

Visual Impairment



The term visual impairment has varying definitions across North America. Partially sighted, low vision, and legally blind are other terms often associated with those with a visual disability. From an educational perspective, students described as having visual impairments or low vision are generally those who are able to use their remaining vision for learning but need to use a combination of compensatory visual strategies, low vision devices, and environmental modifications to access and respond to visual information.

Visual impairment can involve a loss of visual clarity (visual acuity), peripheral vision (visual field), or both. Some visual conditions also may result in reduced or complete loss of colour vision, sensitivity to even normal levels of light (photophobia), or rapid, involuntary eye movements (nystagmus). All of these factors affect the student's degree of visual efficiency or how well the student is able to use vision for learning. It is critical that students receive specific instruction and practice in the effective use of their vision to develop an optimal level of visual efficiency and functioning in various environmental settings.

Visual acuity is measured by comparing one's ability to identify symbols of various sizes viewed at a given distance (6 metres/20 feet). A normal visual acuity is 6/6 or 20/20. Near vision is measured in a similar manner using a test distance of 40 centimetres or 16 inches. Visual field is measured in degrees. Low vision is denoted as having a visual acuity of less than 6/18 (20/70) or less with corrective lenses, or a field of view restricted to 20 degrees or less.

Vision is a dynamic process that integrates sensory and motor information to derive meaning. A student's ability to use vision for learning is dependent upon many factors, such as the severity and age of vision loss, the timeliness and type of intervention, and the presence of additional disabilities. Therefore, student programs and services must be based on the assessed needs of each student.

Implications for Planning and Awareness

- Meet with the student, parents and the student's previous classroom teachers to discuss necessary supports for the student. This could include information about:
 - the student's learning strengths and routine requiring accommodations
 - how to access textbooks and instructional materials in alternate formats (e.g., large print, audio or e-text)
 - the technology and special equipment used by the student

Your awareness needs to begin with conversations with the student's parents.



- instructional strategies that enhance access to information
 - the procedure to make peers aware of the visual impairment and its implications.
- Learn as much as you can about how a visual impairment may affect learning and social and emotional well-being. Reading, asking questions and talking to qualified professionals, such as a teacher of the visually impaired and/or an orientation and mobility instructor.
 - Arrange (prior to the first day of school) for a teacher of the visually impaired or an orientation and mobility instructor to orient the student to the classroom, to any areas of the school that will be used by the student, and to locations for catching buses. Teach this method to peers.
 - Learn the correct way to act as a sighted guide for the student and teach this method to peers.
 - Consult with a specialist to acquire information regarding any necessary accommodations to ensure the student’s safety in the school building (e.g., markings on stairs, additional or reduced lighting).
 - Review previous functional vision assessments and eye care specialist reports to find out specific information about the student’s vision. Speak to the student and/or teachers of the visually impaired about accommodations that enhance the use of residual vision, thereby improving access to instruction.
 - Review recent assessments to identify current instructional levels and any areas requiring individualized instruction.
 - Collaborate with school staff, the school jurisdictional team and community partners to identify and coordinate supports and services required to address the nine areas of the Expanded Core Curriculum for students with visual impairment, including:
 - compensatory or functional academic skills (e.g., Braille reading, keyboarding, tactile discrimination skills)
 - orientation and mobility
 - social interaction skills
 - independent living and management skills recreation and leisure skills
 - career and life management skills
 - assistive technology
 - visual efficiency skills
 - self-determination.
 - Develop a system for sharing information with relevant staff members about the student’s condition and successful strategies.

Parents know their children well and can offer insights on how to support their social and emotional well-being. There is strength in collaborating on strategies that could be used at home, at school and in the community.

Implications for Instruction

- Use cooperative education strategies to actively involve the student in group work.
- Review basic concepts prior to the presentation of a lesson. Incidental learning is compromised by low vision. Even if the student is familiar with a concept, pose questions to identify accuracy and completeness of understanding.
- Assess the student’s ability to interpret the information in various assigned textbooks to gain a sense of the visual abilities and limitations of the student.
- Provide appropriate lighting accommodations to enhance the student’s access to instructional materials. Reduce glare and enhance contrast to increase the visibility of printed materials.



- Arrange the classroom to ensure the student can move about safely and independently.
- Create an efficient system that includes desk space and a storage area for technology, special equipment and materials, such as large print textbooks.
- Discuss access to learning aids and equipment designed specifically for students with visual impairments. This may include access to visual materials presented in various formats (e.g., bulletin boards, videos, software programs).
- Implement strategies for getting notes presented during a lesson (e.g., electronic copy of notes, sharing of peer notes).
- Establish procedures to ensure the student has access to supplementary and teacher-made materials in the preferred format (e.g., large print) at the same time as peers.
- Plan in advance the materials and resources that you will be using in daily lessons. Ensure that they are available in the students' appropriate alternate format at the same time as their sighted peers.
- Verbalize what is being written on the board, presented at a distance or being demonstrated to the class.
- Provide additional time to complete assignments, if necessary. If a concept is mastered, reduce the number of practice questions.
- Give verbal notice of things, such as a visitor in the classroom, changes in the arrangement of the classroom, and other visual information that arises during the school day.
- Ensure the student has sufficient training and practice with low vision devices and adaptive technology to use them as effective tools for learning.
- Alternate activities that require close visual attention (e.g., reading) with those focusing on the use of other senses (e.g., listening). Students who are visually impaired routinely experience visual fatigue because of the close reading distance and the effort required to interpret blurry images.

Implications for Social and Emotional Well-being

- In collaboration with school team members, including the parents, implement strategies to address the meaningful social inclusion of the student.
- Ensure the student's classmates are aware of both the social and instructional implications of having a visual impairment (e.g., student may not be able to interpret facial expressions from a distance).
- Provide both classroom and extracurricular opportunities for the student to interact with peers and to develop friendships.
- Identify peers by name when responding to raised hands or when calling on specific students to respond to questions. This allows the student with low vision to learn to identify peers by their voices.
- Provide direct teaching of social skills based on observation and assessment. Consider the implications of incidental learning associated with social interaction and assess the student's mastery of age-appropriate social skills and behaviours.
- Monitor the student's understanding of his or her strengths, areas of need, and ability to understand and respond to the perceptions of others.
- Teach self-advocacy skills.
- Provide only those special accommodations required to ensure the student has access to information and the supports needed to achieve success in an activity. Avoid the creation of "special status" for the student by limiting unwarranted adult attention.



- Respond to the student in a manner appropriate to the relevant age level and performance expectations for the given age group.
- Investigate opportunities for the student to meet and interact with both peers and adult role models with visual impairments.
- Prepare to address issues associated with “passing” as sighted, a behaviour routinely exhibited by students with low vision in inclusive settings. The parents and specialist teacher can provide suggestions and strategies to help the student deal with the stress of feeling different from peers.
- Ensure there are both classroom and extracurricular activities where the student with a visual impairment can perform competently and meaningfully.

As you consider the implications for this disability, think about the following questions:

1. Do I need further conversations with the parents to better understand this student’s strengths and needs? Yes No
2. Are further assessments required to assist with planning for this student?
If yes, what questions do I need answered? Yes No
3. Do I need targeted professional learning?
If yes, what specific topics and strategies would I explore? Yes No
4. Is consultation with jurisdictional staff required?
If yes, what issues and questions would we explore? Yes No
5. Is consultation with external service providers required (e.g., Regional Educational Consulting Services, Student Health Partnership, Alberta Children’s Hospital, Glenrose Hospital)?
If yes, what issues and questions would we explore? Yes No
6. Is service to the student from an external provider required? Yes No
If yes, what outcomes would be anticipated?

Links for further information:

“The Expanded Core Curriculum for Students with Visual Impairments.” <http://vision.alberta.ca/resources/curriculum.aspx>

Texas School for the Blind and Visually Impaired. <http://www.tsbvi.edu/>

Vision Education Alberta. <http://www.vision.alberta.ca/>

US Department of Education. *Teaching Children with Attention Deficit Hyperactivity Disorder.* <http://www2.ed.gov/rschstat/research/pubs/adhd/adhd-teaching.html>

Alberta Education. *Essential Components of Educational Programming for Students Who Are Blind or Visually Impaired.* <http://education.alberta.ca/admin/special/programming/components.aspx>

“Strategies for Teaching Students with Vision Impairments.” <http://www.as.wvu.edu/~scidis/vision.html#sect1>

Saskatchewan Education. *Teaching Students with Visual Impairments.* <http://www.education.gov.sk.ca/StudentSupportServicesPublications>

Please note:

These websites are for information only and the user is responsible for evaluating the content and appropriate uses of the information.

