

{ NEWSLETTER }



TARGET

STUDENT RETENTION and SUCCESS

INTRODUCTION

Since 2002, the Ministère de l'Éducation, du Loisir et du Sport (MELS) has supported research on student retention and academic success. To date, 85 major projects have been financed as part of the Research Program on Student Retention and Academic Success (RPSRAS).

This newsletter was created to make these research findings more widely available in non-technical language. Although addressed to a broad readership, it aims to meet one of the program's objectives, i.e. to allow school staff to assimilate the research findings and to apply them.

Feature articles and news capsules will introduce you to the factors associated with student retention and academic success at all educational levels that have come to light as a result of this research.

The first issue specifically covers research carried out in elementary schools. It deals with parental attachment and its relationship to academic success, intervention with students with behavioural difficulties and other highly relevant topics.

It is my hope that this newsletter will be a valuable addition to your educator's toolbox.

Diane Charest,

In charge of the Service de la recherche et de l'évaluation

IN THIS ISSUE

- 2 PARENTAL ATTACHMENT:
A decisive factor in academic success in elementary school
- 4 THE *INTERVENTION L'ALLIÉ* PROGRAM:
Significant success for students with behavioural problems
- 6 WHAT'S NEW?
• Social life in kindergarten
• French instructional software
• Collaboration and transition
- 8 FOR FURTHER INFORMATION

RESEARCH

For many years, research in psychology has revealed the extent to which the relationships between parents and children have a profound influence on how children adapt to school, their motivation and more generally, their academic achievement. Two fascinating studies have been conducted in Québec on this topic. The first deals with types of parental attachment and the impact on academic success; the second deals with an intervention program that includes parents with children who are struggling with behavioural problems at school. Parents, teachers and school principals will be happy to learn that it is possible to help children who have difficulty adapting to school on the basis of a better understanding of their problems and the effective implementation of a multi-channel intervention strategy.



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STUDENT RETENTION and SUCCESS

What is the Research Program on Student Retention and Academic Success (RPSRAS)?

- The RPSRAS is an oriented research program managed by the MELS, in collaboration with the Fonds québécois de recherche sur la société et la culture (FQRSC).
- The program's objectives are to promote the development of knowledge, to spur the creation of partnerships (particularly between researchers and education stakeholders) and to allow school staff to assimilate and apply the research findings.
- The projects must meet annual priorities.
- Eighty-five research projects have been financed over a period of one to three years. Following a call for proposals, projects are selected on the basis of a rigorous scientific evaluation process to determine project relevance.
- The research concerns all educational levels from preschool through university.
- Over \$10 million have been invested since 2002.

PARENTAL ATTACHMENT:

A DECISIVE FACTOR IN ACADEMIC SUCCESS IN ELEMENTARY SCHOOL

How can we help children whose social and emotional problems are serious enough to interfere with their academic achievement? According to the most recent research on the topic, this concern poses one of the most demanding challenges for teachers.

Having worked for 20 years in the field of child development, Dr. Ellen Moss, professor in the psychology department at the Université du Québec à Montréal, decided to focus on the relationship between children and their parents as an approach to research and intervention. By applying the concepts of attachment theory, she conducted the very first Québec study on the connections between types of attachment and academic achievement

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in elementary school. The findings cannot be any clearer: the more children feel emotionally insecure, the more likely it is that they will experience difficulties at school. “In reality, the type of attachment is a more significant factor than academic motivation or self-esteem in explaining academic achievement,” said the researcher.

A FIRST IN QUÉBEC

As part of a study conducted over several years among 79 mother-child dyads from different socioeconomic backgrounds (40 girls, 39 boys), the researcher examined, more specifically predicting special needs in pre-teens (11-12 years), a period of childhood seldom addressed in developmental studies based on types of maternal attachment.

Although attachment theory allows that fathers or any other principal caregivers may play an identical role in the type of attachment that a child develops, the researcher focused on the relationship with the mother.



“Mothers continue to be the primary caregivers, and Montréal has large numbers of single mothers,” explained the researcher.

Developed in the early 1950s by English pediatrician and psychoanalyst John Bowlby, attachment theory makes it possible to understand the sense of emotional security that children experience with their mother and their readiness for exploring the external world with confidence. Research on the topic assumes that the formation of a secure attachment in early childhood can help predict a child's future psycho-social well-being. The researcher claims that this attachment tie models all of an individual's future intimate and social relationships.

Four main patterns of attachment were identified in the experimental work of Dr. Mary Ainsworth, a psychologist who worked with Dr. Bowlby during the 1970s.



DISORGANIZED ATTACHMENT: AT GREATEST RISK

In Ellen Moss's study sample, 56% of the observed children had secure attachments, 17% had avoidant attachments, 12% had ambivalent attachments and 15% had disorganized attachments. The research revealed that children with disorganized attachments are at greater risk of developing academic difficulties in pre-adolescence and of manifesting behavioural problems. "These children present poorer results, less motivation, less self-control and lower self-esteem," the researcher indicated.

In addition to their often disruptive behaviour in the classroom, these children have a tendency to want to reverse authority roles. "Perceiving themselves as adults, they constantly seek to control others and use coercive means." They generally also

**"Their disruptiveness
in the classroom conceals
immense distress"**

have a great deal of trouble planning stages that will lead to a result. This lack of self-regulation is observed in particular in certain subjects such as history or mathematics, in which the work requires a planning strategy.

The researcher also discovered that their motivation is either very low or very high. In the latter case, they can even be more motivated than secure children, but their motivation does not have a tangible relationship to reality. "They tend to overestimate their skills and not ask anyone for help," explained Dr. Moss.

HOW CAN WE INTERVENE?

"Their disruptiveness in the classroom conceals immense distress," said the researcher. Children with insecure attachments have internalized the idea that they can't rely on anyone, whereas they need the proximity and the consistency of an adult to carry out their learning. In this respect, the early years in elementary school are fundamental. "Parents must be included in any intervention involving children most at risk, in order to work both on family relationships and the child's behaviour at school," she added.

The quality of the ties between the families of these children and teachers may be poor. "Parents who have aggressive and disorganized relationships with their children, or who are physically abusive and neglectful, have problems communicating and cooperating with school staff, which risks undermining the child's adjustment to school."

In a situation in which a family has difficulty cooperating, the researcher recommends focusing more on learning and competency development. Also, since the school provides children with the opportunity of being exposed to other relationships and developing competencies, the intervention plan could encourage these children to get involved in sports, musical or other activities so that they can develop a talent and integrate into a group that has rules of conduct.

See the report:

www.fqrsc.gouv.qc.ca/recherche/pdf/RF-EllenMoss.pdf

TYPES OF ATTACHMENT	SIGNS IN EARLY CHILDHOOD	SIGNS IN ELEMENTARY SCHOOL
Secure attachment	The child trusts the parent, the child knows he or she can count on the parent to be available and that the parent will protect the child in the event of danger.	The child is sociable, shows empathy and good self-esteem; the child trust adults, is motivated to learn and has good self-control.
Ambivalent attachment	The child has doubts about his or her parent's availability; the child is anxious when separated from the mother and hesitates to explore his or her environment.	The child has little self-confidence, places more trust in others to meet his or her needs, tends to withdraw, complains about somatic problems and shows oppositional behaviour.
Avoidant attachment	The child has no confidence in the mother's availability; the child expects to be rejected when seeking protection and comfort from her.	The child tends to live without support from others, often displays hostility and aggression and may be perceived as belligerent.
Disorganized attachment	The child is distressed, shows contradictory behaviours in approaching and withdrawing from the parent, and shows apprehension in the parent's presence.	The child seems disoriented, presents behavioural problems, has a difficult personality, a controlling attitude and tends to want to change roles with adults.



THE *INTERVENTION L'ALLIÉ* PROGRAM:

SIGNIFICANT SUCCESS FOR STUDENTS WITH BEHAVIOURAL PROBLEMS

A research team led by Dr. Nadia Desbiens, professor in the Département de psychopédagogie et d'andragogie at the Université de Montréal, set up an intervention program to deal with the behavioural problems of elementary school students. The program, based on an alliance involving the family, the school and peers, has made it possible to significantly improve the socio-cognitive and behavioural skills of the students who took part.

Implemented for two years in six French-language elementary schools in disadvantaged communities in the Montréal region, the *Intervention l'Allié* program has succeeded where few other programs have been able to do to date in rallying teachers, parents in great difficulty and pre-teens struggling with serious behavioural problems at school and at home. This intervention program, designed using the most highly recommended practices, has proved so beneficial and popular that the research team will offer it in fall 2008 to all elementary schools in Québec.



BEHAVIOURAL DIFFICULTIES

"Behavioural difficulties do not arise overnight," explained Dr. Desbiens. "They are often the result of difficult living conditions and personal vulnerability." The accumulation and persistence of risk factors increases the vulnerability of children in this respect.

Many studies have revealed that young people with behavioural problems do not know how or when to use social skills that allow them to be accepted at school. "Among students in difficulty, those who show behavioural problems are the least popular at school," said the researcher.

Deprived of recognition and validation, they often experience feelings of incompetence that spur them to adopt oppositional or violent behaviours. Constantly interfering in the management of the class, they have difficulty complying with the school's standards and are highly unmotivated, passive and dependent on adults. The researchers also discovered that when behavioural problems are combined with family factors such as poor parenting skills, a permissive parenting style or inadequate supervision and support, the risk of failure, dropping out and delinquency in adolescence increases.

WHAT CAN THE SCHOOL DO?

According to Dr. François Bowen, a researcher who took part in the project and Assistant Dean of graduate studies and research in the Faculté des sciences de l'éducation at the Université de Montréal, although the school seldom causes behavioural problems among young people, certain factors in the school environment may increase existing or emerging problems. For example, schools that favour punitive disciplinary practices, have vague rules and expectations and that have high academic failure rates may increase the incidence of aggressive behaviours.

the researchers said. "The school, with its requirements and challenges, constitutes an outstanding environment for socialization."

The *Intervention l'Allié* program was designed to enrich the repertoire of social and interpersonal problem-solving skills for children who have behavioural problems starting in elementary school. To be beneficial in the long term, this type of program requires the direct involvement of the people who have the most impact on the lives of these kids, particularly parents and peers.

The program comprises four complementary parts: 1) training in peaceful behaviours for the entire class; 2) training in social skills and problem-solving for kids with behavioural difficulties and their best friends; 3) improvement of parenting skills and educational practices; 4) support for teachers and stakeholders in the school.

"The school, with its requirements and challenges, constitutes an outstanding environment for socialization."

"On the other hand, school is a place where children can, through a variety of activities and experiences, discover, develop, affirm and test their skills and their values,"

Following two years of implementation, from 2004 to 2006, the team discovered that students, teachers, parents and peers reported the beneficial effects of intervention.



Continuation of page 4

“The students seek more positive solutions to resolve conflicts, they are more skillful in resolving them and show more social behaviours,” said the researchers. Girls with externalized behavioural problems derive more benefit from the program than boys. They were able to better manage their emotions and self-control. Positive effects on the school climate were also observed.

See the report:

www.fqsc.gouv.qc.ca/recherche/pdf/RF-NDesbiens.pdf

ALLIANCE WITH PARENTS: AN ESSENTIAL FACTOR IN THE PROGRAM'S SUCCESS

Dr. Nadia Desbiens' team observed that the participation of parents is crucial to the program's effectiveness. The program succeeded in reaching 20% of parents of children with behavioural problems in the first year of its implementation and 28% in the second year. “Although the findings are not statistically significant, the children of these parents showed much greater improvement than their classmates whose parents did not take part in the workshops.”

To encourage parents to participate, the school provided them with a daycare service, enabling them to attend the thirteen workshops designed for them. When necessary, it reimbursed the fees of a babysitter in the home. In addition, the team systematically called parents before every workshop to urge them to take part.

Parents were able to learn positive reinforcement techniques to encourage desirable behaviours in the child. The workshops also aimed to modify parents' behaviours toward the child in such a way as to boost their feelings of competence. Discussion, role-play, modelling techniques and video clips were used to illustrate models of interaction between parents and children in different contexts of daily life.

While an alliance with parents is one of the most promising avenues, and the program has had positive impacts, these children cannot be considered as no longer at risk. “Although the program prevented a worsening of their behavioural difficulties, these children did not turn into angels,” the researchers acknowledged. “They still need a great deal of supervision and support.”

The team believes that the *Intervention l'Allié* program makes it possible to intervene in a consistent way that is better suited to life circumstances, and to foster a sense of security in the children while creating a new form of solidarity between parents and the school. Given such results, it should come as no surprise that the level of overall satisfaction with the program was so high.

Information about the kit for the *Intervention l'Allié* program can be downloaded from the following site:

www.gres-umontreal.ca.



WHAT'S NEW?

1

Starting in kindergarten, the social life of students plays an important role in their educational path.

Research conducted by Dr. Nicole Royer, professor of education at the Université du Québec à Trois-Rivières, confirms that the quality of the interpersonal relationships that students establish and maintain with classmates starting in kindergarten influence their sense of belonging to the school and their motivation to learn.

For many years, researchers have concentrated on the teacher-student relationship. Increasingly, they are seeking to understand how friendship ties, peer approval and rejection and inclusion in social networks influence student retention and academic success. Dr. Royer's team discovered what many teachers knew intuitively: the more a student is accepted in the class, has reciprocal friendships and feels integrated in a social network, the stronger his or her involvement with the school. The research findings apply equally to boys and girls.

In all, 343 preschool and Elementary Cycle One students from five schools in the Mauricie region participated in the study, held from 2003 to 2005. "The quality of interpersonal relationships between children in the classroom is directly related to learning and participation behaviours from the outset of schooling," said Dr. Royer, who was in charge of the study.

In the current context of the education reform in which teachers are encouraged to introduce different forms of peer-based learning, such as project-based teaching, collaborative teaching, tutoring and various forms of cooperative learning, concern for the students' social life in the classroom takes on new importance.

"The student's participation in learning activities becomes a decisive aspect of his or her academic success," the researcher points out.

Motivation to participate depends on a positive combination of cognitive, emotional and relational factors at play in the classroom's learning activities.

The research has shown that rejected students constantly experience difficulties finding game and work partners at school. The fact of being rejected can intensify the student's negative perception of learning and contribute to a form of withdrawal from the school. "Students who are less well accepted are considered to be at higher risk for dropping out and for delinquency in adolescence," Dr. Royer noted when reviewing the literature on the topic.

The teacher can have an influence on the emergence of reciprocal friendship ties in the classroom. "The emotional climate of the classroom depends in large part on the teacher," said Dr. Royer. By offering students opportunities to talk about their interests and their experiences, and allowing them to form groups based on their affinities, the teacher helps create an emotional climate that fosters the student's involvement and sense of belonging. Other methods consist in encouraging cooperation rather than competition, and giving constructive feedback.

See the report:

www.fqrsc.gouv.qc.ca/recherche/pdf/RF-NRoyer.pdf

2

Innovative instructional software helps students catch up on French language delays at the elementary level.

Designed by a research team led by Dr. Lori Morris, professor of linguistics and language teaching at the Université du Québec à Montréal, this instructional software was developed based on evaluative research conducted among 498 students in eight elementary schools (French and English) in the Montréal region.

"Starting in elementary school, we wanted to identify students at risk for experiencing language problems, in particular lexical difficulties, in French or in English," said the researcher. "Our goal was to offer these students pedagogical support, in the form of instructional software, that would allow them to acquire the vocabulary they need to succeed not only in elementary school but also in secondary school and in post-secondary education."

The research team observed that many students showed significant delays. Given various exams aimed at assessing their knowledge of antonyms and synonyms as well as their ability in reading and written production, some students even struggled to complete the tests.

Rather than determining the total number of students with delays, the team wanted to conduct a more in-depth analysis and identify the main factors associated with these delays.

The research revealed that students from advantaged environments knew more words than students from disadvantaged areas, regardless of their maternal language. "In the sixth year of elementary school, francophone students in affluent environments were ahead



of their anglophone, allophone and New Quebecker counterparts by about four years.” However, there was no significant difference between girls and boys.

The language situation of students also proved to be a very important factor. Regardless of their socioeconomic status, children who are new Quebeckers know fewer words than their francophone and anglophone counterparts. “Allophone students from disadvantaged environments who were enrolled in an immersion program did not master French at all at the end of elementary school,” Dr. Morris pointed out. “They have reading delays of about three years and seven months.”

In light of these findings, the team designed the instructional software *Lextreme* whose interface is available in French and English versions. “It is a powerful vocabulary learning software program,” explains

Mr. Michel Bastien, computer specialist involved in the project. *Lextreme’s* open-ended design allows teachers to add, modify, and adapt texts and their target vocabulary according to their own objectives in the language of their choice.” Since 2005, the software has been downloaded hundreds of times in Québec and throughout the Francophonie. “Even a teacher in a school in northern Québec is using it to teach the Inuktitut language.”

The research team can also offer training sessions in schools wishing to use the software. It can be downloaded free of charge from the Web site of the Groupe de recherche sur l’acquisition du français chez les allophones (www.rafa1.uqam.ca/lextreme/index.htm).

See the report:
www.fqrsc.gouv.qc.ca/recherche/pdf/RF-LoriMorris.pdf



Improved collaboration between elementary and secondary school teachers, combined with learning models carried out in partnership, directly benefits students during the transition from elementary to secondary school.

A team of researchers led by Dr. François Larose, professor of education at the Université de Sherbrooke, observed, through an exploratory research program, the extent to which having students at the end of elementary school share projects with groups of students in Secondary Cycle One facilitated the transition between the two educational levels, particularly for students with learning difficulties. Although many individual and family factors influence a student’s adjustment to secondary school, the research team sought to find an innovative solution by targeting the environmental factors associated with each of the levels of education. Conducted between 2003 and 2005 in elementary and secondary schools located in the city of Asbestos (Estrie) and in surrounding rural communities, the research first of all concentrated on elementary and secondary school educators’ ideas about the difficulties students face in adapting to this transition.

By analyzing what the teachers had to say, the researchers discovered a tendency to assign responsibility to one or the other level of education for difficulties that some students experience in adjusting to the transition. Several stumbling blocks between the teachers of the two levels came to light. “Elementary school teachers seem more concerned than their colleagues in secondary school by the greater autonomy that students will experience, but they believe that the children are entirely capable of adapting,” said the team.

Furthermore, teachers at the two educational levels assessed the standards and competencies that prepare students to study well in secondary school in different ways. For example, presentation of homework, forms of study, codes of conduct, time management standards and even relationships between students are different at the elementary and secondary levels. Secondary school teachers were more concerned about this



aspect than their colleagues in elementary school and they tended to reproach their colleagues for not adequately preparing students for these circumstances.

To promote continuity between the two educational levels and facilitate the transition for students, the researchers experimented with learning activities involving students and teachers at both educational levels. Classes were paired and the projects that were developed allowed participating students and teachers to discuss, compare and express constructive criticism on the topics being studied.

“These experiences proved to be a powerful factor in motivation,” said Dr. François Larose. In addition, for elementary students and students enrolled in a special path in secondary school, the experiences they had during the two consecutive years contributed to a clear



TARGET

STUDENT RETENTION and SUCCESS

3

Continuation of page 7

improvement in the representation of their academic competencies, and in self-esteem. The researcher also emphasized the extent to which teachers at both educational levels were able to benefit from the research. "The differences in practices and expertise among the teachers, perceived at the outset as the main cause of adjustment difficulties for students making the transition, are now considered a source of professional development."

See the report:

www.fqsc.gouv.qc.ca/recherche/pdf/RF-FrancoisLarose.pdf

FOR FURTHER INFORMATION:

Desbiens, Nadia, Sophie Pascal, François Bowen and Michel Janosz. *Réussite scolaire et sociale des élèves présentant des difficultés de comportement au primaire: rapport d'évaluation des impacts "volet parent" du programme multimodal l'Allié*, 2006.

Larose, François, et al. *L'impact de la coopération pédagogique en contexte de projet sur la réussite éducative d'élèves de milieu socioéconomique faible lors de la transition primaire-secondaire*, 2005.

Morris, Lori, Daphnée Simard, Yvette Hus and Michel Bastien. *Les mots pour le dire: richesse lexicale et réussite scolaire au primaire*, 2005.

Moss, Ellen. *Les rôles de l'attachement et des processus individuels et familiaux dans la prédiction de la performance scolaire*, 2005.

Royer, Nicole, Marc Provost and Élisabeth Daneault. *La participation et la persévérance académiques dans des contextes pédagogiques en changement: étude du rôle de la vie sociale des élèves au début de la fréquentation scolaire*, 2007.

All the research reports were published as part of the Research Program on Student Retention and Academic Success (RPSRAS) and can be downloaded from the following Web site: www.fqsc.gouv.qc.ca/recherche/index1.html.

INFORMATION

The MELS recently published two summaries outlining, in non-technical language, the findings of a number of research programs funded as part of the RPSRAS.

One deals with teaching practices associated with motivation and the evaluation of learning, while the other one covers the topics of student retention and academic success in the sciences at the college and university levels. These documents are available on the MELS Web site:

www.mels.gouv.qc.ca.



The **Ensemble, nous innovons!** conference will be held April 16-18, 2008, bringing together participants from the education, health, employment, community and municipal networks. This event is organized by the Centre de transfert pour la réussite éducative du Québec (CTREQ), in partnership with some twenty organizations, including the MELS.

The goals of the conference are to discuss innovative means of promoting educational success and student retention, to foster improved collaboration between researchers and practitioners and to favour improved collaboration among the networks that are concerned by educational success and combating the dropout problem.



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