

Unique Needs of Students Who Are Blind or Visually Impaired - Janice Leslie, Calgary

1. Concept Development and Academic Needs

The development of visual concepts and learning of academic subjects is more challenging for a student with vision loss. Unique concept development and academic needs that may need to be addressed include:

- Developing a good sense of body image;
- Understanding the following concepts: laterality, time, position, direction, size, shape, association, discrimination, sequence, quantity, sensations, emotions, actions, colors (to the best visual ability), matching, and classifying;
- Developing listening skills appropriate to the level of the student's functioning, including the development of auditory reception, discrimination, memory, sequencing, closure, and association skills;
- Developing auditory comprehension and analysis skills appropriate to the level of the student's functioning, such as the development of the ability to understand character; understand setting; recognize feelings; recognize climax, foreshadowing, and purpose; and distinguishing fact from opinion;
- Becoming familiar with the format of, and knowing how to use, reference materials in the student's primary reading medium or media;
- Being able to interpret accurately maps, charts, graphs, models, and tables; in student's preferred media e.g., tactile, large or regular print and regular print with magnification;
- Developing skills for note taking during a lesson;
- Developing writing and recording skills for note taking from material originally intended for print, e.g., use of material that has been recorded or is read aloud;
- Developing the ability to organize notes and other study materials.
- Developing the ability to organize one's time;
- Developing the ability to select and use a reader; and

- Being able to acquire materials in various learning media, e .g. Braille, large type, aural media, or electronic format.

2. Literacy and Communication Needs

A student with a visual impairment may require alternative modes for instruction in reading and writing. He or she will need special skills in using alternative strategies, learning media, and specialized equipment and materials to communicate effectively.

Communication needs that should be addressed where appropriate include:

- Being skilled in reading, using appropriate modes (e.g., Braille, print, or recorded format) for such purposes as gaining academic information and pursuing personal, career, and recreational interests
- Developing skill in writing for personal needs, using appropriate modes (e.g., braille, print, typewriting, handwriting, word processing) for such purposes as note taking, recording phone numbers and addresses, taking messages, and writing travel directions and personal notes;
- Being proficient in typing and computer keyboarding skills;
- Being able to write one's own signature legibly;
- Being able to operate basic communication equipment, such as radios, talking book machines, recorders, and CD players;
- Being skilled in using a recording device for recording lectures or for recording phone numbers and addresses;
- Being cognizant of, and able to use, appropriate special devices for reading and writing, such as optical aids; closed-circuit television systems; electronic notetaking; adjustable bookstand devices; computers adapted with speech, enlarged type, or braille; and other voice, video, and data information technology; and
- Being cognizant of, and able to use, appropriate special devices for mathematics and science, e.g., the abacus; talking calculators; electronic braille note-taking devices; specialized measuring equipment; and computers adapted with speech, enlarged type, or braille.

3. Social Emotional Needs

A visual impairment often affects a student's self-concept, observation of behavior in social situations, involvement in recreational activities, and sexuality. Alternative strategies and materials may be required to teach, model and reinforce in these areas. Students will also need to learn to deal with the psychological implications of their visual impairment.

Socialization needs that should be addressed include:

- Understanding and displaying acceptable social behavior appropriate to a variety of group situations;
- Being able to discriminate between those behaviors that are socially unacceptable in public yet acceptable in private;
- Understanding and exhibiting appropriate assertiveness techniques in a variety of situations;
- Students with visual impairments need to understand the difference between allowing others to help when it is not needed and deciding to ask for help when it is needed;
- Being aware of and using appropriate nonverbal communication techniques, e.g., gestures, eye contact, raised head, and facial expressions; Being aware of and being able to control body posture, movement, and physical mannerisms in an acceptable, coordinated manner;
- Being aware of and using proper manners in eating and other social situations;
- Being able to make introductions properly and demonstrate appropriate conversational skills;
- Being prepared to contribute constructively to group activities and social situations;
- Being aware of appropriate social distances for various communication situations; and
- Being aware of dress codes for specific groups and occasions and dressing appropriately for one's age and situation

4. Affective Education

Affective education needs that should be addressed include:

- Recognizing that each person is unique and different from every other person;
- Understanding that persons who are visually impaired have the same emotions as everyone else;
- Being able to identify one's feelings;
- Being able to express one's feelings to others directly and in a socially acceptable manner;
- Having feelings of self-worth and well-being;
- Recognizing one's own strengths and weaknesses in a realistic manner;
- Acknowledging both positive and negative feelings in oneself and in others and understanding that both types of feelings are legitimate;
- Being able to identify and appropriately express one's likes and dislikes;
- Being able to understand and recognize teasing and developing appropriate ways of handling it;
- Being aware of alternative ways to respond to the feelings and behavior of others;
- Feeling that one is a valuable, contributing member of society;
- Being able to identify and understand a wide range of feelings in oneself and in others, e.g., happiness, guilt, frustration, boredom, confusion, anger, embarrassment, and pride;
- Being aware that the way a person feels about himself or herself is reflected in the way he or she treats others;
- Being aware that each person must establish his or her own set of values and live by them;
- Being aware of the concept of peer pressure and determining the appropriateness of conforming to peer pressure;
- Being able to identify and share feelings about his or her visual impairment in relation to being accepted by one's peers;
- Understanding the ways in which a person can become victimized by allowing others to make choices in his or her life;
- Understanding the long-range results of too much dependence on others;
- Being aware of the connection between being in control of one's life and taking responsibility for what happens in life;

- Being able to feel comfortable asking for help from others when it is appropriate and understanding the difference between allowing others to help when it is not needed and deciding to ask for help when it is needed;
- Being an effective self-advocate.

5. Recreation

Recreational needs that should be addressed include:

- Being familiar with a variety of social and recreational activities;
- Being able to participate in a variety of different recreational activities with a group and on an individual basis;
- Realizing that many options are involved in deciding how to spend one's leisure time;
- Learning to play indoor and outdoor games appropriately, e.g., ball, cards, and roller skating;
- Developing hobbies of individual interests, e.g., arts, crafts, music, or collections;
- Being competent in several different recreational activities;
- Learning about popular spectator activities in order to enjoy attending them and to be able to discuss these topics appropriately;
- Being aware of opportunities for participation in recreational activities in the neighborhood and in the community in addition to those designed specifically for persons who are visually impaired, e.g., YMCA or YWCA, neighborhood parks and centers, scouting, and school and social clubs; and
- Being aware of current recreational trends and being able to participate where appropriate, e.g., learning current dance steps or fad games.

6. Family Life Education

Family Life Education needs that should be addressed may include:

- Being able to identify with his or her own gender;
- Being knowledgeable about appropriate grooming and personal hygiene techniques;

- Being knowledgeable about appropriate child care procedures and adaptations that may be necessary for a parent who is visually impaired through contact with real infants and children;
- Being aware of verbal and nonverbal communications that relay sexual messages to others, e.g., the use of body language;
- Being knowledgeable about strategies for prevention of physical and sexual abuse, including inappropriate touching and rape;
- Being knowledgeable about the genetic factors related to some visual impairments that one should consider before having children and being aware of genetic counseling;
- Being aware of the responsibilities associated with premarital sexual relations, marriage, and parenthood;
- Being able to express and discuss any concerns related to one's visual impairment and relations with the opposite sex, e.g., dependency, not being able to drive, financial concerns, and genetic factors.

7. Psychological Implications (Self-Advocacy)

How well a student understands and accepts his or her visual impairment may be determined by addressing the needs in this area, including:

- Being able to recognize that one has a visual impairment ;
- Being knowledgeable about one's own eye condition;
- Being able to explain one's eye condition and vision-related needs to others;
- Understanding the vision process;
- Understanding and accepting any physical limitations caused by the visual impairment;
- Understanding how low vision aids can assist in improving visual abilities and accepting the use of appropriate low vision aids;
- Accepting the use of alternative techniques and apparatuses for obtaining sensory information, where appropriate, e.g., use of Braille, the long cane, adaptive technology, and low vision aides;
- Being knowledgeable about personal eye care, e.g., medications, hygiene, regular eye exams, and low vision assessments;

- Having realistic knowledge of current treatment as it relates to one's visual impairment.

8. Sensory/Motor Needs

A visual impairment may affect one's gross and fine motor skills; alternative sensory discrimination and sensory integration skills; and abilities to develop appropriate posture, balance, strength, and movement. The student with a visual impairment may need to develop special skills in these areas.

Sensory/motor needs that should be addressed include:

- Learning to control the head, limbs, and body for purposeful exploration and movement;
- Learning to sit, crawl, stand, and walk independently;
- The student with a visual impairment will need special skills to understand and become oriented to various environments;
- Learning to control the head and body while sitting, crawling, standing, and walking (while walking the student should exhibit appropriate gait, stride, and posture)
- Developing the ability to balance while standing still and while in motion;
- Using gross motor skills, such as crawling, walking, exploring for objects, negotiating stairs, negotiating depth changes, opening and closing doors, and pushing and pulling objects;
- Developing fine motor skills, such as grasping and releasing objects of varying sizes and shapes, turning door handles, grasping a cane, and dialing a phone ;
- Developing sufficient muscle relaxation and flexibility to perform basic daily living and mobility skills safely, efficiently, and gracefully;
- Developing sufficient strength, stamina, and endurance to complete routine mobility, physical fitness, and daily living skills tasks;
- Learning to identify, discriminate, and use various textures and objects tactually and underfoot;
- Learning to identify, discriminate, track, and use continuous and intermittent auditory sources indoors and outdoors;
- Learning to identify, discriminate, and use various kinesthetic and proprioceptive source indoors and outdoors, such as changes in

temperature, movement of air currents, or height of slopes and depth changes;

- Learning to identify, discriminate, and use various olfactory sources indoors and outdoor

9. Orientation and Mobility Needs

A visual impairment usually affects how the student learns about and functions within various environments. The student with a visual impairment, therefore, will need special skills to understand and become oriented to these environments and to move, travel, and play independently and safely within them.

Orientation and mobility needs that should be addressed include the following:

- Developing a conceptual understanding of body image, e.g., planes, parts, laterality, and directionality in relation to objects and environmental features;
- Concrete environmental concepts, e.g., grass, lawn, cement, wood, carpet, tile, tree, bush, and street;
- Spatial concepts, e.g., far, near, close, high, low, above, below, facing, in front of, behind, beside, away from, next to, forward, backward, sideways, and 90-, 180-, and 360-degree turns;
- Compass direction concepts, e.g., north, south, east, and west relationships, sides of streets, names of corners, and relationships among changes in direction;
- Traffic and traffic control concepts, e.g., fast, slow, parallel, perpendicular, same direction, opposite direction, near side, and far side, stop signs, walk signs, and light-controlled intersections;
- Learning to travel independently at home and at various school settings throughout one's school career;
- Learning appropriate trailing and protective techniques and techniques for locating objects to facilitate independent orientation and mobility at home and school;
- Learning to use appropriate sighted guide skills in all travel situations when needed, such as traveling in normal situations; going through

narrow passages; ascending and descending stairways; using escalators and elevators; switching sides; seating oneself in chairs, in sofas, and at tables; and establishing and maintaining control of the sighted guide situation with familiar and unfamiliar guides;

- Learning to use remaining vision and distance low vision aids, as appropriate, to the maximum extent possible for independent, safe orientation and mobility;
- Learning to use the long cane appropriately to supplement or replace visual travel skills (skills to be acquired are basic grasp and hand and arm position; touch technique; use of the cane at closed doorways and stairs and in congested areas and in social situations; trailing techniques; and modified touch technique for location of drop-offs, e.g., curbs or down staircases).
- Developing an understanding of the importance, dangers, responsibilities, and behavior appropriate for independent travel in increasingly sophisticated settings;
- Learning to become oriented and travel independently in residential and rural areas, e.g., traveling along a residential sidewalk; traveling past driveways and walkways; locating curbs and wheelchair ramps; recovering from veering; crossing residential streets; recognizing and recovering from a change in direction on street crossings; using environmental tactile, auditory, kinesthetic, or olfactory cues, compass directions, maps, and spatial relationships for orientation and safe mobility in familiar rural or residential areas; and becoming independently oriented to an unfamiliar area;
- Developing an understanding of the services various business establishments provide, e.g., grocery stores, department stores, banks, post offices, and shopping malls;
- Learning the skills necessary to become oriented and to travel independently in light and major metropolitan business areas;
- Using traffic sounds to establish, maintain, or regain orientation and line of travel;
- Traveling safely and appropriately on increasingly busy business area sidewalks;
- Crossing independently intersections of four lanes or more controlled by traffic lights;

- Exhibiting appropriate verbal and physical public behaviors;
- Developing the ability to seek out and interact appropriately with the public for assistance in orientation or mobility as needed;
- Learning to use street address systems as an aid to orientation;
- Carrying identification and emergency funds when traveling;
- Knowing whom to contact in case of emergency or disorientation;
- Learning to locate independently various destinations in business areas;
- Learning to travel safely in various retail and service establishments, including independent travel on escalators and elevators;
- Learning to carry out increasingly complex personal business transactions independently;
- Understanding and being able to use public transit systems;
- Learning to acquire information regarding products, services, or location of various stores and businesses by using the telephone, including recording this information for later referral;
- Being able to recognize and safely travel past areas of road construction;
- Being able to negotiate railroad track crossings independently;
- Being able to travel independently within light or major metropolitan business areas;
- Being able to travel independently within light or major metropolitan business areas at a level sufficient to carry out tasks necessary for basic survival;
- Developing, if nonverbal, a feasible communication system for acquiring information and communicating needs;
- Learning to use adaptive mobility skills as necessary for use with ambulatory aids, such as wheelchairs, walkers, braces, and orthopedic canes, to provide for maximum independent mobility, e.g., bus lifts or rail ramps;
- Use of alternative mobility devices when appropriate;
- Being able to develop and travel alternative routes and, if necessary, travel specific routes in limited areas to care for basic needs;

10. Daily Living Skills Needs

Because a visual impairment affects the student's ability to live independently, the student with a visual impairment will often need special techniques to function as independently as possible. Assessment and instruction to provide needed daily living skills should include those needs as follows:

Performing personal hygiene skills:

- Performing basic personal hygiene tasks, e.g., toileting, care of teeth and hair, and bathing needs;
- Using personal service businesses to care for one's own needs and to make appointments, e.g., for barber or beauty shop services.

Performing dressing skills:

- Dressing and undressing, including tying shoes and fastening buttons and zippers;
- Selecting appropriate clothing and planning clothing purchases.

Caring for one's own clothing:

- Using techniques for clothing storage and identification of colors and patterns, sorting laundry, and using a washer and dryer;
- Using services such as shoe repair, performing minor repairs on clothing, and hemming and ironing clothing.

Practicing housekeeping skills:

- Locating and using housekeeping areas in the home, such as the kitchen, dining area, and bedroom; and assisting in basic upkeep, such as putting out trash and setting the table;
- Performing many basic housekeeping tasks, such as vacuuming and scheduling regular maintenance;
- Being able to make basic home repairs.

Preparing Food:

- Identifying kitchen appliances and performing basic pouring, stirring, measuring, and spreading techniques;
- Using kitchen equipment, such as a stove and oven; preparing and cooking menus; following recipes; and preparing complete meals.

Practicing eating skills:

- Locating food on the plate;

- Using utensils properly; being familiar with passing food, serving oneself at buffets, and using cafeterias; ordering food from restaurant menus; and understanding tipping;
- Accessing restaurants, cafeterias, and buffets.

Managing money:

- Identifying coins and knowing coin equivalents;
- Handling money in public, planning a budget, using checking and savings accounts, using automatic teller machines (ATMs) and other electronic banking and money management systems, and having one's own system for money management.

Practicing social communication skills:

- Conducting basic social interactions, including communicating needs;
- Conversing appropriately with familiar persons and strangers.

Practicing skills in using telecommunications:

- Identifying one's own telephone number and placing an emergency call;
- Using directory assistance, using various types of telephones for personal and business calls, arranging for one's own telephone service, and displaying good telephone etiquette;
- Understanding fax communications and E-mail.

Practicing written communication skills:

- Understanding that written communication is used to convey information and ideas;
- Writing a signature and personal and business letters, using a system for recording information, and using basic office supplies correctly.

Understanding changes in time:

- Responding to a daily schedule;
- Knowing events that occur during the daytime compared to nighttime;
- Knowing how to tell time and use clocks and watches, knowing automatic time (weeks or months), scheduling one's own time, and keeping appointments.

Being able to organize systematically:

- Organizing time, activities, and personal belongings at home, at school, and in the community.

11. Career/Vocational Needs

To be successfully employed, the student with a visual impairment will often need guidance to prepare for the world of work. Assessment and instruction in career awareness and vocational education, including adaptive skills, will often be needed for an individual to succeed in the workplace.

Some career/vocational needs that may be addressed include:

- Understanding oneself in terms of the characteristics and attributes that make up one's individuality and recognizing one's uniqueness as a person and building one's self-esteem;
- Knowing the difference between work and play and when each is appropriate;
- Understanding the importance of doing a job to the best of one's ability;
- Understanding work ethics, including getting to work on time;
- Understanding the necessity of responsibility and commitment in the workplace;
- Being able to fill out a job application or giving the necessary information to another person;
- Being familiar with the development and use of a resumé;
- Knowing that money is a medium of exchange and related to work and developing concepts of financial management;
- Knowing and using personal information skills, including a legal signature;
- Maximizing one's capabilities in developing skills in technology and in using adaptive devices, such as computers, note-taking devices, and calculators;
- Being familiar with jobs held by one's family members and the jobs available in the school and the community, particularly jobs held by visually impaired persons;
- Experiencing hands-on work experiences through chores, paid jobs on or off campus or after school (particularly in the private sector), or in simulated work environments;

- Being able to interact appropriately with supervisors, coworkers, and the public;
- Participating in skill training at a job-entry level in a variety of experiences to assist in determining realistic occupational choices;
- Determining postsecondary education needs: whether to attend college or technical school or go to work;
- Knowing how to make contact with the Department of Rehabilitation for referral, training, and/or placement;
- Being able to use and train readers;
- Knowing sources for having materials transcribed and for obtaining specialized books, materials, and equipment;
- Being able to organize time and materials to maximize learning;
- Obtaining and managing financial assets for postsecondary education;
- Being self-reliant in managing postsecondary education;
- Being able to serve as one's own advocate in obtaining necessary services, adaptations, and equipment needed for success on a job, during job training, or in college;
- Knowing and using laws prohibiting discrimination based on disability, including "equal access" and reasonable accommodation."