DIFFERENTIATED INSTRUCTIONAL STRATEGIES

Language Arts

Visual Impairments

For our purposes, visual impairment is defined by "a range of visual losses that require adaptations for learning in a variety of environments" (Silberman & Sowell, 1998, p. 162). According to Sacks (1998), students who have visual impairments represent a very diverse group of learners. The level of disability is influenced by environmental factors, other disabilities, and the type and degree of visual impairment. Visual impairments may affect the student's acuity, the student's visual field, and/or the student's ability to process visual information. Because each factor has significant implications for effective instruction, it is CRITICAL that the team works closely with the child's family, physicians and vision teacher to understand the nature of the child's visual impairment and ensure that proper techniques and strategies are used to maximize the student's ability to access visual information and use compensatory strategies. It is important to note that most individuals who are legally blind have enough residual vision to see light, color, objects and make use of varying degrees of distance and near visual information.

Possible effects of visual impairments on the development of literacy skills

- Incomplete and/or distorted visual information interferes with concept development crucial to growth in literacy skills. Foundation skills, such as oral language and vocabulary usage, may be affected by lack of incidental learning opportunities.
- Visual impairments may negatively affect the child's ability to comprehend spoken and written words and may increase the length of time required for the mechanics of literacy (following written material, locating key information, organizing information to be referenced at a later time).

The following strategies are provided to promote access to language arts content, based on Virginia's SOLs, for students with visual impairments. Students with visual impairments will require on-going adaptations and accommodations in literacy to compensate for the reduced and/or distorted information available through visual input. Decisions regarding instructional strategies must be made based on accurate and comprehensive assessment of the child's vision and involve all team members. The following strategies are offered to provide a starting point for thinking about possible adaptations.

- Involve the student in the brainstorming process. Ask the student to make suggestions about environmental and instructional strategies that are helpful.
- Provide directions and instructions using the student's preferred and strongest mode of communication. Many students will benefit from a multi-sensory approach that includes spoken language and tactile information.
- Provide information to the student to indicate that a new task is beginning, the expectations for the lesson, and prepare the student for transitions to new activities. Consistency across routines will facilitate learning.

- Allow opportunities for repetition and practice of previously introduced material.
- Work with team members, student, and family to identify appropriate homework options and requirements.
- Provide access to visuals presented at an appropriate distance and in the child's visual field and allow plenty of time for descriptions and exploration of materials and activity.
- Use mutual exploration and modeling strategies (hand-under-hand and hand-over-hand) as appropriate to encourage exploration of materials and activities. Team members need to be aware of tactile sensitivity issues.
- Consider environmental adaptations such as lighting conditions, contrast between materials, and the use of tactile cues in the room to promote independence and mobility.
- Consider close proximity to the activity and teacher during instruction. Positioning of the student and the materials must be based on understanding the child's acuity and any field loss concerns. For example, a child who has a field loss on the left side will need materials presented on the right side. Accurate information about the child's vision and how that loss affects access to information are critical.
- Carefully consider the arrangement of the classroom so that mobility is encouraged and comfortable for the child. Experiencing a simulation of a vision impairment may assist the child's team in identifying features of the environment that need to be adjusted.
- Consult with assistive technology specialists to discuss possibilities of low to high tech devices for increasing independence and participation. Some students with visual impairments will benefit from light boxes to increase contrast between objects and background and/or other devices to enlarge or magnify print and materials. Other options include Braillewriters, closed-circuit televisions, and screen enlargers.
- Provide instruction at an appropriate pace, frequently checking for understanding and reteaching concepts as necessary.
- Provide appropriate wait time for the student to respond to instruction or directions.
- Have classmates and adults identify themselves as they answer or ask questions and participate in class discussion to allow the student to orient to the speaker.
- Consider having the primary instructor positioned in one location during the lesson and away from glare.
- Begin literacy activities by drawing on the concrete experiences of the learner. Start with vocabulary that is relevant to the student and provide supplemental experiences to help the child comprehend the meanings of new words.
- While various reading approaches may be effective, students with visual impairments will need systematic instruction to effectively learn to recognize words, comprehend text, and use effective written language.
- For beginning readers, pair real objects with representations (pictures, miniatures)
- Encourage all reading efforts, including pretend reading and pretend writing. Consult with reading specialists to identify student's stage of literacy and appropriate activities to move student to next level.
- Use repeated readings to build fluency and comfort level.
- Consult vision teacher and other team members about strategies for teaching Braille, when appropriate. Keep in mind the need for direct instruction, practice activities, consistency in instructors and expectations. See links below for additional Braille information.

- Comprehension is strengthened by teaching the student specific strategies for increasing understanding. Students should be taught to ask who, what, where, and why questions to check their understanding of text material.
- Written language should be taught systematically across all content areas and draw on the real-life experiences of the student.
- Mechanics of writing, such as capitalization, punctuation and spelling, should be taught by teaching self-monitoring techniques (Silberman & Sowell, 1998).
- Teach new vocabulary at a controlled pace and provide opportunities for interactions with peers (McNaughton, Hughes & Clark, 1994).
- Consult AT specialists regarding the use of computer software that can be used to assist with writing assignments and reading of text.

Links and Resources

McNaughton, D., Hughes, C.A., & Clark, K. (1994). Spelling instruction for students with learning disabilities: Implications for research and practice. *Learning Disability Quarterly, 17,* 169-185.

Sacks, S.Z. (1998). Educating students who have visual impairments with other disabilities: An overview. In S. Sacks, & R.K. Silberman (Eds.), *Educating students who have visual impairments with other disabilities* (pp. 3-38). Baltimore: Brookes Publishing Co.

Silberman, R.K., Bruce, S.M., & Nelson, C. (2004). Children with sensory impairments. In F.P. Orelove, D. Sobsey, & R.,K. Silberman (Eds.), *Educating children with multiple disabilities: A collaborative approach* (pp.425-525). Baltimore: Brookes Publishing Co.

Silberman, R.,K, & Sowell, V. (1998). Educating students who have visual impairments with learning disabilities. In S. Sacks, & R.K. Silberman (Eds.), *Educating students who have visual impairments with other disabilities* (pp.161-185). Baltimore: Brookes Publishing Co.

http://www.vdbvi.org for information on Virginia's Department for the Blind and Vision Impaired

http://www.tsbvi.edu for information on teaching emergent literacy skills in Braille

http://www.brailleauthority.org for The Braille Authority of North America

http://www.spedex.com/text/store/literacy for Communication Skills for Visually Impaired Learners: Braille, Print, and Listening Skills for Students Who are Visually Impaired

http://www.brailleinstitute.org for The Braille Institute

http://www.home.earthlink.net/~deedaze for Resources for Parents & Teachers of Blind Kids

http://www.tsbvi.edu/Education/index.htm#Braille for Texas School for the Blind and Visually Impaired