

ARE STUDENTS WHO ARE SATISFIED WITH THEIR COLLEGE EXPERIENCE MORE LIKELY TO STAY IN SCHOOL?*

LINKS BETWEEN SATISFACTION, GRADES, GENDER, AND DISABILITY

High rates of student attrition are a major concern of institutions of higher learning, including Quebec's colleges. The student drop-out rate has important consequences for both society (Canadian Council on Learning, 2006) and students themselves, as dropping out can result in diminished access to employment and earning potential (Fassinger, 2008). High rates of attrition can also have a major impact on the finances of colleges and universities (Pascarella and Terenzini, 2005). Graduation of the primarily non-disabled student body has recently been reported to be as low as 29% in two-year American colleges (by the end of three years) and 40% in public universities (by the end of five years) (ACT, 2006a, 2006b). Canadian data also show substantial drop-out rates (Statistics Canada, 2006).

The academic underperformance of males and their relatively low college participation and completion rates compared to females is a worldwide phenomenon that has recently become a concern for many educational jurisdictions, including Quebec. A large and increasing body of evidence shows that males are falling behind their female peers in educational achievement as measured by a variety of criteria (Ministère de l'Éducation, Loisir et Sport du Québec, 2003). Data from our previous studies (Jorgensen, Fichten, Havel, Lamb, James and Barile, 2003; 2005) show a difference in graduation rates of males compared to females at a large Quebec English-language college that ranged from 7% to 10%.

There are over 150,000 college and university students in Canada who have some type of disability that affects their studies (Fichten, et al., 2003, Statistics Canada, 2008) and still more who may not yet be aware they have a disability (Harrison, et al., 2007). The number of postsecondary learners with disabilities also continues

to increase both in Canada and the US, where a recent large-scale study showed that 11% of undergraduates had a disability (Snyder and Dillow, 2007). The growth in enrolment of students with various disabilities is also evident in Quebec's colleges, where students with learning disabilities now make up the largest proportion of this population (Raymond, 2011). The retention patterns and reasons for students with disabilities dropping out differ from those of their non-disabled peers (Jorgensen, Fichten and Havel, 2009), highlighting the need to study persistence-related factors that are unique to this population.

FACTORS INFLUENCING RETENTION

Research on academic retention has focused on various combinations of student characteristics. These include pre-entry characteristics (e.g., age, gender, ethnicity, financial need, level of parental education, socio-economic status, high school performance), student interactions while at college (e.g., academic and social integration, student contact with faculty), psychosocial factors (goals and commitments, personality, psychosocial adjustment, academic self-efficacy), relative costs (e.g., obstacles, opportunity costs), and satisfaction with the academic experience. Attrition models using these variables have explained only a limited amount of the variability associated with attrition (11%–45%) (K. P. Grayson and K. Grayson, 2003).

Colleges and other postsecondary institutions are especially interested in student satisfaction as they believe it can have a positive influence on retention and academic performance. Despite the widespread belief that such a link exists, empirical evidence to support it is scanty. Among the studies that have explored this relationship, several have used the Student Satisfaction Inventory (SSI) published by Noel-Levitz and developed by Schreiner and Juillerat (1994). For example, Schreiner (2009), using a sample of 27,816 students at 65 four-year institutions, examined whether student satisfaction predicted retention, beyond what could be expected based on student demographic and institutional characteristics.

* Supported by le ministère de l'Éducation, du Loisir et du Sport, Programme d'aide à la recherche sur l'enseignement et l'apprentissage (PAREA).



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They found that the factors influencing the retention of first-year students (e.g., advisor availability, safety, and security) differed from those influencing the retention of senior students. The retention of senior students was less closely linked to satisfaction than to other factors (e.g., grades). It could be argued that the weaker link between satisfaction and retention for senior students was due to the investments senior students had already made in their education, and these tended to predominate. This is consistent with the investment model of Hatcher, Kryter, Prus and Fitzgerald (1992).

PRESENT STUDY

Given the importance of knowing about predictors of achievement and retention among male students and students with disabilities, we evaluated student satisfaction with aspects of college life and its relation to grades and retention. The study's goals were to determine (1) whether males and females with and without disabilities differed in what they considered important aspects of college life, (2) how satisfied they were with these aspects, and (3) whether satisfaction can reliably predict grades and/or retention.

METHOD

The study population consisted of 6,065 students enrolled in two-year and three-year diploma programs in a large English-language junior/community college, and who responded to the Noel-Levitz Student Satisfaction Inventory in 2001, 2002, 2005, and 2009. Three hundred and ninety-four students had a disability (220 females and 174 males); 5,671 reported no disabilities (3,479 females and 2,192 males). Approximately one-third of both male and female students with disabilities had a learning disability (LD) and/or attention deficit disorder (ADD). Approximately half of the 394 students with disabilities (192) indicated that they had registered for disability-related services from the college. The remainder self-reported their disabilities (202) on the SSI (Table 1). The proportion of students with LDs/ADD in the registered population (50%) was higher than in the population who self-reported their disabilities (21%). Students who had not graduated or were no longer enrolled at the college in the 2009 fall semester were deemed to have abandoned their studies.

We collected student standardized grades as well as their SSI responses. On the SSI, students rate the extent to which they

feel satisfied that their college is meeting their expectations in a variety of areas using a 7-point scale (1 = Not at all satisfied, 7 = Very satisfied). They also rate the importance of the same areas (1 = Not at all important, 7 = Very important).

Although scores can be examined on an item-by-item basis, the measure also provides 12 subscale scores and a single overall satisfaction score. As a basis for comparison, SSI data from two large North American samples (the Community College and the Canadian National datasets) were provided by Noel-Levitz Inc.; data on participant disability status was not available in those datasets.

FINDINGS AND CONCLUSIONS

Did males and females differ in what they believed were important aspects of the college experience?

→ NO

There was a strong relationship between what the two groups considered important. This was true for both students with and without disabilities and within the Community College and Canadian National datasets. All groups ranked the *instructional-effectiveness* subscale highest in importance.

Did students with and without disabilities differ in what they believed were important aspects of the college experience?

→ NO

The relative importance of scale items (listed in Table 1) for students with disabilities in our sample correlated strongly with those of students without disabilities regardless of gender. There was a commonality between males and females with disabilities and their non-disabled peers in what they believed were important aspects of the college experience, with *instructional effectiveness* ranking highest, followed by *concern for the individual* and *academic services*.

What was the relationship between grades and satisfaction?

→ There was only a weak relationship between satisfaction scores and standardized grades for all of the groups evaluated. Correlations between grades and subscale scores were very low



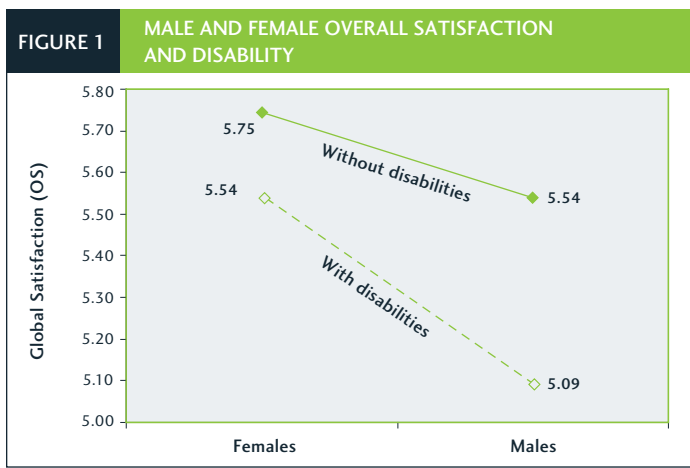
(all under 0.20 and most under 0.10), and even the correlations with overall satisfaction were below 0.25 for all groups. (The highest correlation possible is 1 and the lowest 0.).

Were females, both those with and without disabilities, more satisfied with their college experiences than their male counterparts?

→ YES, BUT...

Generally, males in our sample as well as those in the two North American datasets provided by Noel-Levitz Inc. had satisfaction scores below those of their female counterparts. These differences persisted even when we co-varied grades with satisfaction in our samples.

Males and females were, however, more or less satisfied with the same things, and SSI satisfaction scores were highly correlated for all groups examined. The facts that (1) male overall satisfaction fell below female satisfaction for all scales and samples tested, (2) the peaks and troughs of satisfaction on the twelve scales were similar, and that (3) the average item and scale scores were highly correlated suggest that the difference in satisfaction between females and males may, in fact, be a reflection of a general tendency by males to score items lower than females, rather than any real gender differences in satisfaction (see Figure 1).



When it came to specific items, it is noteworthy that satisfaction with equipment in lab facilities being up-to-date had a larger-than-average gender difference and may be an area of greater concern for male than female students, both with and without disabilities. The largest differences were not only in the technical programs in which males outnumbered females (e.g., engineering and computer science) but also in science and creative-arts programs.

Larger-than-expected differences in satisfaction between males and females with disabilities were also found in the following areas: knowledge concerning what's happening on campus, the institution's commitment to part-time students, the reasonableness of course-change (drop/add) policies, how new student orientation services help students adjust to college, how student recruitment and admissions personnel respond to prospective students' unique needs and requests.

Did students with disabilities express the same level of satisfaction with their college experience as those without disabilities?

→ NO

Students with disabilities were less satisfied than their non-disabled counterparts. Generally, both males and females with disabilities expressed lower levels of satisfaction than their non-disabled peers on overall satisfaction (Figure 1) as well as on six of the twelve sub-scales (Table 1). Both genders had large differences in satisfaction compared to their non-disabled peers on the *campus-support-services* scale. For males *student centeredness* and for females *academic services* also returned substantial differences in satisfaction. These differences, however, proved to be dependent on whether or not students with disabilities had registered for campus-based disability services, since those who did so were generally more satisfied.

TABLE 1 COMPARING THE SATISFACTION OF STUDENTS WITH AND WITHOUT DISABILITIES*

| | NO DISABILITIES | | WITH DISABILITIES | |
|---------------------------------------|-----------------|------|-------------------|------|
| | Mean | SD | Mean | SD |
| SSI SCALE | | | | |
| Campus Support Services | 4.96 | 1.17 | 4.70 | 1.35 |
| Academic Services | 5.40 | 0.94 | 5.17 | 1.10 |
| Student Centeredness | 5.13 | 1.05 | 4.96 | 1.19 |
| Service Excellence | 5.10 | 0.94 | 4.94 | 1.05 |
| Campus Climate | 5.10 | 0.94 | 4.93 | 1.07 |
| Instructional Effectiveness | 5.12 | 0.97 | 4.99 | 1.09 |
| Responsiveness to Diverse Populations | 5.42 | 1.10 | 5.32 | 1.32 |
| Admissions and Financial Aid | 4.91 | 1.08 | 4.82 | 1.14 |
| Registration Effectiveness | 5.13 | 0.98 | 5.04 | 1.08 |
| Academic Advising/Counselling | 5.00 | 1.18 | 4.92 | 1.30 |
| Safety and Security | 5.07 | 1.12 | 5.02 | 1.21 |
| Instructional Effectiveness | 4.85 | 1.13 | 4.86 | 1.27 |

* Items above the line showed statistically significant differences between the two groups). SD is the standard deviation of the mean and is an indicator of the variability around the mean.

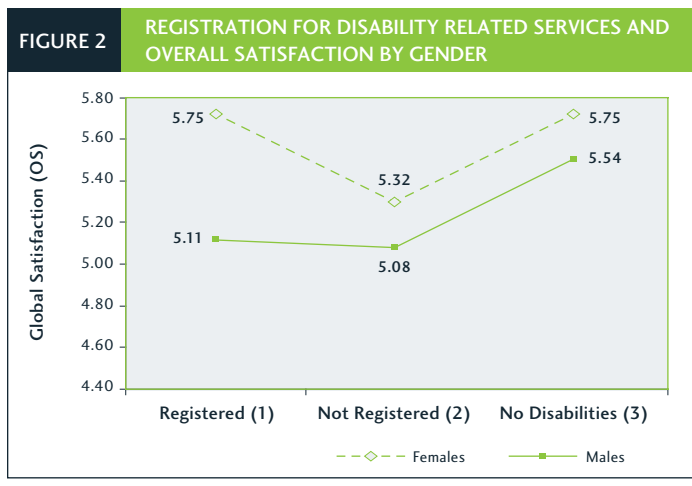


Were students with disabilities who registered for disability-related services from the college more satisfied?

→ YES, BUT...

Registering for disability-related services on campus had a different association with satisfaction depending on student gender and disability nature. Figure 2 shows that the overall satisfaction of females who registered for disability related services was similar to that of non-disabled females and substantially higher than that of females with disabilities who did not register. This was true both for the females who indicated that they had a learning disability (LD/ADD) as well as for those with other disabilities (e.g., visual, mobility, or hearing).

Overall, the pattern for males suggests that registration for disability-related services had no impact on satisfaction. This, however, depended on the nature of male-student disabilities. The pattern for males with learning disabilities (LDs/ADD) suggests that they were less satisfied than males without disabilities, regardless of whether or not they had registered for disability-related services.



Males with disabilities other than LDs/ADD, on the other hand, not only had satisfaction levels equivalent to that of their non-disabled peers, but, in certain areas, they expressed even greater satisfaction with aspects of their college life than either unregistered males with disabilities (other than LDs/ADD) or males without disabilities.

Did the benefits of registering for campus disability services differ by gender?

→ YES

One of the areas in which females who registered for disability services were more satisfied than females with disabilities who did not centred around course registration: *The personnel involved in registration are helpful; Classes are scheduled at times that are convenient for me; Student recruitment and admissions personnel respond to prospective students' unique needs.* Students with disabilities are permitted to pre-register with the college disability service provider. In doing so, they are able to select their classes early with the assistance of service-centre staff, who may also recommend teachers who would be most likely to be helpful in accommodating student disabilities. In addition, they are able to select courses and arrange their class schedules at times that are most convenient for them. This personalized assistance at registration is likely reflected in the higher satisfaction in these areas for registered females.

It also appears that registration for disability-related services for females created a sense of connection with the institution that was reflected in higher satisfaction with the item *Most students feel a sense of belonging here.* In examining the experiences of students with learning disabilities at two Ontario universities, Reed, Ryerson, and Lund-Lucas (2006) reported that some students felt isolated and that university life required some adjustment. Our survey of the reasons for students with disabilities dropping out also indicated that students reported feeling alone and isolated when entering college (Jorgensen, Fichten and Havel, 2009). The campus disability-services office can play a role in helping students make the transition from high school to college smoother. Satisfaction was also higher in the area of *communication (I generally know what's happening on this campus; Students are notified early in the term if they are doing poorly in a class).*

Males with disabilities who registered for services also had higher satisfaction scores for two items relating to *communication: I generally know what's happening on this campus and I seldom get the "run-around" when seeking information on this campus.* It appears that the service provider has an important role to play in helping students stay informed about what is happening on campus. Apart from *communication*, males who registered also felt more satisfied with the institution's commitment to *commuters and students with special needs* and that the *Personal counselling staff care about students as individuals* and felt that *academic advisors/counsellors are concerned about my success as an individual.* This could be a reflection of the initiative the college's disability-services office takes in referring students to other

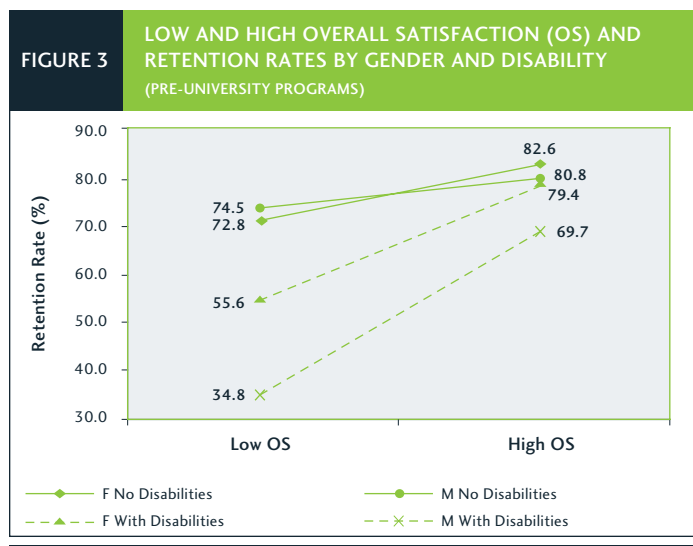


services available through the college's student services (e.g., counselling, academic advising, tutoring, and transportation services for persons with disabilities).

Was low satisfaction with the college experience related to lower retention rates?

→ YES, BUT—

Students who were more satisfied had higher retention rates. The difference in retention rate between those with the lowest and highest overall satisfaction averaged about 5% to 10% for males and females without disabilities. The rate was considerably higher for males and females with disabilities (see Figure 3). With the exception of males with disabilities, however, this difference in retention rate disappeared when grades were taken into consideration. Thus, it is difficult to tell whether higher grades or higher satisfaction were associated with higher retention. For males with disabilities, however, both satisfaction and grades made separate contributions to retention. Although, on the whole, satisfaction was only a weak predictor of retention, it was a better predictor for students with disabilities than for students without disabilities.



RECOMMENDATIONS

Care is required when interpreting student satisfaction as a key performance indicator. Since males have a general tendency to score satisfaction lower than females, comparisons across institutions may be biased due to the different proportions of males in the student population.

Nevertheless, satisfaction with equipment in lab facilities being up-to-date seems to be of greater concern for males than females. This was true for students both with and without disabilities. Consequently, this area should be a focus of attention. Of course, this may vary based on student academic program as well as from one institution to another.

Males with disabilities scored substantially lower than females with disabilities in a variety of areas: knowing what's happening on campus, the institution's commitment to part-time students, the reasonableness of course change (drop/add) policies, how new student orientation services help students adjust to college, and how student recruitment and admissions personnel respond to prospective students' unique needs and requests. Therefore, it is important to focus on these differences to develop a better understanding of why the perceptions of males and females with disabilities differ in these areas.

There was clear evidence that students with disabilities who registered for campus disability services were generally more satisfied than students with disabilities who did not register. Given these findings, it is important that students with disabilities be made aware of specialized college services available to them.

In addition, the needs of males with learning disabilities should be studied more carefully, as such students were the least satisfied of the groups we studied. This was true even for those males who registered for campus disability-related services. Focus groups/interviews need to be carried out with the aim of eliciting reasons why males with LDs/ADD were not as satisfied as other users of campus disability services. For example, a better understanding of the personality traits, help-seeking behaviours and extent of parental pressure on males with LDs/ADD to undertake postsecondary studies would provide insight into the nature of interventions required and the manner in which services are delivered (e.g., more use of computer-based delivery of services).

Because *instructional effectiveness* ranked highest in importance for all groups we studied, this area needs to be given special consideration. Although these needs may vary depending on the institution, in our study, the areas with the lowest satisfaction on the *instructional-effectiveness* subscale for both males and females were related to their interactions with faculty (i.e., faculty members are understanding of students' unique life circumstances; faculty members are interested in my academic problems; faculty members take into consideration student differences when teaching). This suggests that sensitivity to student needs should be the focus of attention.



One way to enhance the relationship between teachers and students with disabilities is through staff-development programs that help teachers recognize how different teaching methods impact on students with disabilities, how to consider students with disabilities when preparing course outlines, and how to develop flexible modes of course delivery.

Students need to be coached in self-advocacy skills. Self-advocacy is described in the Secondary Transition Guide for students entering Humber College Institute of Technology and Advanced Learning (2008) as “understanding your strengths and needs, identifying your personal goals, knowing your legal rights and responsibilities, and communicating these to others.” In this way, they can develop the confidence to approach their teachers and service providers and effectively express what their needs are. This is especially important for students with LDs/ADD, whose disability is hidden. They may not have had as much contact with rehabilitation-service providers as students with more visible disabilities who, over time, may have learned to be more accepting of their disability and the need for assistance. ♦

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