



we educate

**LEARNING RESOURCES CENTRE
SPECIALIZED SERVICES
ANNUAL REPORT
2008-2009**

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Specialized Services Activities

The following are the Learning Resources Centre's (LRC) specialized services activities to support students who are blind or visually impaired over the April 1, 2008 to March 31, 2009 fiscal year.

Students with Vision Loss Initiative

On May 29, 2008 Honourable Dave Hancock, Minister of Education announced over \$9 million in new funding over the next three years to enhance services for students with vision loss. Students with vision loss will benefit from the new funding as Alberta Education's Learning Resources Centre, Special Education Branch, and education stakeholders work to implement the six recommendations from the 2007 Program Review of Services for Students who are Blind or Visually Impaired. The Initiative's intent is to build capacity in the education system for an enhanced service delivery model through partnerships and collaborations.

The following outcomes and measures came from the recommendations and will be the evaluation framework for reporting on progress towards an enhanced service delivery model for the students.

1. Improve student access to teachers for the visually impaired in schools, especially in rural areas.
Outcome: Students have access to vision specialists.
Measure: Students in rural schools have access to teachers for the visually impaired.
2. Provide sustainable funding and improve student access to the special equipment loan service, including training.
Outcome: Students have access to special equipment to support their learning.
Measure: Parent satisfaction, school authorities' equitable access to student equipment, and extent of online training on use of the equipment.
3. Alberta Education provides accommodations at the development stage, for students' learning resources and provincial examinations (e.g. a vision specialist to support students with special test writing needs to have equitable access to exams.)
Outcome: Students with vision loss have full access to the learning content of curriculum materials and provincial examinations.
Measure: Extent of accommodations for newly authorized student learning resources and provincial examinations.
4. Minimize the risk for security breach to provincial examinations outsourced for braille production.
Outcome: Eliminate the risk of a security breach to exams from outsourcing.
Measure: Extent of risk to the provincial examinations by outsourcing production.
5. Improve students' timely access to learning resources in alternate format.
Outcome: Students with vision loss have access to alternate format learning resources at the same time as their sighted peers.

- Measure: Percentage increase in the students' basic learning resources produced in alternate format at the authorization stage and decreases in school production requests for newly authorized resources.
6. Establish a provincial coordinator position to build capacity in the education system.
- Outcome: Improve student access to vision specialists and supports closer to their community.
- Measure: Partnerships/collaborations established to enhance services, address human resource shortages and facilitate research on student success.

Secondment of Vision Specialists

In September 2008, Pam Rannelli was seconded from the Calgary Board of Education to fill the Provincial Coordinator position. Roy McConnell was seconded from Parkland School Division as the Accommodations and Assistive Technology Vision Specialist position.

Advisory Committees

The Provincial Advisory Committee (PAC) for the Vision Loss Initiative has been established to provide advice on building capacity to enhance services and supports to students with vision loss in Alberta. The provincial coordinator with the Special Education Branch chairs the committee. Its recommendations are forwarded to senior officials of Alberta Education for their consideration.

The Student Assistive Technology Advisory Committee (SATAC) is a working committee of education stakeholders who advise the LRC in the review of the student equipment and alternate format loan services. The committee will also provide input on equipment purchases for the student equipment loan service.

Vision Education Alberta Website

The Vision Education Alberta website has been developed to enhance communication for the education vision community, and to support building capacity for students with vision loss. The website (www.vision.alberta.ca) will support improving equitable access to information across Alberta. The site is highly accessible for persons with vision loss.

The website will link to the LRC website (www.lrc.education.gov.ab.ca) supporting schools' access to the student equipment and alternate format loan services.

Joint Protocol to Enhance Production of Alternate Formats

The Protocol is in response to the recommendation from the Program Review of Services for Students who are Blind or Visually Impaired. It identifies specific actions Alberta Education branches can take to improve access to digital files of authorized student resources to enhance the timely production of alternate formats. This will have a direct impact on:

- improving students' timely access to learning resources in alternate format materials (braille, large print, e-text, digital audio).
- streamlining the LRC's administrative process for obtaining digital files from publishers as it will now be a requirement for publishers to send the files directly to the LRC, as soon as the student resources are approved and/or authorized.

Specific actions to be taken for authorized student basic resources will include a requirement for:

- a PDF-accessible file (including high resolution graphics);
- an XML file (including high resolution graphics, and available text explanations for graphics and multimedia components); and
- permission to reformat as large print books (20 to 24 font).

As soon as the publishers send the digital files to the LRC, they will be posted on the Digital Textbook Repository for Students with Special Education Needs.

Also, on Alberta Education's behalf, the LRC will maximize efficiency and reduce the potential duplication between provincial and territorial jurisdictions by coordinating production of alternate formats with participating provinces of the Western and Northern Canadian Protocol.

Accommodations for Provincial Examinations

An important element to be addressed through the Initiative is ensuring students with vision loss have equitable access to provincial exams. As such, the LRC is working with Alberta Education's Learner Assessment staff to improve students' full access to the learning content of provincial examinations to support students' full participation.

Two large group presentations to Learner Assessment exam managers have been carried out. One was on general awareness of the needs of students with blindness or visual impairment and the other on scripting notes. The LRC has participated in three achievement exam/diploma exam technical reviews.

The LRC's vision specialist has also reviewed a number of the Grades 3, 6, and 9 Provincial Achievement Tests and Diploma Exams. The LRC continues to work closely with Learner Assessment on accessibility issues for all exams.

Renewal of the MOU with the British Columbia Ministry of Education

The Memorandum of Understanding (MOU) with the Special Education Technologies program of British Columbia (SET-BC) and B.C.'s Provincial Resource Centre for the Visually Impaired (PRCVI) encourages both provinces to cooperate in a partnership in support of assistive technology and other specialized services to students with special needs in the two provinces. Discussions between Alberta Education and B.C. stakeholders have begun on the MOU's renewal.

Student Equipment Loan Service Activities

Equipment Purchases

With the 2008-09 student special equipment purchase of approximately \$1.4 million, the equipment inventory value is now \$3.7 million. With 495 students registered to use the equipment, the average cost of equipment per student is \$7,500. The equipment purchased includes:

- Scientific talking calculator (SciPlus300)
- DAISY player (Victor stream)
- Electronic braille writer/embosser (Mountbatten Learn system with mimic and the Mountbatten Pro [bilingual] with mimic)
- Desktop CCTV (Clearview+ with 19" monitor, myReader2)
- Portable CCTV (flipper panel with 12" monitor)
- Portable magnifier (Amigo)
- Braille notetaker (Braille Note mPower with qwerty and braille keyboard, PacMate with qwerty and braille keyboard)
- Tactile image maker (PIAF)
- Microscope

The Review supported a new full-time Assistive Technology Technician position to coordinate the timely delivery of equipment to schools.

Online Training Modules

With funding from the Vision Loss Initiative, 38 training videos for specialized equipment were produced. Included are 7 modules for the myReader2, 19 modules for the BrailleNote and 12 for the Pac Mate. To view these modules visit:

www.vision.alberta.ca/training/modules.aspx.

Equipment Repair

In 2008-09, the LRC electronic technician repaired 359 units of equipment with an additional 29 units sent for third party repair (cost \$2,500). Equipment is purchased with a one-year warranty.

Library Services Activities

The LRC's library receives all school alternate format materials and student equipment loan requests online. The SydneyPlus library system's "Book Bag" enhancement feature has been implemented so users can now place multiple requests at once. Feedback has been positive.

In August 2008, the library removed 3,979 titles and 9,978 volumes from the collection, representing a 46% reduction in titles. Titles "weeded" included those in poor physical condition and/or outdated. To keep our national interlibrary loan database current, records removed from the LRC's library catalogue have also been removed from the AMICUS database.

A fee for service arrangement to access copies of alternate format materials is in place with two Northwest Territories school councils. The fees (including administration) incurred over the last two years totals \$3,210. More specifically, fees for the 2007-08 school year totaled \$2,793 for two school councils and fees for the 2008-09 school year totaled \$417 for one school council. Access to the library services is considered on a case by case basis for educational jurisdictions whose students are not funded by Alberta Education and not CAER members.

Braille and Large Print Services Activities

Braille Production Review

The LRC contracted a vision consultant with production experience to review braille production capacity and processes. Improvements include streamlining workflow and procedures for internal and contracted transcribers, and removing administrative functions for transcribers to focus their time on transcription.

To date, actions taken include:

- formalizing new procedures for contract transcribers. This has made an immediate impact on reducing internal administration for staff;
- increasing the skill level of contractors with two workshops: braille formats and creating tactile diagrams;
- reducing administration for internal transcribers by hiring temporary staff with the intent to incorporating 0.5 permanent position to support administration;
- developing a coordinator position to deal with contracted production;
- upgrading braille equipment to optimize capability (e.g. scanner to use with Optical Braille Recognition software, backup embosser, drafting tables for proofreading, larger monitors enabling transcribers to work with two programs concurrently); and
- moving to three-year braille contracts to reduce administration.

Braille Conference Participation

- CorelDraw workshop with school/vision resource centre staff, presented by Betty Marshall (braille transcriber/proofreader) and supported by Irene Miller (braille/large print supervisor) in Calgary (March 10, 2008).
- Canadian Braille Authority (CBA) session. Irene Miller presented the draft copy of the Tactile Graphics Guidelines in Calgary (April 5, 2008).
- Association for Education and Rehabilitation of the Blind and Visually Impaired Conference. Irene Miller attended the Braille Authority of North America (BANA)/CBA tactile graphics meetings and presented a workshop in Chicago, Illinois (July 22-26, 2008).
- National Braille Association (NBA) meetings/conference attended by Betty Marshall in Lexington, Kentucky (October 27-31, 2008).

International Representation

- National Braille Association, Rochester NY. Betty Marshall, as the Tactile Graphics Chairperson, contributes articles for NBA's *"The Bulletin"*, answers questions posted on the website, and presents workshops. Last year she wrote articles on pie charts and bar graphs and is presenting the following three workshops at the April 2009 NBA Conference in Boston: Part 1 & 2 of Creating Tactile Diagrams Using Word, and Tactile and Nemeth Code.
- Canadian Braille Authority, Toronto ON. Irene Miller is the Co-chair of the BANA/CBA Tactile Graphics Committee, currently working on the *Tactile Graphics Guidelines Manual*. The *BANA/CBA Tactile Graphics Guidelines Manual* (draft) is now under review for a 90-day period, ending April 30, 2009. The online survey, developed by the BANA Research Committee, will collect reviewer feedback. The Committees will then revise the draft.

Audio Services Activities

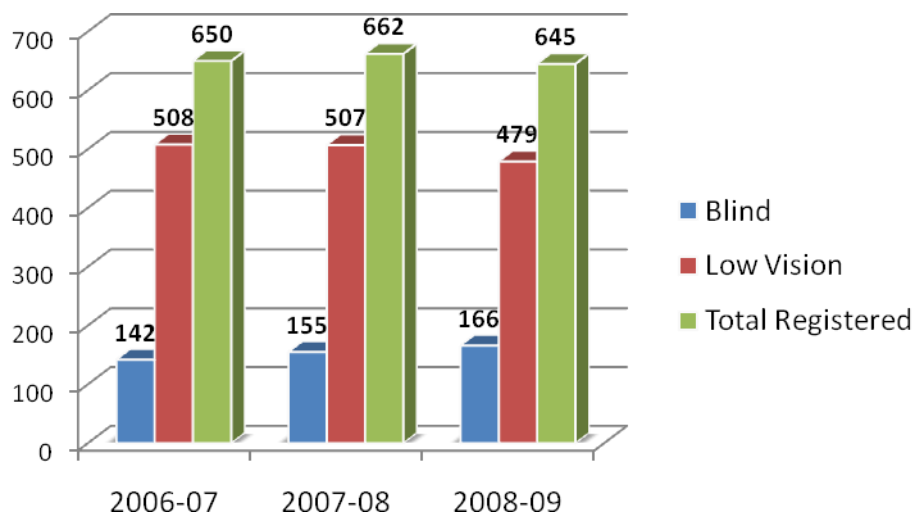
The LRC has 18 DAISY (Digital Accessible Information System) titles in its collection with nine titles completed this year. Five titles are currently in process with another 37 titles to be converted from digital audio files to DAISY audio-only titles. The LRC currently has three Text-to-Speech (TTS) format titles and is working on another. DAISY titles vary in time needed to complete. (For more details, see *Appendix A*.)

To improve production speed, more automation is required. We have a number of new tools to convert PDF files into HTML, XML or Word files with the proper formatting, speeding up the creation process significantly. Assuming that we can improve the TTS pronunciation with the Loquendo package, the LRC should be able to produce more textbooks in a year. The LRC will continue to hire contractors to write the descriptions and notes to increase the content on the printed page. The LRC will work with other technology support staff to code between the various programs.

Students Accessing Services

Some 166 students who are blind are accessing the services, representing a 7% increase from 2007-08. The number of students with low vision accessing the services dropped 6% from the previous year (see Figure 1). This partially reflects the overall enrolment decrease in Grade 12 students across the education system. Overall, the continual increase in the number of students who are blind continues to put pressure on the LRC, especially for the production of braille learning resources and provincial examinations in braille format.

Figure 1: Number of Registered Students



School Production Requests

The library received 107 school production requests. Production was undertaken for 50% of the requests, 14% had already been requested and were scheduled for production, 10% were not produced for various reasons (e.g. not an Alberta authorized resource, production capacity met), 6% were cancelled by schools, 7% were deferred to the next year, 9% were borrowed, and 4% were purchased.

Alternate Format Production

In 2008-09, the LRC produced 91 titles in alternate formats, representing a 16% increase from the previous year. The largest production requests continue to be for large print at 43% of the total requests, followed by braille at 29% and then electronic resources (DAISY, E-text and PDF images) at 28%.

In addition to school production requests, the LRC produced 36 provincial examinations in braille format, a 38% increase from 2007-08. This reflects the increasing number of students who are blind that are enrolled across the K-12 education system.

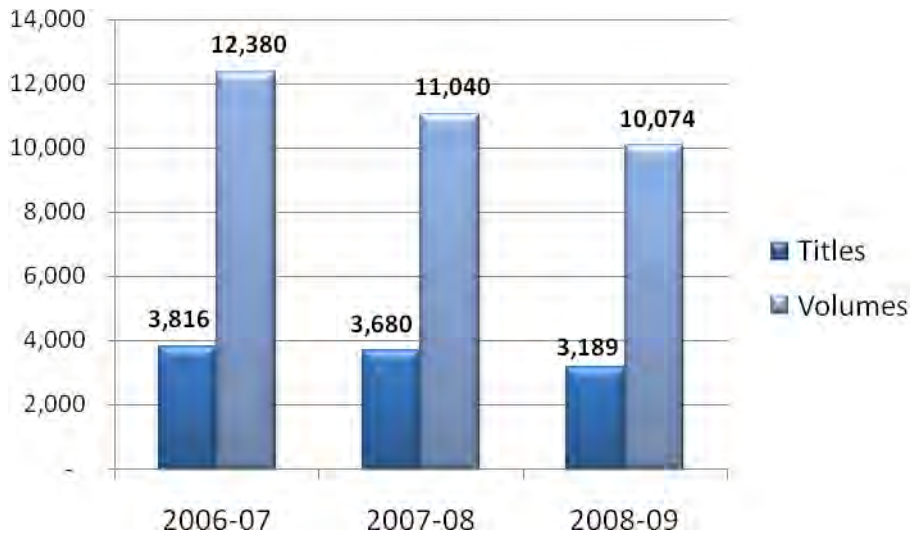
Alternate Format Contracting Costs

Total LRC alternate format contracting costs were \$348,930. More specifically, the braille contracting costs were \$220,168; audio costs were \$72,290, and large print \$56,472.

Library Circulation Statistics

Circulation for 2008-09 totaled 3,189 titles and 10,074 volumes. This represents an approximate decrease of 16.4% (titles) and 18.6% (volumes) since 2006-07 (see Figure 2). A possible reason for the decrease is the increased use of assistive technology to access content, resulting in fewer library requests. The decrease in volumes could relate to more electronic resources being requested, including increased use of the Digital Textbook Repository. It could also reflect the 7% decrease in the number of students with low vision.

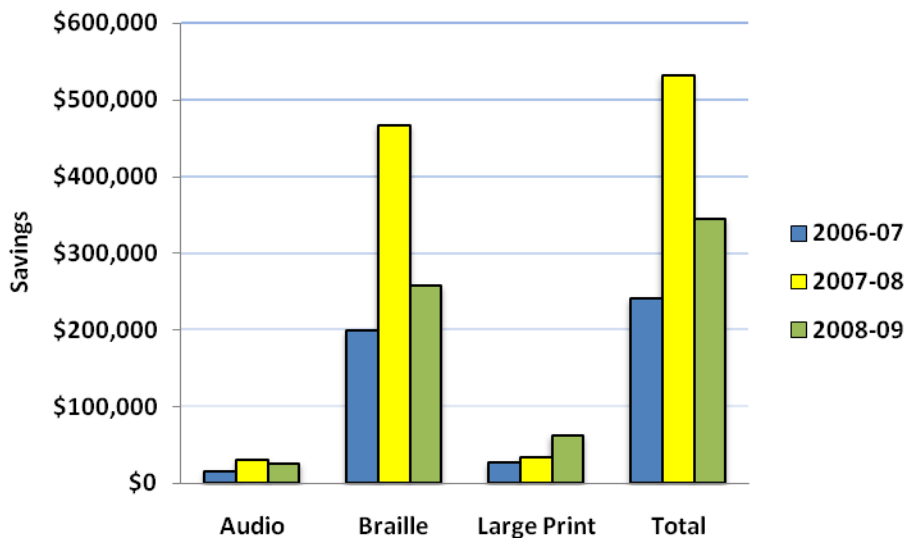
Figure 2: Library Circulation Statistics



Savings from Canadian Association of Educational Resource Centres for Alternate Format Materials (CAER) Interlibrary Loans (ILL)

Total savings through the CAER interlibrary loans were \$344,482. More specifically, savings totaled \$25,700 for audio, \$62,000 for large print, and \$256,782 for braille resources. Figure 3 details the savings for the last three years.

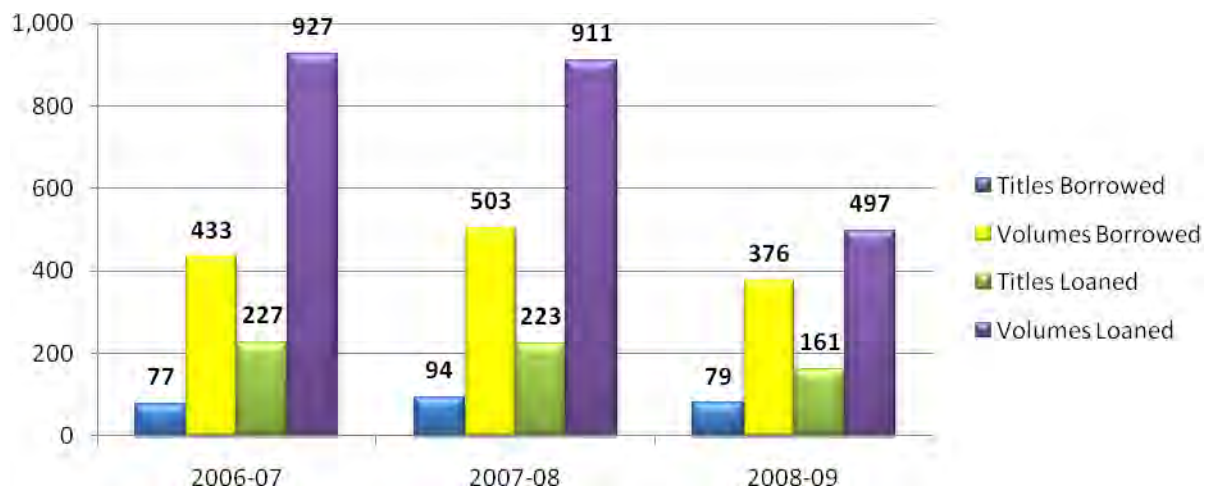
Figure 3: CAER Interlibrary Loan Savings



Review of Interlibrary Loan Activities

Figure 4 illustrates trends in ILL titles borrowed and loaned to CAER Centres; the LRC remains a net lender. The amount of materials borrowed represents 3% of the LRC Specialized Services Library's total circulation. This reflects the increasing amount of curriculum resources Alberta Education developed/authorized, which is the production priority for schools.

Figure 4 - Trends in ILL Titles Borrowed and Loaned to CAER Centres



See *Appendix B* for the LRC Specialized Services Library Circulation Statistics and *Appendix C* for the Interlibrary Loan Statistics from CAER Centres. *Appendix D* details the Interlibrary Loan Statistics from Non-CAER Centres.

Perceptual Disability Service

In total, 105 audio titles were copied and sold (Alberta-94, Nunavut-8, British Columbia-2, and Northwest Territories-1) on a cost-recovery basis to schools across Canada for use by students with perceptual disabilities. Alberta schools represent 90% of all requests.

Digital Textbook Repository for Students with Special Education Needs

The Digital Textbook Repository was a collaborative effort between Alberta Education's Special Education, Learning and Teaching Resources, Learning Resources Centre and Stakeholder Technology branches. It enables schools to download Alberta-authorized, student basic resources (Grades 4-12) in digital format for text-to-speech and other assistive technology software in the classroom.

These resources are available for Alberta K-12 students meeting specific eligibility requirements identified as a “perceptual disability”. Individualized Performance Plan identifies digital text as an accommodation, be registered in the course and have a print copy of the resource. These print resources can be used in the classroom, at home or in any other learning environment as required and in conjunction with assistive technology supports (e.g. Text-to-Speech software).

Access is by permission. The user has the ability to search and download any of the over 126 titles (PDF files) now in the repository. Total number of resources downloaded to date: 8,150. *Appendix E* lists the top 20 digital titles downloaded. For more information on the Digital Textbook Repository, visit:

www.lrc.education.gov.ab.ca/pdf/Digr-Info-Flyer.pdf.

For more information about LRC services including contacts for specialized services, visit:

www.lrc.education.gov.ab.ca.

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APPENDIX A

Background on DAISY Collection

Number of DAISY titles currently available:

- 18 DAISY titles are in LRC library collection
- 9 titles were completed this year
- 5 titles are in process
- Another 37 titles are to be converted from digital audio files to DAISY audio-only titles
- 3 text-to-speech DAISY titles, and another title is in process

Average length of time to produce titles depends upon the length and type of book, and whether converting the book from a previous audio master, or creating the book for the first time. Converted books take less time to produce. These books are DAISY Audio with Headings only textbooks. Books with TTS are much faster. Time is based on one person working full time. For example, major science textbooks, i.e. *Science 30 & Inquiry into Biology*, with contract narrators, take one year to record and edit, create the HTML master file, and then sync the audio with the HTML file.

On the other hand, from start to finish, it took 3 months to produce *Voices in Democracy* with a TTS voice. This included writing description notes for the images, tables, maps, etc., and was created using proper HTML coding. *Take Notice*, a small handbook, took three weeks. This period would decrease if the conversion process from PDF to HTML were more automated. This is our future intent.

APPENDIX B

LRC Specialized Services Library Circulation Statistics for 2008-2009

Format	Titles	Volumes
Print Book	194	196
Braille	938	4,755
Electronic Resources	105	141
Kit	548	610
Large Print	1,152	2,763
Sound Recording	229	1,586
Video Recording	22	22
Other (purged)	1	1
Total	3,189	10,074

APPENDIX C

Interlibrary Loan Statistics for 2008-2009 - Titles Borrowed from CAER Centres

Loaning Centre	Format	Titles	Volumes	Totals by Centre	
				Titles	Volumes
APSEA	Braille File	2	10	4	13
	Electronic Resource	1	1		
	Large Print	1	2		
Crane	Audio	1	1	2	8
	Braille	1	7		
Manitoba	Audio	1	9	5	21
	Braille	2	8		
	Large Print	2	4		
PRCVI	Audio	1	2	35	254
	Braille	9	201		
	Braille File	3	26		
	Electronic Resource	11	11		
	Large Print	11	14		
Saskatchewan	Braille	1	29	4	32
	Large Print	3	3		
W Ross MacDonald	Audio	4	9	29	48
	Braille	1	4		
	Braille File	1	4		
	Large Print	23	31		
Total				79	376

APPENDIX D

Interlibrary Loan Statistics for 2008-2009 - Titles Loaned to Non-CAER Centres

Borrowing Centre	Format	Titles	Volumes	Totals by Centre	
				Titles	Volumes
ILL NWT	Braille	4	82	5	85
	Electronic Resource	1	3		
Olds Outreach, ILL	Sound Recording	1	31	1	31
Wheatland Regional Library	Braille	1	1	1	1
Total				7	117

APPENDIX E

Digital Textbook Repository - Top 20 Titles Downloaded

	Title	Number of Downloads
1	ScienceFocus 7	537
2	ScienceFocus 8	280
3	Many Voices 8 Worldviews Contact and Change	279
4	ScienceFocus 9	264
5	Science in Action 8	237
6	Our Canada: Origins, Peoples, Perspectives	221
7	Voices and Visions	200
8	Issues for Canadians	198
9	Science in Action 7	194
10	Math Focus 4	190
11	Living in a Globalizing World	182
12	Our Worldviews 8	173
13	Science Connect 2	152
14	Nelson Biology: Alberta 20-30	148
15	Addison Wesley Science 10	146
16	MathLinks 7	145
17	Collections 4: Anthology: Tales, True, Old and New	134
18	Jamestown's Signature Reading Level H	131
19	Science Connect 1	130
20	Science in Action 9	122