

# **BLINDNESS AND VISION LOSS INSTRUCTIONAL STRATEGIES**

## **An Ideal Learning Environment Checklist (from Florida Literacy Coalition – Bridging the Gap)**

- Clearly labeled doors, steps, stairways
- Stairs and steps with handrails
- Pathways wide enough for wheelchairs
- Sharp edges on fixtures labeled with bright yellow tape, or other material
- General lighting that can be controlled with a dimmer switch
- White board with black markers versus chalkboard
- Large desk spaces instead of small desks
- Adapted computer with screen enlargement and set up for writing and reading activities
- A large computer monitor
- Desk chairs adjustable in height, back and arms
- Reading stands that are adjustable in height and tilt
- Desk lamps that are adjustable for light direction, to avoid glare
- Organized materials, in trays or other organizer type
- Black felt-tipped pens and markers (fat-tipped)
- Bold-lined and/or raised-lined paper for handwriting
- Overhead projector to allow student to see larger handwriting
- Clearly presented lesson plans with frequent breaks incorporated
- Clearly presented directions, in logical sequence; large clear handwriting or type
- Materials presented in appropriate print or object size
- Materials presented in appropriate contrast
- Video magnifier in room, for learner activities, reading, and handwriting
- Blinds or shades available to control glare from windows
- Yellow acetate sheets to cover white paper if students prefer
- Large print text uses effective font, color and size

### **General Teaching Strategies**

- Don't try to do everything at once! It is OK to have the student who is blind or visually-impaired listen to a lesson if you don't have it embossed.
- Other students in the class should be part of the teaching strategy. They should be made aware of the situation and can help in the learning process.
- The student should be allowed to participate as much as possible in class. He or she should be asked to do as much as other students do.
- Use a variety of techniques and materials that help students to participate actively and become independent. It is important to use a variety of senses in all learning, including language learning.
- Read aloud whatever you write on the board. You may need to spell new vocabulary words. For ELL teachers, you may want to ask other students to read what is on the board or overhead.
- Preview the next day's topic before the end of the lesson and summarize material covered.
- Outline the day's lesson or class agenda orally at the beginning of the class.
- If possible, keep the tables and chairs in the same location so the student can become accustomed to the classroom and the surroundings.

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- Use large print calendars, which can be purchased at a low vision store.
- Reserve an easily accessible cabinet or shelf for special materials so visually impaired students can become more independent students.
- For small group work, use a Post-It easel on the table to take notes.
- For some ELL students who are blind, there needs to be a lot of repetition. A pullout session with a volunteer may help to accomplish this. It is best to recruit volunteers who may be familiar with the different formats used (Braille, enlargers, etc.).
- Because students who are blind and visually impaired use more listening skills, it helps to have only one person speak at a time. If the class has a lot of background noise or echo, have the student sit towards the front to hear the teacher better.
- Researchers have found that students learn new languages most effectively when their teachers replace isolated skill exercises and drills with actual real-world social interactions involving interesting activities with both people and objects.
- It is also important for students to learn speaking and listening, and reading and writing at the same time and in an integrated way, both to reinforce the language learning process through a variety of channels, and to foster authentic functional literacy in accessible formats in the new target language (such as a Perkins Braille or a CCTV).
- Allow students to tape lessons or if possible, find classroom texts accompanied by CDs or cassettes.
- For students who use enlarged text, avoid using italics, decorative fonts, varied colors or all capital letters. Avoid glossy paper as this may create glare.
- The sharper the contrast between your writing surface and the words, the easier it will be to produce legible text. Black or navy ink on ivory paper is best. (Bright white paper may cause glare.) Also, try placing your paper on a dark colored mat to avoid writing off the page. Keep in mind, however, that people with vision loss generally need two to three times more light than most other people. When and where it's available to you, natural light is always your best bet.

### **Writing Tips**

- Ask the student if he or she can write on a blackboard or white board. This will make the learner a fully participating member of the classroom.
- Keep a portfolio of the student's work to show progress.
- Provide clipboards and paper with tactile lines and open spaces for writing.
- If you have more than one student who is blind or vision-impaired, they may be able to read dictation to the other who then can type on a computer or Perkins Braille. This allows students to participate as other members of the class do with reading and writing.
- There are templates, or one may be created, to allow the student to practice signature, writing a check and addressing envelopes.
- For typing, students should be taught how to use the computer keyboard. Blind students who are mastering writing may need to learn to type. While many may be proficient with slate and stylus or a Perkins Braille for taking notes, this will not help the teacher or volunteer who are sighted. Rehabilitation or State Services for the Blind (contact information is available in the Resources section) may help the student learn to type. It would be helpful if your program could provide a typing program that speaks the letter or a program such as Jaws, which reads anything on the screen. A Braille keyboard overlay is also helpful.

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- If at all possible, have student's embossed work translated into written text so you, the teacher or volunteer, can see exactly the areas in writing that need improvement. If it isn't possible to get a written translation of embossed work, you may ask the student to read it back to you or have another student who is blind read it.
- The student can do dictation or other writing work (for example, spelling or vocabulary lists) on the Perkins Braille and then read it to other students in the class.
- Spelling instruction does not really vary from regular classroom instruction. Phonics can be taught to help the student spell. This is especially important and necessary for English Language Learners. The student can orally spell new vocabulary words to other students, volunteers or the teacher.
- Teach grammar as you would with sighted students. Make sure to include complete sentences, parts of speech, punctuation rules, verb forms, and the structure of a sentence, paragraph and an essay. Include auditory input as you would in any class and be sure to practice orally.
- Editing may be more time consuming, as the student may need a volunteer or a classmate to help locate sentences to be corrected on the computer. More advanced students may know how to use Jaws or other computer voiced programs for word processing.

### **Reading Tips**

- It may help to introduce the entire class to Braille. There are some stories at various reading levels about the history of Braille. You can ask for Braille alphabet cards from State Services for the Blind. Have sighted students learn some of the Braille alphabet and try to "read" something in Braille. If the blind student feels comfortable, he or she could lead the class in reading some Braille and share a bit of his or her story.
- If possible, give out Braille materials in advance so the student can read ahead.
- Use a volunteer to allow the student to read orally prior to or during class reading.
- If you are going to have material printed in Braille by Minnesota State Services for the Blind, allow at least three weeks for this service to be performed.
- If doing a crossword puzzle or other activity that has short questions, you can ask another student to read the clues/questions. They can help count the number of letters and also spell the word to go in the blank or box.
- Number the pages of the Braille volumes at the top for the teacher and volunteer or sighted students to easily follow along.
- Have a box of reading or magnifying glasses at different degrees (diopters) for classroom use. This is also an excellent way to check for more easily correctable vision problems.
- When working on reading passages followed by questions, give the student who is blind advance notice of the question he or she will have to answer in order to find it easily. This helps the student be an active member of the class.
- When working in reading groups, have the blind student begin the reading and/or begin with the first paragraph, as it may be easier for student and teacher to find the beginning of the reading in Braille.
- Have the student put Braille material into a three-ring binder. This is a perfect time to teach the student about putting material in chronological order with the most recent material at the top. Putting tab dividers with Braille will help the student to keep things in content order.

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- The teacher needs to apply criteria that are unique to visually impaired students, mainly text layout on the page (columns vs. continuous) and use of graphics (essential vs. supplemental). Older textbooks typically do not rely as heavily on pictures and graphics as do newer textbooks, and therefore may be the better choice if their content is appropriate.
- The student who is blind will need to learn English literacy through Braille and large print materials in contexts that interest and encourage him or her to practice. It is not enough to teach Braille code or the print alphabet and punctuation using large print. We need to focus on meaningful and relevant reading and writing. Fluency in spoken English does not necessarily lead to literacy, unless there is a real focus on it along with oral language development.
- Reading instruction for the blind does not vary significantly from reading instruction for the sighted.
- Pullout sessions with a volunteer or another student can help the student who is blind to practice reading fluency.
- Persons with low vision will be slower readers and may only be able to read 10–50 words per minute. Braille readers with some experience will be able to read 150–300 words per minute. New Braille readers may still be decoding while reading. Reading endurance will be affected since reading Braille or using a magnifier adds to the cognitive complexity. Frequent breaks should be allowed and the learners may want to adjust the chair or the heights of the reading material. Shorten assignments if necessary.
- Materials may need to be enlarged ahead of time, enlarged on a CCTV, or printed in bold. Check your local library for large print books.
- Students who are blind or visually impaired can practice oral reading by reading the questions and clues if they are prepared in Braille or provided in enlarged text.
- Like any good reading instruction, students should be taught phonemic awareness, word analysis, predicting skills, vocabulary skills, context skills, and literal and inferential skills. Students may need word attack skills and phonics to read new words and may need varying degrees of repetition in order to master skills.
- Encourage students to practice reading outside of class.

### **Math Tips**

- Provide large key calculators or talking calculators.
- Whenever possible, use actual objects for 3D presentations.
- Create raised line drawings, or draw charts and graphics on a Sewell Board (a heavy plastic covered screen, taped on cardboard).
- Aides, volunteers or student tutors can assist students in exploring tactile objects.
- Use Braille text, enlarged print, or taped “word” problems, or have another student read the word problems orally.
- Some Braille readers can learn and use the Nemeth code for their math work.
- For English Language Learners, you may want to have a chart of mathematical terminology in Braille or written in large letters.
- [www.tsbvi.edu/math/](http://www.tsbvi.edu/math/) (This is an excellent website with more about teaching math to those students who are visually impaired.)

### **Tips for Meeting and Greeting a Blind or Vision-Impaired Person**

- Share these tips with others in your class.

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- First, always say “hello.” He or she may not realize you are there until you speak.
- Give the person your name. He or she may not recognize your voice.
- Speak directly to the blind student, not to the person he or she is with.
- It’s OK to use expressions with see and look, for example: “See you later” or “It’s good to see you.”
- If you are uncertain if someone needs help, simply ask.
- If someone asks you to escort or lead him or her, let the person take your elbow. If it is the first time you have escorted or led a Muslim student of the opposite sex ask if physical contact is OK. This is also good for all students in the class to know and understand.
- If you come to a stairwell, pause and let the person you are escorting or leading know where the handrail is located.
- Do walk-throughs for all safety and emergency procedures. It may be helpful to count the number of stairs, etc. and let the student know how many there are. Depending on the building plan, you may want to ask the blind student not to use a white cane in a crowded hallway or stairwell during such drills. You may also need to tell other students in the class not to grab the student or his or her cane in an emergency situation.
- If you are entering an unfamiliar environment, share details about what you see, who is there, what is going on, etc. Other students can practice English-speaking skills by filling in information, too.
- When giving directions, use concrete terms like right and left, north and south, rather than “over there,” or “here.”
- When showing a blind person to a chair, simply place his or her hand on the back.
- If a student who is blind is using a guide dog, remember the dog is a working dog and should not be distracted by petting or offering food. Remind other students in your class. If there are Muslim students in your class, you may want to discuss why a dog is OK in the classroom, etc.