

Visual Conditions and Functional Vision: Early Intervention Issues

Session 1 Working With Families and Eye Care Professionals

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FPG Child Development Institute
University of North Carolina at Chapel Hill
2004**

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This project is funded by cooperative agreement #H325B000003 from the Office of Special Education and Rehabilitative Services, U. S. Department of Education. However, the contents do not necessarily represent the policy of the Department, and you should not assume endorsement by the federal government.

Early Intervention Training Center for Infants and Toddlers With Visual Impairments

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A Special Thanks To

- the families, teachers, and eye care specialists in our video clips for allowing us to share their experiences.
- the following colleagues for generously sharing their commercially produced videos.

Bailey, B.R. (Producer, Writer, Director). (1993). *Functional vision: Learning to look* [Video]. United States: Grassland Media, Inc.

Casey Eye Institute (Producer), Flynn, J.T., Hardy, R.J., Kushner, B.J., Palmer, E.A., Phelps, D.L., Rosenbaum, A., et al. (Writers). (1988). *ROP and cryotherapy*. [Video]. (Available from Oregon Health & Science University, Casey Eye Institute, Department of Ophthalmology, 3375 SW Terwilliger Blvd., Portland, OR 97201-4197)

Edelman, L. (2001). *Just being kids* [Video]. United States: Mark Herlinger Productions, Inc. (Available from Western Media Products, P.O. Box 591, Denver, CO 80201)

HP/Heryet Productions Inc. (Producer). (1997). *Cortical visual impairment in young children* [Video]. (Available from Sunny Hill Health Centre for Children, Visually Impaired Program, 3644 Slocan Street, Vancouver, British Columbia, Canada V5M 3E8)

HP/Heryet Productions Inc. (Producer), & Jan, J. (2001). *Help your child see: Promoting the vision development of young children with ocular visual impairment* [Video]. (Available from Sunny Hill Health Centre for Children, Visually Impaired Program, 3644 Slocan Street, Vancouver, British Columbia, Canada V5M 3E8)

Institute for Families of Blind Children (Producer). (1991). *Breaking the news* [Video]. (Available from Institute for Families, P.O. Box 54700, Mail Stop 111, Los Angeles, CA 90054-0700)

Moore, S. (Producer). (1999). *A three-way conversation* [Video]. United States: Mark Herlinger Productions, Inc. (Available from Western Media Products, P.O. Box 591, Denver, CO 80201)

Shaw, R. (Executive Producer), & Quiñones, H. (Producer). (2002). *Peek-a-boo, I see you: Assessment of visual efficiency in babies and young children* [Video]. (Available from Dominican College, 470 Western Highway, Orangeburg, NY 10962 and Early Intervention Training Center for Infants and Toddlers With Visual Impairments, FPG Child Development Institute, CB #8040, UNC, Chapel Hill, NC 27599-8040)

Visually Impaired Preschool Services (Producer). (1996). *Video six: Through their eyes: An introduction to low vision* [Video]. (Available from Visually Impaired Preschool Services, 1229 Garvin Place, Louisville, KY 40203)

Module: **Visual Conditions and Functional Vision:
Early Intervention Issues**

Session 1: Working With Families and Eye Care Professionals

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This notebook and its accompanying compact discs are the first in a series of five sessions of the Visual Conditions module produced with the support of the United States Department of Education, Office of Special Education Programs (Cooperative Agreement # H325B000003).

Developed by the Early Intervention Training Center for Infants and Toddlers With Visual Impairments, FPG Child Development Institute, University of North Carolina at Chapel Hill, United States of America
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Module: **Visual Conditions and Functional Vision:
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Session 1: Working With Families and Eye Care Professionals

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**Module: Visual Conditions and Functional Vision:
Early Intervention Issues**

Visual Conditions and Functional Vision: Overview

Families and other members of the early intervention team typically view teachers of children with visual impairments (TVIs) and orientation and mobility specialists (OMSs) as experts on issues related to visual conditions that impact development and learning. In addition, team members expect TVIs and OMSs to be knowledgeable about the implications of visual conditions, including how the visual condition impacts children's functioning in daily routines and activity settings. Consequently, TVIs and OMSs must continuously seek out accurate and current information about the most prevalent visual conditions in young children with visual impairments. Furthermore, TVIs must know how to access information and resources about relatively rare visual conditions. TVIs and OMSs must also be able to work collaboratively with eye care professionals, families, and other early intervention team members to conduct functional vision and developmentally appropriate learning media assessments and to use the results of these assessments to plan and implement intervention that will facilitate the child's optimal use of vision and other senses in the context of natural learning opportunities and daily routines.

Information from the fields of pediatric ophthalmology, visual impairments, early intervention, and developmental psychology has been synthesized in five sessions of this module that are listed below. The objectives for each of the five sessions are then provided as a framework for understanding the organization of this entire module, *Visual Conditions and Functional Vision: Early Intervention Issues*.

Session 1: Working With Families and Eye Care Professionals

Session 2: Visual Capacity

Session 3: Visual Conditions in Infants and Toddlers

Session 4: Functional Vision Assessment and Developmentally Appropriate Learning
Media Assessment

Session 5: Using Assessment Results in Intervention

Session 1 Objectives

After the completion of Session 1, participants will

1. compare and contrast the roles of different eye care professionals.
2. describe the components of an eye care examination and information families should expect to receive following the exam.
3. describe strategies that teachers of young children with visual impairments use to support families who seek to understand their child's visual diagnoses.
4. discuss factors such as learning styles, language, and cultural barriers that affect families' abilities to access and understand information and describe strategies for providing support to overcome these barriers.
5. describe strategies for facilitating interactions and communication between eye care specialists and families.

6. describe the role of teachers of children with visual impairments (TVIs) when working with eye care specialists and other professionals using the transdisciplinary model.

Session 2 Objectives

After the completion of Session 2, participants will

1. discuss the importance of vision for typical development.
2. describe typical visual development prenatally, at birth, and during the first two years of life.
3. describe how prematurity and atypical development of particular ocular structures may result in particular visual disorders that may limit visual capacity and result in atypical visual development.
4. describe physiological and environmental variables that may affect the child's visual function.

Session 3 Objectives

After the completion of Session 3, participants will

1. identify the most prevalent visual conditions found in young children with severe visual impairments in the United States and how they differ from those found in adults.
2. identify the three most prevalent eye conditions—cortical visual impairment, retinopathy of prematurity, and optic nerve hypoplasia—in young children with visual impairments. Describe the causes and characteristics of each condition as well as the implications for early development and intervention.
3. discuss the causes, characteristics, and implications of the following visual conditions: structural abnormalities—anophthalmia, microphthalmia, coloboma; albinism; retinal disorders such as retinoblastoma and Leber's congenital amaurosis; congenital cataracts; and delayed visual maturation.
4. describe the characteristics of and implications of the following conditions that may occur as primary or secondary diagnoses—strabismus, amblyopia, glaucoma, and nystagmus.

Session 4 Objectives

After the completion of Session 4, participants will

1. describe the rationale and purposes for the functional vision assessments (FVA) for young children with visual impairments.
2. describe the step-by-step process of conducting an FVA with a young child.
3. explain how caregivers and other team members (e.g., physical therapist, nutritionist) contribute valuable information to the FVA process.
4. identify and describe formal tests that can be utilized as part of the FVA process.
5. identify and describe informal tests that can be utilized as part of the FVA process.
6. describe developmental and environmental issues that can impact interpretation of FVA results.

7. describe the purpose of developmentally appropriate learning media assessments (LMA) for young children with visual impairments, how to complete such assessments, and how results can be used to plan intervention.
8. recognize that the results of the clinical eye exam, FVA, and developmentally appropriate learning media assessments are the basis for developing a comprehensive intervention plan.
9. summarize the results of the FVA and the LMA in a professional, family-friendly report.

Session 5 Objectives

After the completion of Session 5, participants will

1. recognize that intervention planning for young children with visual impairments should be based upon the results from the functional vision assessment and/or developmentally appropriate learning media assessment; family concerns, resources, and priorities; and assessment results from multiple disciplines.
2. identify the child's current level of visual functioning by using information gathered during the functional vision assessment and any additional vision evaluations.
3. consider the child's developmental and cognitive level, motivation, and visual skills in designing developmentally appropriate and functional intervention goals.
4. identify environmental modifications that promote young children's optimal use of vision within the context of daily routines and naturally occurring activity settings.
5. identify resources and strategies that promote young children's optimal use of vision and all senses within the context of daily routines and naturally occurring activity settings.
6. describe the TVI's role in implementing the recommendations from low vision specialists and in helping children learn how to use optical devices recommended by low vision specialists.