

« Moving Ahead with Special Ed, continued

provide focused professional development. The same central staff member sat as a member of the school's in-school support team as an out-of-school contact. Special assignment teachers were assigned to schools requiring instruction in the use of assistive technology and literacy coaches were hired to move the best practices to the classroom environment. The Special Education Support Teacher model was changed from one of withdrawal to one of support within the classroom. The board hired a Coordinator of Technology to develop and plan for improved use of assistive technology.

- New assessment tools (CASI 2nd Edition, DRA1 Grades K–3, DRA Grades 4–8 and K-TEA II) were purchased through the Ontario Psychological Association's initiative to support both classroom assessment and central board assessment. Teachers and administrators were trained in their use. As these research-based assessment tools were implemented, data walls grew, tracking student learning in reading and writing.
- Superintendents of Academic Programs and Education visited schools on a regular basis, carrying out school walkabouts with the principal to observe evidence of improved teacher learning and dialogue about student data collected electronically throughout the year by the board.

Demographics

- Participating in this project were:
- 40 secondary teachers, 250 elementary teachers, 22 principals;
- All students in Grades 3 and 6, with a focus on 221 of them; and
- 231 focus students in Grade 9.

Data Demonstrating Success

- Data analyzed to determine success was collected from schools through:
- School Evidence Binders;
- Observation checklists;
- Board Electronic Achievement Data Collection Surveys (including Writing Exemplars, CASI, DRA and Report Card); and
- School quantitative and qualitative surveys.

Top 5 Professional Learning Topics Cited by Principals as Practices Providing the Greatest Improvements

1. Teacher Moderation
2. Collaborative Development of Common Assessments as Intervention Strategies
3. Use of Data from Tracking Boards to Drive Instruction and Intervention
4. Creation of Anchor Charts and Sentence Stems With Students
5. Planning with the End in Mind

Data

Aggregate Secondary School Data:

Grade 3	
Number of students in Grade 3 in September 2007	464
Number of Grade 3 students determined at-risk early in first term	103
Number of Grade 3 students consistently demonstrating improved learning at the end of first term	46

Percentage of Grade 3 students at risk in first term = 22% (103/464)

Percentage of Grade 3 at-risk students showing consistent improvement by the end of first term = 45% (45/103)

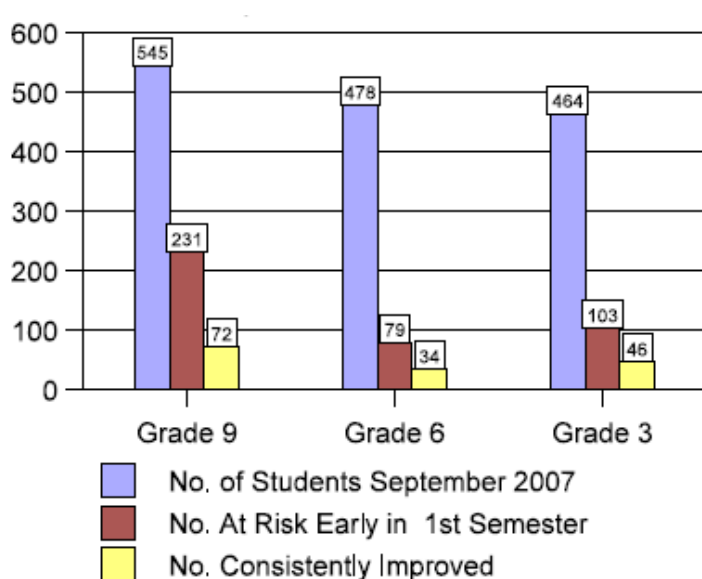
Grade 6	
Number of students in Grade 6 in September 2007	478
Number of Grade 6 students determined at-risk early in first term	79
Number of Grade 6 students consistently demonstrating improved learning at the end of first term	34

Percentage of Grade 6 students at risk in first term = 17% (79/478)

Percentage of Grade 6 at-risk students showing consistent improvement by the end of first term = 43% (34/79)

(Shown in Figure 1)

Figure 1: Aggregate Elementary/Secondary School Data



Immediate Next Steps

1. School principals share methods of internally provided release to allow for ongoing C-PLC sessions during next school year.
2. Review of IEPs to ensure that plans for students are working, contain evidence-based strategies, and provide differentiated instruction.
3. Broaden the effective use of assistive technology with students who demonstrate special education needs.



The Sudbury Catholic District School Board respectfully acknowledges all the staff of St. James School and principals, vice-principals and teachers who made our C-PLCs a living community dedicated to improved student learning.

Ongoing gratitude is expressed to CODE for this tremendous opportunity to improve learning for our students. ●

Comments about this article? Email bagnatr@scdsb.edu.on.ca

CODE III – Special Education Project

Lee Ann Forsyth-Sells, Superintendent of Education
Niagara Catholic District School Board

The development and implementation of the GLE–Assistive Technology 201 credit course, to improve student achievement, in a Universally Designed Secondary Classroom.

Introduction

One of the three key components of the Niagara Catholic District School Board's CODE III project during the 2007–2008 school year was the implementation of a Grade 10 GLE Assistive Technology Course in a universally designed classroom. The model of Special Education in the Niagara Catholic District School Board is one of inclusion, where inclusion "means not only the practice of placing students with special needs in the regular classroom, but ensuring that teachers assist every student to prepare for the highest degree of independence possible" (Education for All, 2). In addition, technology, as a tool, facilitates the learning of each student, and in a universally designed classroom, "assistive technology is any technology that allows one to increase, maintain, or improve functional capabilities of an individual with special learning needs" (Edyburn, 2000 in Education for All, 127). Thus, when planning for instruction in a universally designed learning environment, the broad learning principles of "equitable use, appropriately designed space, flexibility, simplicity, safety, and different modes of perception" (Education for All, 9) are applied "to ensure that students will have access to the curriculum and that a flexible curriculum provides him or her with the appropriate pathways for reaching learning goals, as well as fair and accurate assessment" (Education for All, 10).



The development and implementation of a new Grade 10 Assistive Technology course—GLE AT 201—was the result of continuing a focus on the improvement of the literacy skills of secondary students, who are earning credits and preparing for the Ontario Secondary School Literacy Test. The course is designed to allow students to work at their own pace, on their own laptops, to access the curriculum using a variety of different computer software packages. Computers on Wheels (COWs) units were purchased for

each secondary school, and each consisted of eight laptops, one wireless router, and one mobile cart connecting to a centralized file server. The COWs were used in the GLE AT 201 class, not only for the students' learning as per the course curriculum, but also as a resource to enable the students to complete homework and assignments for other courses, such as a Locally Developed English course, an Art class, a Locally Developed Science class, or any other course on their schedules. In addition to Kurzweil software, students made extensive use of Premiere software, especially for summarizing work. The teacher of the GLE AT 201 course discovered through trial and error that although each student required an individualized setting, the range should be fall within the 50%–70% software-generated summarization range to be effective for the learning of each student. Word-Predict software was also useful, but needed to be set for each individual student to meet their individualized learning needs.

The GLE 201 course classroom had eight students with differing identifications and learning needs. The room was set up in a somewhat octagonal shape, with students using the same laptop every day. It was important to have a set of headphones for each computer/participant, since at any moment in time there could be eight different stories playing using text-to-speech in Kurzweil. It was also important to have a separate USB mouse for each computer/participant, as often the students in this class did not have the fine motor skill development required to be proficient with the pad-mouse provided on the laptop. Over the course of the semester, it was noted that having a separate server drive letter for the teacher, for which the teacher had full access rights (read, write, create, etc.) but for which students had only read rights, would enhance students' learning. This would allow the teacher to place assignment outlines and other learning activities on the drive where students can access them; however, the students would need to save their work to their own drives because they would have read-only rights on the teacher's drive.

« CODE III - Special Education Project, continued

Student Achievement

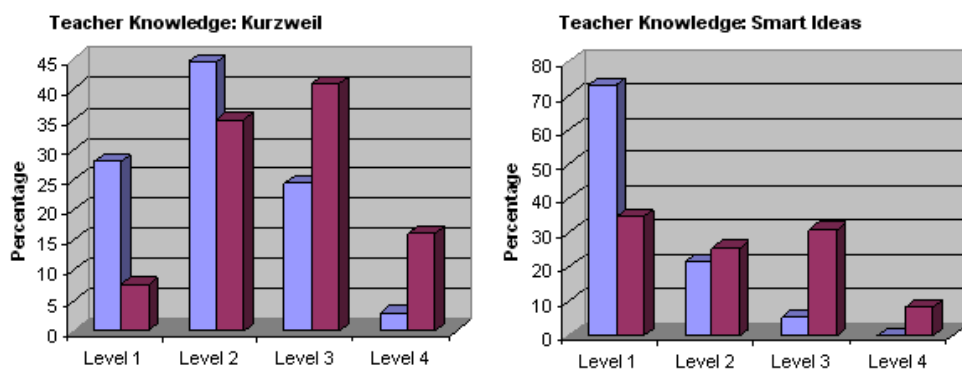
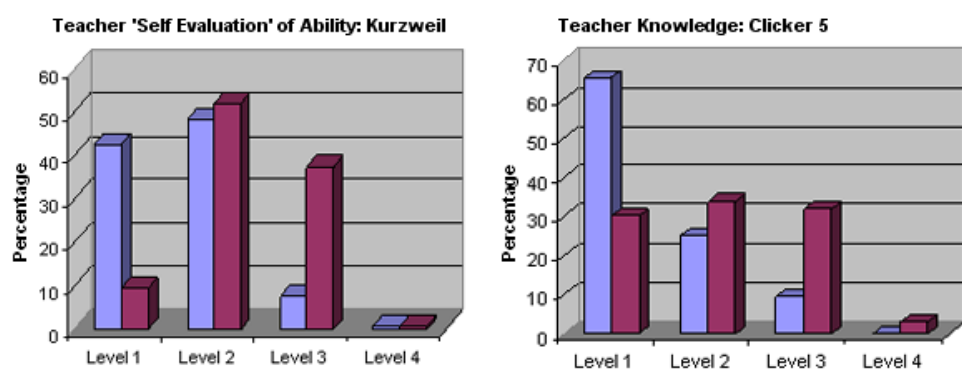
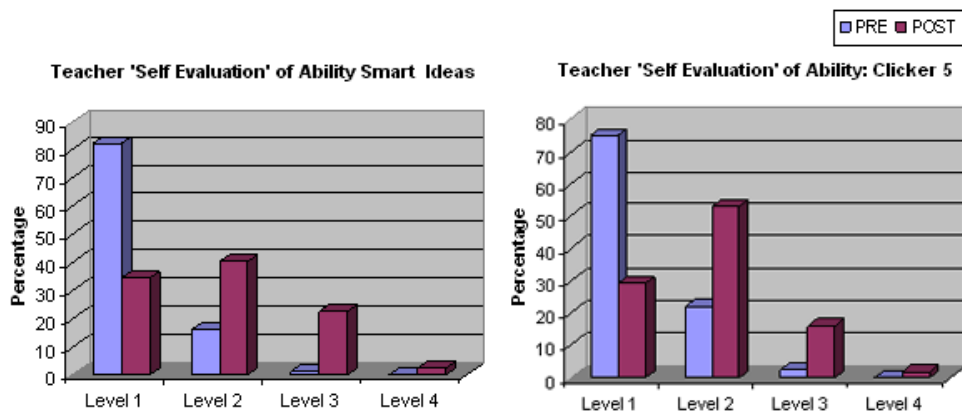
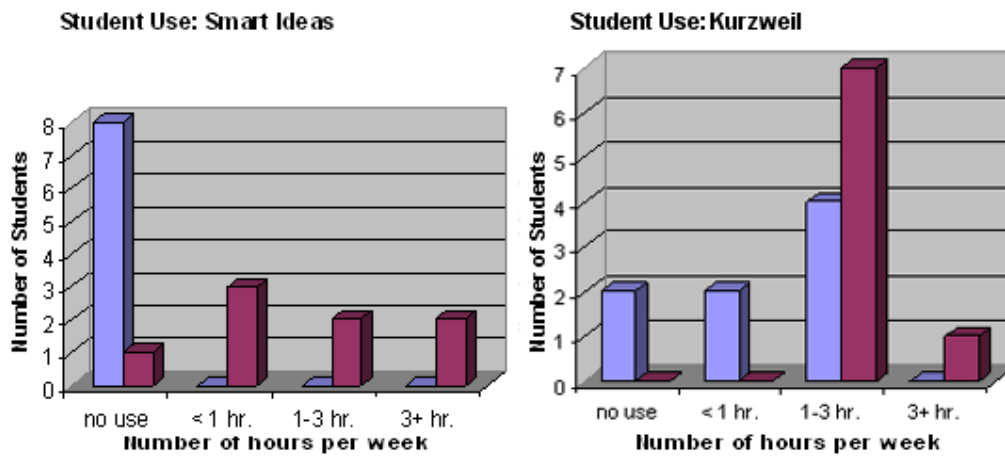
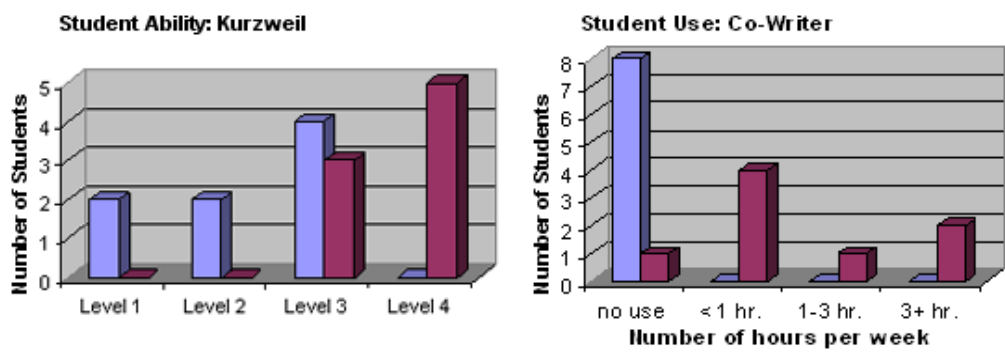
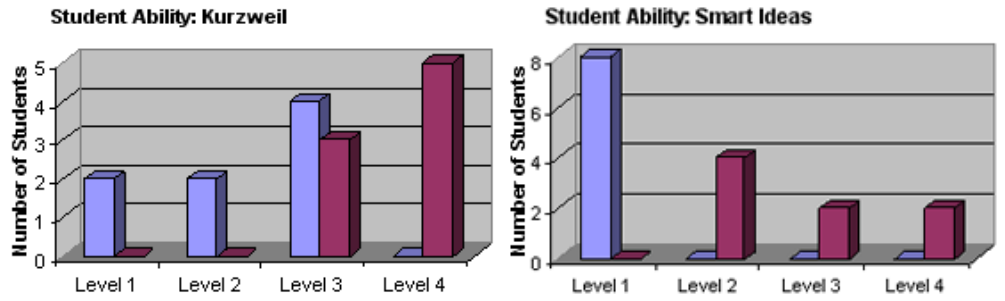
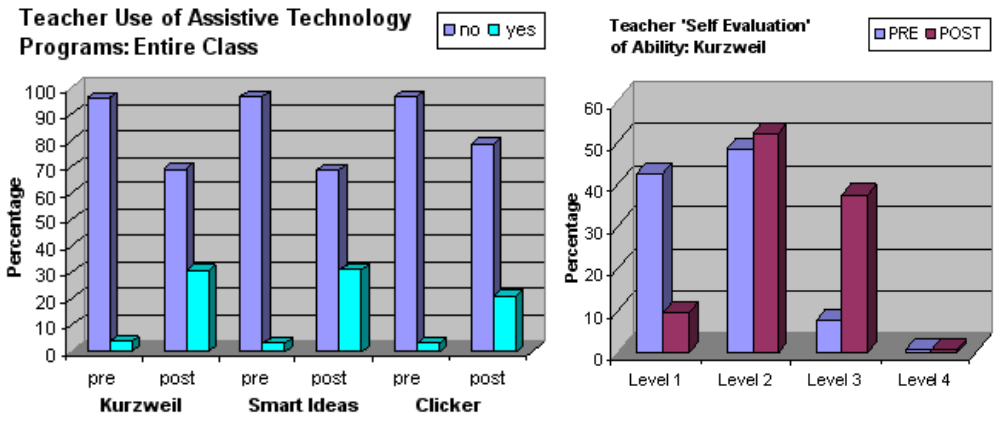
This component of the CODE project focused on the achievement of Grade 9 and 10 high school students. These students had either been identified or had Individual Education Plans. During the course, a number of these students were able to transfer the skills learned in the GLE AT 201 course across a number of subject areas. Students started to use the technology and their own developed skills to aid them with assignments, tests, and various other educational submissions. These eight students came to realize that they could now easily communicate their innate internal abilities to their teachers through the use of Assistive Technology.

Preliminary baseline data was obtained for all of these students before the initiation of and registration in the GLE AT 201 course. All students were administered either a Developmental Reading Assessment (DRA) or PM Benchmark Assessment to assess baseline reading levels. The students' English marks were also used as part of this baseline data. Students completed an assistive technology survey (pre- and post-course) that examined Student Ability, Student Use, and Student Knowledge/Awareness, providing a baseline for their self-evaluations, specific program knowledge, and program use of the following Assistive Technology Software packages: Kurzweil, Clicker 5, Smart Ideas 5, Co-Writer, and Write Out Loud.

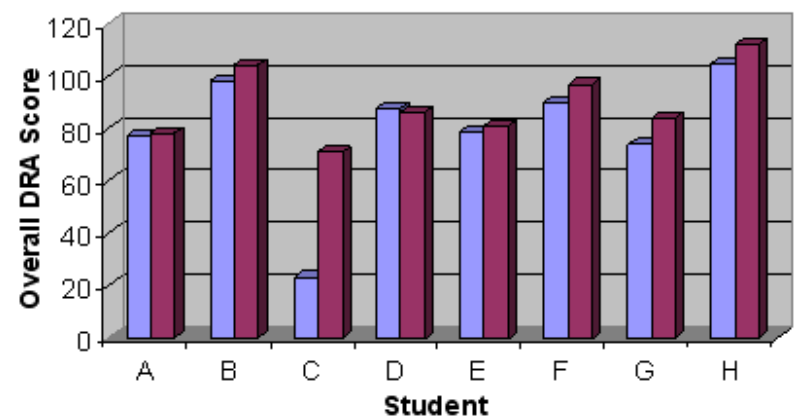
The dynamics of the class changed over the course of the semester, evolving from a teacher focus at the beginning to a student choice/input/ownership focus as the semester progressed. Some students became very independent as they gained confidence in their learning using the laptops and software to assist with their work. Other students worked at their own pace, requiring more regular support. For future delivery of this course, consideration will be given to inviting the students' classroom teachers to a workshop very early in the semester in order to review the course and to show them what is possible by using the software and collaborating with the GLE-AT 201 teacher.

Results

The teacher in this course noticed a significant improvement in the students' written work and in the use of the software packages provided to assist with their work. The students enjoyed using their laptops and wearing their headphones, focusing on their learning, demonstrating that "Universal design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students" (Education for All, 4). As a result of this course, it was shown that students with special learning needs benefit from using assistive technology on a regular basis in the regular classroom by "building on their individual strengths, benefiting from a compensatory tool, gaining motivation, accomplishing higher rates of learning and improved achievement, and completing academic tasks independently" (Education for All, 129). Finally, the GLE-201 AT course has now become another way for students to access the curriculum and to improve their literacy skills in an inclusive, universally designed learning environment. ●



Student Achievement DRA: Pre/Post GLE-201



Will Assistive Technology increase your achievement in school?

