

# 2007–2008 CODE Special Education Project: Learning Disability Learning Centres (LDLCs)

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## Project Overview

The two goals of the CODE Special Education project are: i) to improve achievement for students with special education needs; and ii) to enhance the capacity of classroom teachers to implement effective instructional strategies to assist all students. At Halton Catholic District School Board (HCDSB), the Learning Disability Learning Centres (LDLCs) were created to address these goals. The LDLC serves

as a model classroom for demonstrating universal design and differentiated instruction through the use of high-yield, cross-curricular teaching-learning approaches.

The program offered at the LDLC is an intensive, assistive technology (AT) based program for LD students that provides direct instruction to improve students' literacy, numeracy, AT and self-advocacy skills. Ongoing assessment embedded in daily instruction/activities provides immediate feedback to students and guides classroom instruction.

The goals of the program can be classified according to four target audiences:

1. Students – to provide direct instruction in literacy, numeracy, AT and self-advocacy skills;
2. Staff – to provide ongoing professional development opportunities in LD-appropriate programming, practices and resources;
3. System – to provide recommendations to schools regarding effective LD instructional programs, practices and resources; and
4. Community – to provide opportunities for staff, students, parents and community members to participate in Capacity Building Sessions.

## Program Description

During the 2007–2008 school year, three LDLCs were established, one in each geographical area of the HCDSB: Burlington, Oakville, and North Halton. Five sessions of varying length, targeting students in Grades 4 through 8, were offered throughout the year. Sessions offered included:

Session	Grade(s)	Length
1	6	8 weeks
2	5	7 weeks
3	Grades 7 & 8 (Writing)	2 weeks
4	Grades 7 & 8 (Reading)	2 weeks
5	Grades 4 & 5	8 weeks

Each program was based on a 16:2 student-to-staff ratio, with one Centre teacher and one Educational Assistant for every 16 students. Child and Youth Counsellor (CYC) support was also provided to LDLC students in Sessions 1, 2 and 5. In addition to the actual program, there was one week devoted to in-take and out-take sessions. During the in-take week, school-based SERTS and classroom teachers collaborated with LDLC SERTS to develop student profiles and select candidates for the programs. During the out-take session, classroom teachers and school-based SERTS of LDLC students met with the Centre teacher to discuss an individualized plan for the student upon his/her return to the home school.

In addition, the Centre teachers and LD SERTS provided on-site support to classroom teachers and home school SERTS through routine visits following the program. LDLC EAs facilitated the transition back to home schools and were available during in-take and out-take visits. Session 1, 2 and 5 classroom teachers attended a series of four training workshops at the LDLC site during the session in which their student(s) were participating in the program. Session 3 and 4 teachers attended one workshop during the session in which their student(s) were involved in the program. All parents of students involved in the LDLC were invited to participate in a program open house, a parent observation day, and an evening parent workshop.

Based on key lessons learned, a number of other initiatives were implemented during the 2007–2008 school year. These included:

- **System Purchase and Implementation of Premier Assistive Technology – Literacy Productivity Pack** – The HCDSB purchased the Literacy Productivity Pack, both school and home versions, for all elementary and secondary students. This purchase ensures that assistive technology software is available system-wide in a cost-effective manner. Premier is easily accessed by all students in both the elementary and secondary panels from any networked school computer. In addition, all HCDSB students and personnel are able to download Premier AT software at home, facilitating homework completion and affording teachers an opportunity to explore software and classroom applications from home.
- **Student Capacity-Building Sessions** – These sessions were offered off-site to all HCDSB students identified with a learning disability. Sessions included:
  - Grade 7 and 8 Students: September 27, 2007 – Eric Walters
  - Grade 5 and 6 Students: October 25, 2007 – Eric Wilson
  - Grade 5 and 6 Students: February 21, 2008 – Jim Jordan
  - Grade 7 and 8 Students: April 4, 2008 – Joanne Malar

- **Itinerant CYC Program** – The Itinerant CYC-LD provided small group sessions to address the needs of schools with high populations of LD students. Six schools within the HCDSB were targeted in the 2007–2008 school year. Each school received six weeks of service, one day per week.
- **Assistive Technology Coaches** – The AT Coaches component of the project is in the early stages of being implemented at the school level. A presentation was made to principals, and schools identified a person who would assume this role within their school.
- **Ongoing Capacity-Building Sessions** – Sessions were offered targeting Itinerant Resource Teachers in all domains, school-based SERTS, school staff, educational assistants, and parents and community members not directly linked to the LDLC.

## Evaluation Framework

A comprehensive evaluation plan was developed to better understand the effectiveness of the LDLCs for planning and reporting purposes. A mixed-methods approach was applied, whereby both quantitative and qualitative data were collected. Both paper and online surveys were primarily used to obtain data from the following key stakeholders: students attending the LDLC; students with LD participating in capacity-building events; parents of students attending the LDLC; and classroom teachers, SERTS, and CYCs attending training workshops.

## Key Findings

### Student Achievement:

Students attending the LDLC sessions and those who attended the capacity-building sessions provided overwhelmingly positive feedback about their experiences. Of the students participating in LDLC sessions 1, 2 and 5 (i.e., junior grades), 67% "really liked" being at the Centre and only 10 students did not like their experience. In regard to the programs being taught, over 60% of all students most enjoyed Typer Shark and Talking Word Processor, while the greatest discrepancy in satisfaction ratings was found for Dance Mat Typing and Dragon Naturally Speaking. When students were asked to identify what they most enjoyed about the program, the following main themes emerged: experience with computers and assistive technology tools, ability to meet new friends, and having good teaching staff. When asked what they did not enjoy about the program, most students identified Dragon Naturally Speaking (an assistive technology tool) and mentioned missing their home school friends, while some other common responses were "nothing" and "I liked everything." Students in LDLC sessions 1, 2 and 5 also completed a self-esteem measure at the beginning and end of their session, which assessed general self-esteem (i.e., general feelings about themselves) and academic self-esteem (i.e., feelings about their academic skills and performance). Based on 125 responses containing pre- and post-session scores, most students either remained the same or experienced an increase in general self-esteem (85 students) and academic self-esteem (79 students) after the program.

Students participating in LDLC sessions 3 and 4 (i.e., intermediate grades) provided rich qualitative data on their experiences in the two-week sessions. Across both sessions, over 70% of students stated that they most enjoyed being able to use computers and learn new programs. More specifically, students in the writing session identified Dragon Naturally Speaking as a helpful tool (unlike students in the junior grades), while those in the reading session identified Typer Shark as a useful program. Some other common positive responses across sessions included the ability to meet new people and to improve typing skills. When describing aspects of the program that they did not enjoy, ironically, students in the writing session identified Dragon Naturally Speaking, whereas students in the reading session identified Typer Shark. Both groups of students also stated that they did not like being away from their home-school friends and that computer problems during the session had a negative impact on their experience. Also, of the 14 self-identified "repeat" students attending LDLC session 4, the majority of them stated that their experience in the latest session was similar to the previous time they attended the LDLC.

Throughout the school year, four capacity-building sessions were held for Grades 5–8 students with LDs. To provide feedback on each session, students were invited to complete an evaluation survey. A total of 464 responses were gathered from students throughout the year. Feedback from both the Grade 5 and 6 events was similar in that 43% of students "really liked" the experience and 40% "learned a lot" from it. For both sessions, students identified the guest speaker as what they liked the most, while identifying "nothing" as what they least liked. Meanwhile, feedback from the Grades 7 and 8 sessions indicated that 34% of students "really liked" the experience and 31% "learned a lot" from it. For both sessions, students once again identified the guest speaker as what they liked the most and "nothing" as their least liked component. Interestingly, for the combined Grades 5 and 6 sessions, 37% of students who participated had previously attended the LDLC, while for the combined Grades 7 and 8 sessions, 44% of students that participated had prior attendance at the Centre.

### Parent Feedback:

Parents of students attending the LDLC were more than willing to provide feedback about their child's experience in the program. In fact, 106 parents provided feedback over three LDLC sessions (excluding the two intermediate sessions), representing a 75% response rate. These parents were quite involved, with the majority of them attending all three information sessions: LDLC open house (73%), parent workshop (68%), and observation day (66%). The majority of parents (79%) stated that their child "enjoyed [the LDLC] a lot," and 92% of them agreed that the program helped their child to better understand his/her learning disability. When asked what changes they had noticed in their child since he/she began the program, most parents noticed an increase in confidence and an improvement in computer skills/knowledge. Moreover, parents believed that their child's newfound confidence and understanding of assistive technology would greatly benefit them upon return to their home school. When parents were asked to identify the strengths of the program, the following main themes emerged: access to computers, intensive training in assistive technology, interaction with other students with LD, and being in a small classroom setting. Interestingly, when parents were asked what they would change about the program, the only common theme across all three LDLC sessions was the length of the program. That is, most parents stated that they would like the program to be longer or to be offered at their child's home school in order for the child to receive continuous support.

## « Learning Disability Learning Centres (LDLCs), continued



### Staff Development

Throughout the year, classroom teachers of students attending the LDLC were invited to attend a training workshop by LDLC teaching staff. During LDLC sessions 1, 2 and 5, four workshops were offered, whereas there was one workshop during LDLC sessions 3 and 4. Evaluation surveys were available at the end of each workshop and responses were received from 125 teachers. Due to small sample sizes (i.e., less than 15 responses) at

sessions 3 and 4, however, feedback will not be reported. When asked to rate their satisfaction with the workshops and with the workshops' usefulness, the majority of teachers (86%–100%) were "very satisfied" with these components. Their feedback suggested that they wanted more assistance in the application of AT tools.

In addition to data collected from teachers, CYCs provided feedback after attending the "Tools to Support Students with LD" workshop held by the LDLC CYC. The purpose of this workshop was to provide all CYCs with the resources necessary to support students with LD, especially those who attended the LDLC during the 2007–2008 school year. A manual provided at the workshop contained a variety of resources to support students, and CYCs agreed that this manual would be highly relevant to their work with students with LD (rating of 4.1 out of 5), as well as with all students on their caseload (rating of 3.7 out of 5). When asked what other professional development opportunities they would like through the LDLCs, the majority of CYCs were interested in receiving more information and/or training in assistive technology and additional resources/strategies related to LDs.

### Conclusion

Feedback from all groups provides strong support for both the design of the program and for the student achievement outcomes associated with it. In regard to staff development, it is evident that there is a heightened awareness of AT and a keenness to learn how to use AT effectively for instructional and programming purposes with LD students. To maintain the success of the LDLCs, it is necessary to continue supporting past and future students and to build capacity among teaching and support staff.

### Future Directions

#### 1. Continue the "data-informed" focus in the project and develop assessment tools for students and staff to ensure measurable project outcomes:

**Students** – At each LDLC, both qualitative and quantitative assessment data will continue to be collected. Individual student profiles will be developed (based on collecting academic information, educational history, socio-affective information). Key measures at schools will include the use of data wall tracking of achievement for identified students requiring use of AT. An AT rubric, The Assistive Technology Passport, will be implemented to measure a student's "growth."

**Students and Parents** – Students and parents will be surveyed to determine their satisfaction with the program and the impact of AT use.

**Staff** – Surveys will be conducted to assess staff knowledge of universal design, differentiated instruction and use of AT. Surveys will also be conducted both before and after the appointment of the AT coach in each school.

#### 2. More importantly, strive to ensure the knowledge mobilization of lessons learned from the project:

In order to ensure that lessons learned are mobilized system-wide, it is imperative to continue the LDLCs and sustain the various initiatives being implemented in the 2007–2008 school year. A key component to the successful sustainability of this project is the implementation of AT coaches in each school. ●

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## Le succès d'un partenariat unique

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Depuis ses débuts en 1998, le Conseil scolaire de district catholique des Aurores boréales a concentré beaucoup de ses énergies à avancer la technologie face aux besoins du personnel et de ses élèves. En 2005, la première année des projets du CODE, le conseil présenta une proposition de projet portant sur la pédagogie différenciée. Ce projet pilote dans deux écoles, Franco-Terrace à Terrace Bay et Val-des-Bois à Marathon fut un succès dans tous ses aspects, autant pour les élèves, tout le personnel des deux écoles ainsi que le personnel au bureau du Conseil. Deux écoles ont participé à la première phase mais sept écoles élémentaires ont bénéficié des résultats. Les formations en pédagogie différenciée, sur l'application des intelligences multiples ainsi que l'utilisation efficace des centres d'apprentissages ont eu un impact sur le rendement académique des élèves ayant des difficultés d'apprentissage. Le projet ciblait les classes du cycle moyen, 5e et 6e années.

Cependant, la bonne nouvelle se répand parfois aussi vite que les mauvaises nouvelles. À l'école Franco-Terrace, le projet classe devient le projet école. Toutes les classes participent; les élèves sont regroupés par forces pour les activités de littératie. L'enseignante en Enfance en difficulté et la personne de soutien à l'élève se chargent d'un groupe d'élève, comme toutes les enseignantes. Les CAP se penchent sur le rendement de chaque enfant et à chaque semaine des ajustements sont mis en place pour mieux répondre aux besoins

de tous les élèves. C'est la conception universelle qui prend de l'avance et la pédagogie différenciée qui même la balle. À l'école Val-des-bois, les enseignants de la maternelle à la 4e année veulent en savoir plus sur les intelligences multiples et veulent appliquer les principes dans leur classe. Des formations visées pour le cycle moyen deviennent des formations offertes à toute l'école. Et les autres? L'observation et les discussions informelles dans le salon du personnel donnent une vie à la pédagogie différenciée dans toutes les classes. Tout le monde en profite. Le personnel des écoles ciblées, à cause du succès du projet, ont, par osmose répandu les principes de la pédagogie différenciée et de la conception universelle à travers tout le personnel de toutes les écoles du Conseil. Les écoles demandent de faire partie du projet.

Les parents, qui furent partenaire dès les débuts, ont remarqué de l'amélioration non seulement du rendement de leur enfant mais aussi à l'estime de soi et à la motivation scolaire. Les élèves qui ont participé ont indiqué à maintes reprises que « Finalement, je peux montrer aux autres en quoi je suis bon et ce que je peux faire même si ce n'est pas pareil à mes amis. » et « On m'accepte pour ce que je peux faire. », « On rit moins de moi. ». Grâce à un appui des directions, du personnel de chacune des ces écoles, des parents et du FARE, beaucoup fut accompli dans un an.

En même temps, les six conseils scolaires du Nord de l'Ontario mettent en place le projet régional sur la technologie d'aide. Notre conseil fait la connaissance des logiciels Kurzweil et Word Q. Deux batteries, qui comprennent un portable équipé des logiciels ci-indiqués ainsi que de Smart Ideas, une imprimante avec numériseur et d'autres périphériques sont placés à l'école St-Joseph de Geraldton et Franco-Supérieur de Thunder Bay. Pour appuyer les écoles, plusieurs textes et manuels sont numérisés et édités. Le personnel du cycle moyen des deux écoles se rend à Sudbury pour une première formation. Ils en sont épatés mais un peu nerveux. Comment mettre le tout en œuvre? Comment bien appliquer ce qu'ils ont appris? Comment assurer que les élèves eux aussi maîtrise les logiciels? Comment assurer l'autonomie une fois les projets complétés? Beaucoup de questions, quelques réponses. Ce sera un apprentissage pour tout le monde.



Bien que le premier projet conseil du CODE fut un succès, il devient apparent que la technologie était un domaine important qui pourrait apporter à tous les élèves ayant des besoins une façon alternative d'améliorer leur rendement en littératie et en numératie. Dans n'importe quel conseil scolaire, il est parfois difficile d'apporter aux élèves les outils dont ils auront besoin pour se tenir à la fine pointe des développements en technologie et en même temps améliorer le rendement académique. C'est alors que le Conseil décida de placer ses énergies en 2006, à mettre en œuvre l'utilisation de la technologie d'aide à tous les élèves qui pourraient en profiter. Du fait, ceci fut une extension logique qui se case facilement

dans les principes du document « Éducation pour tous M-6 ». L'inclusion des élèves en salle de classe est améliorée par la conception universelle de l'utilisation de la technologie et l'application des principes de la pédagogie différenciée et cette technologie est au service de tous les élèves ayant des besoins particuliers.

Comment si prendre quand on sait que les spécialistes francophones, il n'en mouille pas dans le domaine de la technologie? On fait un appel à tous ses contacts externes et on se croise les doigts. Pourquoi pas un partenariat avec les collègues? Eux ont des bureaux de services à l'élève et doivent avoir quelque chose déjà en place. Arrive à bras ouvert le Collège Boréal. Puisque le collège, utilise depuis plusieurs années, pour aider ses élèves, les logiciels Kurzweil et Word Q et que des experts-conseils sont déjà sur place pour aider ceux-ci, ce fut un partenariat sans pareil. Le collège apporte son expertise dans le domaine de la technologie autant dans l'application pédagogique et l'appui technologie. Nos écoles présentent des élèves qui seront les étudiants des instituts post secondaires dans les années à venir. Une autre raison de bien développer un partenariat à long terme. Possiblement un bénéfice inattendu? Et des étudiants qui auront déjà une base dans l'utilisation de certaines technologies d'aide.

Sous les ailes des Entreprises Boréal, un partenariat est développé afin d'assurer que toutes les écoles reçoivent, sur place, de la formation au personnel et aux élèves pour assurer une intégration réussie de la technologie d'aide. Le conseil aimerait que chaque école, en bout de ligne, soit autonome dans l'utilisation de l'équipement. Suite à beaucoup de discussions, en décembre 2006, un expert-conseil et un technicien du Collège Boréal se rendent à Thunder Bay pour la première de plusieurs présentations. Le personnel impliqué, les enseignants et les personnes de soutien à l'élève et toutes les directions d'école, se disent prêts à accepter le défi de mettre en place une nouveauté. Les élèves sont choisis en utilisant les mêmes critères dans toutes les écoles. Près de trente élèves font partie du projet. Elles et ils profitent autant de l'appui de l'expert-conseil et du technicien que le personnel et aussi, il ne faut pas oublier, les techniciens du conseil et les membres des Services à l'élève. L'utilisation réussie de la technologie en est à ses embryons. Chaque école reçoit de l'appui sur mesure pour mieux répondre à ses besoins. L'équipe se rend dans chaque école un minimum de quatre fois pendant cette année scolaire. Le plus de temps accordé au personnel à s'approprier les outils, le mieux et le plus souvent les outils sont utilisés. Dès la deuxième visite, certaines écoles ajustent leurs horaires pour que les élèves eux aussi participent lorsque l'expert-conseil et le technicien se rendent dans les écoles. À l'école Notre-Dame-de-Fatima, un élève de 5e année devient expert dans le dépannage. Ses talents se répandent très vite à travers les écoles environnantes. Les membres du personnel des écoles se forment un réseau. Une question envoyée à l'expert-conseil devient un courriel à tout le monde. Chaque école avance à son propre rythme. Les parents, qui ont été informés de la participation de leur enfant, viennent observer et demandent comment appuyer leur enfant à la maison. Plusieurs familles se procurent du logiciel Word Q. Des élèves autres que ceux et celles choisis pour le projet sont invités à utiliser le matériel. Ces élèves se retrouvent entre la 3e et la 10e année. Le collège s'occupe aussi de la numérisation et l'édition de divers textes. Puisque ceci est un travail à long terme, les textes sont choisis en fonction des besoins des élèves pour l'année en cours et aussi pour les années à venir. Le personnel s'aperçoit vite que l'utilisation régulière des logiciels apporte une différence chez les élèves, surtout ceux de la 4e à la 6e année. Dans cette première année de l'application de la technologie d'aide dans nos écoles, l'équipe Boréal apprend à connaître les distances entre les écoles du conseil et