

GIRLS AND BOYS AT CEGEP: PARALLEL UNIVERSES?

Academic success as related to students' gender¹ is a current issue. In the public arena, there is lively concern over the way boys lag behind girls academically. In the CEGEP context, this concern has been echoed in research studies, in particular those of Jacques Boisvert (Boisvert, 2006 and 2008) and of Bernard Rivière (Rivière and coll., 1997; Rivière, 2002). The interest directed at this issue is not new. Back in 1999, the Conseil supérieur de l'éducation (CSE) published an opinion on the subject (CSE, 1999). Since that time, perspectives from which to analyze the phenomenon have multiplied.

For our part, we come to this problem with an interest based on theory of gender-based socialization. Our sociological study², which was funded by the Ministry of Education, Recreation, and Sports (Ministère de l'Éducation, du Loisir et du Sport: MELS) explored the points of convergence and divergence of girls' and boy's profiles over the course of their academic careers, seen through the lens of their respective socialization mechanisms. According to Cherkaoui (1990), "Studies on socialization try to reveal the processes by which an individual internalizes content and structures and analyze the effects of this internalization on behaviour." This is precisely the perspective we adopted for our study in order to better establish what is related more to socialization mechanisms in gender-based differences observed among students and document the influence of these mechanisms on girls' and boys' success in a distinct way.

In this article, we present a report on the study's principal conclusions, which point to the existence of two explanatory models for gender-based differences observed among students.

CONVERGENCE AND DIVERGENCE ACCORDING TO GENDER

Before dealing with the study's results, we wish to present some details about methodology. The study used a mixed methodology, comprising both a quantitative and a qualitative component. The quantitative component was based on a survey questionnaire administered to a random sample of 611 college students distributed among 27 CEGEPS. Statistical analyses made it possible to compare the portrait of female students with that of male students. In order to evaluate academic success by gender, we privileged two indicators: academic performance³ and academic persistence⁴. The qualitative component of the study consisted of group interviews conducted with 64 students at Cégep de Sainte-Foy (33 girls, 31 boys). This component focused on identifying cultures related to students' gender, that is, cultures that deploy behaviours, attitudes, and strategies for boys and for girls and that relate to socialization mechanisms.

The results of our study suggest that, overall, there exist few fundamental differences between girls and boys, at least among those whose academic progress marches straight towards certain graduation. Where gender-based differences are more clearly manifested is among academically "at-risk" students. Here, gender-based differences appear to be more pronounced, reflecting socialization mechanisms that differ according to gender.

Although the overall portraits of girls and boys do not reveal major differences, we did identify some differences that struck us as interesting from the perspective of an inquiry into academic success and intervention. They are presented in Table 1.

¹ We have used the concept of "gender" rather than that of "sex" because of the perspective adopted by the study. The concept of gender is more closely linked to a society's cultural norms, which determine ways of being, acting, and thinking, as well as determining what feelings appear more appropriate for women and for men (Tremblay and coll., 2006). The concept of sex, on the other hand, refers more to biological differences between men and women.

² ROY, J., J. BOUCHARD and M.A. TURCOTTE, in collaboration with G. TREMBLAY and S.O. FOURNIER. (June 2010). *Filles et garçons au collégial: des univers parallèles? Étude sur la problématique des genres et la réussite scolaire*. PAREA study report. Quebec City, QC: Cégep de Sainte-Foy and Observatoire Jeunes et Société.

³ This indicator is based on the students' cumulative grades.

⁴ This indicator is determined based on the following question from the survey questionnaire: "Are you currently considering dropping out of CEGEP this year?" There were three possible choices of answer: "Not at all," "I sometimes consider it," and "I am seriously considering it." We used these categories of



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This table can be read along either of two dimensions. The first shows that the essential distinction between girls and boys lies in the sphere of values; thus values account for close to half of distinguishing factors by gender. For example, the values of competition, respect, family, and the importance of making an effort to succeed academically are among those for which the most significant differences were observed between girls and boys.

The second dimension is linked to the first. Girls demonstrate a stronger commitment to their studies. In particular, as regards values, they assign more importance than boys do to academic success, to the meritocracy (that is, the belief that success, power, and social standing are gained based on individuals' merit, academic qualifications, good qualities, virtues, etc.), and to the diploma of college studies (DEC)⁵.

ACADEMIC SUCCESS ACCORDING TO GENDER

The following finding will astonish no one: values that predispose a person more towards academics and greater effort in terms of time dedicated to homework are factors positively associated with academic success. Thus girls have a somewhat higher average grade than boys (average of 77.8% for girls compared to 74.0% for boys); but this observed spread between girls and boys disguises the fact that, in proportion to their numbers, twice as many boys as girls receive grades lower than 60%.

As well, more girls persist in their programs (16.7% of boys, compared with 13.9% of girls, “occasionally” or “seriously” considered dropping out). Here too, the spread does not appear significant at first sight, but we must keep in mind that on completion of studies, girls graduate at a rate higher than boys by 12% (Roy, 2008).

Of course, the factors we have just described contribute to the observed gender gap. But analysis reveals that other variables must be taken into account in examining academic success if we are to better understand observed differences between girls and boys.

ACADEMIC PERFORMANCE

The tables below present the main factors affecting academic success according to students' gender. As specified above, academic performance was evaluated using two indicators: academic performance and academic persistence. Let's broach the topic of performance on the basis of [Tables 2 and 3](#).

An initial reading of [Tables 2 and 3](#) allows for identifying the main factors that can influence students' academic performance. More precisely, despite points of contact between girls and boys, certain differences attracted our attention.

It was interesting to observe that girls' perception of the positive effect of extracurricular activities on academics and the stress that girls experience are factors positively associated

⁵ An indication of girls' more widespread meritocratic attitude: according to our findings, they devote more hours than boys to their studies (12.9 hours per week for girls compared with 10 hours per week for boys).

⁶ Various statistical tests were used to determine these differences. Readers are invited to consult our report for more details. The table presents those differences that are statistically most significant.

TABLE 1
OVERVIEW OF GENDER-BASED DIFFERENCES AMONG STUDENTS ⁶
Compared with boys, girls:
Assign less importance to competition
Engage in less physical activity outside CEGEP
Assign more importance to family
Assign more importance to respect
Are more often stressed
More often feel they are depressed
Are likely to sort things out on their own less often when problems arise
Assign more importance to making an effort to succeed
Read books more often
Tend more often to consider the workload heavy
Dedicate more hours to their studies
Consume less alcohol
Assign more importance to academic success
Assign more importance to having an intact family
Engage in fewer extracurricular activities
Get better grades
Assign more importance to the success of their couple life
More often have mothers with advanced education
Assign more importance to a DEC
Have a higher opinion of teachers' knowledge



TABLE 2

MAIN FACTORS FOR ACADEMIC PERFORMANCE AMONG GIRLS

Compared with other girls, those with better than average academic performance:

- Are more likely to hold the view that participation in extracurricular activities has a positive effect on academics
- Do fewer hours of paid work
- Feel more stressed
- Rarely or never engage in excessive alcohol consumption

TABLE 3

MAIN FACTORS FOR ACADEMIC PERFORMANCE AMONG BOYS

Compared with other boys, those with better than average academic performance:

- Are more interested in their studies
- Have either no or few friends who are considering dropping out
- Are more satisfied with themselves
- Rarely or never work on weekday evenings
- Assign importance to doing things well
- Volunteer in their communities
- Do fewer hours of paid work
- Assign importance to academic success
- Feel good about CEGEP

with academic importance. Among boys more than among girls, the importance assigned to academics appears to be a factor that distinguishes those who achieve higher grades than average from those whose academic performance is lower than average. Let us briefly consider these three aspects.

Extracurricular activities

According to the literature on the topic, girls invest more than boys in their relationships through their social networks (Boisvert and Martin, 2006; Gingras and Terrill, 2006; Rivière and Jacques, 2002). A factor that fosters these ties is that girls rely more than boys on involvement in extracurricular activities as a source of mutual academic help and cooperation. The group interviews we conducted revealed this trait to be more characteristic of girls and women. This could offer a partial explanation for the fact that, according to our findings, girls involved in these activities have a stronger perception than boys that such activities affect academics positively.

Stress

While twice as many girls as boys (in proportion to their numbers) consider themselves “highly stressed,”⁷ four times more boys consider themselves “not stressed at all”⁸. This is familiar from the scholarly literature: women report experiencing more stress than men (Institut de la statistique du Québec, 2001; Marshall, 2007; Roy, Bouchard, and Turcotte, 2008). What is perhaps less often reported is the role of stress in academic success, at least as evidenced in academic performance.

Girls’ more pronounced commitment to satisfying academic requirements and succeeding in their studies could have the effect of placing them under increased, self-imposed pressure that is reflected in their experience of greater stress than boys. This hypothesis is supported by the fact that, in girls’ scale of values, the values associated with academic success have more sway than they do in boys’ scale of values; and that various indicators (the number of hours devoted to studying; perception of workload; the importance assigned within one’s scale of values to meritocracy; the meticulousness of one’s work; the importance assigned to the DEC) all testify to girls’ more sustained commitment to their studies.

Moreover, in the group interviews, both female and male students persistently reverted to this feature of socialization. Thus it would appear that stress plays a significant role for girls as compared with boys.

Importance assigned to academics

Finally, the value associated with the importance assigned to academics and the interest directed at academics are factors that differentiate more between boys as regards academic performance than what was observed between girls. Thus it would appear that, since values associated with success are more broadly generalized among girls, these values do not have the effect of creating differences between girls, or at any rate not to the same extent as between boys.

ACADEMIC PERSISTENCE

The second indicator of academic success has to do with academic persistence. Tables 4 and 5 present the main factors for persistence. They reflect a range of factors broader than academic performance. These tables show two types of factor that are less significant in relation to academic performance.

⁷ 20.8% among girls, 10.6% among boys.

⁸ 3.7% among girls, 16.3% among boys.



They are those related to personal well-being (feelings of depression, degree of self-dissatisfaction, alcohol consumption) and with the family and social network (relationship with mother, mother's support for studies, importance assigned by the family to pursuing one's studies, presence of friends who are not thinking of dropping out).

Another significant difference between the data related to academic performance and those related to persistence is worth emphasizing. It consists of the fact that, even though factors such as the importance assigned to academic success and the interest shown in one's studies appear in [Table 3](#) (relating to academic performance) and [Tables 4 and 5](#) (relating to persistence), they are at the forefront among factors relating to persistence. Their presence is decidedly more significant in connection with persistence than/in connection with academic performance. This finding could, in its own way, contribute to thinking about intervening, specifically as regards the importance to assign to the student's motivation as a target in the struggle against dropping out.

As for observed differences by gender relating to academic persistence, three findings are worth highlighting. The first relates to interest in one's studies and the importance assigned to them. As mentioned above, it's clear that there is a more perceptible variability among boys in the degree of adherence to values related to success than among girls. Thus, according to our findings, there can exist very large spreads for this factor, in particular between boys who are at risk for dropping out, for whom educational values tend to have less significance, and other boys. In passing, we should note that the way boys are socialized tends to make them less likely than girls to subscribe the educational system's values of their own accord (Lafortune and Deaudelin, 2001; Saint-Amant, 2007; Sylvain, 2004).

The second finding relates to the problem of family and social networks. The influence of these on the desire to pursue one's studies appears to be more in evidence among boys. This applies as much to family as to friends.

Finally, one last finding: the presence of factors associated with personal well-being, such as lack of self-satisfaction and high levels of alcohol consumption, appears to be more closely associated with dropping out among boys. On the other hand, "feeling depressed" would appear to have an equally significant impact for girls as for boys on the desire to drop out of their course of study.

TABLE 4

MAIN FACTORS FOR ACADEMIC PERSISTENCE AMONG GIRLS

Compared with other girls, those who are NOT considering dropping out:

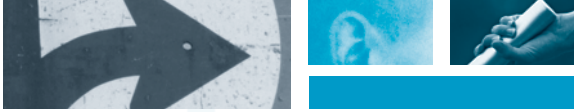
- Are more interested in their studies
- Assign greater importance to the DEC
- Assign greater importance to academic success
- Assign greater importance to making an effort to succeed academically
- Do not feel depressed or feel little depression
- Assign greater importance to having long-term projects
- View CEGEP as a stimulating environment
- Do not experience academic difficulties or experience few academic difficulties

TABLE 5

MAIN FACTORS FOR ACADEMIC PERSISTENCE AMONG BOYS

Compared with other boys, those who are NOT considering dropping out:

- Assign greater importance to academic success
- Are more interested in their studies
- Assign greater importance to professional competence
- Assign greater importance to family
- Are more satisfied with themselves
- Do not experience academic difficulties or experience few academic difficulties
- Do not feel depressed or feel little depression
- Feel good about CEGEP
- Are more satisfied with their relationship with their mothers
- Assign greater importance to making an effort to succeed academically
- Assign greater importance to the DEC
- Have families who assign importance to pursuing one's studies
- Assign greater importance to surpassing themselves
- Assign less importance to consuming material goods
- Do not consume alcohol or consume little alcohol
- Either rarely or never consume alcohol to excess
- Receive more encouragement from their mothers in pursuing their studies
- Have friends who are not considering dropping out



► TWO EXPLANATORY MODELS

Examination of the questionnaire survey results and the group interviews with students inspired our reflection on the development of two models likely to provide a comprehensive account of the differences between girls and boys. Among girls, a model of a **conformist type of commitment** reflects well what we observe, namely, a more integrated and sustained commitment to their academic careers, which appear to dovetail better with girls' personal and professional aspirations. This finding is similar to that of Rivière and Jacques (2002), who studied social representations of success according to gender. In their view, a majority of girls appeared to consider their studies to form a part of a personal project, which would largely account for their motivation being stronger than that of boys when it comes to academic success and their consequently devoting more effort than boys to academic success.

Our findings also showed that values associated with the importance of academic success exerted a greater hold over girls. This provides a significant foothold for their commitment to their studies. Finally, this commitment appears to be tinged with a degree of academic conformity reflected in particular in the fact that girls are more willing than boys to submit to the requirements and constraints of the educational system in order to succeed (Conseil supérieur de l'éducation, 1995; Saint-Amant, 2007) and that they detect better than boys do classroom rules, academic requirements, and teachers' expectations (Larose and Roy, 1993).

A model of **assertion of a playful type** would appear to better represent boys. In the group interviews in particular, boys manifested their determination to be independent (from their teachers and parents) and the fact that they value the spirit of competition and the ability, for example, to carry out an extracurricular activity singlehanded. Thus boys appear to be driven more by personal autonomy and even a form of individualism, to judge by the comments expressed in group interviews. A majority of boys would appear to be more inclined to develop their learning methods individually and to be less conformist than girls as regards the requirements of the academic environment (Lafortune and Deaudelin, 2001; Sylvain, 2004).

As well, boys appear to subscribe more than girls to an attitude of playfulness: for boys, pleasure must figure as part of learning mechanisms; and boys must be able to test themselves by means of learning activities focussed, for example, on the search for solutions. We found this to be reflected in what boys told us about their taste for the "concrete", their desire to create, and their desire for their abilities to be tapped into as

part of the learning process. It is in this sense that we are using the idea of a playful approach. The concept is not identical to that of taking pleasure in learning, which is more inclusive. The expression "playful" should be understood here in its relation to play, a form of play in which boys may sometimes enjoy getting around the rules presented by teachers for doing homework or labs, for example.

But it is important to be careful: other boys may express their playful side through a form of "dilettantism" (to use Rivière and Jacques' expression [2002]) towards their studies; and this could have an impact at the start of their CEGEP studies. Accordingly, given that boys experience the transition to CEGEP as more difficult, the career of many such boys during their first term is likely to be inconsistent (Tremblay and coll., 2006).

These two models reflect an "idealized type," that is, an abstract representation of a group of individuals. Based on these two polar extremes, we can infer behaviours specific to girls and other behaviours specific to boys, viewed as distinct groups. It is in this light that we are advancing the two models as an interpretive framework for our findings.

There are fewer differences between all girls and all boys than, for example, between the group of "successful" boys and the group of boys who are academically at risk.

► APPROACHES TO INTERVENTION

Our study proposes a number of approaches to intervention. They relate to the affective ties between teacher and student, parental support, extracurricular activities, tutoring, and teaching methods. In presenting these intervention approaches, our study occasionally identifies distinctive socialization features for girls and boys that are likely to be useful for different types of action according to gender. For example, in the context of tutoring done by teachers, our study suggests paying particular attention to stress management in girls and indicators of wellbeing in boys. Clearly, however, it's not a question of gender making these two factors mutually exclusive.

To complement the approaches we identified, we would like to present ideas emerging from a discussion we had with audience members following the presentation of our study findings at the AQPC symposium in spring 2011.



These are the factors that emerged:

- 1) Variety in teaching methods: it was suggested that teaching methods be varied in order to reach girls and boys as distinct groups.
- 2) Individualized approach: the suggestion was that this type of approach would make it easier to take account of the distinct reality of girls and boys.
- 3) Informal venues for providing help: it was suggested that boys would respond better in venues for professional help that have a more informal atmosphere.
- 4) Introducing an element of “competition” into teaching methods: this would be more stimulating for boys, but, in fact, for girls as well.
- 5) Assigning tasks designed according to differing strong suits: for example, in the context of a cooperative approach or a team-based task, promote recourse to girls’ and boys’ respective strengths.
- 6) Based on relationship with time: offer walk-in help services, which could, in particular, facilitate access for boys.

CONCLUSION

The gender-based differences identified don’t have the effect of placing girls and boys in two parallel universes. Taking this perspective, there are fewer differences between all girls and all boys than, for example, between the group of “successful” boys and the group of boys who are academically at risk. Nevertheless, the differences observed in our study do shed a certain light that could guide our thinking about our relations with students and about intervention based on gender, in particular for students who present with risk factors related to academics and academic persistence.

However, our exploration encountered limitations as regards the possibility of determining on actions to be taken by student gender. Indeed, the Tremblay and coll. (2006) study, conducted with boys attending Cégep Limoilou, encountered similar obstacles to ours. That is, whereas it’s possible to inventory differences between boys and girls, it remains hard to suggest effective interventions for supporting both boys’ and girls’ academic success, given that the study does not enable

us to identify universal solutions, ones that can be applied in all cases. It’s our view that one possible useful follow-up to the study this article reports on would consist of holding a forum to bring together practitioners from the CEGEP system, with the aim of giving rise to shared inquiry into the seeming gap between what is shown by the study on observed gender-based differences and the ability to translate these observations into interventions intended specifically for girls or boys. ●

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