

RECOMMENDATIONS
TO PROMOTE STUDENT
RETENTION AND ACADEMIC
SUCCESS IN SECONDARY
SCHOOLS









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SUMMARY

This working document, intended for authorities of the Ministère de l'Éducation, du Loisir et du Sport (MELS), outlines the recommendations of researchers funded under the Research Program on Student Retention and Academic Success (RPSRAS) whose work dealt specifically with Québec secondary school students. On the basis of some 50 research reports submitted to the Ministère, 13 were selected, including a key report dealing exclusively with dropout prevention programs in Quebec and in Canada.

Although the research focused on very different issues, ranging from e-mentoring to family-school collaboration models and academic engagement during the transition from elementary school to secondary school, the solutions recommended by the researchers were in general agreement. They are also on the whole in keeping with the recommendations formulated by the leading North American researchers in the field.

According to the recommendations of Québec researchers, it is clear that schools can make all the difference when it comes to student retention and the academic success of secondary school students, particularly at the level of student-teacher interactions in the classroom. Instructional practices, student support and guidance and the support offered to teaching staff as a whole seem to be decisive factors. In this regard, it was strongly recommended that the professional development activities for teachers be substantially enhanced in order to create the best possible learning context.

Several researchers also feel that preventing students from dropping out of school requires the broad mobilization of all stakeholders and that this mobilization must be based on the fundamental conviction that all students are capable of staying in school and succeeding. Most of the researchers recommend taking action at many levels—in the classroom, in the school and in the community—as early as possible. Since academic delays in elementary school have a significant impact on the probability of dropping out in secondary school, the researchers consider it essential to focus on interventions early in the students' academic careers.

More specifically, the researchers also agree on the need to strengthen the teaching of French in elementary school. In fact, it has been clearly demonstrated that a student who has reading problems at the end of grade one has a 75 per cent chance of having serious problems in secondary school. At the same time, the transition from elementary school to secondary school is definitely recognized as a critical period for some students and an ideal time to take action. Several recommendations deal with the importance of identifying students who may lack academic motivation and engagement when they begin secondary school.

The working document is divided into two parts. The first presents the recommendations of Philip C. Abrami and his team at Concordia University. Following an exhaustive review of the literature on dropout prevention programs in Québec and in Canada, Abrami and his team (2008) concluded that it is time, not only for researchers, but also for all stakeholders, including public officials, to focus on the

promotion of best practices for dropout prevention, rather than on the development of new knowledge that seeks to explain and describe the problem. In spite of repeated calls for action over the past 15 years, researchers noted the absence in Québec and in Canada of a national database that brings together all the information on the different programs. Such a database could provide concrete data on the programs' effects on students and make it possible to distribute information on best practices to all the educational communities.

The second part of the document presents the recommendations of 12 other research teams. The approaches are categorized based on area of intervention (g. the classroom, the school, the family, the community) as well as policies and programs. Two summary tables were created to make it easier to quickly find approaches recommended by the researchers and provide reference for MELS authorities.



INTRODUCTION

In order to support the implementation of a ministerial plan of action for secondary school students, this working document presents the main recommendations formulated by the researchers funded under the Research Program on Student Retention and Academic Success (RPSRAS) of the Ministère de l'Éducation, du Loisir et du Sport (MELS). MELS authorities have expressed a desire to take action on the academic success and retention of secondary school students, and this summary of researchers' recommendations should provide them with a valuable guide.

Out of some 50 reports submitted to date to the MELS Service de la recherche et de l'évaluation under the RPSRAS, 13 were selected because they specifically targeted secondary school students. Although the research projects dealt with very different topics and used various methodologies, this document will exclusively examine the recommendations for intervention¹ proposed by the researchers to promote student retention and the academic success of young people in secondary schools. Given the diversity of the projects, the focus is not on the theoretical contributions of the researchers, but rather on the recommendations for intervention that came out of the research.

According to the summary of recommendations, it is clear that schools can make all the difference in terms of student retention and academic success, particularly at the level of student-teacher interactions in the classroom. Instructional practices, student guidance and support and the support provided to the teaching staff as a whole seem to be decisive factors.

Many researchers also feel that the struggle to encourage students to stay in school requires the broad mobilization of all actors and that this mobilization must be based on the fundamental conviction that all students are capable of persevering in their studies and succeeding. Most of the researchers recommend intervening at many levels—in the classroom, in the school or in the community—as early as possible. Since academic delays in elementary school have a significant impact on dropout rates in secondary school, the researchers consider it essential to focus on interventions early in the students' academic careers.

The working document is divided into two parts. The first one is a summary of the recommendations formulated by Philip C. Abrami and his team, whose work directly addressed the concerns related to the establishment of an action plan. This team produced a systematic review of dropout prevention programs in Québec and Canada between 1990 and 2001 in order to determine the most effective avenues for intervention. This review is invaluable because, in spite of repeated calls over many years to share initiatives and outcomes of intervention programs, researchers have seen little progress in this regard.

The second part of the document presents a summary of the recommendations of 12 other research teams that dealt with various topics related to student retention and academic success in secondary schools. The approaches recommended are categorized according to area of intervention (g. the classroom, the school, the family, the community) as well as policies and programs. The conclusion emphasizes the limitations of these recommendations and reviews the main recommendation proposed by Abrami's team.

^{1.} To learn more about the theoretical contributions and methodological details of each research project, we invite readers to consult the reports at the following address: www.fqrsc.gouv.qc.ca/fr/recherche-expertise/projets/rapports-recherche.php.

1. DROPOUT PREVENTION PROGRAMS IN QUÉBEC AND CANADA:

A CRITICAL REVIEW OF THE LITERATURE

The team led by Philip C. Abrami carried out an exhaustive review of the literature on dropout prevention programs in Québec and Canada since 1990. Although there are hundreds of prevention and intervention programs, few researchers to date have done such meta-analysis of the literature. In fact, although there is abundant research on the factors explaining the dropout problem, studies on the practices to adopt to promote student retention and academic success are rare. According to Abrami, the research in recent years has focused more on counting, describing and classifying dropouts than on evaluating prevention programs and seeking effective interventions and solutions.

The objective of the Abrami's research was therefore to examine the effects of dropout prevention programs in Québec and Canada and to determine optimal instructional conditions for effective dropout prevention. The researchers wanted to learn about the outcomes of programs on academic or cognitive performance and on students' physical presence in school, as well as their psychological effects (e.g. student attitudes towards learning and school, self-esteem and depression) and behavioural effects (e.g. behavioural problems, social skills, drug use and violent behaviour).

On the basis of this preliminary comprehensive review, the team defined criteria to compare the results of the different programs according to a common grid. In total, 240 documents were reviewed for inclusion and of them, 38 met all the inclusion criteria. The prevention programs in Québec and Canada that were reviewed were published between 1990 and 2001.

Following this review, the inevitable conclusion is that it is still difficult to know precisely the real effects of the interventions. According to the researchers, dropout prevention programs almost always include multiple components. This bundling of components presents challenges when reviewing effects, because the impact of specific intervention components cannot be attributed to one component of an intervention program.

Nevertheless, in spite of this problem, the researchers were successful in identifying the overall effectiveness of the programs. The prevention programs reviewed had significant psychological effects on the students with respect to their attitudes towards school and learning, towards self-esteem and depressive states; in addition, there were positive effects on academic performance and work habits. On the other hand, the prevention programs had little effect on physical presence in school and no significant effect on the behaviours of students at risk of dropping out.



Moreover, the researchers were able to develop an overall portrait of dropout prevention programs in Québec and in Canada. The researchers discovered that 86% of interventions target students in secondary Cycle One and Cycle Two. The means used most often include resource classes (40%), followed by outreach schools (22%) and workshops or special classes (20%). However, the intensity of the interventions varied substantially from one program to another and little data was available in the literature on important variables such as the setting in which the programs were implemented (e.g. rural or urban), or on the specific characteristics of the participants (e.g. gender, socioeconomic status, age). The team also observed that program components concerned mostly academic aspects (68%), life skills (61%), career preparation (38%) and vocational training (35%), health (25%), parental development (17%) and cultural enrichment (11%).

In light of these observations, the team of researchers concluded that clear political action is very much advisable in order to **create a national database** for evaluating programs implemented in Québec and in Canada using common standards, and that all actors should be involved. The researchers also suggested working with organizations outside the schools that provide dropout interventions in order to share the models used and data collected on their effects. For Abrami, the collection of data and the dissemination of program results are essential if we really want to learn about the effects of dropout prevention programs and act accordingly. Best practices, promising innovations and useful ideas should be studied and disseminated as widely as possible.

Even though the researchers recognize that it is difficult to use the findings of their review to choose the best practices to be implemented in Québec and Canada, they have nevertheless formulated five recommendations for practitioners and policy makers.

- 1. Links between school and the world of work should be better integrated into the education system. Schools and school boards should review how career choice education and vocational training are integrated into the Québec Education Program. On this topic, the researchers raised certain questions, including these: Do the training programs in place really help students see the connections with the «real world»? Do the students have access to adults and advisers in the workplace to help them make educational choices? Do school structures and policies take into consideration part-time employment demands and needs of students?
- 2. Attrition and disciplinary issues need to be clearly understood. Schools and school boards should examine how regulations and policies related to absenteeism and behaviour are applied. Work should be done to better understand what the causes of suspensions and expulsions are, whether policies are fairly and equitably applied, what alternatives for dealing with disciplinary and attendance issues should be proposed to keep students in school. Do the policies between schools and school boards support or hinder students in their decisions to continue their studies when they change schools or move? What happens when students are absent for extended periods of time due to financial or personal problems, incarceration, illness or pregnancy? How do policies accommodate students who return to school after dropping out?

- 3. Schools and school boards should systematically assess and report on prevention programs and practices, both within their own institutions and within the broader educational community in Canada. The documentation on past and current programs is voluminous, yet the discussions of their impact and effectiveness are not only underreported but often disregarded.
- 4. Schools and school boards should examine the supply of complementary educational services and how they provide different levels of support for at-risk students. Are at-risk students identified early enough so that they can receive appropriate services? Do they receive the support they really need (e.g. guidance services, health services) to be able to succeed in school?
- 5. Schools and school boards should review their instructional practices both as part of targeted dropout prevention interventions and as part of regular classroom practices. How are concepts such as life skills, career preparation and vocational training integrated into the Québec Education Program for the benefit of all students? How are instructional activities implemented to allow for flexibility, student choice and self-direction? What kinds of training, professional development and support do teachers receive to implement best practices related to classroom instruction?

Although the data on the effects of Québec and Canadian programs are difficult to generalize, given the disparities in the research evaluations based on rigorously empirical methods, the Abrami report lists the key successful components of prevention programs implemented outside Québec and Canada which were highly regarded by the research community. These components are presented in the following table.



TABLE 1 KEY CHARACTERISTICS OF DROPOUT PREVENTION/ SCHOOL COMPLETION² PROGRAMS

AUTHOR	MAIN FINDINGS
Dynarski (2001, 2000)	 Creating small schools with smaller class sizes Allowing teachers to know students better (relationship building, enhanced communication) Focus on helping students address non-academic needs through access to family/personal support services Oriented toward moving students to obtain GED certificates
Rumberger (2001)	 Creating a non-threatening environment for learning Staffed by caring and committed members who set high expectations for student success and feel personally accountable for student success Creating a culture that encourages risk-taking, self-governance and professional collegiality Providing a flexible school structure with a low student-teacher ratio to promote student engagement
West (2001)	 Small student population to allow for meaningful relationships Extending the role of "teacher" to incorporate mentoring and counselling An explicit schedule to support effective governance Clear links between school and what is used in the workforce Instructional practices that are responsive to student interests/needs Close monitoring of student behaviour and academic progress Recognition and reward for improving performance Activities that contribute to students' sense of worth and value Administrative practices that encourage teacher collaboration, innovation and accountability
Schargel et Smink (2001)	 Early intervention (e.g. early literacy, family involvement) Promoting opportunities for the students to form bonding relationships (e.g. mentors, learning support services) Providing opportunities for professional development, diverse approaches to learning styles, using technologies and individualized learning Making the most of the community through community collaboration, career education and conflict resolution and programs to enhance interpersonal skills

Source: P. C. Abrami et al., Dropout Prevention Systematic Review, Final Report, (2008).

^{2.} Abrami's term "school completion" is equivalent to "student retention."

APPROACHES RECOMMENDED BY QUÉBEC RESEARCHERS

In addition to the report by Philip C. Abrami and his team, 12 other research reports were reviewed, dealing with subjects as varied as pedagogical cooperation between elementary and secondary school teachers, relationships with mothers and their impact on special education, the effects of evaluation practices on academic motivation, and e-mentoring.

The summary of recommendations by RPSRAS researchers reveals that interventions can take place at different levels and different times, in particular at the beginning of elementary school and during the transition from elementary to secondary school. This observation coincides in all respects with those made by Philip C. Abrami and his team, who strongly recommend that policy makers take into consideration research findings in order to determine the approaches to adopt in Québec and Canada.

Among the main recommendations formulated by the Québec research teams, most concern school-based interventions to be implemented mainly by teachers, particularly instructional practices. Other recommendations targeting interventions with families, communities, programs and policies were also formulated. Interestingly enough, the vast majority of these recommendations are in keeping with the results of American studies reviewed by Abrami's team.

The table below presents a summary of all the recommendations made by the Québec research teams.



TABLE 2 SUMMARY OF RECOMMENDATIONS PROPOSED BY QUÉBEC RESEARCHERS

Interventions in the classroom (Presseau, 2006; Lajoie, 2006; Gauthier, 2004; Abrami, 2008; Chouinard, 2005, 2007)	 Intervene as early as possible Improve students' knowledge of French Encourage academic motivation by providing better support for career choice, for example, using an e-mentoring program in the classroom Change instructional practices Explicit teaching Differentiated instruction Varied evaluation methods
Interventions in schools (Archambault, 2006; Chouinard, 2007; Abrami, 2008; Rousseau, 2007; Presseau, 2006; Larose, 2005)	 Systematically identify academic engagement problems at the beginning of secondary school (universal prevention) Provide better support for the transition from elementary to secondary school through collaborative projects between the two levels Carefully examine how school policies regarding absenteeism and behaviour are applied and study alternative solutions Examine complementary educational services Support all teachers Enhance professional development activities Awareness of attachment disorders in children and their effects on behaviour Awareness of intercultural differences Training in classroom management and explicit teaching Offer enhanced support for French teachers in disadvantaged neighbourhoods and in Aboriginal communities (bonuses and mentoring programs) Allow more flexible education management (comprehensive task strategy) Offer students better access to special programs Establish specific projects in secondary schools Evaluate and systematically report on dropout prevention programs and practices
Interventions with families (Moss, 2007; Presseau, 2006; Vatz-Laaroussi, 2005)	Systematically include parents in any educational intervention intended for students most at risk Implement parental education programs beginning in preschool, in collaboration with the health and social services Improvement of parenting skills Education on the importance of attachments
Interventions in communities (Koestner, 2008; Vatz-Laaroussi, 2005)	Make employers aware of the importance of their support for young employees who are still in school Establish family-school mediation resources, promote mutual aid and informal networks
Interventions in the area of programs and policies (Abrami, 2008; Chouinard, 2007; Presseau, 2006; Vatz-Laaroussi, 2005)	 Create a national database of evaluations of programs implemented in Québec and Canada Continue support programs for schools in disadvantaged neighbourhoods Ensure ongoing support for family-school collaboration Take action to apply policies by taking into consideration ethnocultura diversity Add a compulsory course on intercultural issues to teacher training

Many researchers point out the importance of acting as early as possible and recommend implementing interventions before students enter secondary school. For example, early reading skills are some of the most important competencies to develop in students since these skills are among the best predictors of academic performance. As studies reviewed in the course of the research show, students who have reading problems at the end of grade one have nine chances out of ten of having difficulties at the end of grade four. There is a 75 per cent chance that these students will still be in difficulty in secondary school. Longitudinal studies have noted positive effects in students who received formal reading instruction in kindergarten. These students scored higher on reading ability tests, completed a higher level of schooling and needed less remediation in elementary and secondary school than those who did not receive early instruction. Moreover, although it may be difficult for schools to do so, it seems essential to identify children with attachment disorders at the beginning of elementary school, in order to minimize the impact of these disorders on learning and prevent problems in secondary school.

When students enter secondary school, those who have problems with academic motivation and engagement need to be identified as early as possible. The transition from elementary school to secondary school is viewed as a critical period for some students and an ideal time to take action. Several recommendations have thus been made concerning school-based interventions that can be implemented by teachers to create the best possible learning context. From this perspective, it was been frequently pointed out that progress in this area cannot occur without enhancing professional development activities for teachers. Providing increased support to both students and teachers is crucial, as is reviewing education management strategies. It was also strongly recommended that students be given better access to special programs and receive better career guidance and support.

Family-school collaboration should also be considered not only to elicit greater cooperation and participation from parents in their children's education, but also to review the nature of the connections between schools and parents, which can often lead to situations of mutual misunderstanding. In this regard, it is strongly suggested that parents be systematically included in all interventions involving their children. Although schools may not be the best setting in which to implement parenting skills programs, interventions in this area are nevertheless recommended. Cooperation with health and social services could be considered in order to meet this need.

Communities should also be targeted, since they can help create and promote informal support networks, in particular by encouraging employers to limit the number of hours of part-time work for secondary school students and by offering flexible schedules to young people so that they can keep up their studies.

With respect to programs and policies, we reiterate the main recommendation made by Philip C. Abrami and his team regarding the lack of broadly accessible information on the most effective programs. The creation of a national database on all dropout prevention, student retention and academic success programs currently implemented in schools and communities in Québec and the dissemination of best practices in this field would enable stakeholders to act better and differently. In addition, the continuation of support programs for schools in disadvantaged neighbourhoods is strongly recommended, as is support for family-school collaboration. Awareness of ethnocultural diversity should be promoted and integrated into teacher training programs.

Now that these priorities have been outlined, they will be presented in greater detail in the following section, according to level of intervention, so that authorities at the Ministère can quickly find the main recommendations. Readers who would like to know more about the research findings and methodologies used may refer directly to the research reports in the list of studies.



2.1 INTERVENTIONS IN THE CLASSROOM

A few research teams recommend direct intervention with secondary school students. The main recommendations focus on enhancing language skills and student motivation by providing greater help to young people in determining which trade or occupation they would like to practise as adults. Other teams focused mostly on classroom-based interventions such as instructional practices in order to promote better learning and support student motivation.

Annie Presseau's team (2006) looked at the school experiences of Aboriginal students. According to their survey of the literature, while cultural and intercultural issues should absolutely be taken into consideration, the school experiences of many Aboriginal youth are typical of many young people from disadvantaged neighbourhoods who have significant academic difficulties. A high percentage of Aboriginal students face significant academic and engagement problems. Their school careers are marked by failure, grade repetition or attendance in special classes. According to Presseau's research, retention of Aboriginal students could be enhanced through effective learning of the language of instruction. The research has shown that Aboriginal adolescents often do not have sufficient mastery of French and have significant gaps in their reading skills, which hinders their learning progress and leads to a series of problems (e.g. repeated failures, poor self-esteem, academic disengagement). In addition, these students have a low sense of competence with respect to the tasks they are asked to do and feel powerless over their academic success.

Presseau and her team recommend promoting mastery of the language of instruction as early as possible. Several research studies on at-risk students show that they share numerous characteristics with Aboriginal students and demonstrate the effectiveness of early intervention, especially in the area of reading. Given that Aboriginal students show poor mastery of French as a second language and that mastery of a first language is a prerequisite for effective learning of a second language, the researchers strongly recommend strengthening Aboriginal language skills in early childhood so that this language can serve as a vector for learning French in preschool.

Presseau's team also has definite views on another subject: grade repetition. The researchers recommend abandoning grade repetition in favour of alternative solutions. Some solutions target prevention (e.g. early stimulation, acquisition of Aboriginal language skills, emphasis on reading instruction in preschool), others concern students already in the school system. According to the researchers, special education is not an ideal solution either, since it provides few opportunities for students to interact with motivated students who are succeeding in school. The researchers also question remedial support using a free-flow formula. On the other hand, the researchers recommend establishing differentiated instruction, including tutoring and integrated special education, as an effective alternative to grade repetition. For the researchers, it seems essential to better adapt both learning content and tasks to the students' level of knowledge and competencies.

Jacques Lajoie and his team (2006) evaluated an e-mentoring program involving secondary school students. Among the factors that have an impact on academic success, student motivation is paramount. Although motivation tends to decrease in secondary school, it seems that vocational choice maturation has a positive influence on student retention and success in school. However, taking responsibility for career choice is not easy for adolescents. Like Abrami and his team, Jacques Lajoie and his collaborators (2006) recommend better career choice education in secondary school. According to the researchers, e-mentoring in the classroom is an innovative approach that deserves to be widely disseminated. E-mentoring uses the Internet to put young people in contact with mentors in various work settings, under the guidance of the school system. According to the results of Lajoie's research, e-mentoring has proven to be an excellent tool to increase academic motivation among Secondary Cycle Two students in both regular and differentiated-path classes, and should therefore be implemented in schools.

This is all the more relevant given that the guidanceoriented approach of the education reform emphasizes career development as part of the secondary school curriculum. Mentoring can therefore be considered an excellent way for adolescents to establish relationships with adults they can identify with. Contact with mentors gives young people opportunities to make connections between what they learn at school and the job market and to better understand the imperatives of the world of work. It also provides them with opportunities to forge meaningful ties with adults other than parents.

Lajoie's team believes that, since young people use the Internet as their main means of communication, e-mentoring is an excellent tool that both fosters students' participation and contributes to their education through the practice of writing. The research results show that active participation in an occupational e-mentoring program, as a class activity, can increase academic motivation among Secondary Cycle Two students. This motivation is connected just as much to the pleasure of learning and discovery of new things as it is to the fact of attending school out of personal choice rather than obligation. Participants who have interacted with e-mentors as part of this Québec study perceive school as being significantly more important than non-participants. In addition, the more positively students perceived their relationships with their mentors, the more their motivation increased. Students with mentors also considered school to be more useful and saw it as an indispensable step in achieving personal goals. Since the quality of an e-mentor relationship is a significant variable in the academic motivation of Secondary Cycle Two students, it would be useful, according to the researchers, to make teachers more aware of their role as coaches.

In order to promote better student retention in secondary school, many researchers also suggest reviewing instructional practices. Among those likely to improve the academic performance of students who are most at risk of dropping out, instructional practices that focus on teaching rather than on students are recommended. According to Clermont Gauthier and his colleagues (2004, 2005), priority should be given to **explicit** (g. structured, systematic) teaching³ of basic learning skills such as reading, writing and mathematics, through which students will develop their cognitive and affective skills. As part of this basic learning, formal reading instruction starting in kindergarten, which aims to develop early reading skills in students from disadvantaged neighbourhoods, is a pedagogical approach to be promoted.

Through an extensive survey of the literature, the researchers observed that the schools that are most effective in increasing academic success in disadvantaged neighbourhoods are those where teachers apply pedagogical practices based on explicit teaching and the attainment of an appropriate understanding of subject matter. This type of teaching has a significant impact on students' cognitive and affective skills. According to the results of the research reviewed, the knowledge acquired by students contributes to the development of their cognitive skills, while the academic success they experience increases their self-esteem, which is pivotal to the development of their affective skills. Moreover, evaluations of the effects of explicit teaching show that students who have benefited from this model have higher marks, higher graduation rates and lower grade repetition rates than students who received traditional teaching.

^{3.} This type of teaching is widely used in the United States and has been evaluated by recognized researchers through meta-analyses of publications on the effects of explicit teaching on academic success. We refer readers to the report by Gauthier et al. (2004), which explains in detail the pedagogical practices associated with explicit teaching as well as the review process carried out.



According to the researchers, the main difference between explicit teaching and traditional teaching is that explicit teaching focuses, among other things, on the understanding and memory retention of material, while traditional teaching focuses on the transmission of content. In secondary school, teachers considered to be the most effective devote nearly half a class period to modelling and guided practice (which are key stages in explicit teaching) before leading students to the stage of independent practice, while less effective teachers spend about ten minutes on the former.

In a similar effort to renew instructional practices in the classroom, the importance of understanding students well (an essential factor in the implementation of pedagogical differentiation) has led Presseau and her team (2006) to believe that looping could be an interesting avenue to explore with Aboriginal students. Looping, which is a practice that keeps groups of students together with the same teacher over several years, requires a certain staff stability, given the duration of the connection between students and teachers (unlike tutoring, where the duration is much shorter). Its goal is to establish and maintain positive, meaningful interpersonal relationships between students and teachers. This measure seems to improve student performance in mathematics and reading, increase teacher knowledge about students' strengths and weaknesses, have a positive impact on students' emotional and social relationships, encourage the adoption of new teaching and supervision strategies and improve relationships with parents. It also appears to improve teacher-student relationships, which has a positive effect on the retention of at-risk students.

The two research reports by Roch Chouinard and his team (2005, 2007) also suggest re-examining pedagogical practices. The researchers recommend promoting more open and varied evaluation approaches in secondary schools. According to their research (2005), it appears that traditional evaluation practices are still the norm rather than the exception in secondary schools, despite the fact that new practices based on individualization, greater student involvement and differentiation enhance motivation and academic performance. The promotion of formative evaluation methods seems particularly important in secondary school since there are still many differences between elementary school and secondary school in this regard, which may make the transition between the two levels even more difficult for some students.

Evaluation practices based on individual improvement, progress towards achievement goals, mastery of tasks and the development of competencies encourage students to focus on their efforts rather than on their abilities. Such practices foster commitment, the desire to surpass oneself, perseverance in the face of difficulties and better social adjustment. However, the single-method approach, characterized by the use of tests and examinations, is still used more frequently in secondary schools, while it is acknowledged that a multi-method approach, characterized by greater individualization of evaluation practices, enhanced participation by students in the process, the use of individual productions and teamwork, has a beneficial effect on academic motivation and psychosocial adjustment. Although this is particularly true among girls in secondary school, boys still tend to prefer the single-method approach. The researchers also recommend increasing the use of instructional approaches focused on cooperation among students and reducing the use of those based on competition.

According to the results obtained by Roch Chouinard and his collaborators (2007), teachers have a poor understanding of the causes of their students' problems, do not sufficiently take into account the socioeconomic environment in which they work, and have little awareness of the effect of their perceptions and professional practices on the motivation and psychosocial adjustment of their students. They are often ill-equipped to deal with problems and find it difficult to adapt their pedagogical strategies. Consequently, according to the researchers, better knowledge by teachers of the effects of their attitudes and practices on students is essential, especially in situations in which their cultural and economic context differs from that of some or all of those students. From this perspective, they recommend reviewing the attitudes and practices of teachers.



2.2 INTERVENTIONS IN THE SCHOOLS

By suggesting that we take more action in schools, the research teams thus emphasize the importance of the transition from elementary school to secondary school, as well as the changes observed in terms of academic motivation and engagement. In order to promote better student retention in secondary school, the researchers once again recommend intervening as early as possible as students enter secondary school, strengthening support measures for students and teachers and enhancing professional development activities for teachers. Schools should also strengthen the teaching of French and reading skills, while providing additional support to French teachers in disadvantaged neighbourhoods. It is also strongly recommended that schools offer more special programs and establish specific projects.

Given the results of doctoral research on academic engagement among secondary school students in disadvantaged neighbourhoods, Isabelle Archambault (2006) strongly recommends systematic detection as students enter secondary school in order to ensure targeted, differential prevention. Archambault observed that a low level of engagement from the beginning of secondary school and a growing disengagement over time are significant predictors of dropping out. Using a three-dimensional model of engagement (behavioural, emotional and cognitive), the researcher observed that students follow different trajectories of engagement in the course of their secondary studies and that 65 per cent of them maintain a stable level of engagement in all three dimensions. On the other hand, she also discovered that nearly one third of students experience a certain level of disengagement in at least one of the three dimensions.

Among the groups of students that stood out from the norm, the ones most at risk are those whose engagement in the three dimensions starts to decrease at age 12, who show very poor overall engagement by age 16. This group represents close to 8 per cent of students and includes a higher proportion of boys than girls and youths in special education (10.5 per cent). These young people are eight times more at risk of dropping out than the majority of students. The behavioural dimension is the strongest predictor of dropping out of school, but the researcher pointed out that, since disengagement is a gradual process, its behavioural manifestations may emerge during the final stage of the process and may develop as the result of emotional and cognitive disengagement. Among the associated factors, Archambault observed that the young people most at risk of disengagement are boys who show weaker cognitive skills, have lower marks, particularly in French, and who are enrolled in special education classes.

To maximize academic engagement, Archambault considers it very important to pay attention to student engagement at the beginning of secondary school. Identifying the variations in all the dimensions of engagement as early as possible makes it possible to define a preventive approach that is better suited to the needs of each student. This detection should mainly target youths who show signs of behavioural disengagement that intensifies over time, or that begins on entering secondary school.

In the classroom, teachers are the first to observe declining motivation or interest, or slacking off with respect to requirements and homework. Archambault thus recommends universal prevention, targeting all students. To promote behavioural engagement, schools need to put in place a rigorous framework to manage absences and behaviours and encourage the participation of students in school tasks and activities, since a strong sense of belonging to the school is widely recognized as a protective factor. To promote emotional engagement, the creation of a welcoming, stable atmosphere is advocated in order to give meaning to school and learning. To promote cognitive engagement, learning goals should be promoted and the use of learning strategies encouraged.

With respect to schools, Archambault makes several recommendations similar to those made by Abrami, g. create small communities within the schools, promote access to a variety of extra-curricular activities, encourage parents to participate in monitoring their children's academic progress and behaviour, increase teacher and staff awareness and training on how to create meaningful ties with students.

In a similar vein, François Larose and his team (2005) recommend providing better support during the transition between elementary and secondary school. In order to facilitate this transition and promote academic success, the researchers had teachers and students in elementary and secondary school work together on learning projects. As the results clearly indicate, better coordination of educational interventions between elementary school generalists and secondary school subject specialists, coupled with the implementation of diverse learning instruments, has direct benefits for students as they undertake this crucial transition in their academic careers.

According to Larose and his research team, it is essential to create conditions for collaboration between elementary school and secondary school teachers in order to facilitate the transition between the two levels of education and support student retention. The researchers show how critical this shift from elementary school to secondary school is for students. Students go from a controlled, supportive environment with a single generalist teacher to a setting in which they are largely called upon to be independent. This is not only a source of anxiety for Elementary Cycle Three students who are entering the "world of the big kids," but it also puts those who have fallen behind academically at risk of dropping out.

In order to better understand how elementary school and secondary school teachers perceived students' adjustment problems during this transition, the research team analyzed the discourse of teachers and found that each group tends to attribute the responsibility for adjustment problems to the other level.

Another source of misunderstanding between teachers at the two levels concerns the acquisition of procedural knowledge that students need in order to function properly in secondary school. This is not knowledge in the strict sense of knowledge in subject areas, but rather standards of custom and skills that enable students to work appropriately in a new system. For example, presentation standards for homework assignments, study methods, codes of conduct, time management skills and even interpersonal relationships differ between elementary school and secondary school. However, as secondary school teachers are more concerned about this aspect of the transition than their elementary counterparts, they tend to blame the latter for the students' lack of preparation.



Since the new Québec Education Program for preschool, elementary school and secondary Cycle One, which is competency-based, promotes continuity between cycles and between subjects, the researchers wanted to study how an interdisciplinary approach managed by a team of elementary and secondary school teachers could help reduce adjustment problems among students from disadvantaged socioeconomic environments.

The research project was based largely on the postulate that the implementation of shared projects involving both elementary school and secondary school students would help **harmonize the pedagogical practices** of teachers at the two levels. For the students, being able to put their competencies to the test and interact with students from another level of education in specific learning projects proved to be a powerful motivating factor. The experiment increased feelings of competency among elementary school students, in particular in French.

For elementary school students in individualized paths, the experiences they had during the two years of the research project significantly improved their perception of their academic competencies compared to those of their often younger peers in regular secondary school. In both cases, teachers at both levels received **professional development** regarding the creation and management of a shared project. This new collaborative practice enabled students with learning difficulties to develop better self-esteem and greater motivation and improved the acquisition of competencies in the basic subjects.

For its part, Roch Chouinard's team (2007) recommends promoting the establishment of specific projects in secondary schools, accessible to all students, in order to compete with the private education sector and revitalize public schools. This recommendation is based on the fact that students from advantaged neighbourhoods who attend public secondary schools are less motivated and find school less appealing than those from disadvantaged neighbourhoods. Students from advantaged neighbourhoods find reading less appealing and have more psychosocial adjustment problems (e.g. more conflictual relationships with their teachers and higher rates of vandalism, petty theft and violence in intimate relationships) than their peers from disadvantaged neighbourhoods. These findings, as surprising as they may seem at first glance, need to be considered in view of the competition that exists between public and private schools in advantaged neighbourhoods. According to the researchers, it is plausible that in very advantaged neighbourhoods, the most motivated students attend private school, while students who are less motivated and less well-adjusted to school have more difficulty being admitted to these schools and must therefore attend public school.

At the same time, the researchers recommend offering increased support to French teachers in disadvantaged neighbourhoods and giving priority to improving the reading skills of their students, especially boys. The researchers have observed that French teachers in disadvantaged neighbourhoods feel they have less professional effectiveness than their counterparts in more advantaged communities. This can likely be attributed to the fact that schools in disadvantaged neighbourhoods accept a higher proportion of students whose mother tongue is not French, which represents an additional challenge for teachers. However, the more teachers are satisfied with their working environment, the more likely they are to incorporate different teaching methods and strategies into their practice, which contributes to the improvement of academic success. This underscores the importance of providing increased support to French teachers in disadvantaged neighbourhoods.

For its part, in order to encourage the implementation of differentiated instruction (with Aboriginal students), Presseau's team (2006) believes that **quality**, **sustained support** should be offered to teachers since transforming perceptions and practices is a process that takes time. The researchers also consider it crucial to **train teachers** so that they can deconstruct their assumptions that motivation is the only or the main prerequisite for academic success. If students receive differentiated instruction during their school careers, it is very likely that academic success will itself lead to greater motivation.

It is also recommended that schools offer **better access to special programs** so that young people with academic difficulties can participate in them, which may motivate them further and enable them to develop a stronger sense of belonging to their school without being deprived of the services to which they are entitled and which they really need (special education, psychoeducational services).

According to Presseau, views on educational interventions in Aboriginal communities differ depending on the stakeholders concerned (teachers, school principals, professionals) and tend to reinforce stereotypes. In this regard, the actions required to counteract failure and dropping out include incorporating elements of Aboriginal culture into the school and implementing support measures for Aboriginal students with learning and behavioural difficulties. Those working in such communities could benefit from professional development that would enable them to increase their knowledge of Aboriginal culture and modify their teaching practices. At the same time, bonuses could be offered to teachers who have the most experience working with students who are at-risk or have difficulties or who teach reading in order to retain such teachers in Aboriginal communities as long as possible. A **mentoring program** for new teachers would also be useful.

Clermont Gauthier and his collaborators (2005) also found that the most effective schools put great emphasis on the **professional development of teachers** so that teaching practices can be based on the most recent knowledge and best practices. In this regard, the researchers believe that the professional development of teachers should deal with **classroom management and education management**. As observed in all the research consulted, given that explicit teaching has a greater impact on student performance than any other teaching approach, teacher training should emphasize the former.

For its part, Nadia Rousseau's team (2007) suggests rethinking school organization in order to manage teaching in a more flexible manner. In light of a study on the application of a comprehensive task approach, the researchers noted that school reorganization improved the success of secondary school students with difficulties and that a comprehensive task approach had positive effects on student learning, behaviour and stress. It also enhanced teamwork and cohesiveness within teaching teams, helped implement the education reform, large-scale projects for young people with difficulties and integrative projects that ensure the creation of concrete links between subjects, and helped monitor daily student performance and behaviour.

Comprehensive task is an approach favoured by Paul Inchauspé, who chaired the task force on curriculum reform in Québec. This strategy is aimed at remedying the fact that, in today's schools, little thought is given to the organization of instructional time and learning sequences. This time management approach consists in entrusting a group of students to a team of teachers who are collectively and jointly responsible for the entire education program for each student in the group. For example, while one teacher explores a given subject in the classroom, his or her colleagues act as teaching assistants or maintain or re-establish discipline in the classroom. The comprehensive task approach is distinguished from team



teaching by the absence of fixed and standardized schedules for teachers or students. The only things established at the beginning of the year are the list of students, the names of the teachers and the educational program.

The implementation of the comprehensive task strategy in the education system has had a significant impact on differentiated path classes. Student stress and absenteeism rates decreased significantly. The teachers also noticed an improvement in student behaviours and attitudes, in particular because it is easier to apply rules of discipline consistently when two teachers are always present in the classroom. And even though the comprehensive task approach results in more students per class, most young people with difficulties consider that the support and supervision provided by the teachers promotes learning and understanding of the subject matter.

For their part, teachers have noticed that once the approach is implemented, it affords them more freedom and flexibility and, therefore, makes their teaching less monotonous and more effective. They also feel that the presence of colleagues in the classroom allows them to make connections between subjects and obtain direct feedback, which helps them finetune and improve the teaching they provide to students. According to the research, in a comprehensive task approach, teachers become accustomed to collaborating and establish relationships of trust that contribute to their job satisfaction.

However, the comprehensive task approach is possible only under certain conditions: the teaching team must share a desire to work together; the school administration, the school board and union representatives must support the implementation and maintenance of the teaching team; time must be set aside for cooperation and planning between pedagogical days; and the physical environment within the school must be modified. For such an approach to work, teachers have to commit and be prepared to make certain concessions regarding traditional teaching methods.

2.3 INTERVENTIONS WITH FAMILIES

The interventions with families recommended by the researchers mainly involve implementing parent education programs before children start school and new models of collaboration with families.

The research of Ellen Moss and her collaborators (2007) on the quality of child attachment to mother as a predictor of academic performance in secondary school is very instructive. The Moss team recommends improving parenting skills at the preschool and even early childhood stage in order to prevent academic problems in adolescence. It is well known that a child's attachment to a parent influences social adjustment. Since the end of the 1960s, psychologists have been trying to understand the connections between the different types of attachment and developmental problems in children. However, very few studies have evaluated the link between attachment relationships and special education. Moss' longitudinal study confirmed the researcher's hypothesis: children who have insecure, disorganized attachment relationships with their parents have serious adjustment and achievement problems in school.

The definition used for attachment relationships comes from a recognized typology, which is based on four distinct types of attachment (secure, avoidant, ambivalent and disorganized), each of which has impacts on the development of children and, above all, on their ability to adjust socially. They have a strong influence on children's communication, self-esteem and ability to self-regulate.

With regard to intervention, this research confirmed the importance of involving parents in any academic intervention with the children who are most at risk and of working on the relationships within the family, as well as the child's behaviours in the school context. The research clearly showed that children with insecure attachments are at risk of developing adjustment problems in school. Moss considers it necessary to intervene early in the parent-child attachment relationship, preferably at the early child-hood and preschool stage in order to foster emotional security. She believes that it is possible to improve parents' ability to meet the needs of their children through intensive interventions.

The research findings can help educators by providing clues to help them identify children with highly disorganized behaviours without, however, neglecting those with poor academic motivation but whose performance or behaviour in the classroom does not seem affected. Externalized difficulties such as unruliness and aggression are more obvious and disruptive in a classroom than anxiety and withdrawal. However, these internalized difficulties also reveal that a child is in distress. It is therefore important to help school staff become better aware of these types of difficulties, which mental health workers also find more difficult to identify.

The researchers discovered that adolescents with secure attachment relationships perform better academically than those with insecure attachment relationships. Their study also revealed that externalized or disruptive behavioural disorders in an adolescent may be linked to the quality of the attachment relationship with the mother. According to research results, secure adolescents are less likely to be aggressive than their insecure classmates. The researchers also found that six-year-old children with insecure-disorganized attachments are more likely to have internalized behavioural problems, such as social withdrawal or anxiety, at 14 years of age than other children. The study also revealed that children with self-regulation and impulsiveness problems at age eight tend to have externalizing problems at 14, and that eight-year-old students with self-control problems often have internalizing behavioural problems in adolescence.

The researchers point out that public authorities could help make parents aware of the importance of building secure relationships with their children and provide them with the appropriate tools. For the Moss team, family social services should target young children who already exhibit insecure attachment patterns when they start school. The research shows that, without intervention, dysfunctional parent-child relationships and their consequences on academic performance can persist through adolescence and into adulthood. From this perspective, the researchers believe it is important not to limit intervention resources to students with poor academic performance, but to focus as early as possible on parent-child communication patterns at the beginning of school, given the benefits that this can have for children's development and their adjustment in both elementary and secondary school.

Many studies recognize the fundamental importance of **parent collaboration** in the academic success of their children. However, this factor plays an even greater role in certain communities. For example, according to Presseau (2006), for a true partnership to be established between the schools and Aboriginal families, **all partners should be recognized as equals**, which would inevitably require staff members with negative or conflictual views to change their assumptions, in particular in their relationships with Aboriginal youth.

Since the 1980s, family-school collaboration has been at the centre of educational concerns. Scientific research has shown that parent-school relationships play an essential role in the academic success of their children. This collaboration is established in various ways, and it is now recognized that several types of collaboration exist, depending on the social class, living environment and family dynamics involved. Michèle Vatz-Laaroussi and her team (2005) carried out qualitative research with immigrant and Aboriginal populations, in which they observed many practices that promote academic success through the mobilization of all stakeholders.



In both immigrant families and Aboriginal families, the researchers observed that resilience is an important factor in academic success. This resilience is based on the mobilization of personal, family and community resources. Students who succeed plan and hope to succeed; they develop learning strategies and attempt to master French while valuing their mother tongue. Their immediate and extended families all recognize the importance of education. In terms of the community, mobilization is seen as a means of mediation that tries to create an accepting environment both in school and in the community. According to the researchers, such resilience is reinforced by the involvement of tutors, key people, such as teachers, friends in school and family members, who provide role models for young people. These tutors nurture the hopes of young people and communicate their pride in seeing them succeed.

This study revealed the extent to which parent-school relationships are influenced by the more or less multiethnic context in which they take place. Family and academic strategies are likely to vary depending on whether they occur in Montréal or other regions of Québec. While students of foreign origin have been increasing outside the Montréal region since 1993, following the policy on the regionalization of immigration, researchers believe that teachers in welcoming and multiethnic classes in the regions need to be better trained and equipped.

According to the research team, the road to academic success is built through the **mobilization** of all stakeholders. Among the approaches recommended, the team suggests recognizing the diversity of trajectories and of individuals who contribute to the academic success of young people. It also recommends **disseminating information** in order to promote school-family collaboration. Parents of children who are successful usually feel secure about the school system that accepts their children and they know it well enough to support their children effectively.

On the other hand, the study showed that schools must be open to the knowledge and skills of parents and school systems from other countries. The researchers believe that information going in one direction cannot be effective, and emphasize the importance of close connections between teachers, students, the living environment and the families, whatever their cultural origins.

With respect to immigrant and Aboriginal parents, school relations can be fraught with many expectations, hopes and apprehensions. However, a democratic parenting style is not common in working-class communities, immigrant populations and Aboriginal communities. This situation can create serious misunderstandings, hence the importance for the research team of taking advantage of the most favourable contexts for the expression of collaborative models, whatever the cultural communities of the families. Other obstacles can also hinder collaboration, such as poor mastery of French and integration problems related to immigration or marginalization.

2.4 INTERVENTIONS IN THE COMMUNITIES

As for interventions targeting communities, the researchers recommend above all that employers be made aware of the needs of young employees who work part-time while attending secondary school. Here, too, collective mobilization and cooperation are strongly recommended.

For its part, Gagnon's research team (in Koestner, 2008), which conducted a study on the extent to which part-time work interferes with school, also formulated recommendations for employers who hire students part-time. In order to promote student retention and academic success of young employees, the researchers suggest that schools establish connections with employers in their community to make them aware of the importance of their support for young people. Among the measures to be implemented, the researchers recommend that employers allow students flexibility and input into their work schedule. According to the study, contrary to popular belief, part-time employment has positive effects on academic engagement. Students who work tend to be more academically engaged than those who do not. Part-time work seems to contribute to meeting some of the basic needs of young people (autonomy, competence, forming relationships).

On the other hand, the number of hours worked can have a negative impact. According to Gagnon and his collaborators, students who work more than 20 hours a week tend to disengage from school. However, the number of hours is not the only factor. The researchers observed how extended part-time work is also associated with greater parental permissiveness and deviant behaviour (drug use and minor delinquency), and that these variables are associated with school disengagement. Working while attending school can therfore be positive as long as it is limited to ten hours a week and involves an employer who recognizes the importance of school.

Vatz-Laaroussi and her team (2005) recommends that families and communities support young people in their studies and ambitions, maintain connections and informal networks that promote support for academic success, invest and use all resources in the community and the school system to support this success and use every possible strategy to guide, help and mobilize young people in their schooling. For communities especially, the researchers recommend putting in place family-school mediation resources, combining initiatives from different sectors and promoting mutual aid and informal networks.



2.5 INTERVENTIONS IN THE AREA OF PROGRAMS AND POLICIES

In terms of interventions regarding programs, Chouinard and his team (2007) suggest continuing the support programs implemented in disadvantaged neighbourhoods, since the efforts and resources deployed in recent years in public secondary schools seem to have yielded positive results. Specific characteristics in the practices of teachers from these communities partially support this hypothesis. The researchers observed, in fact, that teachers in disadvantaged neighbourhoods have modified some of their practices and use collaborative learning activities more often than individual activities, a fact that can be viewed as a specific response to the characteristics of students.

The research carried out by Presseau (2006) on Aboriginal students reveals how much actions to promote student retention and academic success go far beyond what can be done in the classroom and even in the school. From this perspective, the researchers strongly recommend that steps be taken within the Aboriginal communities to **create jobs** accessible only to young graduates. Because for young Aboriginals success often means leaving the community to find work, such measures would provide students more incentive to continue their studies. However, economic development in Aboriginal communities inevitably requires a great deal of financial, human and political resources.

Vatz-Laaroussi's team (2005) recommends that school boards and schools implement intercultural policies by ensuring they are adapted to the community and oversee the establishment of school teams open to intercultural issues, while seeing to the professional development of school stakeholders. The researchers recommend that the Ministère de l'Éducation, du Loisir et du Sport add a compulsory training module on intercultural issues to initial teacher training. They also suggest reaffirming and strengthening the policies that take into account ethnocultural diversity and ensuring that they are implemented at all levels-school boards, elementary and secondary schools, in the classrooms and in extracurricular activities. They also ask political authorities to make sure these policies are applied in all regional and local communities, while ensuring a constant supply of resources to support initiatives promoting family-school collaboration and the success of young people.

CONCLUSION

The strength of this working document lies in the fact that it identifies the main recommendations of Québec research teams that looked into various topics and aspects related to student retention and academic success among secondary school students. In itself, the exercise is a first, since this work had never been carried out in research funded by the Research Program on Student Retention and Academic Success (RPSRAS). Many of the research projects concentrated on the advancement of knowledge, but most of the researchers were careful to formulate recommendations for different levels of intervention. In spite of the difficulty of comparing such varied research, we can thus observe the consistency of the recommendations and their connections with the approaches strongly encouraged by other researchers who have worked with samples outside Québec. From this perspective, authorities at the Ministère de l'Éducation, du Loisir et du Sport now have a working document based on Québec research that will provide them with valuable information regarding the decisions they need to make regarding dropout prevention in Québec secondary schools. However, beyond the importance of elaborating a provincewide action plan, this compilation of results clearly shows the need to create a forum for the dissemination of best practices for all communities and all stakeholders. In this regard, we think that the main recommendation of Philip C. Abrami of Concordia University remains fundamental. According to this researcher, it would be very advantageous for Québec and Canada to develop a systematic practice of compiling information on all large-scale intervention and dissemination programs, in order to adopt the most effective measures possible. These measures are often not well known because of lack of dissemination. Creation of a national database will go a long way towards improving efforts to encourage students to stay in school.



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