

Working with Infants and Toddlers with Visual Impairment and Their Families
April 25, 2006 – Roanoke, Virginia

ASSESSMENT OF THE YOUNG CHILDREN WHO ARE VISUALLY IMPAIRED

As with all young children, there is not ONE assessment instrument that is the answer.

There are dangers in looking at "developmental norms" for children who are visually impaired or blind:

- Problems with technical soundness of the few studies
- Measures that are unreliable and invalid
- Small sample sizes resulting in limitations to generalize information
- Self-fulfilling prophecies, expecting delays, accepting behaviors since the child is visually impaired
- Variations in the development achievements within the population of visually impaired

Need to use our information on sighted children to help us discover how visually impaired children develop differently and need to understand "quality" issues that can be at-risk.

Need to understand the unique impact of the environment on the development of the child with visual impairment and how to assess the interactions between the child, family and environment.

- What child characteristics support or compromise active interaction with the environment?
- What environmental characteristics support or compromise the child's learning?
- What caregiver interactions with the child support or compromise the child's learning?

Need to be aware of how to "adapt" assessments for visually impaired children including assessment items and structure.

- **Choosing and presenting materials to match sensory needs of child**

Visual: using high contrasting objects, lighting objects to visual highlight

Auditory: choosing materials that have auditory feedback, using auditory cues, observing if some sounds are new or aversive

Tactual: choosing different textures, weights, shapes of materials, observing if child is protective to some textures, use of tactual demonstration of what is expected.

- **Using real objects rather than representative objects or pictures**
- **Addressing impact of child's experiences with the environment on performance**

Familiar vs. unfamiliar objects: If you use familiar objects, the child has had time to explore and develop concepts; unfamiliar objects may take the child more time to explore them. If a child only knows his objects, this may indicate lack of experience and under generalization of concepts.

Familiar vs. unfamiliar people: A child who is blind may need time to warm up to an unfamiliar person. It is important to read the child and allow him to maintain contact with his parents and to allow him to initiate interactions.

Familiar vs. unfamiliar location: A child who is visually impaired will need time to explore and familiarize himself to an unfamiliar area. He may act more reticent in an unfamiliar area. When assessing functional vision and mobility skills, it is important to assess in both a familiar and unfamiliar area if possible. Because a child does not have to rely on fine detail vision as much in a familiar area, you may get different visual responses in an unfamiliar area which could add to your understanding of the child's vision.

- **Impact of expectations and opportunities child has had**

Familiar vs. new task: If you are testing a skill that is usually learned visually and the child has never been taught the skill, a test-teach-test model can help determine if child can learn task through manual demonstration.

- **Analyzing the concept being tested and adapting to a child who is visually impaired or blind**

For example, the concept of object permanence looks at a child's visual attention, memory, persistence and organization of searching behaviors. For a totally blind child, this can be assessed by looking at how a child reacts to a dropped object, first allowing the object touch a part of his body and then taking the object further away from his body to assess searching behaviors.

Need to be aware of response behaviors that may be seen in young children who are blind.

- "Passive", neutral facial expressions that may indicate that the child is listening attentively.
- Resistance to having hands directed to unknown objects; use of protective responses of pulling hands away, protective responses to unanticipated events.
- Visual responses: eccentric viewing, head tilt, holding objects close, closing eyes, etc.
- Gaze aversion to disengage or if objects are too close.

- Arousal issues: visually impaired may be in low arousal state due to lack of visual stimulus and low postural tone.
- Child may use "immature" patterns or repetitive patterns of object exploration such as repeated dropping for auditory feedback, tapping, mouthing.
- Child may be auditorily distracted by environmental noises.

Need to assess "unique curricular areas" that are important to children who are visually impaired.

- Functional vision
- Sensory development
- Compensatory Skills (e.g., exploration and hand skills, Pre-braille; listening skills)
- Orientation & Mobility

Need to select assessment scales and strategies that allow for:

- Freedom of presentation and selection of materials
- Quality in addition to milestones
- Incidental and structured presentation

Need to understand the implications of:

- Age at which visual loss occurred
- Level of functional vision
- Implications of the eye condition
- Presence of additional handicaps

Need to be able to clearly describe the assessment process and implications to parents.

WEB RESOURCES

Early Intervention Training Center for Infants and Toddlers with Visual Impairments

www.fpg.unc.edu/~edin.htm

- Screening and Assessment Resources www.fpg.unc.edu/~edin/resScreen.htm

Texas School for the Blind and Visually Impaired

www.tsbvi.edu

- Early Childhood Curricula and Resources www.tsbvi.edu/bib/early.htm
- Assessment Resources for Vision and Hearing www.tsbvi.edu/Education/dbassments.htm
- Infant Assessment/IFSP/Materials Worksheet (go to tsbvi website, then enter address for rtf file) www.tsbvi.edu/Education/early-childhood/infant-assessment.rtf
- Environmental Checklist for Developing Independence www.tsbvi.edu/Education/enviro-checklist.htm

ASSESSMENT RESOURCES

- Bolduc, M., Gresset, J., Sanschagrin, S., & Thibodeau, J. (1993). A model for the efficient interdisciplinary assessment of young visually impaired children. *Journal of Visual Impairment and Blindness*, 87 (10), 410-414.
- Bradley-Johnson, S. (1986). *Psychoeducational assessment of visually impaired and blind students*. Austin: PRO-ED.
- Brambring, M., & Troster, H. (1994). The assessment of cognitive development in blind infants and preschoolers. *Journal of Visual Impairment and Blindness*, 9-18.
- Chen, D., Friedman, C.T., & Calvello, G. (1989). *Parents and visually impaired infants*. Louisville: American Printing House for the Blind.
- Ferrell, K.A., Trief, E., Dietz, S.J., Bonner, M.A., Cruz, D., Ford, E., & Stratton, J.M. (1990). Visually impaired infants research consortium (VIIRC): First-year results. *Journal of Visual Impairment and Blindness*, 84 (8), 404-410.
- Finn, D.M., & Fewell, R.R. (1994). The use of play assessment to examine the development of communication skills in children who are deaf-blind. *Journal of Visual Impairment and Blindness*, 88 (4), 349-356.
- Gibbs, E.D., & Teti, D. M. (1990). *Interdisciplinary assessment of infants: A guide to early intervention professionals*. Baltimore: Paul H. Brooks.
- Hall, A., Scholl, G., & Swallow, R.M. (1986). Psychoeducational assessment. In G. Scholl (Ed.) *Foundations of education for blind and visually handicapped children and youth* (pp 187-214), New York: American Foundation for the Blind.
- Langley, M.B. (1980). *Assessment of multihandicapped visually impaired learners*. Chicago: Stoelting Company.
- Leguire, L.E., Fellows, R.R., & Bier, G. (1990). Bayley Mental Scale of Infant Development and visually impaired children *Journal of Visual Impairment and Blindness*, 84 (8), 440-403.
- Nesker Simmons, J., & Davidson, I. (1992). *Determinants of development: Conceptualizing young blind children*. Ottawa: Canadian Council for the Blind, Suite 405, 396 Cooper Street, Ottawa, Ontario, K2P 2H7.
- Parks, S. (1992). *Inside HELP: Administration and reference manual*. Palo Alto: VORT Corp.
- Rock, S.L., Head, D.N., Bradley, R.H., Whiteside, L., & Brisby, J. (1994). Use of the HOME Inventory with Families of young visually impaired children. *Journal of Visual Impairment and Blindness*, 88 (2), 140-151.
- Warren, D.H. (1994). *Blindness children: An individual differences approach*. New York: Cambridge University Press.

Carla Brown, M.Ed., COMS
carla.brown@fcps.edu