

## LET'S GET TOGETHER AND READ ALL RIGHT: HOW ALL KINDS OF COLLEGE READERS RESPOND TO TECHNOLOGY<sup>1</sup>

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### INTRODUCTION

As students transition from high school to college, they take on a greater reading load. This can prove to be a challenge for good readers and an even greater challenge for those students who have reading difficulties. These difficulties may be due to a learning disability (LD). In some cases this has been diagnosed. Sadly, in other cases, the student enters college with LD but no official diagnosis. Recent numbers indicate that LD is the most common type of disability at the college level. For example, during the Fall 2009 semester, 2045 students with LD were officially registered with campus disability service providers in the colleges across Quebec (information provided by Dawson College and the two designated centers for disability related services: Cégep de Sainte-Foy and Cégep du Vieux Montréal). Of course, these numbers do not account for students with LD who have not been diagnosed or those with an LD diagnosis who do not register with their college disability service provider. Needless to say, some students with LD are good readers and some students with reading difficulties do not have LD. Despite college students' unique reading challenges, they all have one thing in common: they use information and communication technologies (ICTs) on a regular basis at school and in their home life.

### METHODOLOGY

During the 2010-2011 academic year, we asked students from three colleges located in the Greater Montreal (two French and one English language) to (1) complete a questionnaire on their reading experiences in elementary school, (2) take a reading comprehension test and (3) give us information about their attitudes as well as use of ICTs.

The first measure, administered in class, was the *Adult Reading History Questionnaire Revised (ARHQ-R)*. A section provides information on reading in elementary school. It includes nine questions using a 4-point scale (McGonnell, et al., 2007). For example, students were asked to rate how difficult it was for them to learn to read when they were in elementary school. Scores on this measure allowed us to group students into those with reading difficulties in elementary school and those without them. We asked students to indicate whether they had LD or not.

The second measure, the *Test de lecture* (Institut de recherche et d'évaluation psychopédagogique (IREP), 2000) was administered online. It includes eleven short paragraphs on a variety of topics. After reading each paragraph, students

answered four multiple-choice comprehension questions. Students were assessed on the total number of correct answers after 10 minutes. Here, we were able to further refine the groups: good readers (GR) and readers with difficulties (RD).

Finally, the third measure, also administered online, included the POSITIVES Scale (Fichten et al., 2010) and a variety of questions on ICTs. Students were asked to describe their feelings about using ICTs, their behaviours and abilities, and the tools that they use (e.g., laptop, writing-correction software, specialized software).

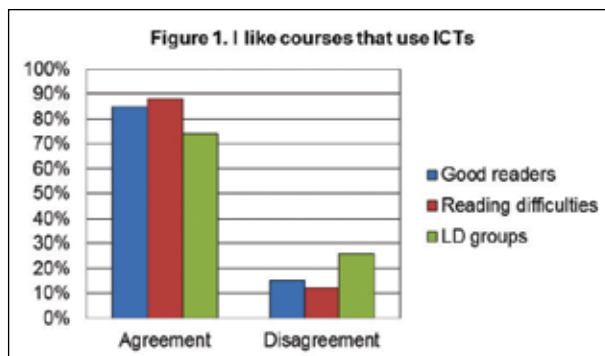
### PRELIMINARY RESULTS

In preliminary data analyses, we compared answers of groups divided into two levels of reading skill: good readers versus those with reading difficulties; and two levels of LD: those with LD versus those without. All questionnaires were translated: the *ARHQ-R* and ICT questionnaires were translated into French while the reading-comprehension test was translated into English. In each case, we pre-tested the questionnaires and we used a back-translation technique to ensure that the items measured the same thing in both languages. This means that any differences, or similarities, among the four groups can probably be attributed to reading skill and the presence or absence of LD.

Preliminary results are based on data from 74 college student participants (43 females and 31 males; 44 francophones and 30 anglophones) who completed all three instruments:

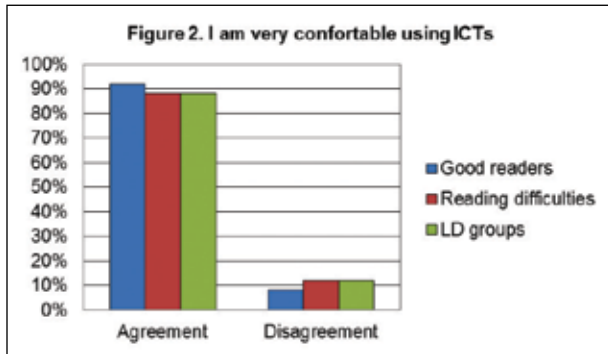
- 39 good readers without LD (GR),
- 18 with reading difficulties without LD (RD),
- 7 good readers with LD (LDGR),
- 10 with reading difficulties and LD (LDRD).

Findings show that the vast majority from all four groups liked courses which use ICTs. In fact, 85% of the GR, 88% of the RD and 74% of the LD groups responded favourably to the statement: *I like courses that use ICTs*. This can be seen in Figure 1 below.

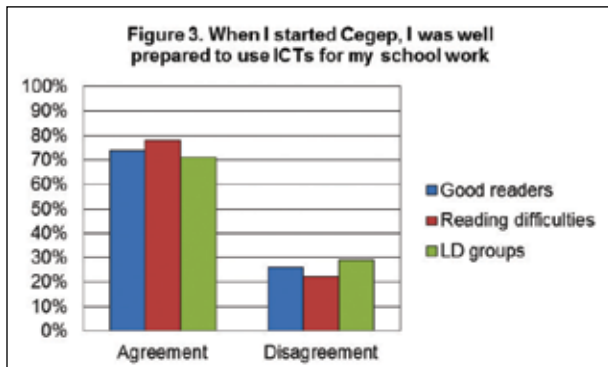


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When asked whether ICTs helped them to complete their school work, 87% of the GR, 94% of the RD and 88% of the LD groups indicated that this was the case. Contrary to what some people may believe, the majority of students (85% GR, 83% RD and 76% of the LD groups) disagreed with the following statement: *I rarely go to class when the course notes are available online*. For the statement: *I am very knowledgeable in the use of ICTs*, only 8% of the GR, 17% of the RD and 11% of the LD groups responded negatively. For the statement: *I am very comfortable using ICTs*, an overwhelming majority of students (92% of the GR, 88% of the RD and 88% of the LD groups) responded favourably, as can be seen in Figure 2 below.



In contrast to the above, for *When I started Cegep, I was well prepared to use ICTs for my school work*, as can be seen in Figure 3 below, some students from all groups indicated that they did not feel well prepared. In fact, 26% of GR, 22% of RD and 29% of the LD groups fell into this category. Although most students from all four groups felt well prepared, this result indicates a pedagogical aspect which needs improvement.



It is important to note that we ran Chi-Square tests to see if there were significant differences among the groups. In fact, there were none, suggesting that the groups responded in a similar fashion in terms of their ICT related attitudes.

## CONCLUSIONS

Our preliminary data show the valuable role that ICTs play in students' enjoyment and success at college. Here we see 'pro-ICT' results among all students, whether they were good readers, students with reading difficulties or students with LD. Given these preliminary findings, we encourage educators to use ICTs in their classrooms and to allow their students to do the same. This helps take away the stigma that some students with LD may feel when using, for example, a laptop in class where others may not do so. Using ICTs also offers those students with an undiagnosed LD, those who do not register for disability related services from their college, as well as those who have reading difficulties and other types of disabilities a very appealing alternative.

Speaking of which, we have known for a while now that students with LD who receive the necessary accommodations get the same grades as their non-LD peers during their first term at Cegep (Jorgensen, et al., 2005). One frequently-mentioned accommodation at the post-secondary level is the use of ICTs. Let us continue to move forward in this area. Some Cegep students with LD routinely consult their key course documents online before attending lectures, edit their papers with correction software and read their assigned work online using highlighting, text-to-speech, word search or a screen reader. Others are still waiting. And while they wait, they are likely unnecessary victims of poor grades and increased failures.

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