THE PERSONAL ORIENTATION PROJECT:

A New Program for Secondary Cycle Two Students
in the Context of the Education Reform

RESULTS OF FIELD-TESTING CONDUCTED WITH SECONDARY CYCLE THREE STUDENTS

Québec

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Introduction

This document deals with two research studies carried out by the Service de la recherche of the Ministère de l'Éducation, du Loisir et du Sport (MELS) on the field-testing[1] of the Personal Orientation Project (POP). The POP was field-tested in a school board in the Chaudière-Appalaches region in 2004-2005 and in four school boards in 2005-2006, namely one from the Chaudière-Appalaches, Montréal, Estrie and Gaspésie regions respectively.

This document is primarily intended for MELS and school system staff who may be interested in the findings of the field-tests. It outlines the information derived from the data provided by school staff (teachers, school administrators, career counsellors) and Secondary III students and their parents on several occasions, with a view to identifying the main trends that emerged from the research studies.

The results of the 2004-2005 study should be considered preliminary. It should be noted that while the 2005-2006 study is independent of the first one, it uses similar methodology. The sample used for the 2005-2006 study consisted of students from four Québec school boards from the regions mentioned above; it was larger and also included control groups. The results of this more extensive study provided a broader view of POP implementation and some of its effects.

This report begins with a brief presentation of the context of the research project and its objectives. The research methodology, the main findings of the 2005-2006 study, and the trends that emerged from the 2004-2005 study are then presented. It ends with a discussion of the overall results and of the limitations of the study, followed by a general conclusion.

1. The official implementation of the POP will occur in autumn 2007. Program trials took place between September 2003 and June 2006.

1. Context

General Context

In the wake of studies carried out on education reform and in continuity with those on the guidance-oriented approach to learning, emphasis has been placed on the importance of academic and career information in enabling students to properly prepare for the increasingly numerous and complex challenges encountered in today's society. Once they enter the labour market, these young people will face situations that require them to be disciplined, creative and resourceful. The education reform reaffirms the role of the student as the main architect of his or her own learning. With proper support from various educators, students build their understanding of the world and learn to define themselves as unique persons, in terms of their needs, potential and aspirations.

The guidance-oriented approach to learning promotes a career development process that fits into a continuum. Starting at the end of elementary school, students are gradually encouraged to identify their fields of interests, abilities and aptitudes, and to discover the academic and working worlds. In its 2003-2004 annual report on the state and needs of education, the Conseil supérieur de l'éducation pointed out that the career development process begins well before students embark on a specific educational path leading to a specific career.[2] The report also mentions that the Québec education system must offer students the opportunity to make choices, test their abilities and validate these choices.

Specific Context

The Personal Orientation Project (POP) is an individual learning approach within the career development process undertaken by the student in the context of the secondary-level Québec Education Program and the guidance-oriented approach to learning. As part of this structured process that emphasizes concrete exploration and whose objective is to facilitate the exploration of career options, students take a proactive approach to developing their identity and learn to build their own academic and career plan. The POP allows students to develop and integrate their competencies through concrete situations and practical activities. The educational approach associated with the POP is a socioconstructivist one that is structured, yet flexible enough to accommodate the needs of individual students.[3] As indicated in the description of the program, the POP marks an important stage halfway through secondary school, and is part of a career-development process that was introduced with the implementation of the guidance-oriented approach.

2. Conseil supérieur de l'éducation, *Rapport annuel 2003-2004 : L'éducation à la vie professionnelle : valoriser toutes les avenues, 2005.*
3. Québec. Ministère de l'Éducation, *Québec Education Program, Secondary Cycle One*. Ministère de l'Éducation, Gouvernement du Québec, 2004.

This program is therefore part of the new Basic school regulation for preschool, elementary and secondary education, and reflects the new framework for student services.[4] Starting in fall 2007, the year in which the education reform is to be implemented in Secondary III, the POP will be included in the subject-time allocation table as an optional course for students in the general education path and as a compulsory course for students in the applied general education path. A program design committee led by the Ministère de l'Éducation, du Loisir et du Sport (MELS) was in charge of validating the orientations of the POP. This committee was composed of representatives of schools and school boards and experts from the world of academia.

The committee's work made it possible to identify the two competencies targeted by the POP, namely, Carries out a process of career exploration and Contemplates his or her learning and work possibilities.

In 2003-2004, the MELS carried out a pilot project to field-test the POP. The field-testing was done over a period of ten hours with a group of 28 Secondary III students in a comprehensive high school in the Chaudière-Appalaches region. The purpose of the field-testing was to determine the project's feasibility. A questionnaire on students' career aspirations and plans[5] was used to gather the data.

In 2004-2005, a research study was conducted to evaluate field-testing of the POP; this time, a larger number of students were involved. The objective of this study was to identify aspects that needed adjusting, with a view to improving the POP and meeting students' needs as effectively as possible. The MELS wanted to identify the conditions essential to the implementation of the POP in order to identify its strengths and weaknesses so as to improve the written quality of the actual program.

In 2005-2006, a new study was carried out involving students from four different francophone schools in four different regions. The purpose of this study was also to evaluate field-testing of the POP and it provided a broader and more complete picture of the conditions that are conducive to POP implementation. The use of control groups added a comparative aspect in terms of career guidance and vocational identity.

The objectives of the two studies were:

1. Achievement of the first objective made it possible to document the types of action taken by teachers, career counsellors and school board participants with respect to the POP, as well as the context in which this action was taken during the field-tests.

4. Québec. Ministère de l'Éducation, *Complementary Educational Services: Essential to Success*. Ministère de l'Éducation, Direction de l'adaptation scolaire et des services complémentaires, 2002.
5. Chantale Beaucher. *Questionnaire sur les aspirations professionnelles et les projets professionnels*, Université du Québec à Montréal, 2004.

2. To assess certain effects of POP field-testing on students and the respective contribution of each involved partner (teachers, career counsellors, school board participants[6], school administrators, parents).

In brief, the POP:

- is a personal career development process that is adapted to the needs of each student
- is a structured classroom approach that allows for the exploration of different career paths
- focuses on hands-on learning and real-world work experience
- marks an important stage within the career development process undertaken by the student in the context of the secondary-level Québec Education Program and the guidance-oriented approach to learning

6. Personnel designated by their respective school boards to coordinate the POP field-testing in their school

2. Methodology

A mixed methodology was used to gather information from the participants in the research studies. The qualitative data was collected in 2004-2005 by means of semi-directed interviews and journals, while the quantitative data was gathered by means of two standardized questionnaires that were administered to the students. A questionnaire was also administered to the parents of the students taking part in the research study. A similar methodology was used in 2005-2006 with a greater number of participants from four different Québec school boards. In addition, control groups were used, composed of students who were not involved in the POP field-testing process, but from the four participating school boards.

Here is a brief presentation of the students and the professionals who took part in the 2004-2005 and 2005-2006 research studies, as well as a description of the tools that were used.

2.1 Students

In 2004-2005, all of the students participating in the field-test attended a secondary school in the Chaudière-Appalaches region and were enrolled in Secondary III. The students who took part in the study were enrolled in regular classes (four classes) or in other types of classes[7] (two classes). Given that this was a field-testing project, the six classes did not all receive the same number of hours of POP instruction. Lastly, boys accounted for the majority of the participants, representing 61% of the sample population.

In 2005-2006, four secondary schools in four different French school boards took part in the POP field-testing project. All of the students received 100 hours of POP instruction and were enrolled in Secondary III. Note that in 2004-2005, both educators and students commented on the positive impact of offering 100 hours of POP instruction, since it gave students enough time to embark upon a career development process and made it possible to ensure follow-up of the activities. The collected data show that the students who received less than 100 hours of POP instruction said they did not have enough time to complete quality projects and noted that there was a lack of follow-up between courses even though these were sometimes several days apart.

Depending on the setting, the classes fell into one of two categories: regular classes (12 classes) and other types of classes (four classes). Most of the students in the control groups were enrolled in regular education. Boys accounted for 44% and girls for 56% of the student sample involved in field-testing the POP.

7. These include classes of students with slight academic delays and those in the technology stream.

2.2 School staff and parents

In 2005-2006, 12 teachers participated in the POP field-testing project and in the research study. The career counsellors in each of the schools concerned also participated in the project, as did school administrators (Secondary III principals and vice-principals). Lastly, the school board participants involved in implementing the POP were also part of the staff targeted by the study. More than 25 staff members from the participating schools and school boards took part in the study.

The parents of the students involved in the POP field-testing project were also invited to fill out a questionnaire at the end of the school year. In 2004-2005, nine staff members from the school board chosen to field-test the POP took part in the study, as well as the parents of the participating students. The following table provides a more detailed picture of the settings of the participants in 2005-2006.

Table 1: Description of Settings (2005-2006)

	School 1	School 2	School 3	School 4
Type of setting	Semirural	Rural	Rural	Urban
	± 1 800 students	± 90 students	± 700 students	± 1 400 students
Number of staff involved	9	4	6	8
Number of classes	7 (146 students)	1 (10 students)	4 (72 students)	4 (74 students)
Types of classes	5 regular classes (optional POP) 2 other types of classes (compulsory POP)	1 regular class (compulsory POP)	2 regular classes (optional POP) 2 other types of classes (compulsory POP)	4 regular classes (compulsory POP)
Number of control groups	3 (52 students)	1 (17 students)	1 (21 students)	2 (24 students)

2.3 Data-collection Tools

To meet the objectives of the study, different types of data were collected in 2004-2005 and in 2005-2006.

Two standardized questionnaires were administered to the students on two occasions during the year. The first[8] measures the following dimensions: meaning and importance of work and career readiness. The latter dimension includes career planning attitudes (steps taken, factors considered, preferred occupation and job search) and career exploration activities (persons and sources consulted and activities carried out). The second[9] consists of 18 true-or-false statements on the topic of vocational identity. The MELS obtained permission to use these tools.[10]

The students were interviewed in groups on two occasions. From six to eight students per group were selected randomly to participate in this data-collection process. The questions covered three main themes: the intervention context, the relevance of the POP and the effects of the POP.

On two occasions, individual interviews were conducted with the teachers, career counsellors, school administrators and school board participants involved in implementing the POP. The purpose of these interviews was to determine the contribution of these partners to the POP field-testing project and to obtain their comments on three topics: the intervention context, the relevance of the POP and the effects of the POP.

The teachers and career counsellors also kept a journal, in which they recorded information on a number of POP class periods. In addition to providing a general assessment of the POP, this information concerned planning, the nature of the activities conducted and the context of each period.

A questionnaire was mailed out to the parents of the students taking part in the POP research study. It consisted of two parts, one dealing with the parents' opinion of the POP as such and the other requiring them to provide details on their involvement in their children's career development process. In all, 99 parents (or 58% of all participants) completed this questionnaire in 2004-2005 and 166 parents (50% of all participants) returned the duly completed questionnaire in 2005-2006. In this type of study, a rate of participation greater than 40% is considered satisfactory.

8. M. Gingras and P. Dupont. Questionnaire sur l'éducation à la carrière, Sherbrooke, Centre de recherche sur l'éducation au travail, Université de Sherbrooke, 1991.
9. J.-G. Ouellette. Échelle d'identité professionnelle, Université de Moncton, New Brunswick, 1984. Adapted translation of Vocational Identity Scale, by J. L. Holland, D. C. Daiger and P. G. Power, California, Consulting Psychologists Press, 1980.
10. Although the teachers evaluated their students throughout the POP field-testing process, the students' academic results were not analyzed for the purposes of this study.

3. Results

Below is an overview of the findings of and main trends emerging from the studies carried out on the POP field-testing project.

These are the main findings of the analysis of data collected from the different classes of participants involved. These results are not definitive: it will be possible to measure the true impact of the POP in greater detail only in the years following its official implementation. The studies will nonetheless have made it possible to shed light on the conditions that are conducive to implementation of the POP in a field-testing and assimilation context.

3.1 Intervention Context, Relevance of the Program and Conditions for Implementation

3.1.1 Intervention context

The following findings highlight the factors that, according to the school staff interviewed, characterized the implementation of the POP

Resources

Below is an overview of educators' comments on the various material resources used in the POP field-testing project.

Experiential tools

Experiential tools are a key feature of the POP. These resources allow students to perform concrete, practical classroom simulations of the tasks related to a given trade or occupation. Each tool is related to a field of interest (e.g. trades and occupations in the health sector). In 2005-2006, roughly 15 of these tool kits (experiential tools) were available on the Répertoire *PPO*[11] Web site and most of them came with a box of materials.

The use of experiential tools remains an important aspect of the field-testing process, to the extent that students are encouraged to discover a trade or occupation through actual practice, notably by handling materials. A few teachers have suggested that schools be given a certain amount of latitude in acquiring the tool kits. While school staff did not question the usefulness of these experiential tools, they did point out ways in which they could be used more effectively.

11. Is the French version of POP Index that was used by experimental schools. The POP Index did not exist for part of the time that some of the field-testing took place. The 15 tool kits were those developed for field testing in the French sector.

Espace PPO

This interactive discussion site (forum), visited mainly by school board participants, was not used very much by the teachers, mainly because of time constraints and concerns about the information posted. Given the experimental nature of the POP, some educators confirmed the need to have access to discussion tools such as Espace PPO so that participating schools could share their experiences. They also mentioned that Espace PPO will be increasingly used when all the school boards implement the POP program.

Répertoire PPO

Aside from the *Repères* site, which was frequently visited all year long, the Répertoire *PPO* was one of the most frequently used POP resources in fall 2005 and winter 2006. The members of the school staff who were interviewed, as well as the students, would like to see a greater variety of trades and occupations featured in the index. Some of them also mentioned the importance of checking the references on a routine basis. Lastly, several teachers suggested that the Répertoire *PPO* include a section devoted to possible job shadowing experiences.

Students' journals

The electronic or paper journals described in fall 2005 were used by all the POP students and considered useful by the teachers since they made it possible to track the students' career development process. Although some students found it tedious to record information each period, others said they appreciated being able to review completed activities. During 2005-2006, some school boards changed the way information on the POP periods was indexed, while others simply abandoned this exercise altogether.

Roles of the Participants

Each educator involved in field-testing the POP provided a description of his or her role in the process both in 2004-2005 and in 2005-2006. The descriptions are given below.

School administrators

The school principals interviewed were mainly responsible for organizing resources: integrating the POP into the subject-time allocation and the students' timetables; choosing the teachers who would be involved in field-testing the POP; overseeing budget planning (purchasing materials); and freeing POP teachers from their regular duties so that they could prepare their courses and attend training sessions.

School board participants

The school board participants were mainly responsible for supporting teachers with respect to pedagogical approach and course planning.

Practically speaking, the role of the school board participants was to meet with the teachers at least once every cycle at the beginning of the school year to help them draw up their course outlines, integrate the instructional approach specific to the education reform and the POP program (assimilation of the two competencies in the program), and develop evaluation tools. The role of the school board participants over the course of the year, then, was to respond to the needs of the teaching staff.

Teachers

The teachers had the most contact with the students while the POP was being field-tested. In contrast to the traditional instructional approach, the teachers said that the POP allowed them to play the role of guide, facilitator and coach in helping the students develop the two competencies of the program. Most of the teachers interviewed felt that the main difference between the traditional instructional approach and that of the POP was that the latter encouraged students to be more autonomous in their career development, exploration and reflection process, notably with respect to finding information.

As a result of their initial experience with the POP, the teachers, who were again interviewed in winter 2006, seemed to have better integrated the role of guide and coach required by the POP instructional approach. A number of them also reported playing the role of intermediary for their students between the world of education and the world of work. However, some of the teachers said they had noted the importance of also providing more structure for students whose motivation flagged at times and who needed help renewing their interest in the career development process.

Career counsellors

The career counsellors felt that their main role was to support the teachers, especially with respect to academic and occupational information, and some of them even helped with course planning. This support was less frequent in winter 2006, as the teachers expressed fewer needs in this regard. They also said that they had the opportunity to meet with the POP students on an individual basis, if the students so wished. In this regard, they indicated that their approach with their students had changed somewhat: rather than give them the information directly, their involvement was now more geared to providing students with the tools they needed to work independently in finding answers to their own questions.

Pedagogical Approach and Evaluation

The educators interviewed provided details on how they guided students during the POP field-testing process.

In 2005-2006, it was possible to identify two ways in which teachers began the year: some used a computer-based resource exploration approach that from the outset emphasized a knowledge of tools, while others used an exploration approach that from the outset emphasized the importance of self-knowledge. However, these two approaches are not mutually exclusive; they are simply a way of distinguishing between the ways in which students undertook the POP process in 2005-2006. In fact, the majority of students carried out activities aimed at increasing self-knowledge and became familiar with computer-based tools at the beginning of the year.

By assisting students in their career development process as needed, the teachers interviewed seemed to have taken on the role of guide and coach, which went hand in hand with the POP approach. They nonetheless mentioned that they sometimes found it difficult to answer all of the students' questions, as they were all working on different projects. The teachers also pointed out that subject-based instruction was required in winter 2006, especially in the case of the less autonomous students for whom the approach did not provide sufficient structure. Given that this approach required personal effort and a great deal of autonomy, these students may have been somewhat disoriented, causing them to lose their motivation in the long run.

A school board participant said that the approach used in the 2005-2006 field-testing may have given students too much leeway and that the POP would probably have to consist of more structured learning situations that would be evaluated in accordance with a definite timetable.

In this regard, more structured complementary activities were devised by teachers in order to increase the motivation of certain students halfway through the process and to support those students who were somewhat less comfortable with this approach. In SCHOOL 2, the students built a wooden puppet, in order to develop a work method and to test their manual skills. In SCHOOL 3, the students were asked to divide up into teams to conduct research into an unknown occupation chosen from a list provided by the teacher and to present their findings in class.

With regard to the evaluation of the two competencies in the program, no major problems emerged during the 2005-2006 field-testing, in contrast to the field-testing of the previous year, when the student evaluation method was not as well defined. At the beginning of the year, the teachers stated that they kept a record of their students' work in a journal or used similar record-keeping tools. Likewise, some teachers used additional methods such as one-on-one

interviews, evaluation charts, a questionnaire, peer evaluation, evaluation of oral presentations, and so on.

However, some teachers mentioned that a few students regularly asked whether the activities carried out in the course "counted," or if the work they did or a research topic was "okay." This indicated that these students had not necessarily understood the evaluation procedure associated with the POP, since some of them regarded evaluation as a certification exercise and did not realize that in the context of the POP, it is viewed as a way of constructively reviewing work in progress. This observation was also made in 2004-2005. It should be remembered, however, that the vast majority of the students taking part in this study were not familiar with the type of evaluation used in the POP and, more generally speaking, that advocated in the Policy on the Evaluation of Learning associated with the education reform.

3.1.2 Relevance of the program

The feedback provided by teachers and other educators involved in the POP shows that they are committed to this new pedagogical approach. Similarly, they seem convinced that this is a viable way of helping students carry out a rational career development process.

Teachers and career counsellors emphasized the importance of familiarizing students with the characteristics of the Québec school system (e.g. prerequisites, fields of study with limited enrollment) and with specific features of the working world (e.g. placement rates, shortages in certain occupations), since it seems that they had not necessarily acquired this knowledge before enrolling in the POP, despite the guidance-oriented approach to learning used in their schools.

As regards the suitability of this approach for Secondary III students, the majority of the educators interviewed felt that the formula used in the 2005-2006 field-testing was appropriate. All were convinced that it was important for Secondary III students to begin thinking about their career options before the end of Secondary III, and also to acquire more information about the school system and the labour market. In fact, Secondary III is a pivotal year during which students have to choose courses that may influence the educational paths they might take. However, some educators had doubts about whether some Secondary III students were mature enough to make these vocational choices. Some educators suggested that students be able to enroll in the POP at any time between Secondary III and Secondary V.

3.1.3 Conditions for implementation

Favourable conditions

As regards school organization, it should be pointed out that most of the school administrators interviewed raised questions concerning difficulties relating to the development of timetables, especially when POP courses involved two merged time slots, since this factor affected the organization of the timetable for all Secondary III students in the school. However, this type of organization is not prescribed in the program and, for field-testing purposes, some school boards did not have merged time slots. In SCHOOL 3, these difficulties were circumvented by creating fixed classes for all Secondary III students.

One idea was to create teams of teachers as soon as possible (before June) in order to provide them with more complete training as well as more time to organize the POP in their school. It was suggested that this be done by defining specific rules for using the POP in conjunction with different subjects or clearly establishing rules for recruiting a teacher before assigning workloads. This entails using the POP in conjunction with the subjects of those teachers interested in the program rather than recruiting teachers from the subjects associated with the POP.

A number of educators in SCHOOL 3 and SCHOOL 4 emphasized the value of having a career education teacher on the POP team, particularly because career education teachers have an inside knowledge of educational and career choices.

Two initiatives taken by the school administration in SCHOOL 3 and SCHOOL 4 were felt to have played a role in creating favourable conditions for the POP. The first involved giving POP teachers more time off from their regular duties than that provided by the MELS and the second involved freeing these teachers at the same time so that they could meet and share their experiences. It should be noted that the field-testing ended in June 2006 and that these teachers were released from their regular duties as part of the field-testing project. However, when the program is officially implemented in 2007-2008, no release time will be given by the MELS in any of the schools.

In another connection, the classrooms intended for the POP should be assigned in such a way as to allow students to use the computers and carry out exploration activities that involve handling various types of materials that may be messy. It has been suggested that activities related to the logistical organization of the POP be undertaken: putting together the tool kits, acquiring computer equipment and equipping the classrooms. Some

educators have suggested that specifications outlining minimal requirements in terms of space and materials be defined beforehand, in order to avoid delays and ensure that the classroom meets the requirements of the program.

Some school boards experimented with alternative solutions in order to get around difficulties related to physical organization. In SCHOOL 3, the POP course schedule was set up so that the existing computer lab could be used. The POP classroom was therefore set up next door to the computer lab, which allowed students to use the school's existing resources. In SCHOOL 2, carrying out the messier activities in the old IT classroom also made the situation easier.

Some educators spoke to the importance for school boards to provide more human resources for computer support. Some also mentioned the need to have a sufficient number of computers, since two students sharing one computer could give rise to problems if they are not working on the same topic or using the same tools at the same time. In their opinion, it would be ideal to have two computers for every three students.

Educators also indicated that it was crucial to provide more time for the acquisition of tool kit materials and, ideally, to entrust this task to an assistant. Some educators suggested that the MELS be responsible for providing the tool kits. With respect to purchasing the materials for the tool kits, a number of educators were critical of the fact that this task had not been assigned to one person at the beginning of the year. Thus, besides SCHOOL 3, where an assistant helped the teachers purchase the materials at the beginning of the year, the task of ordering the materials fell to the teachers, thereby reducing the time allotted to course planning. In addition to being responsible for purchasing materials, the teachers mentioned the importance of being familiar with the materials in order to be able to answer students' questions. In SCHOOL 2, the task of purchasing certain materials seemed more difficult, given the school's location (rural area far from a large city).

Regardless of the solution proposed, all concerned said that looking for and purchasing the tool kit materials was a tedious task. In winter 2006, the teachers interviewed also said that the acquisition of materials is really an ongoing task, since the popularity of a tool kit is likely to increase as soon as a student in the class has experimented with it. Several teachers also said they had to replace materials during the year.

Training of Educators

Below are the main comments made by educators concerning the training offered by the MELS.

All the educators felt that the daylong training sessions prior to the field-testing had been useful, but most of them said that the training period had been too short. The various educators interviewed felt that factors related to the actual POP field-testing (course logistics and use of tools) had not been adequately addressed in the training.

From an educational standpoint, some of the teachers suggested that the training include more content related to POP class management.

All of the teachers and school board participants interviewed attended a meeting on evaluation. They felt that the meeting was useful, but too short. They especially appreciated the fact that the meeting gave them an opportunity to exchange evaluation chart models and discuss their POP-related experiences with teachers from the other schools.

The career counsellors and certain teachers specializing in career education emphasized that, in a context where any teacher could be asked to teach the POP, it would be necessary to provide these teachers with the vocabulary and concepts specific to academic and career information to enable them to guide students in their career development process. Note that in 2004-2005, it was pointed out that teachers needed to be offered training throughout the school year in order to ensure a better understanding and integration of the concepts involved.

3.2 How the Students Perceived the POP

Below is an overview of how the students perceived their experience of the POP.

3.2.1 Favourable and unfavourable conditions

In general, the aspects of the POP that the students appreciated the most had to do with the very structure of the suggested process, namely that they: could carry out activities autonomously; had an opportunity to research topics of interest to them; could work in teams; had more practical than theoretical content; had an opportunity to reflect on their learning and career path; had teachers who were open and available; could use computers; could carry out actual tasks using experiential tools; and had an opportunity to take part in student job shadowing programs. The classroom organization was often mentioned as a significant element of the POP compared to the other courses the students were taking.

In winter 2006, the repetitive nature of the career exploration activities emerged as one of the less popular aspects of the POP. Thus, even though a number of the students enjoyed the leeway they were given, a similar percentage felt that their interests were not diverse enough to enable them to carry out more than one or two exploration activities. Moreover, some students said that they would have preferred to have more structure, since the absence of a schedule and the lack of evaluation caused them to be less focused on the tasks at hand. This seems to contradict the findings from the fall 2005 data collection. It should be noted, however, that most of the students had never experienced a situation similar to that of POP and, more generally, the education reform. It is possible that over time students came to view the fact that they were responsible for their own learning as a more demanding and difficult "task" than they had anticipated at the beginning of the year.

In the schools where two students shared a computer, some felt that they had wasted time watching their classmate work, especially when two team members did not have the same field of interest. In regards to computer tools, students also commented on the Répertoire *PPO*, which they viewed as incomplete. In particular, in fall 2005, the students in SCHOOL 2 pointed out that the trades and occupations they were interested in were not included in the index (e.g. forestry and fisheries). On the other hand, the students in SCHOOL 4 were critical of the information in the index and found it more difficult to navigate the site.[12]

3.2.2 What the students learned

At the beginning of the year, students most often mentioned that they had developed self-knowledge. Several students said they had a better idea of their aptitudes, interests, strengths and weaknesses. Some even said that their involvement with the POP had allowed them to understand the relationship between career choice and personal characteristics.

The second category of learning had to do with computer knowledge. A number of students said they had improved their ability to do Web-based research. Three of the students interviewed even said they had learned how to use a computer in the POP course.

The third category of comments had to do with the acquisition of information on occupations and trades and the discovery of methodological tools. A number of students said they had discovered the existence of occupations and trades of which they had been unaware until then, while others indicated having learned about the various aspects of looking for a job, whether it be drawing up a résumé, writing a cover letter or preparing for an interview.

12. This site (in French) is still under construction and a number of other tools will be posted by the fall of 2007.

Students also realized the importance of undertaking a career development process, notably the need to have an alternative plan, to remain open to the various academic and career paths, and to develop an ability to reflect on their progress which, over time, will allow them to determine whether a given trade or occupation is appropriate for them.

3.2.3 Students' opinion of the relevance of the POP

Most of the students interviewed felt that the POP course was useful in that it helped them to develop a clearer idea of the occupational field(s) they were interested in.

Some students mentioned that the POP course enabled them to get to know themselves better and to define their qualities and aptitudes, thereby helping them make a more informed vocational choice. Others said that the process of exploring different trades and occupations and perhaps even discovering the existence of new occupations through this program would help them make a career choice that is right for them.

A few students said that such search tools as *Repères*[13] or job-search Internet sites will prove the most useful later in their career development process and in their search for employment, while others emphasized the fact that the POP course taught them about the practical aspects of looking for a job (drafting a résumé and cover letter, etc.).

Students who had the opportunity to be involved in a job shadowing experience (approximately one third of the students interviewed in winter 2006 in SCHOOL 1 and close to half of the students in SCHOOL 3) viewed the experience as an opportunity to find information that would help them clarify their objectives and expectations with respect to an eventual career choice and to test their interest in a particular field by comparing their initial idea of it with reality.

As regards more immediate concerns, a few students also said that finding out about the training requirements of certain jobs in the context of the POP would help them choose their courses. Some students added that their research projects had made them aware of the importance of academic prerequisites, motivating them to put more effort into their other courses. In addition, some of them indicated that they had become more autonomous and resourceful.

13. A comparable search tool used by most of the English school board is *Career Cruising*.

3.3 The Effects of the POP: An Initial Overview

Given the field-testing and application context in which the study was carried out, it cannot provide a complete and definitive picture of the effects of the POP on the students. The results presented below provide an indication of the factors that appear to have influenced the students. It was the participants' perceptions, recorded by means of interviews, that made it possible to document the implementation of the POP.

The different educators interviewed felt that certain factors in particular may have influenced students' interest during the POP field-testing process. They also pointed out that students have specific needs, notably with regard to academic and career information, and that the POP should give them the tools they need to meet these needs. Lastly, nearly two thirds of the parents of students who took part in the POP field-testing process felt that the course met their children's needs.

The results from the student questionnaires of 2005-2006 also tend to show that the POP had a positive influence during the year. Although the results were comparable to those of the students in the control group in fall 2005, the POP students stood apart from the control group in winter 2006 by achieving generally higher results in all aspects of the career readiness dimension. This was also noted in the data analysis of 2004-2005, where a significant increase was noted in the results for this section.

3.3.1 Educators' view of the effects of the POP and students' needs

From the comments of the different educators, it can be noted that certain factors appear to have had an impact on students' interest in the POP.

Choosing the POP

Overall, the teachers who worked with the POP students expressed fewer reservations than other teachers with respect to the enthusiasm of these students for the POP approach, which was reflected in the students' evident involvement in the activities.

Students' educational path

According to the teachers, students who experienced greater difficulties of an educational nature also tended to be less involved in the activities. In SCHOOL 3, however, offering students enrolled in other types of classes activities involving self-knowledge seemed to increase

their level of interest. This was also mentioned with respect to the students enrolled in other types of classes in SCHOOL 1.

Familiarity with the approach

In SCHOOL 3, where three of the four classes that had a scheduled POP course had been exposed to education reform since Secondary I, students showed a greater involvement in the activities. Furthermore, some of the educators in the other school boards involved in field-testing the POP felt that the students who had been exposed to the education reform without interruption since elementary school probably found it easier to understand the POP approach, which is focused on getting students to develop their autonomy and to be responsible for their own learning.

Students' level of maturity

In fall 2005, a number of teachers said that the more mature students were more readily interested in the POP; this maturity seems to have been more characteristic of the girls than the boys. It should be noted that the difference with respect to degree of involvement between the boys and the girls was again raised by the teachers in winter 2006, when they indicated that the less mature students seemed to have more difficulty seeing value in the POP.

In another connection, educators identified students' needs with respect to information and career guidance in the following areas:

- academic information. Some of the students were not familiar with or did not fully understand concepts that are crucial to their education (e.g. the meaning of prerequisite, the impact of their choice of courses on their academic progress, the meaning of limited-enrollment courses)
- career information (concepts related to trades and occupations: placement rate, salary, working conditions)
- self-awareness (interests, competencies, aptitudes, skills)
- exploration of trades and occupations (learning about occupations previously unknown to them), handling of materials, experimentation (comparing their impressions with the reality of the working world)

Students' needs in terms of guidance in the classroom were also identified. Some students seemed to lack the maturity to act autonomously, as required under an approach that calls for such a degree of responsibility.

A number of teachers also stressed how important it was for the school to continue to provide basic information on how the school system works within a structured framework, as the family and the teachers of the other subjects could not be the only sources of information in this regard.

It should be mentioned that the educators' perception of students' needs in 2005-2006, coincides with the information gathered in 2004-2005.

3.3.2 Questionnaire results

This section presents the main conclusions drawn from the results of the questionnaires completed by the students in fall 2005 and winter 2006. It also highlights how these conclusions relate to the hypotheses made by the educators who were interviewed, with respect to the factors that may have influenced the level of interest of the students involved in the POP field-testing process.

The two questionnaires contained a total of 114 distinct items.
Eleven indicators and sub-indicators were calculated, as follows:

- Meaning and importance of work (22 questions)
- Career readiness (74 questions)
- Attitudes towards career planning (50 questions)
  - Steps taken (13 questions)
  - Factors considered (17 questions)
  - Preferred occupation (9 questions)
  - Job search (11 questions)
- Attitudes towards career exploration (24 questions)
  - Persons and sources consulted (11 questions)
  - Activities carried out (13 questions)
- Vocational identity (18 questions)

The questionnaire results were analyzed using the following segmentation variables: the students' participation in experimental or control groups, their gender, the type of class they were enrolled in, and their educational aspirations.

The analyses carried out were based on results obtained for each of the questionnaires (fall 2005 and winter 2006) taking into account the segmentation variables as well as the change in results from one data collection period to another.[14]

14. The differences between the results, taking into account the segmentation variables, were considered significant when the Student T Test for the score obtained a variable that differed significantly for a subcategory of respondents (95% threshold) from that obtained for all the respondents in the fall 2005 data collection (n = 433). The same method was used for the winter 2006 data collection (n = 416). Likewise, the differences between the fall 2005 data collection and the winter 2006 data collection were considered significant when the chi-square of the score obtained for the subcategory of respondents differed significantly (95% threshold) from that obtained for all the questionnaires administered in fall 2005 and winter 2006 in this subcategory.

All the respondents scored highest on the meaning and importance of work[15] indicator in fall 2005 and winter 2006. The increase in the score obtained for the general career readiness[16] indicator from one data collection to the other was considered statistically significant. The increase observed in the score obtained for the career exploration attitudes sub-indicator was greater than that for the career planning attitudes sub-indicator. No significant change was observed with respect to vocational identity.

It should be noted that there was a positive correlation among all of the indicators, with the exception of the meaning and importance of work and vocational identity indicators, which varied independently, in both fall 2005 and winter 2006. Excluding these two dimensions, the students who obtained an above-average score on any of the indicators tended to obtain an above-average score on the others as well.

Here is an overview of how the results changed between the two data-collection periods of fall 2005 and winter 2006, according to the different segmentation variables.

POP students and control group students

In contrast to the fall 2005 results, the winter 2006 results show significant differences between the control group and the POP students. The POP students obtained significantly higher scores for almost all of the indicators and sub-indicators related to the career readiness dimension. Higher scores were also observed between the two data collection periods, constituting a very significant change.

The different types of classes involved in the POP field-testing process

In winter 2006, the different types of classes that were involved in field-testing the POP did not necessarily differ from one another in the same way as in fall 2005. Whereas in fall 2005 the students from the regular classes who had chosen the POP differed from the other subgroups by scoring below average on the different indicators, in winter 2006 the students who had chosen the POP differed from the others by scoring well above average on the sub-indicators steps taken and preferred occupation. Furthermore, this group of students also showed statistically significant differences with respect to most of the sub-indicators

15. This section of the questionnaire deals with students' beliefs concerning the importance and meaning of work, whether paid or not.
16. This section of the questionnaire deals with career planning attitudes (steps taken, factors considered, preferred occupation and job search) and career exploration activities (persons and sources consulted and activities carried out).

of the career readiness dimension in the first and second data collections.

In winter 2006, the students from the regular classes for whom the POP was compulsory obtained an above-average score on the general career readiness indicator, while those from the other types of classes differed from the other subgroups by scoring lower on the importance of work indicator, even though overall they had scored higher on career exploration attitudes. It should be mentioned, however, that for these subgroups, the differences observed were generally not statistically meaningful.

Variations observed according to gender and academic goals

As in fall 2005, the winter 2006 findings revealed that the students who had not yet defined their academic goals scored the lowest on most of the indicators. Moreover, the girls scored lower than the boys on most of the indicators.

Proportionally more girls were planning to go into pre-university education, in both the spring 2005 and winter 2006 data collections, while more boys than girls were attracted to secondary-level vocational training. Students planning to enroll in a secondary-level vocational training program tended to obtain above-average results on all the indicators and sub-indicators assessed in the winter 2006 data collection, and a statistically significant difference was recorded for three of these items (career readiness indicator, and preferred occupation and activities carried out sub-indicators). Note, however, that these students had already obtained relatively high results in the fall 2005 data collection. It can be hypothesized that the effect on the boys' high scores of having to make a career choice sooner could explain the variation in the scores observed in terms of gender.[17] Of the students planning to enroll in secondary-level vocational training, nearly one third were from other types of classes than regular classes. These students' interest in vocational training was likewise evident in 2004-2005.

Between the fall 2005 and winter 2006 data collections, only the girls exhibited significant changes with respect to academic goals. Proportionally more girls were undecided with respect to academic and career paths in fall 2005; this proportion dropped from 25% in the fall to 13% in the winter. These results are similar to those observed in the 2004-2005 study, in which the percentage of girls undecided about their academic goals dropped by more than half between the fall and the winter data collections.

17. Keep in mind, however, that the questionnaire items dealt with the students' perception of their knowledge of a given aspect, as the questionnaire did not measure their actual knowledge of the different items evaluated.

Note, however, that the girls recorded the largest gains between the fall 2005 and winter 2006 collections, with a significant increase in the scores having been observed for seven indicators and sub-indicators compared with two sub-indicators for the boys. It could be hypothesized that the process appears more appropriate for the girls than for the boys. However, the gains recorded for the girls between the two phases of data collection for the different indicators could also be due to the fact that they were proportionally more numerous in clarifying their academic goals during the year. It should also be remembered that the students who chose the POP recorded a significant increase in their results for the sub-indicators of the career readiness dimension. Girls made up two thirds of this subgroup. Based on the analyses carried out, it was not possible to determine which of these variables made the biggest difference.

Summary

To sum up, following the two data collections, it appears that in fall 2005, sociodemographic factors such as gender, type of class and region[18] as well as academic goals had more of an impact on the results than the student category (POP student or control group student). In winter 2006, significant differences between the POP classes and the control group appeared, and the students involved in the field-testing process recorded a significant increase in their results—in contrast to those in the control group—for the different aspects of the career readiness dimension. In particular, the girls and the POP students showed more significant differences. However, students who planned to enter a secondary-level vocational training program tended to obtain above-average results on the different indicators. Proportionally more boys than girls planned to enroll in vocational training. Given that the different classes were not homogeneous, it cannot be determined in a statistically significant manner which of the variables is the most significant, as the number of observations for the subgroups precludes the determination of the separate contribution of each of these components. In 2004-2005, significant progress was noted with respect to the career readiness dimension, for both the boys and the girls.

3.4 The Parents' Perceptions

A total of 166 parents completed and returned the parents' questionnaire in 2005-2006. The response rate was 50%, since 329 questionnaires had been sent out. Some 87% of the respondents had a child in a regular class. In most cases, the questionnaire had been completed by the mother. In this type of study, a response rate greater than 40% is considered satisfactory.

18. Each of the regional groups was composed of varying proportions of students from the control group, the optional regular POP group, the regular compulsory POP groups and other types of classes. Even if significant differences were observed at the regional level for all of the respondents, the limited number of observations precludes the identification of regional variations for similar groups

Just over one third of the parents said that they had not received any information about the POP. Of the parents who reported receiving information on this program, 72% said they had first heard about it from their children. More than one third said they had received a letter or a brochure, 13% had heard about the POP from the school and 8% said they had attended an information meeting at the school. The latter proportion is 23% in SCHOOL 3. Moreover, 49% of the parents said that the information provided answered all of their questions.

Of the parents who were partly dissatisfied with the information received and those who reported not receiving any information on the POP, more than half would have appreciated knowing more about the students' learning process and the objectives of the POP. Nearly three quarters of the parents who took part in the study said they had heard about the projects their children were carrying out as part of the POP. Nearly two thirds of the parents felt that the POP activities met the career development needs of their children either very much or somewhat.

The parents' perceptions of the influence of the POP were mixed. In particular, the parents who participated in the study noticed the influence of the POP on their children's ability to work on a project (55%) and on their knowledge of the labour market (53%). Some regional variations nonetheless appeared in the scores obtained. For example, with respect to self-knowledge, 71% of the parents in SCHOOL 4 noticed that the POP had an impact on their children, compared with 30% in SCHOOL 1.

More than two thirds of the parents said that their children had responded positively to the POP. One parent in five nonetheless indicated that his or her child was indifferent to the POP, with negative reactions (it was of no interest, useless, etc.) reported by 13% of the parents. It should be mentioned, however, that the POP was compulsory for some students.

More than half of the parents felt that they had more discussions than before with their children concerning their career path. It should be noted that only 6% of the parents said that they had fewer such discussions with their child.

Note that these results are similar overall to those observed in the 2004-2005 research study.

4. Discussion

According to the information gathered from the different participants during the 2005-2006 POP field-testing process, complemented by the information collected in 2004-2005, certain factors that appear to be conducive to program implementation and that confirm its relevance can be identified

4.1 Favourable and Unfavourable Conditions

Both in fall 2005 and winter 2006, the financial support provided by the MELS was one of the main facilitating elements identified by the different educators interviewed. The clarity of the information provided by the MELS and the speed with which budgets were allocated were also mentioned.

Moreover, members of two of the school boards that took part in the field-testing process mentioned the benefits of having certain facilities at their disposal: SCHOOL 3 had access to a computer lab, a reference centre as well as small rooms that could be used for storage and for messier or noisier activities, and SCHOOL 2 had access to a classroom equipped with computers for about 10 students and an old IT classroom, that was still equipped with tools that could be used for this course. By contrast, SCHOOL 1 and SCHOOL 4, which did not have these types of facilities, pointed out that their POP classrooms were not adequate for the needs of the course. The teachers in SCHOOL 1 suggested that specifications defining the minimum requirements for the facilities be drawn up in time for the provincewide implementation of the POP in 2007. In SCHOOL 4, there were requests to enlarge the classroom and make some additions (e.g. installation of a telephone line, a soundproof barrier) in anticipation of continued field-testing.

In SCHOOL 3, other facilitating elements of a technical nature were identified, i.e. the fact that an assistant was available to organize the classroom and order material for some of the tool kits and the fact that the computer facilities required for the POP could be provided at a low cost by using existing resources, i.e. the school's computer room.

The teachers in SCHOOL 4 mentioned that the materials used for hands-on activities and concrete experimentation had a positive influence on the students' level of interest, since some of the experiential tools had piqued their interest once they had seen a classmate use them.

The educators in SCHOOL 2, SCHOOL 3 and SCHOOL 4 all mentioned the active involvement of the POP teachers and professionals, the way

they complemented each other, their cohesiveness and their desire to ensure the success of the field-testing process, by endeavouring to solve all the problems that arose. Some educators mentioned that choosing to take part in this field-testing process was an important factor in ensuring this cohesiveness. In addition, in SCHOOL 4, the teachers felt that the team benefited from the fact that the school board participant had simulated the dynamics within a POP class with them. The two schools with the largest groups of students involved, i.e. SCHOOL 1 and SCHOOL 4, mentioned the importance of freeing teachers from their regular duties so that they could organize the implementation of the POP. In SCHOOL 1, the fact that teachers had already field-tested the POP in 2004-2005 and that discussion had taken place between these teachers and those field-testing the POP for the first time in 2005-2006 were cited as favourable factors in the field-testing process.

Lastly, the fact that a school participated in the guidance-oriented approach to learning was also mentioned as a favourable factor in the field-testing process in all schools concerned. Some educators also felt that the POP provided a good opportunity to experiment with the new curriculum. In this regard, the team in SCHOOL 3, whose POP students had already been exposed to the education reform in secondary school, indicated that this experience was a factor that helped students adopt the POP approach. In SCHOOL 3 and SCHOOL 4, the teachers' personal interest in incorporating the POP approach was also mentioned as a factor that facilitated the field-testing process. It should be remembered that in fall 2005, some commented on the fact that the majority of POP students were not very familiar with the new curriculum and that some may have been overwhelmed by the suggested approach, since they were accustomed to being closely monitored in their schoolwork.

As regards the desired improvements, all the schools mentioned the shortage of human resources to install the computer equipment or to purchase the materials for the tool kits. In particular, problems related to the lack of computer support from their respective school boards were raised in both fall 2005 and winter 2006 in SCHOOL 2 and SCHOOL 4. The teachers and the students in SCHOOL 4 and SCHOOL 1 were also critical of the fact that two students had to share the same computer. In SCHOOL 3, computer support was, however, mentioned as a factor facilitating the POP field-testing process. Also, the fact of having a POP assistant who was familiar with computers, at least during the first year of implementation, seems to be a solution worth

considering for all schools that will be implementing the POP in 2007. Some even suggested creating a POP assistant position along the same lines as a technician position for science lab work.

In SCHOOL 1, the fact that the POP is not associated with any field of teaching covered by the collective agreement was mentioned as a factor that could create certain organizational difficulties. It was suggested that rules for assigning POP periods to different fields of teaching be defined or that rules be established to recruit POP teachers before officially assigning workloads. Still, in fall 2005, some educators also mentioned that they would have liked the POP to be included in their job description or that the amount of time allocated for the POP be increased in their job description.

Many also mentioned the demands involved in having to supervise approximately 30 students working on different projects. Thus, the teachers in SCHOOL 1 and SCHOOL 4 who were alone in supervising groups of 20 or more students said they had had some difficulties in meeting the needs of students in the POP class. In SCHOOL 3, the teachers who worked with normal-sized classes (about 30 students) under a team teaching system said they had appreciated the collaborative teaching approach. Thus, even if the suggested approach emphasizes that students be autonomous and responsible for their own learning, the teacher must nevertheless support students in their efforts and solve technical difficulties as they arise.

In winter 2006, a number of educators also mentioned that, in a field-testing context, the structure of the POP gave students too much leeway and that the suggested approach for this course would have to include more structured activities at the start of the school year in order to guide the students more effectively, to help them develop a work method and to expand their fields of interest. A school board participant mentioned the importance of creating resources specifically designed to develop the second competency in the POP program. This competency involves the students' ability to contemplate their learning possibilities and to reflect on their career exploration process.

In SCHOOL 3, the fact that students were in fixed classes made it easier to incorporate the POP into the school timetable. Although allocating the two periods back to back for the POP class was regarded as a facilitating factor in fall 2005, some teachers in winter 2006 identified it as a factor that could also hinder the field-testing process, since certain students ultimately found that this double period was too long.

Lastly, the vast majority of educators interviewed felt that Secondary III was the best time to undertake the type of career development process outlined in the POP program. They all felt that Secondary II students are not mature enough to carry out such a process. Furthermore, it would be too late to initiate this process in Secondary IV or V because students must make choices in Secondary III that will have an impact on the educational options subsequently available to them. But while educators mentioned that some Secondary III students are not mature enough to undertake the POP process, the vast majority acknowledged the importance of allowing students to think seriously about their options in Secondary III. Some educators suggested making the POP compulsory between Secondary III and Secondary V, as this would allow students to choose the moment at which they undertake this process based on their needs and level of vocational maturity.

Several educators were critical of the fact that the POP was offered only on an optional basis to students in the general education path, especially considering that students usually have very little knowledge of the school system. Some also insisted that efforts to lower the dropout rate should not focus solely on high school students, since the rate at which CEGEP-level students drop out or change programs is also a definite concern. Moreover, many also pointed out that it would be worthwhile to offer the POP on an optional basis in Secondary IV and V, in order to enable students who wish to do so to continue the process they began in Secondary III.

However, educators working with students for whom the POP was compulsory said that it was more difficult to get these students to develop an interest in the POP approach. Also, certain educators were somewhat apprehensive about students unlikely to remain very involved in the career development process, since not all students are ready to contemplate serious questions about their future. The various educators interviewed suggested that implementing more structured activities and ensuring that students acquire basic information about the school system were possible solutions to help these less interested students benefit from the POP. In addition, educators in SCHOOL 1 mentioned that the POP experience in 2004-2005 revealed that some students, who did not seem ready to undertake the career development process when they were exposed to the POP, were able to get organized one year later by drawing on what they had learned the preceding year.

4.2 Perceived Effects and Contribution of the Partners

As regards the benefits of the POP, the educators who were interviewed generally felt that the POP program allowed students to undertake a conscious career development process that is both personal and adapted to their needs. In their opinion, the main advantage of the POP is that it offers students an opportunity to become involved in a process that takes their own interests into account. Through the projects they carry out, students become aware of their interests, skills and aptitudes and learn to analyze themselves and develop their critical judgment; in short, students gradually develop an approach for conducting research and exercising their critical judgment, which, according to the educators interviewed, will be useful to them throughout their lives. Thus, even if students are not ready to choose a career, they can acquire tools enabling them to make an informed career choice when the time comes.

By encouraging students to start thinking in advance about the choices they will have to make, notably with respect to their education, the POP program allows them to become aware of the various educational and career paths available to them, and teaches them that they will be responsible for making their own choices. The POP empowers the student, who becomes the main actor in his or her career development process.

Some educators also mentioned that the POP gives meaning to other school subjects, since a knowledge of the educational paths that lead to different trades or occupations gives students a better idea of how they can concretely apply theoretical knowledge acquired in the classroom.

One educator emphasized that the leeway afforded by the POP allows students to develop according to their own vocational maturity, without having to compare themselves to others. In contrast, some educators said that while the POP gives students a lot of leeway, teachers must still provide guidance, since both students who are motivated by the POP and those who do not take to it must be able to benefit from it. In this connection, it was suggested that more structured POP activities be added in order to help students understand the process.

As regards the findings from the student questionnaires, it seems that the POP students stand apart from the control group students because they obtained significantly higher results on the different components of the career readiness dimension. It appears that the POP has a certain influence on how students come to make better academic and career choices, on their knowledge of which factors they should take into consideration,

on the fields that interest them, the requirements associated with these fields, and so on. More specifically, it appears that the students who opted to participate in the POP showed the greatest improvement in results, as did the girls. There were more girls in the classes that opted to take part in the POP. This raises the question of whether the girls have greater needs with respect to career development. The girls were also more undecided with respect to their educational goals in fall 2005. It appears that the POP helped these girls better define their plans, since the rate of indecision fell by half in winter 2006. This appears to indicate that the POP influences the setting of education and career goals. These results may also be explained by the fact that girls mature faster than boys.

It should be noted, however, that as in fall 2005, the boys had already scored higher on the different items covered in the questionnaires. In addition, a greater percentage of boys than girls planned to continue their education with a view to earning a Diploma of Vocational Studies (DVS). It can be hypothesized that these boys are more in tune with the factors involved in making a career choice, since they opted for training that would allow them to enter the labour market more quickly. These higher scores could be explained in part by the fact that these students needed to make a career choice sooner. This theory is supported by the conclusions drawn in a study carried out in Québec (Perron, 1967).[19]

Lastly, the comments revealed that, despite the adjustment period required by students who were not very familiar with the learning process in the POP, most students acknowledged the importance and relevance of this process. They understand the need to obtain information about different trades and occupations, to know themselves, to explore and experiment in order to compare their perceptions of the labour market with reality so that they can ultimately make an informed career choice. However, it is essential that teachers remain committed to the students and that they continue to guide them in light of their needs so that the students feel they are receiving the support they need in a process that is seldom linear (e.g. frequent changes of heart, a promising option turning out to be less worthwhile than expected). These moments of doubt, uncertainty and hesitation sometimes undermine student motivation. The role of both the teacher and the guidance counsellor will therefore be to guide students in a sometimes more structured manner, so that they can reposition themselves in their career development process.

19. J. Perron. "Quelques facteurs de décision vocationnelle en fonction de l'imminence du choix à faire" in R. Charest and J. Perron. Problèmes d'orientation (p. 31-38), Montréal: Corporation des psychologues de la province de Québec.

5. Limitations

The research studies made it possible to assess the POP field-testing process. Certain limitations must, however, be taken into account. First, the 2004-2005 research study focused on groups of students in one school only from a relatively homogeneous community characterized by a favourable socioeconomic environment (socio-economic indicator = 3).[20] The small number of students from classes other than regular classes made it necessary to group the data for statistical processing purposes. It should also be mentioned that the pre-experimental protocol without a control group provides information similar to that resulting from a case study.

The use of control groups in 2005-2006 made it possible to better measure the program's effects on the participating students with respect to certain aspects of the tools used. It should be noted, however, that the groups of students involved in field-testing the POP, as well as the control groups, were heterogeneous (mainly with respect to gender and type of class). Moreover, no English-speaking group was represented in either of the research studies. Lastly, it should be noted that participation was on a voluntary basis, just as it had been in 2004-2005.

With respect to the questionnaires and the methodology used, the results were affected by certain elements. First, it can be assumed that the students who completed the questionnaire on two occasions were influenced by their responses in the first questionnaire. In addition, a social desirability factor may have influenced the responses of certain students, particularly when the statements referred to beliefs rather than knowledge. The two standardized questionnaires were initially supposed to be administered to Secondary V students. Furthermore, some questions intended for graduates may have been interpreted differently by Secondary III students. Lastly, the physical layout of the POP classroom (students grouped into teams) when the questionnaires were filled out may have influenced the conditions under which the questionnaires were administered, particularly in 2004-2005.

20. In two thirds of cases the socioeconomic index takes into account the mother's low level of education, and in one third of cases it takes into account the percentage of families in which neither parent works full time. The resulting data make it possible to assign each school a decile rank of 1 to 10. Rank 1 represents the most favourable socio-economic situation, and rank 10, the least favourable.

Conclusion

The comments provided by educators, students and parents, as well as the findings from the different questionnaires, paint a positive picture of the POP field-testing process. In a context sometimes complicated by technical and other considerations, as well as by legitimate questions that arose during the field-testing process, the POP can be considered to meet the set objectives, according to the portrait that emerged from the field-testing in both 2005-2006 and 2004-2005. The majority of educators and parents had a positive perception of the POP, because they felt that the program fosters students' commitment to a conscious career development process. As well, the findings from the two questionnaires show how the POP influences students in terms of career readiness. It should be remembered, however, that in a field-testing and application context such as the one experienced by the participants, it is essentially a matter of documenting the conditions facilitating implementation and the perceived effects. It is only in the long term that we will be able to assess in greater detail the true impact of the POP on the students themselves.

Adequately appointed POP classrooms and the diversity of available experiential tools appear to affect the students' commitment to the POP as well as the commitment of the teachers who work with them. The allocation of 100 hours to the POP also appears to have a positive effect on students' commitment to the process. In this regard, the information gathered shows that the POP requires a particular type of school organization, which must be properly planned in order to meet students' needs, in a context where teachers constantly interact with them.

The comments made by students, educators and parents with respect to student guidance and supervision put into perspective the challenge for all concerned to make the transition from a traditional educational approach to a more open one that requires students to be autonomous and take charge of their own learning. Nonetheless, students do need guidance at every stage of their development, and teachers must be able to assume the role of guide, facilitator and coach. Accordingly, teachers must be adequately and sufficiently trained with respect to the requirements and specifics of the pedagogical approach advocated by the POP and, more broadly by the education reform. In addition, teachers must be able to make appropriate decisions that take into account the needs expressed by students, and they must be able to adapt their teaching if necessary, notably to help students who are less comfortable with the autonomy required by the POP process. Ultimately, the commitment of the participants and respect for individuals' facility in mastering this approach, along with the new curriculum in general, are essential to the POP and its smooth implementation.

BIBLIOGRAPHY

Beaucher, C. *Questionnaire sur les aspirations professionnelles et les projets professionnels*, Université du Québec à Montréal, 2004.

Bouchard, S., et al. *Recherche psychosociale : pour harmoniser recherche et pratique*, Québec: Presses de l'Université du Québec, 1998.

Bujold, C. and M. Gingras. *Choix professionnel et développement de carrière*, second edition, Montréal: Gaëtan Morin Éditeur, 2000.

Conseil supérieur de l'éducation. *Rapport annuel 2003-2004 : L'éducation à la vie professionnelle : valoriser toutes les avenues*. Québec: Gouvernement du Québec, 2005.

Gauthier, B., et al. *Recherche sociale, De la problématique à la collecte de données*, Québec: Presses de l'Université du Québec, 2003.

Gingras, M., and P. Dupont. "Les besoins des finissants de l'école secondaire en matière d'éducation à la carrière", *Les sciences de l'éducation pour l'ère nouvelle*, Université de Caen, 1990.

___.*Questionnaire sur l'éducation à la carrière*, Sherbrooke, Centre de recherche sur l'éducation au travail, Université de Sherbrooke, 1991.

Ouellette, J.-G. *Échelle d'identité professionnelle*, University of Moncton, New Brunswick. Adapted translation of Vocational Identity Scale by J. L. Holland, D. C. Daiger and P. G. Power. California: Consulting Psychologists Press, 1984.

___.*Étude des relations entre l'identité personnelle, l'identité professionnelle et l'attitude professionnelle, doctoral thesis*. Québec: Université Laval, 1984.

Perron, J. "Quelques facteurs de décision vocationnelle en fonction de l'imminence du choix à faire" in R. Charest and J. Perron. *Problèmes d'orientation* (p. 31-38), Montréal: Corporation des psychologues de la province de Québec, 1967.

Québec: Ministère de l'Éducation. *Making Dreams Come True. Achieving Success Through the Guidance-Oriented Approach*. Québec: Ministère de l'Éducation, 2002.

___.*Complementary Educational Services: Essential to Success.* Québec: Ministère de l'Éducation, 2002.

___.*Québec Education Program: Secondary Cycle One*. Québec: Ministère de l'Éducation, 2005.

___.Direction de la formation générale des jeunes. *Personal Orientation Project*. Québec Education Program. Working document, 2004.

___.*The Guidance-Oriented School: An Evolving Concept*. Québec: Ministère de l'Éducation, 2000.

___.*The Guidance-Oriented School: A Preliminary Assessment*. Québec: Ministère de l'Éducation, 2001.

Québec. Ministère de l'Éducation, du Loisir et du Sport. Service de la recherche. *A Look at Vocational Training: A Survey of Secondary Cycle Two Students*. Québec: Ministère de l'Éducation, du Loisir et du Sport, 2005.

Québec. Ministère de l'Éducation, du Loisir et du Sport. Direction de la recherche, des statistiques et des indicateurs. *Indices de défavorisation*. Ministère de l'Éducation, du Loisir et du Sport, 2005.

Québec. *Education Act: R.S.Q., c. I-13.3, s.* 447.

Québec. *Regulation amending the Basic school regulation for preschool, elementary and secondary education*. Québec: Gouvernement du Québec, 2005.

Roy, É. *La démarche d'enseignement et d'apprentissage : document d'information à l'intention des enseignants du cours Projet personnel d'orientation (PPO)*. Commission scolaire de la Beauce-Etchemin, 2004.

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