



# TARGET

## STUDENT RETENTION and SUCCESS

### INTRODUCTION

This issue reviews the latest findings of studies funded by the Research Program on Student Retention and Academic Success.

The first project looks at the link between the satisfaction of the essential psychological needs of young adults (such as their need for autonomy) and academic motivation. The researchers demonstrate clearly that situations that promote autonomy also improve teenagers' sense of well-being. A second project explores the impact of part-time work on commitment to school activities. The researcher notes that if part-time work allows teenagers to meet

their needs for autonomy, competence and relatedness, it has a positive, rather than a negative impact on their academic motivation and commitment. However, when paid work occupies over 20 hours of a teenager's week, there is an increased risk that the teenager will drop out of school.

We hope you enjoy this issue. We welcome your comments so that we can improve this newsletter and ensure that it meets your information needs:

[Demande-stat-rech@mels.gouv.qc.ca](mailto:Demande-stat-rech@mels.gouv.qc.ca)

**Valérie Saisset**

*Chef du Service de la recherche  
et de l'évaluation par intérim*

### IN THIS ISSUE

- 2 STUDENT NEEDS AND ACADEMIC SUCCESS DURING ADOLESCENCE
- 4 PART-TIME WORK: satisfying adolescents' fundamental needs, but with certain restrictions
- 5 WHAT'S NEW?
  - Dysphasia and auditory processing disorder at the elementary level
  - Allophone students and knowledge of French at the elementary level
  - ICTs in a university setting

### RESEARCH

Although teenagers require constant supervision from their parents and their school, they often express a legitimate need for autonomy. Many different research projects have shown that the more independent and competent young people feel, the higher their motivation will be in various spheres of their life, including school. Two studies illustrate the fundamental role played by this need for autonomy, and the importance for parents, teachers and employers of providing support. The first study confirms, among other things, that a strong relationship with their parents contributes to teenagers' academic commitment, while the second demonstrates that part-time work, with certain restrictions, also promotes commitment.



## SATISFACTION OF NEEDS IN VARIOUS LIFE SITUATIONS: A MAJOR IMPACT ON THE ACADEMIC SUCCESS OF ADOLESCENTS AT THE SECONDARY LEVEL

What should we do when a secondary school student starts wondering whether to stay in school? How can we help the student find academic activities that are meaningful enough to help him or her to persevere until graduation? What factors contribute to the best possible school experience?

These questions have been widely debated. Many stakeholders are convinced that academic commitment and success must be actively promoted among young people. In addition, however, researchers have increasingly noted that when young people's needs in various life situations (at school, at work, at home, with friends) are satisfied, and that when a good balance is achieved between those situations, students are more likely to be actively involved in school and less likely to drop out. One promising avenue is to encourage autonomy, because the feeling of being able to determine for oneself the area in which to make an effort has a positive effect on motivation. And autonomy does not necessarily mean absolute freedom or lack of supervision.

### FUNDAMENTAL NEEDS DURING ADOLESCENCE

Adolescence is a period of change, when young people undergo developmental, cognitive, emotional and social transformations. A primary goal of adolescence is to figure out who one is and where one fits into society. In the search for their identity, adolescents explore various values, lifestyles, peer networks and career choices, whether at school, in their families or during part-time work. School is no longer their only focus of interest. However, in some cases, what teens experience with friends or family members or at work creates a conflict with academic commitment and may influence their motivation.

To understand what motivates adolescents to make a commitment to their education and to stay in school, researchers in the field of developmental psychology recognize that needs satisfaction (including satisfaction of the need for autonomy) has an inevitable



impact on students' schoolwork (see box). Several studies have shown that contexts that promote autonomy increase adolescents' sense of well-being. For example, students think less about dropping out when they feel that their school environment supports their autonomy and competence. Similarly, the academic motivation and academic adaptation of children whose parents support their autonomy is higher.

Based on surveys of over 2 300 teenagers aged 11 to 18 in four countries (Canada, the United States, France and China),

a research team led by McGill University's Richard Koestner has looked at whether the satisfaction of young people's fundamental needs in various contexts (at school, at home, with friends and during part-time work) has a positive link with their experience in school. According to the research team, "the feedback and support adolescents receive in each context will often be a key determinant of whether this life stage is successfully resolved."

Adolescence is a period of change, when young people undergo developmental, cognitive, emotional and social transformations.



# TARGET

## STUDENT RETENTION and SUCCESS

### PARENT-CHILD RELATIONS AND ADOLESCENT WELL-BEING

The researchers noted that need satisfaction at home was a key factor in adolescents' well-being, highlighting the importance of parents and the family environment during adolescence. "At a life stage when parental influence is thought to decrease or to be replaced by peer influence, we find that need satisfaction at home with one's parents to be of greater importance for psychological well-being than need satisfaction with peers," the researchers report.

Although satisfying the needs for autonomy, competence and relatedness in each life context can promote psychological well-being, the balance between contexts plays an important role and contributes to well-being

and academic adaptation. Adolescents reporting more balance say that they are happier, more motivated and less likely to drop out from school. In addition, the assessments of their teachers confirm the importance of balance between contexts, since the students who had achieved a balance were rated higher by their teachers in terms of self-regulation, optimism and self-efficacy.

"Chinese teenagers who experienced greater need balance across contexts reported significantly higher well being... This suggests that the importance of balance across contexts is not simply a western phenomenon but, like the satisfaction of the needs for autonomy, competence, and relatedness, universal across cultures." In contrast, the researchers found that the academic adaptation of adolescents whose basic needs were mainly

satisfied by their relations with their friends was weaker. They were also more likely to lack motivation and to consider dropping out. This result can be explained by differences based on the values promoted by the friends in question. "If adolescents are part of a peer group that does not value education, and they experience high need satisfaction in that peer group, this norm of educational disengagement can become internalized and negatively affect school outcomes."

In the opinion of the researchers, when education is promoted across contexts and when young people satisfy their needs at school, with their family and friends, as well as at work, the value of education is more likely to be integrated and to give meaning to their school commitment.

### ● FOCUS ON AUTONOMY

For students to persevere at school, it is clear that they must be motivated. How can motivation be stimulated? According to Edward L. Deci and Richard M. Ryan, from the University of Rochester in the United States, the satisfaction of three essential psychological needs has a determining influence on motivation. The three needs are the need for autonomy, the need for competence and the need for relatedness.

According to Deci and Ryan, the key to healthy development and adaptation in a given context (school, family, work, etc.) is the amount of psychological need satisfaction one experiences in that context. Numerous studies have linked the satisfaction of these three psychological needs with positive outcomes such as greater psychological well-being, better academic results and better job performance.

Need satisfaction is seen as an "innate" objective, supplying much of the meaning and intention that underlies human activity. In addition, by identifying fundamental psychological needs, it is possible to define the minimum required for a person to develop in a healthy manner, and also what the environment must provide to allow that person to grow in psychological terms.

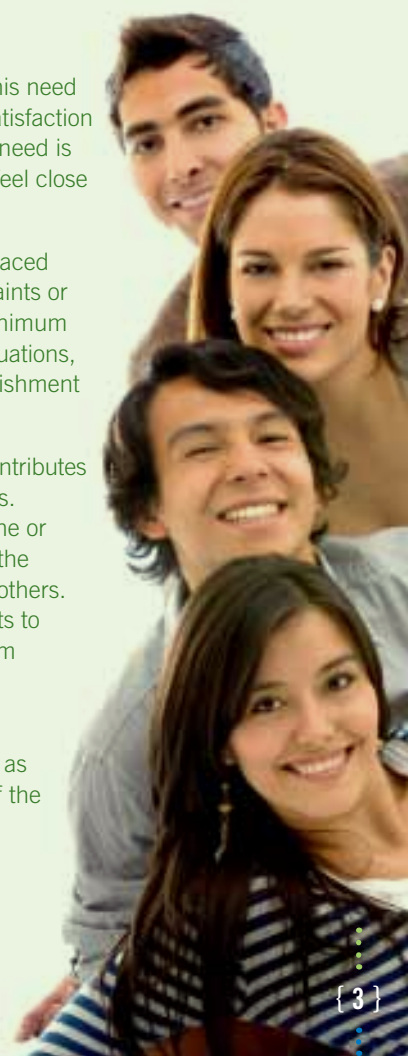
From this point of view adolescents, like adults, need to satisfy their need for autonomy—in other words, the ability to make choices rather than react to constraints. They also need to feel mastery over their environment and feel that

they are able to bring about desired outcomes. This need for competence is a deep human need, and its satisfaction is essential to psychological well-being. The third need is the need for relatedness—young people need to feel close to and connected with significant others.

In general, individuals (young people or adults) placed in a situation requiring them to respond to constraints or pressure invest little in their actions, make the minimum required effort, and perform less well. In these situations, motivation is mainly regulated by reward and punishment under the control of another person.

On the other hand, motivation that is "intrinsic" contributes to a more sincere commitment to everyday actions. The individual chooses to commit to actions that he or she finds interesting or motivating, rather than to the actions required to achieve results prescribed by others. From this point of view, teachers can help students to identify what genuinely interests them to help them develop their motivation.

These observations, which Deci and Ryan call "self-determination theory," are increasingly used as a framework to study academic motivation; one of the most interesting applications of the theory relates to encouraging young people's autonomy.





## THE BENEFITS OF PART-TIME WORK FOR STUDENTS

Part-time work has a positive influence on the academic commitment of secondary school and college students, more so than for students who do not work. However, paid work for more than 20 hours per week increases the dropout risk.



### WORK QUANTITY AND QUALITY

Is it possible to define guidelines for the best way to combine work and study? The research conducted by Hugo Gagnon on 3 565 students in the Laurentides region, of whom 2 117 were enrolled in secondary school and 1 448 in CEGEP, goes a long way toward answering this question.

The findings show that part-time work is linked to lower dropout intentions for both boys and girls, compared to students who did not work, except in cases when the work took up more than 20 hours per week.

The researcher explains that the quality of the work environment plays a fundamental role in young people's experience and the satisfaction of their various needs. "When work environments encourage decision making, career exploration, confidence building, and competence, they can have a positive impact on high school students' occupational identity, goal setting, and educational pursuits." These experiences can genuinely help young people identify a career path, making their studies more meaningful and improving student retention. Provided some conditions are met, therefore, part-time work can enhance academic commitment.

"One might worry that students who felt highly autonomous, competent, and related in their work environment would perhaps invest more in this domain and decrease their engagement in the academic domain. Importantly, need satisfaction at work was not associated with school disengagement, or worse academic outcomes." In fact, the presence of need satisfaction in a teenager's work environment does not prevent him or her from pursuing academic goals.

As part of his doctoral program, Hugo Gagnon, supervised by McGill University's Richard Koestner, has attempted to determine whether part-time work helps satisfy young people's fundamental needs. The researcher shows that, in contrast to the prevailing discourse, when the needs for autonomy, competence and relatedness are satisfied by part-time work, there is no negative effect on academic motivation or commitment.

It has become commonplace for students to work part-time at the end of secondary school and during college. Whether as babysitters, store clerks or waiters, two-thirds of Secondary V students worked part-time in 2003 according to Statistics Canada. Although part-time work is a big part of the lives of many young people, little research has been done on the impact of paid employment on student retention.

A part-time job can be beneficial for a young person. "Part-time employment represents an arena of independence outside of home

**A part-time job can be beneficial for a young person.**

and school in which adolescents gain social competencies and material rewards for an independent life with peers," explains Hugo Gagnon. "Adolescents who begin to work while attending high school take on new social roles with new responsibilities, new peer relationships, and a new kind of relationship with adult figures."

Many parents feel that part-time employment is beneficial for their adolescent children. Obviously, their main concern is that the work will interfere with their education. Some students may begin to feel that their job has more value than their program, or their part-time job may become so demanding that they lack the time and energy needed for their studies.



# TARGET

## STUDENT RETENTION and SUCCESS

On the other hand, the number of hours worked has a negative impact on academic commitment. The students in the sample worked part-time for an average of 10 hours per week. Students who worked more than 20 hours per week reported significantly higher dropout intentions and had lower grade point averages than all other students. These students (16% of the sample) also stated that their work had repercussions on their studies. However, the number of hours worked was not the only factor involved, since “extended part-time work is associated with parental permissiveness and adolescent deviance (drug use and minor delinquency), and that these variables link together with school disengagement.” Part-time work can be positive provided it is limited to 10 hours per week and the employer acknowledges the importance of school.

### THE IMPORTANCE OF EMPLOYER SUPPORT

The research project also demonstrated that employers who supported school involvement had employees whose dropout intentions were lower. “Employers represent a new type of adult figure in many young people’s lives and it is possible that their endorsement of the importance of school engagement can have a significant impact on students.”

To support student retention and the academic success of young, part-time employees, the researchers suggest that schools should foster connections with local companies to make them aware of the importance of support for students. The measures that should be established include acknowledging that students are involved in school and following up this acknowledgement by providing flexibility in work schedules.



## WHAT’S NEW?



### Elementary level students with dysphasia or an auditory processing disorder experience social integration and learning difficulties, to varying degrees.

To deal with these difficulties, the support measures currently provided should include changes to various aspects of the school environment, which should significantly reduce the obstacles to learning and socialization.

In Québec, many students with learning difficulties have dysphasia or an auditory processing disorder (APD). These disorders mainly involve difficulty understanding speech in a noisy environment or difficulty decoding auditory information quickly. Since communication is at the heart of several everyday activities, many of these children’s lifestyle habits are directly affected, and in addition they must make an extra effort at school to hear and understand what the teacher and the other students are saying.

After surveying 55 children with this type of difficulty and 18 school staff members working with students at the elementary level, Benoît Jutras, a professor at the École d’orthophonie

et d’audiologie, Université de Montréal, and his research team report that several elements in the school environment could make an important contribution to the students’ socialization and integration.

The staff and parents interviewed considered that adaptations could be made to several environmental factors of a pedagogical nature. For example, children with dysphasia or APD may need to hear words and phrases more than once before writing them down. They may also find it easier to answer verbally, rather than in writing. To make whole-class teaching effective, visual aids to support the spoken work would facilitate the transmission of information. The children must also be given more time for examinations, dictations, exercises and reading in class.

For homework and assignments, better cooperation between parents and teachers is needed to adapt the work to the children’s

needs. “The benefits of intervention with students with learning difficulties are increased by true school/family cooperation,” the researchers report.

With regard to environmental factors of a physical nature, layout changes designed to control noise in the classroom and dining hall are essential to give the students a chance to understand instructions, explanations and conversations and to participate fully. The potential benefits of working in a small group can be cancelled out by high noise levels. Parents and school staff members believe that fewer students per class should be considered a support measure.

From this point of view and considering that students with learning difficulties (including those with dysphasia and APD) are twice as likely to drop out from secondary school as students without such difficulties, these possible support measures could have a direct impact on their academic success.



## WHAT'S NEW?



**Allophone students adapt well to the school system, but their knowledge of French at the end of elementary school is only just sufficient to hide their deficiencies, as a result of learning strategies that differ from those of their Francophone classmates.**

Schools in Québec educate increasing number of students who speak a language other than French at home. The arrival of Allophone students at school marks the start of an academic experience that is more difficult than for Francophone students.

A child who starts school with a vocabulary of several hundred words, strong spoken language skills and the ability to produce French sentences with a degree of syntactic complexity is better equipped to adapt to school life. Students who have never spoken French before crossing the school threshold start their school career with a major language delay, with some studies even finding certain language-related behaviour identical to that of Francophone students with a language disorder.



**A child who starts school with a vocabulary of several hundred words, strong spoken language skills and the ability to produce French sentences with a degree of syntactic complexity is better equipped to adapt to school life.**

As part of a research project to develop a protocol to assess the spoken and written French language competency of Allophone students in the three cycles of elementary education, a research team directed by UQAM professor Lori Morris has noted that Allophone students do not achieve linguistic parity with Francophone students during their elementary

education. After assessing the performance of 2 248 students in 14 elementary schools, by school year and by task, the team found that major discrepancies persist, in particular with respect to lexical and syntactical knowledge.

Allophone students have better results in language skills of a purely academic nature (recognition of written words, spelling, grammar). “Since these skills are often rewarded at school, Allophone students can succeed at the elementary level even if they do not have the same linguistic competency as Francophone students,” explain the researchers. “However, the lexical, syntactical and pragmatic weakness of Allophone students can lead to cognitive overload and slow, laborious linguistic processing, especially when reading more complex texts.”

During the whole of their elementary education, allophone students obtain lower language results than their Francophone classmates. “In addition, we observed that the differences did not disappear as the students

moved through the school system. By the end of Elementary 6, Allophone students had still not caught up with their Francophone classmates.” The research project also demonstrated how Allophone students process written texts. “Francophones favour phonological processing, while Allophones favour graphical processing that probably helps them compensate for, and to a certain extent hide, their difficulties with spoken language,” the researchers add.

According to the research team, traditional reception and supervision measures designed for Francophone students are not adapted to the needs of new Quebeckers. “We cannot rely simply on their ability to adapt. Researchers and the school system must take action, rather than the students who are already making a big effort to complete the same tasks as their Francophone classmates. Any intervention to help Allophone students will also help weaker Francophone students, and contribute to success for all students,” concludes the research team.



## WHAT'S NEW?



**Although transparencies and overhead projectors are now a thing of the past, the new information and communication technologies (ICTs) used in a university setting are not foolproof: they must be used properly by teachers to have any real impact on learning and academic success.**



A research team directed by Thierry Karsenti, a professor at Université de Montréal, surveyed over 10 000 students at Université de Montréal and Université du Québec à Montréal (UQAM) to discover the conditions required to integrate ICTs effectively into university-level teaching. Current scientific knowledge does not clearly define which strategies for ICT use should be introduced in universities, and what pitfalls should be avoided.

The range of ICTs used in universities increasingly requires faculty and students to possess practical, constantly upgraded knowledge. As students progress through the university system, they become increasingly likely to rely on various tools,

such as the Internet and databases, to find information. The use of research engines, WebCT platforms (a tool that facilitates links between students and teachers) and software for word processing, presentations (such as PowerPoint), e-mail, Web navigation and chatting pose few problems. On the other hand, students are less liable to use spreadsheet software and library catalogues, and are not generally comfortable using Web page design tools.

**The students considered that the ability to access course notes and outlines, bibliographies, Web site references, previous work by other students, exam results and research tools on-line was an advantage.**

What content or tools should be given priority by universities? According to this research project, the students surveyed considered that ICTs are useful tools for improving communications with teachers, working with classmates, and presenting and organizing academic work. Over half believed that the technologies helped them understand the content presented in class and provided assistance in a more in-depth examination of content at home or at the library.

The students considered that the ability to access course notes and outlines, bibliographies, Web site references, previous work by other students, exam results and research tools on-line was an advantage. Contrary to expectations, they did not appear to appreciate the forums made available to exchange information or discuss the topics addressed in class. According to the team led by Thierry Karsenti, several respondents complained about the “non-pedagogical use of electronic forums, where students had to ask questions without any guarantee of a reply, and where they had to participate in order not to lose points.”

In terms of importance, the students thought that ICTs should be used mainly to facilitate student/teacher communications, and found on-line classes to be particularly effective. They also agreed that the research tools available were powerful, and that ICTs were useful in helping them to organize, represent or visualize information. Several students stated that creating an innovative link between ICTs and better pedagogical strategies should be a priority. Their main desire was to have access to their teachers' course notes on-line, and above all to have on-line access to their assignment and exam marks.



## ... FURTHER READING: ...

Gagnon, Hugo, et al. *Work-School Interference and School Drop Out: An Extension of Self Determination Theory*, in Koestner, R. et al., 2008.

Jutras, Benoît, et al. *Une description des habitudes de vie et de la qualité de l'environnement des enfants de 5 à 13 ans présentant un trouble de communication*, 2008.

Karsenti, Thierry, et al. *Conditions d'efficacité de l'intégration des TIC en pédagogie universitaire pour favoriser la persévérance et la réussite aux études postsecondaires*, 2007.

Koestner, Richard et al. *Developing Integrated Life Goals that Support School Success: Personal and Familial Factors that Promote Students' High School Progress and a Successful Transition to Cegep*, 2008.

Morris, Lori, et al. *Une juste mesure: Développement d'instruments et de critères d'évaluation linguistique pour des élèves allophones*, 2008.

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.mels.gouv.qc.ca](http://www.mels.gouv.qc.ca).

## INFORMATION

- A new publication entitled *La lecture et l'écriture chez les garçons... de A à Z* (English version forthcoming) presents the results of an action-research project carried out by Jean-Yves Lévesque and Natalie Lavoie (Université du Québec à Rimouski) on boys' success in reading and writing. The researchers explored several avenues and different practices, including the innovative father/son reading circle.

- **Subscribe on-line!**

Subscribe on-line! Don't forget that you can sign up for the Target, Student Retention and Success newsletter by clicking on the following link:

[http://www.mels.gouv.qc.ca/ministere/abonnement/index\\_en.asp](http://www.mels.gouv.qc.ca/ministere/abonnement/index_en.asp).

### Research and development

Nathalie Dyke, professional editor

### Coordination

Julie-Madeleine Roy  
Carole Batailler  
Service de la recherche et de l'évaluation  
Direction de la recherche, des statistiques  
et de l'information

### Graphic design

Ose Design

### Coordinator, Research Program on Student Retention and Academic Success

Gilbert Moisan  
Service de la recherche et de l'évaluation  
Direction de la recherche, des statistiques  
et de l'information

### Collaboration

Brigitte Asselin  
Direction des communications

### English translation

Direction de la production en langue anglaise  
Secteur des services à la communauté anglophone  
et des affaires autochtones (SSCAAA)  
Ministère de l'Éducation, du Loisir et Sport  
ISSN 1918-0918

Éducation,  
Loisir et Sport

Québec 