{ NEWSLETTER }

⊙TARGET
STUDENT RETENTION and SUCCESS

INTRODUCTION

Target: Student Retention and Success is aimed at sharing the latest findings of studies funded by the Research Program on Student Retention and Academic Success (RPSRAS) in a language that is easy to understand.

As you know, the RPSRAS covers every level of education. Also, for the first time, this issue addresses the topic of student retention and academic success among adults.

It also addresses the different sources of motivation for adults returning to school in vocational training as well as the obstacles they may encounter. Another article looks at a study on adult general education that identifies different paths and suggests a redefinition of the concept of educational success.

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.

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IN THIS ISSUE

RESEARCH

Adult continuing education and training is increasingly important in today's world, where skilled workers are in short supply. Numerous efforts have been made to encourage more adults to participate in continuing education and training and obtain their diploma. In recent years, several researchers have emphasized the importance of implementing concrete measures to better meet the general education and vocational and technical training needs of adults in order to improve student enrollment and retention. Two recent studies conducted in Québec help provide a better understanding of the many obstacles encountered by adult students and just how difficult it can be to stay motivated. Also, the different paths taken by adults appear to call for a redefinition of the very concept of educational success.

Québec 🏵🏵

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RETURNING TO SCHOOL AS AN ADULT:
OBSTACLES ON THE PATH TO SUCCESS

The vast majority of adults who return to school have difficulty staying motivated, despite their best intentions. Although most adults decide to return to school to make a better life for themselves and their family, a large percentage drop out before they obtain the diploma they so desperately wanted. A study conducted by Lorraine Savoie-Zajc and André Dolbec, professors at Université du Québec en Outaouais, attempts to understand the factors that contribute to the success of adults enrolled in vocational training and to define their needs. The researchers discovered that financial difficulties and work-family conflicts are the major obstacles encountered, but that students' motivation also depends on a number of factors related to the training process.

OBSTACLES ON THE PATH TO SUCCESS

In their study, the researchers targeted three vocational training programs offered in the Outaouais region, where enrollment rates in vocational training have been falling in recent years. According to the researchers, "there are serious social, economic and educational problems in the region, since much of the population does not have the necessary skills to get a job."

Two male-dominated programs (Automobile Mechanics and Pulp and Paper) and one female-dominated program (Secretarial Studies and Accounting) were targeted. In all, 190 students were surveyed and

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37 interviewed. Each program used a different instructional approach: a traditional approach followed by a workplace practicum in Automobile Mechanics; a work-study approach in Pulp and Paper; and an individualized modular approach, which allowed students to complete learning modules in a specified amount of time, in Secretarial Studies and Accounting.

The study established that, regardless of the program, when asked to name the main obstacles to academic success, students mentioned financial difficulties (69%), work-family conflicts (50%), lack of time (47%), transportation problems (40%) and learning difficulties (40%). Generally speaking, nearly half of adults who return to school go back part time, which indicates that they are involved in other activities.

PERCEPTION OF PROGRAMS

The researchers observed that programs were perceived very differently depending on the student's profile. In Automobile Mechanics, where male students were between the ages of 18 and 24 and, for the most part, had no family responsibilities, work-study balance was a major issue. Some of these students would have liked the program to include more practicums and practical assignments.

In Pulp and Paper, the adults interviewed were over the age of 30 and looking for a new career. The work-study approach was perceived as an advantage, but these adults were disappointed that some of their teachers did not have the necessary teaching skills. Most of these teachers were from the industry and not all of them had received teacher training.

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In *Secretarial Studies and Accounting*, 12 of the 15 students surveyed had returned to school after an absence of more than five years. Many of them had children and found it really difficult to reconcile their studies and their family obligations. Most of the students said they did not have enough time to complete the learning modules and had trouble getting help from the teacher. They also said that they had difficulty in French.

"We cannot say that it is more difficult for women than men to return to school, but our data definitely show that women are more likely to talk about the pressure they are under and that they mention a wider range of challenges than their male counterparts in other programs," the researchers said.

> "We cannot say that it is more difficult for women than men to return to school"

MOTIVATION AMONG ADULTS

In addition to these obstacles, it is important to understand that motivation among adults is not static. "Motivation evolves and constantly changes over the course of training," explain the researchers. In this perspective, motivation is closely linked to context and experience. In our researchers' opinion, there are three key moments at which individuals re-evaluate their choices and their intention to pursue a program of study.

Motivation is first reassessed at the beginning of the training process. Faced with the reality of the program, the individual develops

In Québec, more than 260 000 individuals were enrolled in secondary-level general education or vocational training in the adult sector in 2006-2007. At the college level, approximately 30 000 individuals were enrolled in the adult sector, most of them in technical training.

MELS, *Statistiques de l'éducation* (Québec: Gouvernement du Québec, 2008).

certain attitudes toward the learning context, the teacher and the program content, and begins to see himself or herself as a learner in that context.

"The second time an individual's motivation is likely to change is in the following weeks or months," say the researchers. "Motivation now depends on the degree of stimulation the individual receives during the learning experience." This stimulation will lead to a series of positive or negative emotions with respect to the act of learning itself.

The third time it is reassessed is at the end of the training period. The individual's sense of competency is a key element in his or her motivation to look for a job, pursue his or her studies or make a career change. This sense of competency is also closely linked to a form of positive or negative reinforcement that the individual has developed with respect to the trade or occupation and the broader learning process.

POSSIBLE SOLUTIONS

The researchers propose solutions that could help substantially increase vocational training enrollments and graduation rates, and improve the competencies of a sector of the population. The study reveals that the development of more practical courses, increased pedagogical support and financial planning services could have an effect on the motivation of adults who return to school to acquire new skills. The research team also recommends making up-to-date material and teaching resources available.

Given the effort involved in returning to school after a hiatus of several years, the question of support must be considered. The creation of support groups composed of students and professionals and the development of a resource guide on community organizations that provide support for families are highly recommended. "Encouragement from teachers, other students and the family are also important in helping adults enrolled in vocational training stay motivated," say the researchers.

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ADULTS IN GENERAL EDUCATION:
RETHINKING THE CONCEPT OF EDUCATIONAL SUCCESS

In recent years, reports published by the Organisation for Economic Co-operation and Development (OECD) indicate that at least 25 to 50% of the population of many countries, including Canada and the province of Québec, have low basic competency levels. Basic competencies are a set of skills, knowledge and abilities that adults need in order to develop and achieve their potential. They include reading, writing and calculating as well as making decisions, solving problems and learning.

This is particularly true in a world where the general qualifications required both in the workplace and in daily life are increasing, in particular because of the employment shift to the service sector and the pervasiveness of information and communications technologies. Consequently, adult basic general education has truly become a social, cultural and economic priority.

A major challenge in improving adults' basic competencies is reaching those individuals with the least schooling and encouraging them to enroll in adult education and training. In recent years, a number of studies have emphasized the importance of gaining a better understanding of how adult education and training fits into an individual's life and how some conditions influence education and training outcomes. Paul Bélanger, professor at Université du Québec à Montréal (UQAM), headed a highly informative qualitative study that revealed just how diversified the paths of adults in general education are. This new knowledge calls for a redefinition of the concept of educational success.

DIFFERENT PATHS TO SUCCESS

Interviews were held with 34 adults enrolled in general education in adult education centres in rural, semi-rural and urban areas, and with 14 educators (teachers, education consultants, directors) at the same centres. The researchers identified three distinct trajectories: 35% of the adults achieved the goal they had set, 42% were on their way to achieving it, and 24% were unable to meet it. These trajectories are directly related to their situation in life.

The group of adults who achieved their goals was made up mostly of single men under the age of 25 living in a rural area and studying full-time. For them, the decision to return to school was at first a question of adjusting their lifestyle to pursue a career. In the course of the program, this decision was at times re-evaluated, but not so much as to hinder the pursuit of their occupational goals.

The group of adults on their way to achieving their basic education goals, but not yet quite there, was made up of older individuals, most of them living in semi-urban areas. For them, the decision to return to school was primarily based on a profound desire to make a change, to take a new direction in life, often after a tumultuous youth.

> They had interrupted their studies several times, were more likely to have dropped out of school, and often suffered from learning difficulties.

The group of adults who did not meet their educational goals was not characterized by any particular demographic profile, but had a long history of academic problems. They had interrupted their studies several times, were more likely to have dropped out of school, and often suffered from learning difficulties, which contributed to a lack of interest in, and even an aversion to, school. For this group, the decision to return to school was at first motivated by a desire to make a change in their life, but these adults lacked the resources they needed to meet the challenge. Throughout their training, the obstacles they encountered outweighed the support that could have helped them achieve their goals.

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INFLUENCE OF THE PAST AND FUTURE PLANS

"The learning experience and educational success are intricately linked to an individual's past and to the future that he or she may or may not be able to envisage," explains Paul Bélanger. Those who managed to achieve their goals had never dropped out in the past, either in the youth sector or in the adult sector. The researchers discovered a positive continuity in the trajectories of these individuals, who managed to achieve the academic status expected of them, although they had not been able in the past as a result of making a wrong turn or a mistake in youth.

Those who were on their way to achieving success managed to break away from a difficult past in the youth sector, while the adults who did not succeed in their return to school had practically all experienced a series of interruptions or failed attempts. For this group, it is very difficult to change the educational fate dictated by their past experiences.

Generally speaking, the adults who participated in the study were aware of the importance of an education on future earnings (they were earning on average $11 000) and self-fulfillment, but they had doubts, even fears, about their ability to stick with it, and all had to deal with material obstacles and psychological apprehensions.

ACADEMIC VERSUS EDUCATIONAL SUCCESS

"Educational success is complex and cannot be reduced to obtaining a secondary school diploma." According to Paul Bélanger, to understand drop-out rates, one must be able to distinguish between near complete failure, the interruption of studies and the choice of alternative educational paths. Academic success can be measured on the basis of marks and earning a diploma, while educational success involves self-fulfillment and the concept of personal and occupational development. According to the researchers, "the most surprising discovery is that most

of those who drop out say they want to come back and finish what they started, but under better conditions." Thus, most students who drop out could only be interrupting their studies, a fact which, once again, underscores the importance of support for those with the least amount of schooling, especially at the financial, pedagogical, psychological and emotional levels.

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SONIA: A SUCCESS STORY

Contrary to some adults returning to general education, Sonia always liked school, but suffers from learning difficulties. "I learn more slowly than others. I used to read a lot," she says, "but I always hated math." At 16, Sonia decided to enroll in an adult education centre to finish her secondary studies. Everyone around her was supportive, and she decided to take an individualized education approach. She likes learning at her own pace and says she finds it easier to learn that way.

Before starting at the centre, she was a bit apprehensive, since she had to begin her studies at the elementary level. "When I got to the centre, I didn't even know my multiplication tables." She made constant but very slow progress. She began having difficulty in Secondary III. She had to do the same English exam four times and found algebra so difficult that her teachers suggested she re-examine her goals and write the Secondary School Equivalency Test (SSET), which would not give her the credits required for a Secondary School Diploma (SSD). This was a difficult decision: "I really had to mourn my loss, because I wanted a real Secondary V diploma and realized I couldn't do it."

Sonia passed the SSET and applied for admission to the Floristry program. She is very happy with her experience at the adult education centre, and she is proud to have taken up the challenge. She also has more self-confidence now.
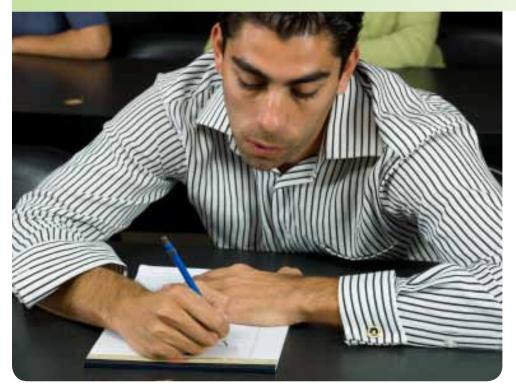
It was a long and arduous process for Sonia. She did not achieve her goal of obtaining an SSD, but she passed an exam that made her eligible for training in her chosen trade. According to Paul Bélanger, in this case, the factors necessary for "complete success" were support from the people around her, and the personal support and supervision requested and received at the adult education centre. "The cultural capital, not as tangible but just as important, that she received from the people around her made it easier for her to believe in her ability to succeed," says Bélanger.

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DID YOU KNOW?

? **Teaching practices aimed at improving written French have a different effect at different levels of education. At the college and university levels, the two most effective measures for improving written French are upgrading courses and courses in written French, while at the elementary and secondary levels, a combination of measures is most effective.**

In the wake of the curriculum reform, many practices have been adopted in recent years in Québec in elementary and secondary schools, colleges and universities in order to improve students' writing skills in French. This competency is a determining factor in academic success. Pascale Lefrançois, professor of French didactics at Université de Montréal, decided to evaluate their effectiveness in order to determine which measures translate into the greatest progress in written French.

The research team studied a wide range of measures adopted in Elementary 6 and Secondary V, at the college level and in university undergraduate programs in different educational institutions, such as teaching practices in elementary and secondary school, and workshops, individual assistance, upgrading courses and regular French courses at the postsecondary level. Students also wrote two examinations (a questionnaire evaluating their knowledge of the language and a written production) before and after the support measure.

At every level of education, spelling errors were the most common, followed by syntax and punctuation, textual coherence and vocabulary. "Students improved their spelling performance in both examinations," observes Lefrançois.

Whatever the measure adopted, all of the students improved. Although there is no miracle cure, depending on the level of education, certain types of measures are more effective. For example, in elementary school, students should be asked to think about the types of mistakes they make, their strengths and their weaknesses. It is also more effective for them to work in teams and in writing situations with regular feedback.

At the secondary level, students should be given short writing situations. Word games, language analysis and reference works are effective at this level. Classroom lectures also have a positive effect on students' development of language competencies.

At the college and university levels, upgrading courses with public readings of literary texts, and courses in written French proved the most effective, perhaps because they systematically involve several aspects of written language. According to the researchers, even though the other measures were not as effective, they should not be ignored. "Although it is important that the most effective measures be maintained and developed at the different levels of education, other measures should not be abolished. In fact, at the elementary and secondary levels, it may be the combination of different measures that proves most effective."

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DID YOU KNOW?

Despite the rapid growth in the number of female students in most university disciplines, science and engineering programs are not attracting a sufficient number of women. This underrepresentation of women in university science and engineering programs is directly related to the motivation of female students enrolled in these programs.

In university, women represent approximately 25% of all students in engineering programs, and almost 50% of all students in science programs, although most of them are enrolled in health sciences (MELS, *Statistiques de l'éducation* [Québec: Gouvernement du Québec, 2008]). According to a doctoral research study conducted by Marie-Noëlle Delisle, a student of psychology at Université Laval, some of the characteristics of engineering programs are more likely to lead women to endorse the stereotype that these programs are reserved for men. "These programs offer few female role models, and female students do not feel that they are exposed to these role models in their science studies," explains Delisle.

Exposure to female role models has a positive effect on women's attitudes and perceptions of their personal effectiveness, as well as on their performance. This also helps establish credibility for this career choice and counteract stereotypes. According to Delisle, women are still underrepresented in instructional materials, especially in texts and illustrations, and many of the contributions of women scientists are not mentioned. There are also few women teachers in these areas.

"Stereotypes restrict women's choices by projecting the image that certain fields are inappropriate for women and that they do not have the abilities to succeed in these fields," explains Delisle. According to a number of studies, when a person feels threatened by a stereotype, performance tends to decrease, anxiety increases, motivation is undermined, and disengagement may follow.

For this research study, which was aimed at explaining the psychosocial processes that foster or hinder women's motivation to enroll in university science programs, 167 women and 321 men enrolled in science and engineering programs at a Québec university were surveyed at the beginning of their undergraduate studies and at the end of their second year.

"The findings indicate that women enrolled in programs where they perceive themselves to be underrepresented are more likely to endorse the stereotype and are less motivated in their studies than those enrolled in programs where women represent about 50% of students," says Delisle.

We know that motivation is a determining factor in student retention. This study revealed that the perception of being in a minority is directly related to motivation. The need for social belonging is more difficult to satisfy for

female students in science and engineering programs where they represent less than 20% of the total number of students, and they can have difficulty integrating into the program because there is a lack of women with whom they can identify.

So how do we get women to enroll in science programs? Marie-Noëlle Delisle suggests increasing women's accessibility to science programs and employment in these leading-edge fields through positive discrimination policies. She also suggests grouping together science and engineering programs in which women are underrepresented with programs in which they represent about half of all students. "These measures are intended to increase the number of women in university courses and fields where women are underrepresented, thereby limiting the negative effect of stereotype endorsement and its impact on motivation," says Delisle.

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DID YOU KNOW?

Student retention in college-level technical training depends on several different factors, including the students' academic background, their experience in the training program in question and their plans for the future.

"Enrolling in CEGEP immediately after obtaining a Secondary School Diploma and earning a Diploma of College Studies in six semesters in the same technical training program is a linear path that only a minority of young students take today," says Pierre Doray. Note: 32.6% of students complete their studies in three years (MELS, *Education Indicators* [Québec: Gouvernement du Québec, 2009]).

In a world where technical training is increasingly popular, a team of researchers led by Pierre Doray, professor at UQAM, conducted a qualitative study involving 126 students and discovered that student retention depends on several different factors. For some students, for example, the pleasure of learning a trade keeps them in school; for others, technical training is an opportunity to perform, characterized by high engagement, high marks, and few extracurricular activities. Other students see their training experience as an obstacle course, a source of stress and vocational uncertainty, but still manage to remain motivated despite the difficulties encountered.

On the other hand, the factors that cause students to drop out are characterized by disillusionment, a search for direction, or "going off track," as the researchers put it. Some students can be discouraged by repeated failure, a lack of direction or difficulty balancing their studies and life outside of school. Academic difficulties may also play a role.

In all, the team identified 13 different factors, some of which are more common among young men or others among young women. "The factors affecting young men involve their future, planned or unplanned. Young women are more intent on the present," explain the researchers. "They must perform today, acquire their independence right away." Thus, young men tend to take small steps forward, to take their time ("We're enjoying life!"), or to let themselves be guided by their idea of the future. Young women are more interested in performance and independence. For example, the young women in the sample who performed well, most of them enrolled in the Chemistry and Biology sector, were highly engaged in their studies. School and school

work were their most important activities. They were determined to obtain their Diploma of College Studies within the prescribed amount of time and with the best possible results.

In addition to these gender-linked differences, the researchers discovered that students' past (i.e. their academic background, prior knowledge and work habits) plays a role in student retention. The ability to anticipate the future and make plans is also important, as are students' educational experience and time management skills. For example, certain young men who stayed in school (many of whom were enrolled in computer science and electronics) had a clear vision of their future: they knew what they wanted to do in life and their choice of program was purely strategic. "These students did not enroll in these programs only to become technicians: they were aiming higher," explains Pierre Doray. They were all successful in secondary school, but had different work habits. Young men guided by their future plans also emphasized the importance of drawing a line between their time at school and their time outside of school, as if these were two distinct aspects of their life.

At the end of the study, in order to foster student retention at the college level, the researchers suggested making it easier to study part-time, or offering more evening courses to help students balance work, family and school. According to the researchers, one thing is certain: conflicts between the demands of school and life as well as support outside school influence an individual's educational experience and determine what support is needed to help him or her obtain a diploma.

FURTHER READING:

Bélanger, Paul, et al. *La diversité des trajectoires et la réussite éducative des adultes en formation de base*. Montréal, Québec: CIRDEP, Université du Québec à Montréal, 2007.

Delisle, Marie-Noëlle. *Étude longitudinale de la représentation numérique des femmes dans les programmes de sciences et génie à l'université et ses effets sur la menace du stéréotype et sur la motivation*. Ph.D. diss., Université de Laval, 2008.

Doray, Pierre, et al. *Étudier au cégep: les parcours scolaires dans l'enseignement technique*. CIRST, 2009.

Lefrançois, Pascale, et al. *Évaluation de l'efficacité des mesures visant l'amélioration du français écrit du primaire à l'université*. Montréal, Québec: Université de Montréal, 2005.

Savoie-Zajc, Lorraine, and André Dolbec. *La réussite scolaire d'étudiants adultes inscrits dans des programmes de formation professionnelle: enjeux, défis*. Gatineau, Québec: Université du Québec en Outaousaise, 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: **http://www.mels.gouv.qc.ca/sections/PRPRS/.**

INFORMATION

● **Four minutes on student retention and academic success**

Discover a series of ten video capsules (in French only) on a range of subjects targeted by studies funded by the Research Program on Student Retention and Academic Success (RPSRAS). Developed and presented by a school principal, Marie-Claude Rodrigue of the Commission scolaire de la Beauce-Etchemin, in collaboration with MELS, these video capsules that last about four minutes each are intended primarily for secondary school principals. In just a few words, they will help school principals make informed decisions about issues that directly affect student retention and academic success: **http://www.mels.gouv.qc.ca/sections/PRPRS/index.asp?page=videos.**

● Did you enjoy this issue? Pass it around and subscribe online at: **http://www.mels.gouv.qc.ca/ministere/abonnement.**

RESEARCH STUDIES TO WATCH FOR

Research studies take time, and several years can go by before findings are released. This new feature provides information about studies funded by the RPSRAS that are currently under way. In this issue, we discuss the **Collectif de recherche sur la formation professionnelle** (CRFP), at Université de Sherbrooke, recipient of an emerging research team grant.

The CRFP is a group of university researchers and educational partners. Its mission is to promote research on vocational and technical training at the secondary, college and university levels. To follow its progress, visit http://pages.usherbrooke.ca/crfp/index.html.

André Balleux, CRFP researcher funded by the RPSRAS, is currently working on a project on the transition of new vocational training teachers in Québec from the workplace to the classroom. This research study was launched in April 2009. Its findings are expected in the summer of 2012.