

Alberta Education
Services for Students who are Blind or Visually Impaired

Workshop Discussion Guide
For Education Stakeholder Input
November 28, 2007



Table of Contents

1. Introduction	1
2. Education Stakeholder Consultation	1
3. Background on the Services for Students who are Blind or Visually Impaired	2
4. Discussion Topics	3
4.1 Alberta’s Service Delivery Models	3
4.2 Building Awareness for the Classroom Teacher	6
4.3 Effective Use of Teaching Assistants	10
4.4 Assistive Technology Loaning Service	12
4.5 Alternate Formats Support Services	15
4.6 Accountability Framework	19

Attachments

- A. Alberta Education Field Services Zones
- B. Jurisdictions listing of total student numbers
- C.1 School Authority Student Equipment Loan Agreement letter
- C.2 School Authority Student Equipment Loan Agreement
- C.3 Loan Agreement
- C.4 Listing of School(s) Loan Agreement for “Name” of School Division

1. Introduction

The Minister of Education has requested a review of the services for students who are blind or visually impaired, to determine the long-term outcomes, measures and strategies for an enhanced service delivery model. The review is to be completed by December 31, 2007 for ministerial consideration.

The Learning Resources Centre (LRC), the Special Programs Branch and Learner Assessment of Alberta Education are involved in the review. The following staff will be at the workshop:

- Dianne McConnell, Senior Manager Special Programs, dianne.mcconnell@gov.ab.ca
- Jo-Anne Hug, Director Learner Assessment, joanne.hug@gov.ab.ca
- Pam Rannelli, Provincial Coordinator for Children with Low Incidence Disabilities, PERannelli@cbe.ab.ca
- Toni Hafso, Manager Program Management, LRC, toni.hafso@gov.ab.ca

Education stakeholders are invited to participate in a full day workshop in Edmonton on November 28, 2007 for a review of the services for students who are blind or visually impaired. Organizations unable to attend the workshop can provide their input to the questions in this guide, by e-mail to toni.hafso@gov.ab.ca before November 28, 2007.

If you have any questions, please contact Toni Hafso, Program Management Manager, LRC Alberta Education by e-mail at the above noted address or phone (780) 427-5235. For toll-free assistance in Alberta call 310-0000.

2. Education Stakeholders Consultation

The following organizations have been invited to participate.

- Alberta Home and School Councils' Association
- Alberta Teachers' Association (including teaching assistants)
- Alberta School Boards Association
- Alberta Society for the Visually Impaired
- Association of Independent Schools and Colleges in Alberta
- Association of School Business Officials of Alberta
- Canadian National Institute for the Blind (CNIB)
- College of Alberta School Superintendents (including special education directors)
- Federation of Francophone School Boards of Alberta
- Regional Educational Consulting Services
- Vision Resource Centre chairs (Calgary, Edmonton, Lethbridge)

3. Background on the Services for Students who are Blind or Visually Impaired

Alberta Education's *Standards for Special Education, Amended June 2004*^{*} outlines the requirements for school boards regarding the delivery of educational programming and services to students with special education needs. The *Essential Components of Educational Programming for Students who are Blind or Visually Impaired*[†] is linked to the appropriateness section of the *Standards for Special Education, Amended June 2004*. Appropriateness means that "educational programming and services are designed around the assessed needs of the student and are provided by qualified staff who are knowledgeable and skilled". The *Standards* serve as guidelines.

The *Services for Students with Visual Impairments Policy*[‡] identifies the support services provided to school jurisdictions and accredited private schools by the Learning Resources Centre (LRC) of Alberta Education. This includes the production and loaning of learning resources in alternate format (braille, electronic text, audio, and large print) and the loaning of assistive technology (e.g., computers with braille input/output, braille, talking calculators, closed circuit TV systems, and audio players).

How many Alberta students who are blind or visually impaired are registered for alternate format materials and assistive technology support services?

Currently there are 634 students (141 blind & 493 low vision) enrolled in 407 schools across the province. Over the years, the number of students has changed little.

Looking at grades distribution, the percentage of the 634 students by grade follows:

- Preschool and kindergarten - 9%
- Grades 1 to 6 - 33%
- Grades 7 to 12 - 42%
- No assigned grade - 16%

Where are these students?

Following is the percentage distribution of students across Alberta (See Attachment A) for Alberta Education zone boundaries:

- Zone 1 - 2%
- Zones 2/3 - 46%
- Zone 4 - 13%

^{*} *Standards for Special Education, Amended June 2004* available at www.education.gov.ab.ca/k_12/specialneeds/specialed_std2004.pdf

[†] *Essential Components of Educational Programming for Students who are Blind or Visually Impaired* available at www.education.gov.ab.ca/k_12/specialneeds/ECEP_Blind_or_Visually_Impaired.pdf

[‡] *Services for Students with Visual Impairments Policy* available at www.lrc.education.gov.ab.ca/pdf/vi_policy.pdf

- Zone 5 - 27%
- Zone 6 - 12%

The larger percentages reflect urban areas. The majority of school jurisdictions, that is, 58% have fewer than five blind or visually impaired students. See Attachment B for a listing of total student numbers by jurisdictions.

4. Discussion Topics

The discussion topics are not presented in order of importance. The workshop participants may focus on addressing key questions. It is not necessary to respond to all of the questions. Reminder, Alberta Education is seeking input which is representative of your education stakeholders organization. If your organization is unable to attend the workshop you can email to toni.hafso@gov.ab.ca by November 28, 2007, your input electronically in MS Word.

4.1 Topic 1: Alberta's Service Delivery Models

Context

Children and students who are blind or visually impaired are an extremely heterogeneous group. They vary in age, degree of vision loss, cognitive ability and many have additional disabilities.

The Essential Components for Educational Programming for Students who are Blind or Visually Impaired (Alberta Education, 2006), guides the program development and planning for these students. This document specifies that a specialized teacher of students who are blind or visually impaired as well as orientation and mobility instructors should be a key member of the child's learning team. Teachers of the visually impaired are professionals that are trained in the theoretical and practical aspects of assessment, programming and instruction for students with sensory disabilities. This training is a post graduate degree of study. Teachers of the visually impaired are trained in such specialized areas as:

- The impact that vision loss has on learning and development
- Literacy instruction for children/students with low vision
- Literacy instruction for children/students who use braille as their primary media
- Specialized assessments such as functional vision; learning media assessment and assistive technology
- Adaptation of the curriculum and learning resources to ensure full access for students with vision loss
- Training and support of assistive technology for students who are blind or visually impaired
- Teaching disability-specific skills as outlined in the Expanded Core Curriculum (see Referenced in Appendix A of the *Essential Components*).

Orientation and Mobility is an area that focuses on the student's ability to know where they are in relation to their environment and to travel safely, efficiently, purposefully and independently throughout their environment. Good orientation and mobility skills are highly correlated with the degree of independence that a student achieves later in life (Expanded Core Curriculum, 2003). Orientation and mobility is taught by professionals who have completed certified programs in this area of instruction.

Several models exist for accessing trained teachers of the visually impaired to provide support to students and children with vision loss. Vision consultants/strategists determine eligibility for alternate format materials and assistive technology support services from the Learning Resources Centre of Alberta Education.

Direct Service/Consultation Model – Several school authorities (Calgary Board of Education, Calgary Catholic Separate School Division, Elk Island Public Schools) have chosen to hire their own teacher or teachers of the visually impaired (TVI) as well as orientation and mobility instructors to work within their school district. These consultants/strategists (who are TVI) usually provide a combination of direct and consultative service.

Direct Service

In direct service, a teacher of the visually impaired works directly with a student on particular Individual Program Plan (IPP) objectives as identified in the *Essential Components of Educational Programming for Students who are Blind or Visually Impaired*. They could do this in a group or individually. For example, they might work with the student at least twice a week to teach braille literacy skills. They also provide specialized assessments to determine educational implications of vision loss, learning media, programming and instructional strategies.

Consultation

In consultation, the consultant/strategist (TVI) can work with other professionals to help them meet a student's specific IPP goals and objectives. For example, a teacher of students with visual impairment may consult with a classroom teacher about materials that are appropriate for a particular student's visual abilities.

Consultative Model - RECS (Regional Educational Consulting Services) are multidisciplinary teams of professionals whose mandate it is to provide educational support services to students with severe learning needs. These services are available for children/students from age 2.5 to high school completion.

There are four RECS teams that serve each region of the province. An educational consultant for the visually impaired is a member of this team. These consultants are contracted at a subsidized rate by school districts or private schools to support their classroom teachers in providing appropriate programming for children/students who are blind or visually impaired. The role of the Educational Consultants for the Visually Impaired is to:

- Provide specialized assessments to determine educational implications of vision loss, learning media, programming and instructional strategies

- Provide consultation regarding educational resources, (e.g. braille materials, braille literacy instruction, kits and assistive technology) accommodations and adaptations. They also consult with the student's learning teams regarding programming requirements as identified in the *Essential Components of Educational Programming for Students who are Blind or Visually Impaired*
- Model teaching strategies/programs, for example they may demonstrate how to teach a student to use assistive technology to access the curriculum
- Several of the Educational Consultants for the Visually Impaired are also certified Orientation and Mobility specialists and provide consultation and instruction in this specialized area.

Private Service Provider Model – School districts and private schools can seek support services from private service providers. These services vary from assessment to consultation. School districts and private schools negotiate fees with the private service provider.

The access that a child or student has to a teacher of the visually impaired varies considerably across the province. This variation is due to a number of factors:

- Number of teachers of the blind or visually impaired working in the province – In B.C., with a comparable population of students identified with vision loss (700 students –B.C.; 634 students – AB) and students who are blind/braille users (130- BC; 141 – AB), there are 57 teachers (direct service itinerants) employed as teachers of the visually impaired. In Alberta, there are 14.3 (employed through public school system-consultants and strategists). * Statistics provided by Provincial Resource Centre for the Visually Impaired for B.C. and LRC for AB.
- Geographical location – Alberta has a large geographical area and many children/students live outside of the metro areas.
- A few larger school districts, that have more students enrolled in their schools, are making it a priority to hire vision teachers to support the classroom teacher and the student.

Topic 4.1: Alberta's Service Delivery Models - Questions for Discussion

- 4.1.1 Do we have the capacity of qualified professionals (teachers of the visually impaired; orientation and mobility specialists) to support children and students who are blind or visually impaired achieving the learning outcomes identified in the required Programs of Study? If not how can these resource gaps be addressed?

- 4.1.2 Are school authorities (school boards and funded private schools) able to access qualified professionals effectively and efficiently to meet their needs? What are the strengths and weaknesses of our present service delivery models?

- 4.1.3 What do you think should be the role of the teacher of the blind or visually impaired as part of the learning team?

4.2 Topic 2: Building Awareness for the Classroom Teacher

Context

The Students and Their Unique Educational Needs

Students described as blind or visually impaired have diverse needs even though they share a common trait of some degree of vision loss. Any student who has limited access to visual information will experience difficulties in any number of daily activities. From an educational perspective, the degree of vision loss is only one of several aspects for consideration in assessment and program planning. These students display varying cognitive abilities, levels of independence and physical agility, and may or may not have additional disabilities.

Because visual impairment and blindness are low-incidence disabilities, a student with vision loss may be the only student with this disability in his or her school or community. Intervention for students who are blind or visually impaired is based on the degree to which they can access, incorporate and respond to sensory information. Without vision, students cannot access information beyond those things that they can touch or hear. Without this information, students are unable to organize their environment or develop concepts that are important in understanding connections in their world. Students who are blind or visually impaired need to access information through direct experiences and hands-on, tactile exploration facilitated by qualified professionals who can address these unique needs.

Accessing the program of studies is often challenging for students with visual impairment or blindness. In order to participate fully within the educational environment, these students require instruction from a trained professional in such disability-specific skills as braille literacy and numeracy, assistive technology skills, use of low-vision devices, career and life management skills, social interaction skills, independent living and personal management skills, and orientation and mobility skills. Incorporating the teaching of these skills into a student's program expands the concept of core curriculum. These disability-specific skills incorporated into program planning are referred to as the expanded core curriculum, which is described in *Essential Components of Educational Programming for Students who are Blind or Visually Impaired*, available at www.education.gov.ab.ca/k_12/specialneeds/ECEP_Blind_or_Visually_Impaired.pdf
Note: Hard copies of the *Essential Components* will also be provided at the workshop.

Alberta Education is committed to accommodating the needs of all Alberta students in order for them to have fair and equitable access to educational opportunities, including the writing of provincial achievement tests and diploma examinations. The *Achievement Test Program General Information Bulletin* specifies that in addition to the regular format, Alberta Education produces achievement tests in large print, braille, and CD format. The *Bulletin* is available at http://www.education.gov.ab.ca/k_12/testing/achievement/ach_gib/.

The *Diploma Examinations Program General Information Bulletin* ensures equity of access to diploma examinations, and fair and consistent application of diploma examination standards, by approving and providing for appropriate accommodations for students with special diploma examination writing needs. The *Bulletin* is available at http://www.education.gov.ab.ca/k_12/testing/diploma/dip_gib/.

School jurisdictions can request provincial achievement tests and diploma examinations accommodations from Learner Assessment Services of Alberta Education.

Topic 4.2: Building Awareness for the Classroom Teacher – Questions for Discussion

4.2.1 Classroom teachers are currently expected to develop and deliver appropriate programs for students who are blind or visually impaired. Do they have the supports they need to effectively do this? If not, what are the gaps?

4.2.2 Do students who are blind or visually impaired have access to instruction on disability specific skills as identified in the Expanded Core Curriculum – (e.g. orientation and mobility, visual efficiency skills) referenced in Appendix A of the *Essential Components*, and included for your reference following these questions.

4.2.3 Are students with vision loss fully engaged in the provincial student assessment programs? If not, what are the issues (e.g., testing design, access/accommodations to the provincial achievement test/diploma examination)?

Related to Question 4.2.2 of Topic 4.2: Expanded Core Curriculum - Referenced in Appendix A of the *Essential Components*

In order to participate fully within the educational environment, students who are blind or visually impaired require instruction in disability-specific skills. These disability-specific skills are known as the expanded core curriculum when they are incorporated into program planning.

Expanded Core Curriculum

Reprinted with permission from *Canadian National Standards for Children and Youth Who Are Blind or Visually Impaired, Including Those with Additional Disabilities* (National Coalition for Vision Health, 2003).

Compensatory or Functional Academic Skills

These are skills needed to access the regular curriculum presented in the regular classroom (i.e., compensatory skills), skills needed by students with multiple disabilities to enhance their ability to participate in home (i.e., functional skills), school and community, and an array of communication skills. “Communication needs of students with visual impairments will vary depending on the degree of functional vision, the effects of additional disabilities and the task to be done. Students may communicate through braille, large print, print with the use of optical aids, regular print, tactile books, a calendar system, sign language, recorded materials or combinations of these means.” (Hatlen, 1996) Examples of other compensatory or functional academic skill areas might include concept development, spatial awareness, keyboarding skills, listening skills, organizational skills, use of the abacus, or tactile discrimination skills. The acquisition of everyday concepts and practical knowledge usually acquired through incidental learning by students who are sighted requires specific instruction for students who are blind or visually impaired to ensure they are building their knowledge base on accurate information.

Orientation and Mobility

This is an area of instruction focusing on students’ ability to know where they are in relation to their environment and to travel safely, efficiently, purposefully and independently throughout this environment. Good orientation and mobility skills are highly correlated with the degree of independence achieved by students later in life. Developing body awareness, directionality, spatial awareness and practical knowledge associated with the characteristics of a given environment increases the probability that students will be actively involved in age-appropriate activities with peers. Problem-solving strategies essential to travel in both familiar and unfamiliar environments, urban and rural areas and in various kinds of weather are essential to the development of independence and self-esteem. Students who have low vision need to learn to interpret both visual and auditory information, and may require optical devices to access information. The use of a white cane is essential for some students who cannot rely upon the accuracy of the visual information they receive or for those who are blind. Students who are blind or visually impaired with additional disabilities need to have orientation and mobility instruction that addresses the specific needs of their daily routines. Orientation and mobility is taught by professionals who have completed certified programs in this very specialized area.

Social Interaction Skills

These skills are essential if students are to develop friendships with their classmates and participate in activities typically associated with school-age students, whether educational or extracurricular. Having effective interpersonal communication skills is also highly correlated with employability in adults. For students who are sighted, social skills are primarily learned incidentally through interaction with family members and peers. Most of this learning occurs through observation, imitation and incidental experiences that are part of everyday routines. For students who are blind or visually impaired, this information must be provided through timely, insightful, and sequential instruction. Information associated with non-verbal communication (e.g., gestures, body language, facial expressions) or cultural practices (e.g., how close to stand to the person with whom you are speaking) must be made available to students who are blind or visually impaired. Furthermore, peers of students who are blind or visually impaired require specific instruction to increase their awareness of the implications of

vision loss on social interaction if they are to become both comfortable in their interactions with their classmate who is blind or visually impaired and knowledgeable about how to include this student.

Independent Living Skills and Personal Management Skills

These skills are highly correlated with the achievement of lifelong goals for students who are blind or visually impaired. “This area encompasses all the tasks and functions people perform, according to their abilities, in order to live as independently as possible.” (Hatlen, 1996)

Curriculum designed to address the development of independent living skills includes instruction in such areas as personal hygiene, food preparation, money and time management, home management, and organization of personal belongings and space to accommodate the lack of visual input. While similar skills may be taught within the public school curriculum, they do not provide sufficient opportunity for the meaningful and frequent practice required for students who are blind or visually impaired. The content of the regular curriculum is often based on the assumption of the presence of a basic level of knowledge acquired incidentally through vision. As with the skills of social interaction, students who are blind or visually impaired cannot learn these skills without direct, sequential instruction by knowledgeable people.

Recreation and Leisure Skills

These skills and experiences provide the same benefits for students who are blind or visually impaired as they do for their peers who are sighted (e.g., healthy lifestyle, fitness, shared peer interests). However, without modifications and/or specific instruction to master prerequisite skills, students who are blind or visually impaired are frequently excluded from such activities. Many of the motor skills learned during the rough and tumble play of childhood activities do not develop naturally in students who are blind or visually impaired. As well, if initial exposure to specific activities is cumbersome or their level of participation or success below that of their peers, students who are blind or visually impaired may become easily discouraged. The provision of specific, timely instruction and opportunities to practice newly acquired skills will ensure students derive pleasure from participation in an array of recreational and leisure activities.

Career and Life Management Skills

These skills provide students with information about the world of work, career options, and an overview of the skills necessary to be successfully employed. For students who are blind or visually impaired, there are many additional program components which need to be addressed (e.g., accommodations required to complete specific jobs, access to appropriate assistive technology, self-advocacy skills, and those to deal effectively with negative attitudes toward individuals with disabilities). Frequently, students who are blind or visually impaired are unaware of the array of career options because they do not see the variety of workers in their environment or because adults around them are uninformed. Employment statistics from both Canada and the United States show that individuals who are blind or visually impaired are both underemployed and have unacceptably high rates of unemployment. Without specific and timely intervention to address career development issues, students who are blind or visually impaired encounter significant barriers to successful employment *Essential Components of Educational Programming for Students Who Are Blind or Visually Impaired*.

4.3. Topic 3 - Effective Use of Teaching Assistants

Context

The *Standards for Special Education* states that school boards must “ensure teacher assistants work under the direction of a certificated teacher to realize students’ goals, as outlined in their IPPs.”

The teacher is responsible* for the child’s program. At times, the responsibility for delivery of programming has fallen to a teacher assistant.

Teachers and parents may believe the answer to a child’s special education needs is a teacher assistant and, if that does not seem to be working, then the child needs “more” teacher assistant time.

Current research** suggests there may be unintended consequences when teacher assistant time is not used strategically.

Some of the unintended consequences of continuous 1:1 support:

- interference with teacher–child relationship
- increased behaviour problems
- creating or reinforcing unrealistic parental expectations
- separation from peers and interference with spontaneous interaction
- unnecessary dependence
- insular relationship between adult and child

Alternatives to continuous 1:1 support

- variety of instructional groupings, differentiated instruction
- environmental supports
- peer supports (e.g., transitions and modeling of expected behaviours)
- a rich, engaging environment
- teaching “independence skills” considered to be as important as teaching “academic skills”
- assistive technology

* Refer to “Teachers and Teachers’ Assistants: Roles and Responsibilities” from *The Special Educator: Meeting the Needs of All Children*.

** Refer to the References Related to Teacher Assistants, following the Questions for Discussion.

Topic 4.3: Effective Use of Teaching Assistants – Questions for Discussion

- 4.3.1 What is the role of the teaching assistant in supporting programming for students who are blind or visually impaired?

- 4.3.2 Are students appropriately benefiting from our current practice and use of teaching assistants?

- 4.3.3 How can we support teaching assistants in the acquisition of specialized skills?

Topic 4.3: References Related to Teacher Assistants

Appl, Dolores (2006). "First-Year Early Childhood Special Education Teachers and Their Teacher Assistants: 'Teaching Along With Her'." *Teaching Exceptional Children*, 38(6), 34-40.

Causton-Theoharis, Julie & Kimber Malmgre (2005). "Building Bridges: Strategies to Help Paraprofessionals Promote Peer Interaction." *Teaching Exceptional Children*, 37(6), 18-24.

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Chopra, Ritu V. & French, Nancy K. (2004). "Paraeducator Relationships with Parents of Students with Significant Disabilities." *Remedial and Special Education*, 25(4), 240-251.
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Gessler Werts, M., S. Harris, C. Young Tillery, & R. Roark (2004). "What Parents Tell Us About Paraeducators." *Remedial and Special Education*, 25(4), 232-239.

Sautner, B. & K. Bain (2006). "Teacher and Teaching Assistant Roles and Responsibilities: Searching for Best Practice." *The Special Educator: Meeting the Needs of All Children*, 36 (2), 5-13.

Young, Brooke, & Richard L. Simpson (1997). "An Examination of Paraprofessional Involvement in Supporting Inclusion of Student with Autism." *Focus on Autism and other Developmental Disabilities*, 12(1), 31-40.

Additional references:

www.uvm.edu/~mgiangre/paraprofessional.html

Alberta Teachers' Association (2000). "Teachers and Teachers' Assistants: Roles and Responsibilities." Available at www.teachers.ab.ca and enter title in search box.

4.4 Topic 4: Assistive Technology Loaning Service

Context

What is the Assistive Technology Loaning Service?

The *Services for Students with Visual Impairments Policy* identifies the support services provided to school jurisdictions and funded private schools by the Learning Resources Centre (LRC) of Alberta Education. This includes the loaning of assistive technology (e.g., computers with braille input/output, brailers, talking calculators, closed circuit TV systems, and audio players).

The LRC administers the assistive technology (AT) loan service which supports improving students' access to learning materials and contributes to their independence. With the 2006-07 assistive technology purchase, the total value of today's specialized student equipment inventory is \$2 million for 1,333 pieces of equipment.

A review of the intent of the AT loaning service is needed as this is becoming a program with no budget line item and no full time staff for ongoing coordination in the delivery of equipment to schools.

School authorities borrowing the equipment must sign loan agreements (see Attachments C.1, C.2, C.3 and C.4 for samples) thereby assuming full responsibility for the loss or damage to the equipment on loan, extending their own 'all risks' property insurance to cover the equipment and assuming full financial responsibility for equipment on loan. Student's use of the equipment at home is at the discretion of school authorities.

This school year, 486 students are registered to access this service. And, 56 school authorities have loan agreements with the LRC. Equipment is also loaned to school boards who support the Calgary and Lethbridge Vision Resource Centres.

When is student equipment purchased?

To date, equipment purchases are done on an ad hoc basis, in response to student wait list numbers and parent groups' (Alberta Society for the Visually Impaired, CNIB) concerns. Although, there is no budget line item for purchases, over the last five years, an average of \$240,000 per year was spent on purchases.

Who determines student wait lists?

Student equipment wait lists are based on requests from vision consultants/schools. In the past with a limited amount of equipment available and as a practice, consultants/school staff would request student names to be placed on wait lists several years before the student requires the equipment. Improvements are needed to the wait list placement practice to support equitable distribution of equipment to students across the province.

What is the practice to allocate equipment?

With the \$446,000 purchase in 2006-07, wait lists now reflect requests for equipment upgrades. Today's practice is to offer the equipment to the highest grade student (e.g., grade 12 before a grade 9) on the wait list. This involves LRC staff confirming with the contact person (vision consultant or school staff) that the student still requires the equipment before sending it to the school. If the equipment is no longer required, it is offered to the next highest grade student on the wait list. Equipment is allocated throughout the school year. Coordinating the delivery of 1,333 pieces of equipment for 486 students across 407 schools requires significant time.

What equipment is in the inventory?

The inventory includes large print talking dictionaries and calculators, stationary and portable closed circuit TVs, cassette recorders, digital audio players, manual and electronic brailers, and special computers with adaptive braille hardware.

New equipment added to the inventory is based on available funding, vision consultants' requests and in consideration of the equipment's repair and maintenance costs. Operators' manuals accompany each piece of equipment. When possible, following new equipment purchases, vendors may be contracted to host workshops at the vision resource centres and at the LRC demonstrating use of the equipment.

An in-house database is used to track all of the equipment for warranty, repair, loan agreements, school delivery and student placement purposes.

Who is responsible for the equipment repair and maintenance?

Schools return student equipment to the LRC at the end of the school year for regular servicing by LRC staff over the summer. This is in addition to repairing equipment requested by schools during the school year. Maintenance agreements are established for braille notetakers (like pocket computers). All new equipment is under warranty.

Topic 4.4: Assistive Technology Service – Questions for Discussion

4.4.1 Is provincial coordination needed to lead the delivery of Assistive Technology (AT)? If so, what should it address and what would be the benefit? What would you like this to look like? Should any of the following be considered?

- to build AT capacity within the education system
- to review/recommend AT training needs
- to recommend purchases
- to review/recommend student wait list placement practice
- to collaborate with other department/agencies on AT (who else does this?)
- to ensure compatibility with other AT and information technology supports
- to review the need/assess/recommend AT software purchases
- to communicate the service's intent including roles and responsibilities

4.4.2 What should the outcome/impact be for the AT service? What changes do you see as possible or most important? If so, who should be responsible for implementing the changes?

4.4.3 Any other comments or suggestions about the present AT loaning service?

4.5 Topic 5: Alternate Formats Support Services

Context

The Learning Resources Centre (LRC) of Alberta Education loans schools alternate format learning resources (braille, electronic text, large print, and audio), learning kits, specialized student equipment and professional resources to ECS to Grade 12 blind or visually impaired students, to facilitate their access to educational programs. The *Services for Students with Visual Impairments Policy* communicates the services provided. To access the policy go to: www.lrc.education.gov.ab.ca.

The production, acquisition and provision of learning resources in alternate formats such as braille, electronic texts, large print, audio and learning kits, are important factors in the quality of education of students who are blind or visually impaired.

Access to alternate format materials is necessary for these students to develop the literacy and numeracy skills to succeed and for high school completion.

The number of students registered for each format follows:

- Audio – 464 students (73%)
- Braille & electronic text – 127 students (20%)
- Learning kits – 556 (87%)
- Large print – 402 (63%)

Production Priorities

The LRC may produce titles in alternate formats when the title is unavailable from other sources (e.g., borrowed from another Canadian Association of Educational Resource Centres for Alternate Format Materials (CAER) or purchased from agencies serving the blind/low vision community).

Titles are produced within budgetary constraints and staffing capabilities, as per the five priorities outlined in the *Services for Students with Visual Impairments Policy* and detailed below.

Priority 1 - Alberta Education diploma examinations and provincial achievement tests in Braille;

Priority 2 - Alberta Education curriculum resources that have "Basic"[§] status in the Resources Catalogue;

Priority 3 - Alberta Education curriculum resources that have "Support"^{**} status in the Resources Catalogue;

[§] "Student basic resources" are high quality learning resources, intended for students in Kindergarten to Grade 12. These resources best meet the evaluation criteria and address the majority of general and specific outcomes of a course(s), substantial components of a course(s), or general outcomes across two or more grades, subject areas or programs, as outlined in provincial programs of study. *Learning and Teaching Resources Policy*
<http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/322.asp>

^{**} "Student support resources" are high quality learning resources intended for students in Kindergarten to Grade 12. These resources best meet the evaluation criteria and address some of the general or specific outcomes of a course(s) or components of course(s), or address the general or specific outcomes across two or more grades, subject areas or programs, as outlined in the provincial programs of study. *Learning and Teaching Resources Policy*
<http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/322.asp>

Priority 4 - Other resources authorized by schools or teacher prepared resources where the student will be severely disadvantaged if the resources are not available, or where no other support services are available at the required level;

Priority 5 - Other resources deemed appropriate for addition to the LRC collection at the discretion of the LRC manager.

Also, the LRC may deny or delay a production request, offer a substitution or another alternate format if the:

- i) production capacity is fully committed;
- ii) material received for production is deemed to be incomplete, in draft form, or compilation from other published resources;
- iii) submitted print text is in poor physical condition;
- iv) school does not provide the number of print texts required for production;
- v) staff determine that the title is not suitable for alternate format production (e.g., Mathematics textbook are not suitable for audio format).

Today, Priorities 1, 2 and 3 requires all of the LRC production capacity, especially for braille.

Alternate format production in 2006/2007

In total, 17 provincial achievement tests and diploma exams were produced in braille format for Learner Assessment of Alberta Education. The total LRC library circulation was 3,816 titles (includes alternate format titles, learning kits, and professional resources) consisting of a total of 12,380 volumes.

The following chart identifies the 2006/2007 number of titles produced, borrowed and purchased with the corresponding percentage change from 2005/2006.

Total number of 2006/2007 titles	Percentage change from 2005/2006
160 produced	55% increase
79 borrowed	37% decrease
73 purchased	55% decrease

The 55% production increase in 2006-2007 from 2005-2006 is largely due to schools using Alberta Education's authorized learning resources. The decreases in titles borrowed and purchased relates to this, as does the 27% decrease in interlibrary loans from other CAER members (Canadian Association of Educational Resource Centres) for Alternate Format Materials.

Total savings through CAER interlibrary loans were \$240,059. More specifically, savings totaled \$26,302 for large print, \$15,240 for audio, and \$198,517 for braille learning resources.

Meeting Student Requests

- 51% - production + 17 provincial exams
- 26% - borrowed
- 23% - purchased

Audio Resources Production

Subject area contracted narrators, staff sound engineers and editors produce digital audio recordings, which are duplicated to CDs. Production of audio textbooks in DAISY format (navigable full text with human narration) was initiated in 2006/2007. Contracting subject area narrators is in recognition of the growing complexity of textbooks (e.g., narrator develops the text not part of multimedia CD component of the textbook). Production of a high school science textbook can require up to six months.

Braille Resources Production

LRC staff transcribe titles into braille and produce tactile diagrams. Each volume is program-checked for spelling and contraction errors before being proofread. Transcribers require both Literary and Nemeth (a complex code for mathematics) code certification to transcribe mathematics and science textbooks. Today's increasing visual format of textbooks is adding complexity and requires more transcription time.

A high school science textbook may require up to 6 months full time to transcribe. Contracting capacity is limited and costly (e.g., \$43,000 for Nelson Chemistry, Alberta, 20/30 (includes CD-ROM – 864 pages, 43 volumes, 613 diagrams, 2,950 embossed pages, 900 hours to produce).

Braille digital files (instead of hard copy) have been provided to several students.

Braille production and capacity are concerns across the education system, this includes both at the LRC and in schools. The LRC has 5.5 full time equivalents to support the production of braille for the department (provincial exams) and schools. Although contracting capability is limited, to the extent possible, work is contracted to part-time transcribers (e.g., school teacher assistants) and the two national commercial production houses.

Large Print Resources Production

Large print production involves enlarging resources (from PDF files) to 20-point plus font size on 11" by 17" size paper and presented in "calendar/split image" format. Novels are produced from Microsoft Word word processing files in 24-point font size on letter size paper (done in-house). Textbooks production is contracted (e.g., \$6,000 for Neilson Chemistry, 9 volumes, 8 hours to produce).

Electronic Resources (E-Text) Production

Staff produce e-text using the Canadian Braille Authority E-Text Guidelines and following LRC practices. E-text is a word file (usually rich text format) that contains only the text portion of the work without any graphics. The text is formatted with tags (BEGIN and END Sections) and requires a description of certain graphics. A tactile supplement may accompany the text. Although, e-text does not reflect the total text (no graphics), it is a faster production alternate format providing students with access to the words and translation and/or search capability in the textbook.

Learning Kits

Various categories of kits are used as supplementary resources to the curriculum, and teach concepts that are otherwise difficult for a student with a visual impairment to understand, such as graphing skills or fractions. Learning kits are used to teach skills such as motor learning, sensory stimulation,

form perception, concept learning etc. Other categories include braille instructional programs (e.g., Braille FUNdamentals, is a very popular braille reading program costing \$500 for one level and cluster range, light boxes with accompanying materials (\$1,140) are very popular with non-academic students). The kits are cleaned on a regular basis.

Topic 4.5: Alternate Formats Support Services – Questions for Discussion

4.5.1 What should be the priorities for braille production within the province? How do we meet these needs?

4.5.2 How could school jurisdictions/funded private schools and the province share the responsibility for timely access to alternative format resources?

4.5.3 What supports do students need to access electronic formats? What are the benefits? What are the challenges to accessing digital files (e.g., technology supports like lap top computers, specialized software, braille printer)?

4.5.4 What challenges are common to the province and schools and/or the vision resource centres for alternate format production? How can we overcome them?

Topic 4.6: Accountability Framework

Context

School Act

Rights and responsibilities related to special education are included in the *School Act*. Public and separate school boards are required to provide each resident and enrolled student who has identified special education needs with access to special education programming.

Alberta Education Policies

Alberta Education's directive is to place students identified with special education needs in typical classrooms in neighbourhood or local schools as the first option. The [Educational Placement of Students with Special Needs \(1.6.1\)](#) and [Special Education \(1.6.2\)](#) policies clarify this directive. Early childhood education is guided by the [Early Childhood Services Policy \(1.1.3\)](#).

Standards for Special Education, Amended June 2004

The *Standards* is a ministerial order. It requires public and separate school boards to identify and deliver appropriate programming for students identified with special education needs in grades 1 to 12. [Designated Special Education Private Schools](#) must also follow most of these requirements. *Standards* promotes consistent and enhanced quality of educational practice within our province, so that irrespective of location, students identified with special education needs can access appropriate programming and services. At the same time, through its [funding](#) mechanism, Alberta Education recognizes the importance of local autonomy, flexibility and choice in meeting the diverse learning needs of students.

The *Essential Components of Educational Programming for Students who are Blind or Visually Impaired* outlines how the *Standards* might be implemented by identifying some sample indicators of effective programming.

Requirements for Special Education in Accredited-Funded Private Schools

The *Requirements* describes requirements for providing educational programming to students identified with special education needs in accredited-funded private schools in Alberta.

Standards for the Provision of Early Childhood Special Education

The *Standards* for the Provision of Early Childhood Special Education parallels Standards for Special Education, Amended June 2004, but is directed at children, as defined under the School Act, rather than students. It was developed to help ECS operators (public, separate, private, francophone, charter) to provide high quality special education programming to children who are eligible for Alberta Education funding.

Provincial Student Assessment Programs

Alberta Education is committed to accommodating the needs of all Alberta students in order for them to have fair and equitable access to educational opportunities, including the writing of provincial achievement tests and diploma examinations. The *Achievement Test Program and the Diploma Examinations General Information Bulletins* specify the provision of appropriate accommodations school jurisdictions including private schools can request from Learner Assessment Services of Alberta Education.

Services for Students with Visual Impairments Policy

The *Policy* identifies the support services provided to school jurisdictions and funded private schools by the Learning Resources Centre (LRC) of Alberta Education. This includes the production and loaning of learning resources in alternate format (braille, electronic text, audio, and large print) and the loaning of assistive technology (e.g., computers with braille input/output, braille, talking calculators, closed circuit TV systems, and audio players).

Topic 4.6: Accountability Framework - Questions for Discussion

- 4.6.1 Are there barriers to implementing the *Essential Components*? If so, what are they?

- 4.6.2 Are students who are blind or visually impaired expected to meet the learning outcomes as outlined in the *Programs of Study*?

- 4.6.3 What are the benefits and shortcomings of the *Essential Components for Educational Programming for Students who are Blind or Visually Impaired*?

- 4.6.4 Any other comments or suggestions about the present accountability framework?