAL PRACTICE

The organizations

The CSE believes that in order to develop the interrelations between educational research and practice, effective interfaces are needed. We believe this is the way to achieve a synergetic transfer of knowledge between the two worlds (each with its own logic and particular reason for being).

Without being exhaustive, a survey conducted by the CSE identified at least 175 groups, places, organizations, associations and dissemination tools whose mission includes, creates, and/or allows for interfaces between practice and research in education. However, these interfaces are often reserved for members and contributors of the organizations who implemented them. In fact, there are very few exchange forums open to the general public. Two notable exceptions to this rule are the CETREQ (Centre de transfert pour la réussite éducative) and the CPI (Conseil pédagogique interdisciplinaire).

Pedagogical counselling

A survey among teachers revealed that pedagogical support was one factor favouring access to research and its practical application. Although not alone, educational advisors (EA) play a central and predominant role in this respect. The Conseil examined this aspect in greater detail particularly at collegial level.

In colleges, the function of an educational advisor is generally not well known.

A recent study by St-Pierre (PERFORMA) shows that supporting teaching teams in order to follow-up on reform measures undertaken in 1993, takes up a large part of an advisor's time.

Based on an unpublished study by Marielle Pratte and Hélène Houle (PERFORMA), 80% of advisors say pedagogical expertise is increasing; that they provide intelligence and classify information on thematic files, reference tools, etc. With regard to pedagogical development, very few spend any research time in this area: 30% say they support research activities while 13% are conducting research themselves. On the other hand, teachers and management personnel would like to see EA's perform these functions more often.

For the time being, the Conseil notes that the main thrust of efforts put forth by EA's has been directed towards applying reforms; it is hard for them to assume their role of providing support and interfacing between research, innovation and practical education.

CURRENT ROLE OF THE STATE

In the year 2000, the CST (Conseil de la science et de la technologie) outlined three conditions for research results to be used by practitioners:

- The need to take into account the particular contexts of targeted users when formulating projects;
- The presence of linking mechanisms between researchers and potential users, before, during and after the research;
- The targeted and systematic dissemination of results in potential-user environments.

The Conseil supérieur believes that the State has a role to play, particularly with regard to the last two conditions. Despite the existence of a global government policy in matters of innovation, the educational sector has no existing policy to stimulate innovation and support exchanges between research and practice. There are nevertheless several noteworthy sectorial programs:

- The program *Agir autrement*;
- The CTRE (centre de transfert pour la réussite éducative) supported by the State;
- The FQRSC (programme de recherche pour la réussite scolaire);
- The program on NICT applications (FQRSC).

However, Québec disposes of few systematic measures that support the exchange of educational knowledge, such as those found in other countries. The annual report will summarize the policies implemented in a certain number of these.

The answer to our third initial question, which asked if researchers and practitioners have access to interfaces for exchanging views on innovation and for establishing links between research and practice, is full of nuances.



In fact, there are a number of institutional or instrumental interfaces between research and practice in education and, save for rare exceptions like *Vie pédagogique* or *Pédagogie collégiale*, they interconnect limited publics. In addition, State support for the exchange of knowledge between researchers and practitioners remains underdeveloped. The Conseil also observed that counselling functions performed by the establishments' management and peers, but especially by educational advisors, is a promising path for facilitating the dialogue between research and practice, one on which we must pursue our reflection.

ORIENTATIONS

What should we do now? In light of the observations noted in its report, the Conseil recommends a few orientations for increasing the synergy between research and practice.

FIRST ORIENTATION

Recognize that supporting research in education is a necessary role for the State

The State has a duty to support educational success for all, and research is part of the means at its disposal to reach this goal. The Conseil believes that the State must begin by adopting a global and systematic strategy in matters of research and the exchange of knowledge in education. For instance, include in Québec's policy on science and innovation the need to support the development of research in education by determining its major axes and by defining the targets to be reached. Secondly, this action should translate into increased financing for research in education. Based on current indications, financing appears insufficient in relation to the place occupied by the sciences of education in the university environment, and, especially, it does not take into account the priority given by the State to its mission in education.

SECOND ORIENTATION

Support innovation in education

Support for innovation must be accentuated. The CSE believes that innovation in education is a major convergence point between research and practice. The general consensus is that innovation is a crucial driving force behind economic development. Even though, as it stands, this statement may not be applied to education, problems observed in this field call for novel solutions. The Conseil is striving to find these, starting with an abundant review of literature. This is also a key for success.

Not everything should be considered an innovation in education: it is neither a gadget nor a new trend. After some solid documentary research, the CSE came up with the following definition:

"Innovation in education is a deliberate process for transforming practices by the introduction of a curricular, pedagogical or organizational novelty that is purposefully disseminated and designed to produce a long-lasting improvement in educational success for school children or students".

The Conseil was unable to conduct a large survey on innovations in education. It did notice however, that the government's policy on innovation has not enjoyed the anticipated success in the education field. Except for certain noteworthy examples, few innovative projects have had any impact.

We should mention two things about innovation. First, that it can emerge from practice as well as from research. Second, the richer the interfaces between practice and research, the greater the chances of seeing pedagogical innovations appear. Innovation is an under exploited sector. The CSE believes the time has come for all players in educational field, including institutions and individuals, according to their respective mandates and roles, to open and develop this sector.

The State has the duty to promote educational success for all, and research is part of the means at its disposal to achieve this goal.

THIRD ORIENTATION

Prepare teachers for research, with initial and then ongoing training.

A CSE survey among teachers showed that there is a close correlation between training in research and the use that teachers make of research results. We should also keep in mind that the capacity to access research and use it has become one of the professional competencies required of every new teacher. However, a study of current university training programs reveals a certain lack in this respect, a void that needs to be filled.

Compared to elementary and secondary levels, the college perspective is different, given that a majority of professors have a 2nd level diploma and are therefore



prepared for research. The CSE believes that intensifying the connection between research and practice should satisfy teachers' training needs. Ongoing training should, on one hand, encourage teachers to use pedagogical research and its results in their practice and, on the other, to become increasingly involved in pedagogical research projects.

FOURTH ORIENTATION

Assure professional support for practitioners in order to promote access to research and encourage innovative practices

Based on the information gathered, the CSE believes educational advisors play a very important role in promoting a dialogue between researchers and practitioners in education. This observation was however, indirectly acquired and only partially at that. The Conseil also believes there is a real need to reflect on the importance that should be given to the role of educational advisor, collegial level included. On one hand, there are not enough of these professionals and, on the other hand, they have multiple, diversified and often badly defined functions.

The Conseil feels that teachers require stable, ongoing and long-lasting support if we want them to make the most of research results in their practice.

The CSE is convinced of the importance of the particular role educational advisors play in promoting dialogue between researchers and practitioners in education.

FIFTH ORIENTATION

Increase the transfer of research and the dissemination of practical knowledge in education

This orientation can be projected along four major axes:

- Disseminate research, in particular by increasing the measures for popularizing research results;
- Implement activities to make sure research results are known and facilitate their dissemination;
- Set up a network of various partners in research and practice in education;
- Carry out a transfer of knowledge via user-friendly means.

For as far as this orientation is concerned, the CSE believes the State plays a crucial role as initiator and coordinator.

CONCLUSION

We need to intensify the dialogue already underway between practice and research in education, since it is unthinkable to try to improve educational practices or introduce new ones that are not based on knowledge acquired through research. Conversely, research cannot progress without taking into account the experiments that have seen success in the field. To broaden this dialogue, the following elements are important assets:

- The professionalization of the teaching profession, based in part on knowledge emerging from research;
- The sustained development of research in education over the last 30 years and the ongoing rapprochement between researchers and practitioners;
- The support given to professionals in establishments already striving to appropriate research.

In all three cases, it is necessary to pursue the development of forces involved, to create the impetus to move forward. This means:

- The State must be even more committed to supporting research, innovation and the transfer of knowledge;
- Researchers are invited to take a greater interest in what's happening in practice and, for their part, practitioners must work to broaden the culture of research in education. There can be no doubt that better initial and ongoing training is necessary to reach this goal;
- We must support the collection and dissemination of practical knowledge in education, as well as knowledge resulting from research.



Finally, I would put forth a few humble suggestions taken from our annual report, in the hope of extending their impact.

- Analyse the particular role that must be played by the interrelations between research in collegial education, research done by university teachers or researchers, on one hand, and educational practices, on the other.
- Promote the development of research in collegial education within cégeps and universities.
- Create, among collegial educational advisors, a debate on the counselling role they must assume to promote dialogue between researchers and practitioners.
- Participate in the development of a dissemination network that supports the exchange of knowledge in education and its transfer into practice. ◀

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