



Special Education Technology - British Columbia
2009 - 2010 Annual Report



Special Education Technology - British Columbia: 2009 - 2010

SET-BC, a Ministry of Education provincial resource program, works in partnership with BC school districts and independent schools to provide technology and support for more than three thousand students with special needs. These students use assistive technologies (AT) provided by SET-BC to achieve their educational goals, participate in class activities, and communicate with others. They use computers with specialized software for reading, writing, and math, as well as vision, communication and physical access devices to help them overcome barriers to learning and independence.

With the ongoing support of the Ministry of Education, school districts, community agencies, and technology companies, SET-BC is able to effectively support students and school teams who are using technology in BC classrooms. Our District Partners, who work closely with our consultants to plan, organize and implement our services across the province, play a vital role in ensuring that our services make a positive difference for students with special needs.

This report highlights SET-BC's services and special projects, and provides information on our program's goals and outcomes. In 2009 - 2010, SET-BC:

- » Provided 730 new AT solutions and support to help students achieve their goals.
- » Continued to provide technical and implementation support for a further 2490 students.
- » Developed hundreds of effective curriculum resources to help school teams implement AT.
- » Built district capacity through more than 5000 hours of training for more than 8700 participants.
- » Strengthened partnerships within BC's AT community through joint initiatives and projects.

Student Success: Terron

Terron, a high school student in the Okanagan, uses a Vantage Plus on loan from SET-BC as a technical solution to his oral and written communication challenges. His school district speech language pathologist, Sue Rampone, has helped him learn to use his device to generate his own messages so he can say whatever he wants in class.

Terron's technology also assists him with literacy activities. He is able to import digital versions of his textbooks into his device to be read aloud. He writes using the built-in word prediction feature to speed up keyboarding and improve his spelling. Terron loves to write and hopes to be an author one day.



For more information on students highlighted in this report, visit www.setbc.org.

SET-BC Students

Each year, school teams identify students' Individual Education Plan (IEP) objectives that can be supported by the use of assistive technology. With these objectives in mind, SET-BC consultants guided the selection and implementation of 730 new assistive technology systems for students in 2009 - 2010. Consultants also provided ongoing consultation, training and resources for 2490 students who received technology solutions in previous years, for a total of 3220 students served.

SET-BC STUDENTS BY DISABILITY	NEW STUDENTS	TOTAL STUDENTS
Physical disability	303	1219
Autism spectrum disorder	213	933
Moderate to profound intellectual disability	78	465
Dependent handicap	57	304
Visual impairment	73	269
Deaf-blind	6	30
Total	730	3220

SET-BC STUDENTS BY REGION	NEW STUDENTS	TOTAL STUDENTS
Vancouver Island - Central Coast	160	749
Lower Mainland	370	1643
Thompson - Okanagan	97	365
Kootenays	25	141
Cariboo - Chilcotin	42	160
North Coast	18	92
North East	18	70
Total	730	3220

Student Success: Diana

Diana is a bright academic student who uses her technology to participate in class and actively pursue her learning. She operates her laptop computer with her mouth through "sip and puff" and tongue movements to control the mouse. She also uses an onscreen keyboard and mouse command software to manipulate files.

With the support of her teacher and teaching assistant, and using her technology, Diana performed at the top of her class in literacy and math. She is very proud of her ability to draw and colour. Her desire to do what other students are doing has challenged her teaching assistant to find new and creative ways for Diana to use her technology.



Student Technology Loan Bank

SET-BC's collaborative service delivery model guides the selection of effective AT solutions for students. In 2009 - 2010, the loan bank provided 730 students with new assistive technology systems custom-configured by our technicians. Another 349 students received accessory loans or upgrades to hardware and software.

EQUIPMENT CATEGORIES	NEW LOANS	TOTAL LOANS
HARDWARE		
Adapted computers	561	2017
Communication aids (low tech)	129	338
Portable word processors	16	148
Speech generating devices (high cost)	72	145
CCTVs	38	72
Braille notetakers	14	31
SOFTWARE		
Access	681	2493
Screen readers	4	31
Screen magnification	31	149

Loan Bank Highlights

- » SET-BC provided 72 high cost speech generating devices and 14 refreshable Braille notetakers.
- » SET-BC configured and shipped 236 short term loans to school teams for assessment, evaluation, equipment trials, and training. Other BC agencies such as Communication Assistance for Young Adults, Sunny Hill Health Centre for Children, BC Children's Hospital, and BC Rehabilitation Centre also borrowed technology for short term use.
- » Our software site licensing is a cost effective and efficient way to provide, maintain and upgrade software for students.
- » SET-BC works with district IT staff to streamline school-based implementation of assistive technology. As a result, students obtain timely access to printers, networks and the internet while at school.
- » The SET-BC loan bank strives to keep current by evaluating new and improved assistive technologies as they come to market. Through our strong partnerships with the leading suppliers of assistive technology, we are able to bring the best possible combination of products, support and services to students. SET-BC conducted major evaluations of braille notetakers and speech generating devices this year. The speech-to-text application Dragon Naturally Speaking was also added to the student equipment list.

Book Sense XT Project

SET-BC and the Provincial Resource Centre for the Visually Impaired provided this portable audio reading solution for 25 students with visual impairments. The students, with support from their vision teachers, explored how the device provides improved ease of use and assessed its usefulness as a tool for independent access to print. Courtland, a student who field-tested the device, said, "I love this thing, it's wonderful. If you're doing a book report and you want specific quotes to help make an essay or a point stronger, you can find the quotes in the book as you go, and bookmark them."



Technical Support

Equipment support and repair are an important part of SET-BC's technology partnership with BC school districts. Our technical support team performs the initial configuration for all equipment loaned by SET-BC, setting up systems, installing software, and configuring devices to meet the unique needs of each student. During SET-BC's annual service review, 96% of school teams reported that our technical support was effective.

SET-BC's technical support team provides direct service to school districts through a toll-free telephone number, via the SET-BC web site, or by email. The team attempts to resolve equipment issues by telephone wherever possible, thereby minimizing disruption and keeping equipment in schools and in use by students. When more complex repairs are required, technicians arrange for shipping and perform the work at the SET-BC Provincial Centre or forward equipment to manufacturers' repair departments.

The technical team facilitates contact between school teams and SET-BC consultants when additional training or support is needed to help resolve an equipment problem. They also work with SET-BC consultants and district personnel to help coordinate the integration of assistive technology solutions into district IT environments, and facilitate access to vendor and manufacturer support systems when needed.

SET-BC technicians support a large variety of specialized software and a very diverse range of equipment, from basic Windows and Macintosh computers to highly specialized communication devices. The volume of work increases yearly as the inventory of SET-BC equipment in BC schools continues to grow. To keep pace with this growth and maintain quick repair times, the team is constantly working to review and improve its procedures. 45% of equipment repair jobs are completed and returned to students in 3 days or less, and 70% are completed within one week.

The SET-BC technical support team also provides configuration and technical support for clients of the Communication Assistance for Young Adults (CAYA) program, and for SET-BC's special projects and programs.

SET-BC TECHNICAL SUPPORT ACTIVITY	TOTAL NUMBER 2009 - 2010
Telephone support calls	1162
Equipment repair jobs	756
New loan configurations	1673
Total	3591

SET-BC's technicians efficiently configure, maintain and repair all student technologies. During equipment request cycles, they set up and ship hundreds of new systems, while continuing to repair student equipment and assist school teams with technical troubleshooting.



Resource Development

SET-BC publishes a wide range of effective resources that help school teams implement technology in the classroom. These resources include training modules, resource guides, lesson plans, and curriculum activities, all of which can be readily downloaded from SET-BC's website. SET-BC also maintains online collections of software activities for students that are created and updated by consultants and educators working in BC classrooms.

- » Accessible Books are popular children's books that are scanned and narrated to enable non-readers to see and hear them on a computer. BC educators can order these digital books for students with perceptual disabilities if they have a print copy of the book.
- » pictureSET is a collection of downloadable visual supports that can be used by students for receptive and expressive communication in the classroom, at home and in the community. This searchable database allows educators to find a wide range of communication boards and stories for different activities, events and curriculum areas.
- » curriculumSET is a collection of curriculum-based activities created with assistive software on loan from SET-BC. This searchable database enables educators to find, download, and customize activities and templates based on the 10 areas of the curriculum as defined by the BC Ministry of Education.

SET-BC also designs templates which can become the basis for units of curriculum. Recently, a group of consultants collaborated on an Early Learner template to facilitate curriculum delivery to this group of learners. Field testing of the template took place in 8 different locations around the province where groups of teachers and educational assistants developed adapted curriculum units. These units, along with a growing number of others, can be found in curriculumSET by searching for "Early Learner".

"I am a resource teacher in the Delta School District who supports students with conditions like autism, cognitive disabilities, and physical and medical disabilities. I rely on the resources provided by SET-BC to build and supplement programs for my students in order for them to learn to the best of their abilities, including, but not limited to, curriculumSET and pictureSET. We appreciate the continued support from our educational leaders and government resources. Without either, our students and future adults will find it difficult to achieve their full potential."

Student Success: Bryce

Before he began using technology in 2008, it was difficult for Bryce to learn new concepts and to retain new skills. It's a different story now; he's actually reading books and is counting everything in sight! From the start, Bryce was engaged by his Clicker 5 software activities, building a repertoire of sight words and then learning how to put words together into sentences.

This year, his school team worked with SET-BC to develop math activities based on an Early Learner template available in curriculumSET. Bryce learned to count virtual objects and transferred his new skill to counting real objects around him. With the help of his school team, Bryce has "clicked" with his technology.



Technology Inclusion Project (TIP)

Educating students with severe and multiple disabilities is a complex challenge and often becomes more challenging as students move to intermediate and secondary school settings. SET-BC, working with the Provincial Integration Support Program, provided 27 resource room teachers with training, assistive technologies, and resources to help them create more active and participatory learning environments.

The project also investigated the use of new technologies like the switch-adapted iPod nano provided by CanAssist, switch adapted cameras, and the Wii. Teachers selected assistive technology equipment from a list that included computers, communication aids, environmental control systems, switches and switch software, touchscreen monitors, switch adapted cameras, video cameras, and the Wii.

When asked about the impact of this project on their educational programs, 100% of the teachers reported a positive or significantly positive outcome. Their comments confirm that project participation expanded and extended the range of learning activities available for students with severe disabilities and increased their active participation and inclusion.

- » *"The injection of new technology into my program has provided new stimulus and created new interest and energy from students and staff members alike. The technology has provided for another avenue for access and participation for all of my students."*
- » *"I was very excited and inspired by the ways in which this technology can foster inclusion for our students with special needs."*
- » *"The best part has been seeing the students participating with peers through the technology in a way they couldn't prior to this project."*

For teachers, it was an opportunity to try new tools and techniques and to collaborate with other educators working with students with severe and multiple disabilities.

- » *"I really and truly enjoyed myself and it was a huge learning experience for me. I came back to work so excited, filled with new ideas and enthusiasm."*
- » *"I also enjoyed meeting with other Special Ed teachers from around the province and learning about their programs."*
- » *"I learned about many more options for my students with multiple disabilities."*

Here's what teachers told us about the new technologies:

- » *"The Wii game has been a huge success with integrating regular and special education students."*
- » *"One student was able to attend two field trip community outings and take photos with the switch activated camera with mounting arm. She then made a PowerPoint and shared it with her class."*
- » *"I will be using Wii with 44 students in the fall as part of our daily gym routine."*



Teachers from across BC learned new technology strategies during TIP training sessions.

First Nations Schools

For the third year, SET-BC collaborated with the First Nations Education Steering Committee and the First Nations Schools Association to provide assistive technology services for BC students attending First Nations schools. SET-BC provided technology loans, consultation, resources, and training for 16 new students this year, as well as ongoing support for 35 students who received equipment loans in previous school years.

This project has been very successful. Growing interest and expertise is evident across the province as more students and their support teams acquire technology to support special needs. School teams are reporting that their students are becoming more independent in their use of technology to support their learning. They also report increased participation in classroom activities, successful access to curriculum, and increased productivity.



Shane is writing about his favourite subject - basketball - using a large keyboard and Clicker5 software.

Universal Design for Learning

The BC Universal Design for Learning Project (BC UDL), a Ministry-funded SET-BC Project, has concluded its third and final year. School teams from the following 7 districts participated in year three of the project: Maple Ridge, Sunshine Coast, Bulkley Valley, Saanich, Cowichan Valley, North Okanagan-Shuswap, and Vancouver Island West. School teams from these districts received onsite and online training in UDL methodology and grants to develop a technology infrastructure to support UDL.

The original goal of the project, to seed interest in UDL around the province, was certainly achieved. UDL team members from all three years of the project continue to spread the word about UDL, hosting UDL and SMARTBoard cafés, contributing articles to professional journals, providing interviews for local media, and presenting at provincial conferences and non-instructional days.

The BC UDL Learning Object Repository (www.setbc.org/bcudl) houses 75 downloadable lessons contributed by project members.

Former team members collaborated to produce “Universal Design for Learning in BC: Legacy of the BC UDL Project”, a UDL resource distributed to districts province-wide. The BC UDL Wiki (bcudl.pbworks.com) houses notes and resources from the team training sessions and links to social bookmarking lists, blogs, and wikis created by individuals and teams.



Students at Harwin Elementary School in Prince George use Skype to reach beyond the walls of their classroom to connect to other people, cultures, and countries.

SET-BC Contact Information

SET-BC Provincial Centre

#105 – 1750 West 75th Avenue
Vancouver BC V6P 6G2
Tel: 604-261-9450 Fax: 604-261-2256

Region One - Vancouver Island

2260 Victor Street
Victoria BC V8R 4C5
Tel: (250) 595-7511 Fax: (250) 519-2109

Region Two - Lower Mainland

#110 - 1750 West 75th Avenue
Vancouver BC V6P 6G2
Tel: (604) 261-9450 Fax: (604) 266-0514

Region Three - Okanagan

1401 - 15th Street
Vernon BC V1T 8S8
Tel: (250) 549-9221 Fax: (250) 558-0098

Region Four - Kootenays

1850 Warren Avenue
Kimberley BC V1A 1S1
Tel: (250) 427-7888 Fax: (250) 427-7428

SET-BC Technical Support

Tel: 604-269-2222
Toll Free: 1-866-738-3375
www.setbc.org/go/set-desk

Region Five - Cariboo-Chilcotin

1193 Harper Street
Prince George BC V2M 2X1
Tel: (250) 562-9650 Fax: (250) 565-4235

Region Six - North Coast

825 Conrad Street
Prince Rupert BC V8J 3B8
Tel: (250) 624-6621 Fax: (250) 624-6572

Region Seven - Peace

1004 McKellar Avenue
Dawson Creek BC V1G 3V2
Tel: (250) 782-8571 Fax: (250) 782-3204

Find all SET-BC contacts at www.setbc.org/go/contact.



SET-BC is a British Columbia Ministry of Education provincial resource program.