LITERACY MEDIA DECISIONS FOR STUDENTS WITH VISUAL IMPAIRMENTS
A Position Paper of the
Association for Education and Rehabilitation of the Blind and Visually Impaired

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Position

Students with visual impairments, including those with multiple disabilities, are entitled to high-quality educational literacy programming. Decisions for determining appropriate literacy instruction must be based on data gathered through comprehensive and ongoing assessment of the learning medium or media, information from qualified professionals and the Individualized Education Program (IEP) team, including parents, and consideration of the use of a variety of assistive technologies, appropriate accommodations, and evidence-based teaching strategies.

Overview

This paper provides guidelines related to literacy media selection and instruction for students with visual impairments who are blind and those who have low vision, including those with additional disabilities, and will be progressing through a literacy program, either emergent, traditional or functional (Holbrook, 2009). The focus of this paper is on "conventional literacy," defined as making meaning out of reading and writing (Koenig & Holbrook, 2000). The importance of reading and writing skills is underscored in the current regulations of the No Child Left Behind (NCLB) Act of 2001 (2002).

Based on current regulations from the Individuals with Disabilities Education Improvement Act (IDEIA) (2004) related to the provision of accommodations, including literacy instruction, for children who are visually impaired, three possible options for "conventional literacy" instruction are described below. Each option should be considered depending on individually assessed needs.

Note: The first option (I) is identical to the wording regarding the provision of braille in IDEIA; the second and third options (II and III) are modeled after the braille-specific wording in IDEIA, but encompass other literacy media or combinations of media.

I. *Instruction in braille* and the use of braille unless the IEP Team determines, after an evaluation of the student's reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the student's future needs for instruction in braille or the use of braille), that instruction in braille or the use of braille is not appropriate for the child; or

II. *Instruction in print* with or without optical and/or electronic devices after a clinical low vision evaluation of the student's potential for using vision to access appropriate general education reading and writing materials at near and at a distance; or

III. *Instruction in both braille and print* (known as dual media) with or without prescribed optical and/or electronic devices, after evaluations described above in (I) and (II), and combining the instructional approaches defined above in (I) and (II).

Key Points

1. Decisions for determining literacy medium or media are based *variety of assessment approaches and sources* conducted *by qualified professionals*. The primary evaluation designed to collect and report data that will assist the IEP team members in making decisions regarding the literacy and instructional media is the learning media assessment (LMA). This is an unbiased, ongoing assessment protocol conducted by the teacher of students with visual impairments (TVI) (Koenig & Holbrook, 1995). The LMA includes data from the following (listed in order of preferred administration):
   a. A *recent eye exam* from an ophthalmologist or optometrist, with information on the student's ocular health, standard correction, treatments, and visual prognosis. The student should be followed by the eye care provider, with appropriate reassessment for changes in visual function over time.
   b. For a student with functional vision, a *clinical low vision evaluation* (CLVE), conducted by a low vision specialist (i.e., an ophthalmologist or optometrist experienced in working with persons who have low vision), with recommendations for optical devices, electronic devices, non-optical tools, and/or strategies to enhance the use of vision. Any optical or electronic low vision device is classified as an assistive technology device.
   c. A *functional vision assessment* (FVA), conducted by the TVI, which provides information on the use of the student's vision within natural environments engaging in a variety of visual tasks (Wilkinson, 2010).
   d. An *assistive technology (AT) assessment*, conducted by team members with expertise in the use of AT for students with visual impairment, to determine the appropriateness of additional AT devices and services not addressed by the CLVE.
   e. Any other assessments or documentation that provide relevant information on the student's current level of performance (e.g., reports or other information from a parent, classroom teacher/general education reading teacher, physical therapist, occupational therapist, school psychologist, reading specialist, speech pathologist, or other medical or educational professional).

   Under IDEIA, medical services, such as an initial eye exam or CLVE, are related services and may be necessary for diagnostic or evaluation purposes §300.34. During the LMA assessment, the student should be allowed to use any prescribed optical or non-optical devices. If reading large print (with or without a prescribed optical aid), the child should be allowed to use the print format that is most appropriate at the preferred working distance based on data from the above sources and informed by research in the field of low vision (e.g. Lueck, Bailey, Greer, Tuan, Bailey, & Dornbusch, 2003).

2. A variety of sensory factors (visual, tactual, motor, and auditory), as well as cognitive abilities, may have a direct impact on the acquisition of literacy skills (whether print or braille), and therefore, must be considered (Lusk & Corn, 2006a; Lusk & Corn, 2006b). Possible factors include reading stamina, reading speed and comprehension, writing speed, prognosis of the visual impairment, hand strength and dexterity, increased level and intensity of literacy materials, and progression of the acquisition of literacy skills.

3. Literacy skill development often involves the use of various literacy tools and technologies. Time must be devoted to *instruction and practice* with any prescribed optical, electronic, or braille device, or any other assistive technology to be used while reading and writing, as the skills needed to use these technologies are not necessarily intuitive (Corn, Wall, & Bell,

2000; Corn et al., 2002; Koenig & Holbrook, 2000). The IEP team members, including parents, must decide the amount of time devoted to braille and/or print instruction (e.g. duration, frequency, and intensity) based on the individual needs of the student (Corn & Koenig, 2002; Koenig & Holbrook, 2000). Without appropriate instruction, students with visual impairment may be at risk for becoming low performing students and may require intensive support from the IEP team to improve literacy skills. Any difficulties in the area of literacy should be addressed as early as possible to narrow the academic achievement gap. Furthermore, the role and responsibility of the TVI is to keep abreast of emerging technologies and assess their potential use for students with visual impairments.

4. Instruction in the use of accommodations cannot be taught in isolation from literacy (Wall Emerson, Holbrook, & D'Andrea 2009; Wall Emerson, Sitar, Erin, Wormsley, & Herlich, 2009). Thus, evidence-based instructional curricula and strategies, literacy-based and/or those specific to the field of visual impairment, must be taught in conjunction with the use of accommodations and/or assistive technologies. Collaboration between general and special educators, including the TVI, is needed to effectively incorporate the use of accommodations into literacy programming.

5. After initial identification of literacy medium or media, ongoing assessment is key to monitoring the successes and needs of students with visual impairments.
   a. It is recommended that LMA, FVA, and AT assessment data be reported annually to the IEP team, including family members, (Holbrook, 2009) and that these assessments be conducted every three years, unless the IEP determines that an assessment needs to be conducted before the three year IEP review or that an assessment is not necessary.
   b. Students with visual impairments should follow the individualized medical plan established by the ophthalmologist and/or optometrist. The general eye care exam and/or clinical low vision reevaluation is necessary when there is a change in the student's vision, an educational transition is anticipated or occurs, or there is an observed concern related to visual functioning that suggests the need for further evaluation (Wilkinson, 2010).
   c. Ongoing assessment, incorporating summative, formal data (e.g. basic reading inventories, evidence-based literacy curricula), as well as ongoing, informal reading assessments (e.g. periodic timed readings, curriculum-based assessment, observations, and diagnostic teaching) (Heinze, 2000; Layton, 2000) ensure consistent monitoring of a student's academic progress. To mitigate the possibility of literacy-related gaps, students should be assessed on multiple literacy skills (e.g., phonemic awareness, phonics, fluency, vocabulary, comprehension, writing mechanics, handwriting), particularly in the early years. For students struggling academically, Response to Intervention (RTI) strategies may be employed to adjust instructional interventions to meet individual student needs (Kamei-Hannan, Holbrook, & Ricci, 2012).

Recommendations for Practice

A variety of assessments from a wide range of medical and educational professionals is needed to fully assess a student with a visual impairment and provide individualized "conventional literacy" programming. Beyond determining if the student requires braille, print,

or a combination of print and braille, there are additional factors that must be continually evaluated. Information on how these factors impact the acquisition of literacy skills must be recorded and charted to determine the rate of progress, or a lack thereof. The TVI also needs to address new technologies and instructional methods as they emerge. This ensures that future changes or additions to the student's literacy programming are individualized and data-based.

References

Corn, A. L., & Koenig, A. J. (2002). Literacy for students with low vision: A framework for delivering instruction. *Journal of Visual Impairment & Blindness, 96*, 305-321.

Corn, A. L., Wall, R. S., & Bell, J. K. (2000). Impact of optical devices on reading rates and expectations for visual functioning of school-age children and youth with low vision. *Visual Impairment Research, 2,* 33-41.

Corn, A. L., Wall, R. S., Jose, R. T, Bell, J. K., Wilcox, K., & Perez, A. (2002). An initial study of reading and comprehension rates for students who received optical devices. *Journal of Visual Impairment and Blindness, 96,* 322-334.

Holbrook, M. C. (2009). Supporting Students' Literacy Through Data-Driven Decision-Making and Ongoing Assessment of Achievement. *Journal of Visual Impairment & Blindness*, *103*, 133-136.

Heinze, T. (2000). Comprehensive assessment. In A. J. Koenig & M. C. Holbrook (Eds.) *Foundations of education, Volume II: Instructional strategies for teaching children and youths with visual impairments* (pp. 27-60). New York, NY: AFB Press.

Individuals with Disabilities Education Improvement Act (IDEIA) of 2004. Public Law 108-446 (20 U.S.C. 1400 et seq.)

Kamei-Hannan, C., Holbrook, M., & Ricci, L. A. (2012). Applying a response-to-intervention model to literacy instruction for students who are blind or have low vision. *Journal of Visual Impairment & Blindness*, *106*, 69-80.

Koenig, A. J., & Holbrook, M. C. (2000). Ensuring high-quality instruction for students in braille literacy programs. *Journal of Visual Impairment & Blindness, 94*, 677-694.

Koenig, A.J., & Holbrook, M. C. (1995). *Learning media assessment of students with visual impairments: a resource guide for teachers (2nd ed.)*. Austin, TX: Texas School for the Blind and Visually Impaired.

Layton, C. A. (2000). Ongoing assessments: Informal techniques. In A. J. Koenig & M. C. Holbrook (Eds.) *Foundations of education, Volume II: Instructional strategies for teaching children and youths with visual impairments* (pp. 61—102). New York, NY: AFB Press.

Lueck, A. H., Bailey, I. L., Greer, R. B., Tuan, K. M., Bailey, V. M., & Dornbusch, H. G. (2003). Exploring print-size requirements and reading for students with low vision. *Journal of Visual Impairment and Blindness*, *97*(6), 335-354.

Lusk, K. E., & Corn, A. L. (2006a). Learning and using print and braille – A study of dual-media learners: Part 1. *Journal of Visual Impairment and Blindness, 100,* 606-619.

Lusk, K. E., & Corn, A. L. (2006b). Learning and using print and braille – A study of dual-media learners: Part 2. *Journal of Visual Impairment and Blindness, 100,* 653-665.

No Child Left Behind (NCLB) Act of 2001. (2002). Public Law 107-110, S 115, Stat. 1425.

Wall Emerson, R., Holbrook, M. C., & D'Andrea, F. M. (2009). Acquisition of literacy skills by young children who are blind: Results from the ABC braille study. *Journal of Visual Impairment and Blindness, 103*, 610-624.

Wall Emerson, R., Sitar, D., Erin, J. N., Wormsley, D. P., & Herlich, S. L. (2009). The effect of consistent structured reading instruction on high and low literacy achievement in young children who are blind. *Journal of Visual Impairment and Blindness, 103*, 595-609.

Wilkinson, M. E. (2010). Clinical low vision services. In. A. L. Corn & J. N. Erin (Eds.) *Foundations of low vision: Clinical and functional perspectives* (pp. 238—298). New York, NY: AFB Press.