

**Module: Assessment of Infants and Toddlers With
Visual Impairments**

**Session 1: Legal Basis and Overview of
Recommended Practices**

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Introduction

The assessment of young children is guided by both legal mandates and professional recommended practices. Part C of *The Individuals With Disabilities Education Improvement Act of 2004* (IDEA, 2004) provides guidelines for determining eligibility for early intervention and for the individualized family service plan (IFSP). IFSP requirements for planning and implementing early intervention, and for monitoring progress, help early interventionists comply with IDEA 2004. These provisions influence assessment of infants and toddlers with visual impairments and link assessment to intervention and progress monitoring through the IFSP.

In addition to legal mandates, the Division of Early Childhood (DEC) of the Council for Exceptional Children (CEC) has provided recommended practices for the provision of services for young children with disabilities (Sandall, Hemmeter, Smith, & McLean, 2005). Included in these recommended practices are strategies for providing authentic and appropriate assessments within the context of family-centered practices. Established in 2003 through the Office of Special Education Projects, United States Department of Education, the Early Childhood Outcomes Center (<http://www.fpg.unc.edu/~eco/index.cfm>) identified outcomes for children with disabilities and their families that should also be considered during assessment and intervention planning. Finally, because of the unique needs of infants and toddlers with visual impairments, professionals must be knowledgeable about recommended practices for assessment from the field of visual impairment/blindness. Therefore, professionals must be knowledgeable about the legal mandates that influence the assessment of young children with visual impairments and recommended practices in order to provide appropriate services to young children with visual impairments and their families.

Objectives

After completing this session, participants will

1. describe provisions for the IFSP process from IDEA 2004 that guide assessment and intervention planning, implementation, and progress monitoring for young children with visual impairments.
2. identify and describe the functions of assessment, including identification of disabilities, eligibility determination, intervention planning, and progress monitoring and their relevance for young children with visual impairments.
3. describe the three child outcomes and five family outcomes for intervention and education for young children with disabilities identified by the Early Childhood Outcomes Center and describe their relevance to young children with visual impairments.
4. identify and describe recommended practices for assessment of young children as outlined by the Division for Early Childhood, Council for Exceptional Children, and describe their relevance for young children with visual impairments. Discuss issues associated with recommended practices in assessment, such as validity, reliability, standardization, and norm- and criterion referenced measures.
5. describe the importance of collaborating with families to assure acceptability of assessment and of using converging information from multiple disciplines, measures, and informants in the assessment of young children with visual impairments.
6. describe the importance of equity and authenticity in assessment of young children with visual impairments.
7. describe the importance of congruence, sensitivity, and utility in the assessment of young children with visual impairments.

Major Points

A. Legal requirements for assessment of infants and toddlers with disabilities

The legal requirements that guide assessment of infants and toddlers with disabilities are found in the *Individuals With Disabilities Education Improvement Act of 2004* (IDEA, 2004).

Before describing recommended practices for the assessment of young children with disabilities, we will discuss the legal requirements that guide our practices. These legal requirements apply to children with all types of suspected disabilities including infants and toddlers with visual impairments and those with visual impairments and additional disabilities. Many of the recommended practices that follow in Major Point B evolved from these legal requirements.

IDEA Part C, Section 635 describes a general, statewide system that, at a minimum, should include the following components

- A rigorous definition of the term “developmental delay” that will be used by the State in carrying out programs in order to appropriately identify infants and toddlers with disabilities that are in need of services.
- A State policy that is in effect and that ensures that appropriate early intervention services based on scientifically based research, to the extent practicable, are available to all infants and toddlers with disabilities and their families, including Indian infants and toddlers with disabilities and their families residing on a reservation geographically located in the State and infants and toddlers with disabilities who are homeless children and their families.
- A timely, comprehensive, multidisciplinary evaluation of the functioning of each infant or toddler with a disability in the State, and a family-directed identification of the needs of each family of such an infant or toddler, to assist appropriately in the development of the infant or toddler.
- For each infant or toddler with a disability in the State, an individualized family service plan in accordance with section 636, including service coordination services in accordance with such service plan.
- A comprehensive child-find system including a system for making referrals to service providers that includes timelines and provides for participation by primary referral sources and that ensures rigorous standards for appropriately identifying infants and toddlers with disabilities for services that will reduce the need for future services.
- A public awareness program focusing on early identification of infants and toddlers with disabilities, including the preparation and dissemination by the lead agency to all primary referral sources, especially hospitals and physicians, of information to be given to parents, especially to inform parents with premature infants, or infants with other physical risk factors associated with learning or developmental complications, on the availability of early intervention services, and procedures for assisting in disseminating such information to parents of infants and toddlers with disabilities.
- A central directory that includes information on early intervention services, resources, and experts available in the State and research and demonstration projects being conducted in the State.
- A comprehensive system of personnel development, including the training of paraprofessionals and the training of primary referral sources with respect to the basic components of early intervention services available in the State (IDEA, Part C, Section 635, 2004).

Individualized family service plan (IFSP)

The minimum requirements for a statewide system, described above, ensure that infants and toddlers with disabilities, including visual impairments, and their families receive services described in IDEA (2004), Part C, Section 636. These services include

1. a multidisciplinary assessment of the unique strengths and needs of the infant or toddler and the identification of services appropriate to meet such needs;
2. a family-directed assessment of the resources, priorities, and concerns of the family and the identification of the supports and services necessary to enhance the family's capacity to meet the developmental needs of the infant or toddler; and
3. a written individualized family service plan developed by a multidisciplinary team, including the parents, [and]... including a description of the appropriate transition services for the infant or toddler.

According to IDEA (2004) Part C, Section 636, the individualized family service plan (IFSP) must contain

1. a statement of the infant's or toddler's present levels of physical development, cognitive development, communication development, social or emotional development, and adaptive development, based on objective criteria;
2. a statement of the family's resources, priorities, and concerns relating to enhancing the development of the family's infant or toddler with a disability;
3. a statement of the measurable results or outcomes expected to be achieved for the infant or toddler and the family, including pre-literacy and language skills, as developmentally appropriate for the child, and the criteria, procedures, and timelines used to determine the degree to which progress toward achieving the results or outcomes is being made and whether modifications or revisions of the results or outcomes or services are necessary;
4. a statement of specific early intervention services based on peer-reviewed research, to the extent practicable, necessary to meet the unique needs of the infant or toddler and the family, including the frequency, intensity, and method of delivering services;
5. a statement of the natural environments in which early intervention services will appropriately be provided, including a justification of the extent, if any, to which the services will not be provided in a natural environment;
6. the projected dates for initiation of services and the anticipated length, duration, and frequency of the services;
7. the identification of the service coordinator from the profession most immediately relevant to the infant's or toddler's or family's needs (or who is otherwise qualified to carry out all applicable responsibilities) who will be responsible for the implementation of the plan and coordination with other agencies and persons, including transition services; and
8. the steps to be taken to support the transition of the toddler with a disability to preschool or other appropriate services.

IDEA (2004) Part C, Section 636 also requires prompt development of the IFSP after assessment, as well as periodic review of the IFSP at least every six months (more frequently if necessary).

IDEA (2004) Part B, section 614 also specifies assessment procedures for children 3 years of age and older that provide guidance for the assessments of infants and toddlers with visual impairments. Information from Section 614 that is appropriate and that can enhance assessment of infants and toddlers includes:

- using a variety of assessment tools and strategies to gather relevant functional and developmental information;
- including information that will enable the child to participate in appropriate activities;
- not using any single measure or assessment as the sole criterion for determining whether a child is a child with a disability or determining an appropriate program for the child; and
- using technically sound instruments that may assess the relative contribution of cognitive and behavioral factors, in addition to physical or developmental factors.

Furthermore, assessments and other evaluation materials used to assess a child should

- be selected and administered so as not to be discriminatory on a racial or cultural basis;
- be provided and administered in the language and form most likely to yield accurate information about what the child knows and can do developmentally, and functionally, unless it is not feasible to so provide or administer;
- be used for purposes for which the assessments or measures are valid and reliable;
- be administered by trained and knowledgeable personnel;
- be administered in accordance with any instructions provided by the producer of such assessments;
- be used to assess the child in all areas of suspected disability;
- be relevant and provide information that directly assists persons in determining the intervention needs of the child (IDEA, Part B, Section 614, 2004).

B. Functions of assessment—identification, eligibility determination, intervention planning, and progress monitoring

McLean (2004a) identifies four functions of assessment that should be considered when planning and implementing interventions:

1. Identification for referral (screening)
2. Eligibility determination
3. Intervention planning
4. Progress monitoring

Identification (screening) and referral

Identification or screening is the process of determining if children appear to be at risk for disabilities, thereby requiring further assessment. Visual impairments may be identified by visual screening, which may occur in different contexts and take different forms (e.g., community health fairs, well baby checkups). Many infants and toddlers with severe visual

impairments have unmistakable signs of visual impairment that motivate families to secure assistance from eye care professionals without vision screenings. Children with more subtle, but significant, visual impairments that do not impact developmental milestones may not be identified until vision screenings during the preschool years. Handout B, “Recommended practices for vision screening of children ages birth to five years” (XVIII International Preschool Seminar, 1997) provides guidelines for the development and refinement of vision screening practices of young children, including those who are preverbal or nonverbal.

Early referral for early intervention is important for infants and toddlers with disabilities and their families. Early intervention is more likely to make a difference if referral is made shortly after identification. IDEA (2004) requires the lead agency in each state to have in place child-find policies and procedures to ensure that primary referral sources (including hospitals) refer potentially eligible children to the Part C child-find program within two business days of identification (CFR § 303.321).

The National Agenda for the Education of Children and Youths With Visual Impairments, Including Those With Multiple Disabilities (Corn, Hatlen, Huebner, Ryan, & Siller, 1995) is a grass roots effort of parents, teachers, and administrators of children with visual impairments whose goal is improve practices in the education of children with visual impairments. Eight goals were identified as critical to ensuring change. In 2004, the original eight goals were revised and two new goals were added (Huebner, Merk-Adam, Stryker, & Wolffe, 2004). According to Goal One, “Students and their families will be referred to an appropriate education program within 30 days of identification of a suspected visual impairment. Teachers of students with visual impairments (TVIs) and orientation and mobility (O&M) instructors will provide appropriate quality services” (Huebner et al., 2004).

Child-find. In accordance with IDEA, 2004, Part C, Section 635, each state is required to establish a child-find program. The purpose of a child-find system is to educate professionals and nonprofessionals about typical and atypical development and about how to refer for further assessment and intervention (McLean, 2004b). Although child-find systems are unique to their states, they are required to identify primary referral sources and referral procedures. Primary referral sources include physicians, families, childcare programs, schools, public health organizations, social services agencies, and other health care providers. Families play a crucial role in identifying visual impairments. Family members may notice physical differences or changes in the eyes, for example opacity of the lens (indicating cataract), redness, hazy cornea, or wide-open pupil (indicating glaucoma). Because family members know their children better than anyone else, they may be more likely to notice differences in behaviors (e.g., withdrawal, anxiety, rubbing of eyes) caused by a visual impairment without obvious physical manifestations. Other primary referral sources specific for infants and toddlers with visual impairments include ophthalmologists, pediatric ophthalmologists, and optometrists. Screening for sensory impairments, such as visual impairments, or for developmental delay is typically one of the

elements of child-find programs. Often, informal screening procedures are provided to the public as brochures or listings of developmental skills. Formal screenings are also available to individuals and groups, such as childcare-wide screenings or individual visits to pediatricians (McClean, 2004b).

IDEA, 2004, Part C, Section 635 also requires the lead agency in each state to implement a public-awareness program to facilitate early identification. The program provides information about child-find procedures, early intervention, and the state central directory through public channels. The lead agency also produces materials that are distributed to families through primary referral sources.

Pediatricians, ophthalmologists, and other eye care specialists. The American Academy of Pediatrics, the American Association of Certified Orthoptists, the American Association for Pediatric Ophthalmology and Strabismus, and the American Academy of Ophthalmology (2003) recommend visual screening/examination by pediatricians and other providers of health care beginning in the newborn period and at all well-child visits; visual acuity measurement for children 3 and older; and referral of children with ocular or visual abnormalities to pediatric ophthalmologists or to eye care specialists who are trained to work with children.

The American Association for Pediatric Ophthalmology and Strabismus and the American Academy of Ophthalmology (2001) agree that children who show any signs of atypical eye health should have a clinical visual evaluation by an ophthalmologist. They also recommend that children receive visual screening in accordance with the following guidelines:

- Newborns should receive a general eye screen while they are still in the hospital by a pediatrician, family physician, nurse practitioner, or physician assistant. Infants that are considered high risk (e.g., those at risk to develop retinopathy of prematurity (ROP), or those with a family history of retinoblastoma, glaucoma, or cataracts in childhood) should receive a clinical visual evaluation by an ophthalmologist.
- A trained professional (e.g., an ophthalmologist, pediatrician, family physician, nurse, or physician assistant) should perform an eye health screen, including a red reflex test prior to a child's first birthday. This is commonly done during routine well-baby check ups.
- At age 3 and 3 ½ years, vision and alignment are assessed by a pediatrician, family practitioner, ophthalmologist, optometrist, orthoptist, or professional with training in vision assessment of young children. Visual acuity can be assessed when children are cooperative enough to participate in the examination. Most children are able to comply with the assessment requirements between ages 2 ½ to 3 ½ years.
- Children who are unable to pass a visual screening should receive a clinical visual evaluation performed by an ophthalmologist.

Public health initiatives. In a public health initiative termed infantSEE, the American Optometric Association encourages parents to visit an optometrist as part of well-baby checkups and offers comprehensive infant eye assessment within the first year of life at no cost by member optometrists. Preventive Services Task Force (USPSTF), a panel of private-sector experts sponsored by the U.S. Department of Health and Human Service's Agency for Healthcare Research and Quality (AHRQ), recommends screening for visual impairments in children younger than age 5 years. The supporting evidence is available through the USPSTF Web site, <http://www.preventiveservices.ahrq.gov>. The recommendation of the American Academy of Family Physicians can be accessed at <http://www.aafp.org/x7661.xml>. A position statement on identification by the American Optometric Association can be accessed at <http://www.aoa.org/x1911.xml>.

Screening results or clinical reports from pediatricians, ophthalmologists, and other eye care specialists can provide useful information when planning an assessment. The use of clinical information in assessment is covered in more detail in Session 2, "Multimethod Assessment: Process and Strategies."

Eligibility determination

Assessment for eligibility for early intervention may be synonymous with diagnostic assessment to identify developmental delay or disability. IDEA (2004) Part C, Section 632 describes the following eligibility criteria for infants and toddlers with disabilities.

The term "infant or toddler with a disability"—

- (A) means an individual under 3 years of age who needs early intervention services because the individual—
 - (i) is experiencing developmental delays, as measured by appropriate diagnostic instruments and procedures in 1 or more of the areas of cognitive development, physical development, communication development, social or emotional development, and adaptive development; or
 - (ii) has a diagnosed physical or mental condition that has a high probability of resulting in developmental delay; and
- (B) may also include, at a State's discretion—
 - (i) at-risk infants and toddlers; and
 - (ii) children with disabilities who are eligible for services . . . and who previously received services under this part until such children enter, or are eligible under State law to enter, kindergarten or elementary school, as appropriate, provided that any programs under this part serving such children shall include
 - (I) an educational component that promotes school readiness and incorporates pre-literacy, language, and numeracy skills; and
 - (II) a written notification to parents of their rights and responsibilities in determining whether their child will continue to receive services under this part or participate in preschool programs (p. 100).

When a child is referred to early intervention, a team of early interventionists, including interventionists from at least two different disciplines, arranges an eligibility meeting with the child and his or her family. Sometimes eligibility meetings are held at the same time as the IFSP meeting. The evaluation for eligibility determines if a child is experiencing developmental delays, if the child has a physical or mental condition that has a high probability of resulting in developmental delay (e.g., visual impairment, deafness, Down syndrome), or if the child is at risk for developmental delay (e.g., extreme prematurity, poor prenatal care). Although, the law identifies criteria for eligibility for early intervention, it is at the discretion of each State to define physical condition (e.g., visual impairment), mental condition, developmental delay, and at-risk.

States use a variety of terms to categorize the degree of visual impairment a child experiences. Legal blindness and partially sighted, as they are customarily defined (either in terms of qualifying reduction in visual acuity and/or a qualified reduction in visual fields), are used by some states to determine eligibility for early intervention. Legal blindness is defined as central visual acuity of 20/200 or less in the better eye with correction, or a visual field of 20 degrees or less. Partially sighted refers to individuals with visual acuities ranging from 20/70 to 20/200. Another term for visual impairments that is more functionally accurate is low vision. Low vision refers to any degree of vision loss that impacts a child's ability to complete age appropriate activities though the child still has usable vision (Corn & Koenig, 1996). The term low vision is not dependent on an arbitrary acuity or field loss but is based on the functional implications of the child's visual impairment. Most states do not require a specific acuity to determine that a child is eligible for early intervention services due to a visual impairment.

Very often specialists with expertise in visual impairment and blindness on the early intervention team review eye reports from ophthalmologists and optometrists and functional vision assessments to determine if infants and toddlers are eligible for services in a particular state or agency. In compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), assessment teams are required to obtain authorization from the child's parent(s) or guardian for release of information. HIPAA was established to protect health information by identifying standards for the exchange and use of health information. Because it is often challenging to secure visual acuities in infants and toddlers, some states accept eye reports in which ophthalmologists or optometrists note that the child's visual impairment has a high probability of causing developmental delay. Functional vision assessments completed by teachers of children with visual impairments (TVIs) are valuable in the determination of eligibility because these assessment reports describe children's ability to use their vision during daily routines. In contrast, eye reports from ophthalmologists and optometrists are based on clinical, not functional, measurements.

States also define developmental delay differently. For example, some states require a child to have at least 25% delay in two areas of development, while other states require a

33% delay in one area of development to be eligible for services. Individual states also determine how developmental delay is assessed. They may use naturalistic observation, parent interviews, norm- or criterion-referenced measures, or any combination of these methods.

In some cases, children with more subtle visual impairments may be determined to be eligible for early intervention due to developmental delays, rather than due to their visual impairments. In identifying children with developmental delays, many states include vision screenings to rule out visual impairment as a cause of the delays. If the evaluation team members see any evidence of visual impairment, they typically refer the child to an eye care specialist for further evaluation. Often, the team may ask for consultation from a TVI to determine if a referral to an eye care specialist is warranted. For that reason, TVIs should be knowledgeable about vision screening and referral for young children with disabilities who may or may not meet eligibility criteria for services under the eligibility category of visual impairment. Many of these children will have visual impairments such as myopia or hyperopia that can be corrected with corrective lenses, or they may have strabismus that can be successfully treated with occlusion therapy or surgery at very young ages.

Intervention planning

The function of assessment for intervention planning is to provide information for identifying and implementing goals that will optimize children's development and learning. The assessment process for intervention planning should be family centered, functional, developmentally appropriate, process specific, longitudinal, and ecological. Assessment for intervention is guided by the formal requirements and procedures of the IFSP. Detailed information about assessment for intervention planning can be found in Sessions 2, 3, and 4 of this module.

Progress monitoring

Typically, intervention plans should be viewed as dynamic; that is, intervention plans are continually adjusted and modified through progress monitoring. Progress monitoring is used to assess the child's development and learning over time to see if intervention is having the expected results. Detailed information about progress monitoring will be presented in Session 4, *Writing Reports and Planning Interventions*. Assessment should be used to determine if the child is meeting the intervention goals and if development and learning appear to be progressing at the expected rate. Progress monitoring helps families and interventionists identify when children are not attaining expected goals and developing as expected so that the intervention plan can be adapted in a timely manner to better meet the needs of children and families.

C. Child and Family Outcomes of Early Intervention

The Early Childhood Outcomes Center (Early Childhood Outcome Center, 2004a), funded by the Office of Special Education Projects (OSEP) at the U.S. Department of Education, was established in 2003 to identify child and family outcomes for early intervention and early childhood special education (ECSE) and methods for assessing outcomes and reporting them to the OSEP. These outcomes should be considered for assessment, intervention planning and implementation, and progress monitoring. The accountability movement spurred by the No Child Left Behind Act of 2002 has been extended downward to early intervention and ECSE. In a review of federal early intervention and ECSE projects a few years ago, it was noted that there was little or no evidence that early intervention and ECSE are actually effective (Early Childhood Outcome Center, 2004b). Subsequently, the OSEP funded the ECO Center to identify child and family outcomes to identify the components of effective early intervention, and to promote accountability in the field of early intervention/early childhood special education. This ambitious endeavor began in 2003, and its impact is beginning to be felt in state and local agencies that must start collecting outcome data in 2006. Currently, states are identifying outcome measures that meet reporting requirements at the OSEP, and it is likely that these requirements will have a considerable impact on assessment policies and procedures for infants and toddlers with disabilities. Because most states are eager to select one or a few assessment tools to make reporting easier, professionals and families must be alert to the special assessment needs of young children with visual impairments. Because most outcome measures are highly visual, young children with visual impairments may appear more delayed than they actually are if inappropriate assessment tools and procedures are used. Professionals with expertise in visual impairments and families must be prepared to advocate for appropriate assessment tools that meet the unique needs of infants and toddlers with visual impairments.

The changes resulting from the accountability movement will probably result in better services for children and families. Although the child and family outcomes identified by the ECO Center for children with disabilities, ages birth to 5 years, appear to be functional and appropriate, it will be challenging to find appropriate measures and methods to assess the outcomes in infants and toddlers with visual impairments. As identified by stakeholders throughout the United States who participated in the development of outcomes for the ECO Center (Early Childhood Outcome Center, 2005), young children with disabilities should achieve the outcomes listed below through their participation in early intervention and ECSE.

1. Children have positive social relationships.
2. Children acquire and use knowledge and skills.
3. Children take appropriate action to meet their needs.

The overall goal of these child outcomes is to enable children to be active and successful participants in their early childhood years and in the future.

Family outcomes identified by the ECO Center (2005) also seem appropriate and will probably be easier to measure than the child outcomes. All five of the following family outcomes have been accepted as relevant for children being served under Part C of IDEA.

1. Families understand their children's strengths, abilities, and special needs.
2. Families know their rights and advocate effectively.
3. Families help their children develop and learn.
4. Families have support systems.
5. Families access desired services, programs, and activities in their communities (ECO Center, 2005).

For families, the overall goal of early intervention and ECSE is to enable them to provide care for their child and to have the resources they need to participate in their own desired family and community activities. For ongoing updates about the status of child and family outcomes, their measurement, and reporting the results to the OSEP, see the Web site of the ECO Center at www.the-ECO-center.org.

Currently, states are struggling to identify measurement tools that measure the attainment of these child and family outcomes. Because states must start measuring outcomes in 2006, most will probably have recommended or required assessment tools by the end of 2006. Professionals and families must be vigilant to assure that assessments are appropriate for young children with visual impairments.

D. Recommended practices

Recommended practices

Recommended practices for the assessment of children with disabilities have been outlined by the Division for Early Childhood (DEC) of the Council for Exceptional Children (CEC) in *DEC Recommended Practices: A Comprehensive Guide for Practical Application in Early Intervention/Early Childhood Special Education* (Sandall et al., 2005). The DEC committee responsible for developing recommended practices held focus groups and conducted extensive reviews of the scientific literature to identify practices that help young children with disabilities reach their potential and that support families. The resulting book, first published in 1993 and updated in 2005, outlines recommended practices for a variety of areas that comprise early intervention and early childhood special education. The practices are grounded in the theory that all services provided to young children, including assessment, should be family centered and developmentally appropriate.

In their introduction to the chapter on assessment in *DEC Recommended Practices*, Neisworth and Bagnato (2005) emphasize family-focused and developmentally appropriate principles in the following eight standards for assessment of young children with disabilities:

1. Utility: The assessment should be useful for intervention.
2. Acceptability: Professionals and parents should agree on the content and methods, and the information gathered should be related to socially valued competencies.

3. **Authenticity:** Assessment should provide information about children’s functional behaviors in natural settings and routines.
4. **Equity:** Assessment procedures should provide accommodations for children with special needs, including sensory, motor, cultural, or other needs.
5. **Sensitivity:** Measurement gradations should be fine enough to detect small changes.
6. **Convergence:** Information should be gathered and synthesized from multiple sources.
7. **Collaboration:** Parent-professional teamwork is integral to conducting assessment.
8. **Congruence:** Assessment measures should be designed for and validated on the children who will be assessed.

The DEC recommended standards of assessment are the basis for authentic assessment. Neisworth and Bagnato (2004) describe authentic assessment as “the systematic collection of information about the naturally occurring behaviors of young children and families in their daily routines” (p. 204), and offer some practical guidelines for using authentic assessment:

- Collaborate with the team, including families.
- Conduct multiple observations over time.
- Designate a team leader or primary early interventionist to function in two roles: (a) as “orchestrator” of authentic assessments, ensuring that information is gathered from different people, situations, and times, and (b) as facilitator of parent-professional decision making.
- Identify a collaborative team model that meets the needs of the child.
- Value parent opinions and observations. Parents may provide particularly useful information about children’s emerging skills, temperament, and learning style.
- Identify a common measure to facilitate interdisciplinary and interagency teamwork and organize information gathering.
- Use materials without jargon to facilitate clear parent-professional communication.
- Use assessment tools with a high density of items to measure child progress, particularly for children with significant special needs.
- Use technology in assessment (e.g., videotaping).

Authentic portraits of children can be captured through a variety of assessment strategies such as, observations of daily routines and play (natural or facilitated), interviews, checklists, and rating scales. Examples of different authentic assessment strategies and procedures are described below.

Play-based assessments. Both researchers and practitioners recognize that not only do children learn through play, but considerable information about children’s developmental abilities and needs can be gathered through systematic observation of children engaged in play (Bagnato et al., 1997; Blasco, 2001; Linder, 1993). During play, children demonstrate

developmental skills that reflect sensory, cognitive, communication, fine motor, gross motor, and social-emotional skills and abilities.

Play-based assessment allows the team to gather information about children's current abilities and the skills they may be ready to acquire. In addition, the team can identify adaptations and ways to facilitate play that will help children develop new skills and generalize current abilities. The transdisciplinary play-based assessment process provides an alternative method of systematically gathering information about children's competencies across developmental areas in an integrated manner (Blasco, 2001; Bruder, 2002). The flexibility of play-based assessment allows the team to be responsive to children's interests, activity level, temperament, and states of arousal (Blasco, 2001). This flexibility is well suited to interactions with infants and toddlers with visual impairments. In play-based assessment, one person acts as play facilitator and interacts with the child while other team members, both professionals and family members, observe. The play facilitator should be someone with whom the child is comfortable. The TVI plays a key role in helping the play facilitator identify the types of activities and materials that are likely to facilitate the child's active engagement with the materials, objects, and people in the environment.

Casper, an 18-month-old who is blind due to retinoblastoma, and his mother, Julia, are playing on the kitchen floor. Casper's TVI, Tamara, has arranged for a transdisciplinary play-based assessment to monitor his developmental progress. As Casper and Julia play, Tamara and Casper's orientation and mobility specialist observe. Casper crawls toward one of the kitchen cabinets and attempts to open the door by pulling at the corner of the cabinet door. When Casper is unsuccessful in opening the door, Julia verbally prompts him to find the doorknob. Casper searches for the knob without locating it. Tamara suggests that Julia try tapping next to the knob to provide Casper with an auditory cue. When Julia does this, Casper immediately locates the knob and pulls the cabinet open.

Casper is delighted with the "treasures" he finds in the cabinet. He pulls out different containers and pots. Julia gets a few more kitchen items and places them in the cabinet. Casper soon attempts to crawl inside the cabinet. At first he is not able to turn around in the cabinet, but he soon maneuvers himself around and sits down. Casper suddenly freezes as he hears a sound from the garage. "Dada," he verbalizes. Julia confirms and expands: "Is Daddy home? I think you might be right. Let's go meet him by the door."

Before Tamara and the orientation and mobility specialist end their visit, they share their observations with Casper's parents. Casper's parents eagerly describe their observations of Casper during daily routines and play.

Flexibility and an ability to read and follow the child's lead and interests are key skills for the play facilitator (Blasco, 2001). Observers are actively involved as they suggest activities, materials, and strategies to elicit specific behaviors (Blasco, 2001; Linder, 1993). A key feature of a play-based assessment model is that all team members, including the

family, integrate their observations about the child's skills and abilities and discuss priorities related to the child's needs and intervention goals (Anthony et al., 2004; Blasco, 2001). The resulting assessment report integrates information from all members of the assessment team, including the child's family.

Ecological assessment. Ecological assessment provides a holistic view of children by examining development within physical and social contexts in the home and childcare environments. The physical aspect of ecological assessment includes available physical space, arrangement of space, and access to appropriate objects and materials. The social dimension of ecological assessment may include caregiver responsiveness, sibling/peer interaction, and daily routines/schedule. Ecological assessments can be made with a variety of measures, including checklists, rating scales, and/or observations.

Routines-based assessment. Routines-based assessment (RBA; McWilliam, 2003) is one aspect of authentic assessment. Through an interview, information is gathered regarding daily routines and how the child and family interact during those routines. The interviewer helps families identify and prioritize concerns. Routines-based assessment is covered in more detail in Session 3, *Areas of Assessment*.

Major Points E through G of this session describe how the eight DEC recommended standards of assessment apply to young children with visual impairments. Before discussing these standards, though, we will briefly review assessment issues that also are important in implementing recommended practices in assessment. These issues include validity, reliability, and the use of standardized, norm-, and criterion referenced measures.

Assessment validity and reliability

In order to be useful to practitioners and families, assessment measures must fulfill the basic scientific requirement of validity and reliability. *Validity* refers to the degree to which an assessment measures what it is supposed to measure. *Reliability* describes the consistency with which assessment tools measure particular skills or abilities.

There are different types of validity, and their relevance varies with the purpose of assessment. While a working knowledge of validity may be useful to professionals, Bagnato, Neisworth, and Munson (1997) note that "validity does not reside within an instrument; rather, validity depends on that instrument's use and contribution of the goodness of decisions made" (p. 11).

- *Content validity* describes how closely the content of an assessment corresponds to the extent of the domain being tested. For example, an assessment that purports to measure vocabulary should probably have items that are related to many different aspects of vocabulary. A brief assessment that tests only for knowledge of color names would probably not provide an accurate picture of a child's overall vocabulary, especially if the child is visually impaired. Determining to what degree an assessment has content validity is not necessarily an easy or intuitive task. The content validity of

an assessment must be judged on the theoretical basis, source, and supporting data for item selection, among other factors, by experts in the field (Bailey, 2004).

- *Construct validity* describes how closely the results of an assessment agree with the overall theoretical framework that is supported by accumulated evidence and research (Bailey, 2004). To have construct validity, the results of assessment should be consistent with the established conceptual model of how children with visual impairments function and develop. Assessments that produce results that are not consistent with professionals' experiences, expectations, and beliefs suggest that the tool or procedure lacks construct validity.
- *Developmental validity* describes the extent to which items on the assessment are developmentally suitable for the child being assessed (Woolley, Bowen, Bowen, 2004). For example, for children who are blind, items assessing whether or not a child can point to pictures is not developmentally valid.
- *Treatment validity*, also called instructional utility, describes the extent of to which an assessment contributes to beneficial outcomes for the individual (Bailey, 2004; Bagnato et al., 1997). For example, do the results of the assessment identify relevant and functional goals and objectives that can be used for intervention?
- *Social validity* describes the extent to which the assessment measures skills and provides results that are valuable and worthwhile (Bailey, 2004; Bagnato et al., 1997). Families and interventionists must believe in the utility and value of the procedure.

Reliability describes the consistency with which assessments measure what they are supposed to be measuring. Assessments must be repeatable and have consistent results over time and across multiple assessors. A reliable assessment is one in which different groups of similar children have similar results, and in which different evaluators, assessing the same group, would report similar findings. Reliability coefficients can range from 0 (no reliability) to 1 (perfect reliability). A measure that has a reliability coefficient of .80 or higher is usually considered acceptable (Bailey, 2004).

Reliability and validity are separate but related concepts. Assessments can be reliable (i.e., yield consistent results across time and assessors) and yet still be invalid for specific purposes. For example, a well-designed gross motor assessment may be reliable, but it would almost certainly be invalid as a tool for planning communication intervention. Therefore, professionals must consider both validity and reliability of tools while constantly reminding themselves of the purpose of specific assessments.

Standardized assessments

Standardized measures have undergone a rigorous process in which the materials, administrative and scoring procedures, and score interpretation were developed using statistical measures (Bailey, 2004). After a measure has been standardized, it can be used to compare a child's skills to those of the group. Because all children will be expected to complete the same tasks with the same materials and instructions, individual differences in response are theorized to be due to differences in individual abilities.

Standardized measures may not capture the true capabilities of children with disabilities, particularly children with sensory and motor impairments. In addition, most young children do not demonstrate their true abilities in contrived testing situations. They are often anxious or easily distracted in unfamiliar settings. Chase (1975) describes the dilemma facing professionals evaluating young children with visual impairments using standardized assessment.

- Children’s sensory or motor disabilities may limit their ability to perform standardized assessment tasks, forcing professionals to abandon standardized procedures. If they do not adapt standardized procedures, the assessment may not have developmental validity, and children’s abilities may be under estimated.
- Compensatory skills may be overlooked in the rigid application of standardized procedures.
- Norms on standardized norm-reference tests may not be appropriate because children with visual impairments may not have been included in the norming sample.

Standardized assessment measures can be either *norm-referenced* or *criterion-referenced*.

Norm-referenced assessments. A norm-referenced assessment is developed by administering items to a sample of children who are representative of the target population. Individual children’s scores can then be compared to scores from the norm group, and information regarding how that child performs relative to other children can be obtained (Bailey, 2004).

According to Bagnato et al., “Most conventional, norm-referenced, standardized materials developed through psychometric procedures do not meet standards for acceptable assessment in early intervention” (1997, p. 3). Some norm-referenced assessments may contribute useful information when they are administered by professionals who have a solid understanding of the effects of visual impairment on development (Liefert & Silver, 2003). Input from the TVI is essential in helping the assessment team understand not only the effects of visual impairment on development, but also the effects of the individual child’s overall sensory abilities on development and the assessment process. Results of norm-referenced assessments must be interpreted carefully, considering the results of all assessments, including observations in natural environments (Gleason, 2005; Ray, O’Neill, & Morris, 1983).

Norm-referenced measures can be useful in determining eligibility for services because they document developmental delay. Although eligibility for services for children with visual impairments is typically based on eye reports from ophthalmologists and/or optometrists, some agencies may require norm-referenced assessments for program planning for children who are visually impaired, but who are primarily visual learners.

Criterion-referenced assessments. Criterion-referenced assessments measure a child's performance on a predetermined objective (Bailey, 2004). These objectives are typically selected for their importance for development and independence. On criterion-referenced assessments, children are not compared to their peers, but instead results are used to develop goals to help the child attain the next developmental skill. Criterion-referenced assessments are considered standardized when procedures or administrations are the same for all children and scores can be compared to performance standards established for the assessments. Not all criterion-referenced assessments are standardized. In contrast to norm-reference assessments, which have set scores based on the norms established by the assessment developers, criterion-reference assessments may include cut off scores established by interventionists.

Criterion-referenced assessments may be more appropriate than norm-referenced assessments for identifying placements and intervention goals that will meet the functional needs of the child and family.

Curriculum-referenced assessment, a type of criterion-referenced assessment, involves "the assessment of a child's abilities in the context of a predetermined sequence of curriculum objectives" (Bailey, p. 34, 2004). Curriculum-referenced assessment is different from criterion-referenced assessment in that a fixed criterion may not always be in place and that it is linked directly to intervention outcomes.

E. Collaboration, acceptability, and convergence

Collaboration, acceptability, and convergence are important standards in the assessment of young children with visual impairments. Collaboration describes the process by which professionals and families work together as a team to effectively assess young children with visual impairments, including children with multiple disabilities (Blasco, 2001; Bruder, 2002; Chase, 1975; Corn et al., 1995; Liefert & Silver, 2003; Neisworth & Bagnato, 2004; Pogrund, 2002; Ray et al., 1983; Smith & Levack, 1996). Acceptability describes families' satisfaction with assessment that typically results from their involvement in determining the content and methods of assessment. Additionally, the information obtained from assessment should be of cultural and social relevance to families. Collaboration leads to both convergence and acceptability. Convergence involves gathering and synthesizing information from multiple disciplines, informants, and measures.

Collaboration

Families. Both the legal mandates of IDEA (2004) and recommended practice in early intervention (Sandall et al., 2005) require a collaborative family-centered team approach for assessment and for planning, implementing, and monitoring early intervention for infants and toddlers with disabilities (Anthony, Lowry, Brown, & Hatton, 2004; Blasco, 2001; Cloninger, 2004). Family-centered practices in early intervention recognize that the family is the constant in a child's life (Bruder, 2002).

Families and professionals should collaborate to develop assessment plans, including considering the style, method, and content of assessments that will best address children's needs and families' priorities, concerns, and resources (Bruder, 2002; Ray et. al., 1983). Families are integral members of the assessment team and must be fully involved throughout the assessment process (Chase, 1975; Chen & Miles, 2004; Liefert, 2003). Mutual respect and trust between families and service providers are essential for effective early intervention services (Bruder, 2002). As service providers share their professional expertise and listen actively while family members share valuable information about their children, mutual respect and trust are facilitated, including respect for families' values, culture, and priorities (Hatton, McWilliam, & Winton, 2002). If families are not integrally involved in the assessment process, critical information about children's abilities over time and in different settings may not be secured (Chase, 1975). When families are actively involved in children's assessments, they are more likely to understand the assessment process and results (Chen & Miles, 2004; Smith & Levack, 1996), and are therefore more likely to effectively implement interventions. Some caregivers may not recognize the importance of the information they have about their children; however, family involvement in assessment of infants and toddlers is particularly important. If familiar caregivers are involved in the assessment, young children tend to be more secure and comfortable, and they are more likely to demonstrate their true abilities.

Multiple methods (interviews, questionnaires, etc.) should be used to elicit information from families, insuring that they have opportunities to share their knowledge and observations of their children, contributing to convergence from multiple method assessments. While collaborating closely with families, professionals should recognize the impact of culture on the preferred communication style of the family and should recognize that they are viewing the family/professional relationship from their own cultural perspective (Blasco, 2001; Chen & Miles, 2004).

McLean and Crais (2004) outline three primary strategies for developing collaborative relationships with families within assessment activities. These strategies all focus on providing ample opportunities for family and caregiver input.

1. *Preassessment planning.* Preassessment planning is an excellent way to gather information needed for the assessment and to invest families in the process early. Preassessment planning can be conducted in a variety of ways, including sending forms to families and caregivers, having telephone discussions, and meeting face-to-face. The service coordinator may meet with the family face-to-face or have the entire team meet together to plan the assessment.

Steps in planning an assessment should include gathering background information, identifying the family's goals, determining how they will participate in the assessment process, identifying who should be involved in the assessment (e.g.,

other caregivers, teachers), identifying the contexts for the assessment, and formulating a plan (McLean & Crais, 2004).

When planning the assessment with families, professionals should help families understand what to expect regarding time involved, people who will be present, questions that may be asked, and information that may be needed from them. Just as professionals take time to prepare for an assessment, families should also be involved in all stages of the process so that they will be prepared for the assessment (Morgan, 1995).

2. *Active participation by family members and other caregivers in assessment.* Parents and caregivers should be viewed as the experts on their children and therefore as crucial contributors to the assessment process. Family members can assist in a variety of tasks in the assessment, including completing questionnaires or interviews about their children, observing children for particular skills during daily routines, actively attempting to elicit responses from children, administering some test items, and confirming whether or not responses were representative of children's abilities (McLean & Crais, 2004). Professionals should be respectful of the family's chosen level of involvement and support them in participating at that level.

During the planning phase, families can provide information regarding the activities, toys, strategies, and contexts that might produce optimal responses. During the assessment, they can advise assessors about how to best engage their children in assessment tasks and activities. Families can also provide ongoing information about whether children's responses are representative of typical behavior and whether assessors have interpreted children's responses correctly. Finally, families can provide feedback following the assessment regarding how typical the behaviors were, behaviors or skills that children may not have demonstrated, and suggestions for more effective assessment in the future (McLean & Crais, 2004).

3. *Mutual sharing of assessment results.* Information can be shared during the assessment as ongoing feedback, presented in a sharing/feedback meeting with the team following the completion of the assessment, or both. Regardless of how information is shared, offering families and caregivers opportunities to provide feedback and input about children is crucial for facilitating their involvement on the team. Professionals should share assessment results in a manner that directly addresses the family's priorities and concerns and provides useful information for decision making. Families should be asked if their concerns and needs were addressed and if there is anything else professionals can do to assist them (McLean & Crais, 2004). Finally, families should be included in the development of the written report.

Collaboration with families is critical for effective assessment of infants and toddlers with visual impairments. Effective teaming and family-centered approaches are described in detail in Sessions 1 and 2 of *Family-Centered Practices for Infants and Toddlers With Visual Impairments* (Hatton, McWilliam, & Winton, 2003).

Handout C, “Collaboration Among Families, Early Intervention Programs, and Specialty Providers” (Low Incidence Subcommittee of the Interagency Coordinating Council, 2004), identifies several important principles that all professionals on the early intervention team should embrace in order to collaborate effectively with families in providing comprehensive intervention plans for children and families.

Acceptability

Acceptability emphasizes the importance of involving families in identifying the content, materials, and methods of assessment, and ensuring that assessment results reflect competencies valued by the family. Acceptability is an aspect of social validity, the extent to which the assessment and results are meaningful and worthwhile (Bailey, 2004; Neisworth & Bagnato, 2005). By collaborating with families, as described earlier, acceptability of assessment procedures can be assured.

Hannah and her son, Humar, a two-year-old with ocular albinism, are eating dinner together. Hannah praises Humar for tasting her new chicken dish. Humar smiles proudly as he picks up another piece of chicken. Although she is glad that her young son will try new foods, Hannah would like for him to become more competent with a spoon and fork.

When Brandon, Humar’s teacher of children with visual impairments (TVI), arrives for his weekly home visit with the family, Hannah tells him that she would like Humar to start using utensils instead of his fingers, at least for some foods. Brandon suggests that they schedule a session during mealtime so that he can observe Humar while he eats. Hannah is excited about learning how to help her son eat with a spoon and fork so that he can become more independent. She tells Brandon how much she appreciates his sensitivity to her values, observations, and suggestions for Humar’s intervention goals.

Convergence

Assessment of young children with visual impairments is a challenging process that requires the expertise of families and professionals from multiple disciplines. By implementing family-centered practices and encouraging collaboration, the assessment team will be more likely to achieve convergence through the use of multiple measures, multiple procedures, and multiple informants.

Collaboration is good for everyone involved in an assessment because the whole is greater than the sum of the parts. No one discipline can possibly view a child as completely as an alliance of family members and professionals who understand the child from various perspectives. (Liefert & Silver, 2003, p xvii)

By combining various perspectives and areas of expertise, a more accurate picture of the “whole child” emerges (Liefert & Silver, 2003). Part C of IDEA (2004) specifically requires that a multidisciplinary team, including professionals from at least two different disciplines, assesses infants and toddlers. Assessment and services for young children with visual impairments or blindness may be provided by families and individuals with expertise in a variety of disciplines. Individuals who may work with young children with visual impairments include

- families,
- teachers of children with visually impairments (TVIs) or teachers of children with deafblindness,
- orientation and mobility specialists (OMSs),
- early childhood special educators,
- early childhood educators,
- speech-language pathologists (SLPs),
- occupational therapists (OTs),
- physical therapists (PTs),
- registered nurses (RNs),
- social workers (SWs),
- psychologists,
- pediatricians,
- ophthalmologists,
- optometrists
- other physicians, and
- low vision specialists.

According to the sixth goal of the *National Agenda for the Education of Children and Youths With Visual Impairments, Including Those With Multiple Disabilities—Revised* (Huebner et al., 2004), “All assessments and evaluations of students will be conducted by or in partnership with personnel having expertise in the education of students with visual impairments and their parents.” Therefore, the assessment team for infants and toddlers with visual impairments should include a TVI who is very familiar with both early childhood development and the potential effects of visual impairment on development (Chen, Friedman, & Calvello, 1989; Liefert, 2003). A thorough understanding of the development of infants and toddlers who have typical vision will help TVIs understand how to apply developmentally appropriate assessment practices to young children with visual impairments (Fazzi & Klein, 2002; Topor, Rosenblum, & Hatton, 2004).

Information sharing among team members is vital in understanding the concepts and vocabulary from each field and how information from one discipline may affect the assessment observations of a colleague in a different field. Joint visits, both during the assessment and between assessment updates, allow early intervention team members to share information, train one another across disciplines, and engage in role release, a critical component of the transdisciplinary approach. Role release involves the sharing of

discipline-specific expertise with other team members (Hatton et al., 2003). When team members master new knowledge and skills, they take on new roles in working with the child. Hatton et al. caution that “care must be taken that role release is always used in the best interest of the child and family and not to simply minimize the time a given specialist spends with the child and family” (2003, p. 4).

Aaron is a friendly 30-month-old with cortical visual impairment, global developmental delays, and physical disabilities, including high muscle tone. Eileen, Aaron’s TVI, provided an in-service training session on cortical visual impairment for Aaron’s early intervention program and childcare staff. Monica, his occupational therapist (OT), joined Aaron and Eileen at Aaron’s childcare center to identify how Aaron’s combined visual and physical disabilities were affecting his ability to interact with people and objects in his childcare setting.

As Eileen positioned Aaron on his back on a semicircular “boppie” pillow, she noticed that as Aaron turned his head to the right, his right arm and leg extended and his left arm and leg flexed. Monica explained to Eileen that Aaron’s asymmetrical tonic neck reflex (ATNR) is not integrated, and that, in this position, he would not be able to effectively turn to look at or reach for objects presented by Eileen.

To reduce the ATNR, Monica provided support for Aaron’s head in midline. With his head in midline, Aaron was able to coordinate hands and eyes to locate and reach for a red Mylar balloon presented to his left and right. Eileen realized that, without Monica’s explanations, she might have incorrectly concluded that Aaron could not see the red balloon. Monica left their collaborative session with an understanding that she should use red objects without noise, that she should stop unrelated “chatter” while interacting with Aaron, and that she should allow more time for Aaron to react.

Monica and Eileen’s subsequent joint assessments gave Aaron the chance to really show his abilities. Given enough time to process visual information and respond to it, Aaron was able to shift his gaze between two familiar toys and then indicate his choice by maintaining his gaze on the toy he preferred. Monica and Eileen shared their observations with Aaron’s parents by writing in the notebook that accompanied Aaron as he traveled from his childcare center and home each day.

Convergence in assessment requires significant effort and commitment to the process.

Goodman (2003) describes the qualities of an effective team member as

- being open and willing to share roles;
- being comfortable responding to questions of other team members, including parents;
- being knowledgeable in his or her own discipline;
- being an excellent listener;
- welcoming questions and challenge by colleagues;

- having initiative, creativity, and the “skills of a detective”; and
- having mutual respect among equals, with each team member bringing his or her own expertise to the team.

The transdisciplinary approach to assessment and intervention has been widely recognized as appropriate for infants and toddlers with special needs (Bruder, 2002; Correa, Fazzi, & Pogrund, 2002; Perla & Ducret, 1999; Siegel-Causey, 1996). In a transdisciplinary approach, all team members, including parents, deliberately share information, knowledge, and skills (Bruder, 2002; Correa et al., 2002). Sharing means more than each team member doing his or her own assessment separately and then reporting the results. The transdisciplinary approach requires team members to practice role release by working across disciplinary boundaries, learning from one another and working with family members in an integrated manner (Hatton et al., 2003). Arena assessment, often used in a transdisciplinary approach, allows multiple professionals from different disciplines to simultaneously evaluate the child. In arena assessment, all members of the team, including the family, observe while one person interacts with the child, allowing for timely sharing of expertise and information following an observation (McLean & Crais, 2004). This method typically results in a coordinated, holistic intervention plan that is less fragmented and that is more family-friendly.

F. Equity and authenticity

Assessments that are equitable provide accommodations for children with special needs and are of particular importance for children with visual impairments. The standard of authenticity promotes the assessment of children’s abilities and skills within natural settings and routines.

Equity

Equitable assessments assure that procedures and materials are individualized to meet the individual differences of young children. Because most assessments of infants and toddlers involve tasks that are based on intact vision, equity is especially problematic for infants and toddlers with visual impairments. A quick review of cognitive tasks on standardized assessments for infants and toddlers demonstrates just how challenging and inappropriate assessment items can be for children with visual impairments. For example, on a commonly used developmental assessment, one expressive communication item requires the assessor to display a picture of a city street corner and say, “Tell me what is happening in this picture.” Another item requires the assessor to ask children to locate hidden items in a picture of a zoo to assess their attention and memory. In many cases, it is impossible to devise an equivalent item that is not based on vision. Therefore, materials and procedures for most assessments that have been standardized with children of typical development are not equitable for children with visual impairments. For that reason, assessment of infants and toddlers with visual impairments is a complex process that must

be individually planned for each child. To be equitable, assessments for children who are visually impaired must provide environmental and procedural adaptations that accommodate their sensory and motor needs in particular. Sessions 2 and 3 of this module provide guidance in planning and implementing equitable assessments for young children with visual impairments.

Olivia, a two-year-old with aniridia, glaucoma, and visual field loss, is being observed by her intervention team in her home as she plays with her favorite baby doll. Olivia's mother participates in the assessment by playing with Olivia. Olivia holds the baby in her arms as she feeds her a bottle. Because Olivia is photophobic, the TVI has dimmed the lighting and pulled the shades so that Olivia's vision will be less affected by the lighting conditions and glare. Olivia's mother carefully considers the presentation of objects to Olivia during their play.

Authenticity

An accurate understanding of young children's abilities is more easily obtained when children are assessed in familiar environments, in meaningful activities, and with people they know (Bruder, 2002; Chase, 1975; Chen & Miles, 2004; Gleason, 2005; Liefert & Silver, 2003; Ray et al., 1983). Many assessments include contrived tasks that are incompatible with the daily routines of young children and their families.

It is long overdue for our interdisciplinary field to abandon decontextualized testing practices and to champion the use of measurement techniques that capture authentic portraits of the naturally occurring competencies of young exceptional children in everyday settings and routines—the natural developmental ecology for children (Neisworth & Bagnato, 2004, p. 198).

Contrived assessment tasks tend to result in less realistic appraisals of children's abilities. Most young children feel more secure in their home environment with people they know. Children with disabilities often need more time to adjust to unfamiliar settings and materials. For example, a child with a visual impairment may be less attentive due to auditory and visual distractions (e.g., telephones, new voices, cluttered arrangements of objects and furniture). Clinical environments rarely provide optimal lighting for children with low vision. Children's home environments are more likely to include appropriate adaptations. Children with low vision who benefit from modified lighting conditions are often able to make their own adaptation in familiar environments.

G. Congruence, sensitivity, and utility

Congruence describes assessment measures that are designed for and validated on the children who will be assessed, while sensitivity describes measurement gradations that detect small changes. Utility describes how useful and worthwhile assessment is for identifying, planning, and implementing functional intervention goals.

Congruence and sensitivity are particularly difficult to achieve in the assessment of children with visual impairments due to our lack of standardized assessments, the heterogeneity of children with this low incidence disability, and to the lack of research on the development of infants and toddlers with visual impairments that would inform the development of congruent and sensitive measurement tools.

Congruence

Assessment measures are congruent when they are designed for and validated on children who are similar to the children assessed (Neisworth & Bagnato, 2005). Neisworth and Bagnato note that it “makes little psychometric or common sense” to take assessment materials and procedures that were standardized on typically developing children and use them with children with special needs (2004, p. 201). In other words, young children with visual impairments should be assessed with tools that were designed with their specific needs in mind, and that have been tested by children with similar needs.

Unfortunately, there are few tools that are designed for and validated on young children with visual impairments. Two exceptions are the *Reynell-Zinkin Scales* (Reynell & Zinkin, 1979) and the *Oregon Project for Visually Impaired and Blind Preschoolers* (Anderson, Boigon, & Davis, 1991) that were designed for use with preschoolers, including infants, with visual impairments. The *Oregon Project* is a criterion-referenced measure appropriate for assessment and intervention planning but is not standardized or normed. The *Reynell-Zinkin Scales* are now dated, and the norms were secured on children in the United Kingdom.

Some assessment measures provide adaptations for children with visual impairments although they are not exclusively designed for children with visual impairments. *The Battelle Developmental Inventory* (Newborg, 2004) is a norm-based standardized developmental assessment for children birth to 8 years of age that includes some adaptations for children with visual impairments. The *Carolina Curricula* (Johnson-Martin, Jens, Attermeier, & Hacker, 1991) is a curriculum-based assessment for children from birth to 5 years with mild to severe disabilities. Adaptations are included for children with sensory and motor needs.

A more detailed discussion of assessment tools for infants and toddlers with visual impairments is provided in Session 2, *Multimethod Assessment: Process and Strategies*.

Sensitivity

Children with disabilities need assessment tools that are sensitive to small increments of change (Neisworth & Bagnato, 2005). A high density of items within an assessment strand is more likely to detect change in a child’s development over time. High sensitivity is particularly important for children with visual impairments and additional disabilities, who may show subtle changes in development. Many assessments simply do not have sufficient numbers of items to detect subtle progress. *The Hawaii Early Learning Profile* (HELP; Furuno, O’Reilly, Hosaka, Inatsuka, Allman, & Zeislot, 1994) is a comprehensive

curriculum-based assessment for children, birth to 3 years, that breaks skills into small steps, permitting documentation of small changes in development. While not designed for children with visual impairments, specific adaptations are suggested for children with visual impairments.

The INSITE: Assessment of Developmental Skills for Young Multihandicapped Sensory Impaired Children (Morgan, & Watkins, 1989) is a comprehensive developmental assessment designed for young children with multiple disabilities and sensory impairments that is widely used because of its sensitivity. The short version is useful for children birth to 2 years of age; the long version covers birth to 6 years of age. *The Callier-Azusa Scale "G"* (Stillman, 1978) is a norm-referenced assessment that was specifically designed for children with deafblindness or severe/profound disabilities who are functioning between birth and 6 years of age and is also sensitive to small changes in development. The normative sample is representative of children who are deaf-blind. The assessment does not describe the appropriateness for children with low vision, children without additional disabilities, or children whose additional disabilities does not include deafness. *The Callier-Azusa Scale "H"* (Stillman, 1984) is a communication subscale developed as an addendum to the Callier-Azusa Scale "G".

Utility

Assessment should have utility in order to be worthwhile. When planning and conducting assessments to guide intervention, professionals should constantly consider how the information gathered can be used to make decisions about appropriate goals, strategies, and resources for functional intervention.

Neisworth and Bagnato (2005) provide recommendations for using assessment to guide intervention.

- Assess the child for atypical behaviors and determine how they may present barriers to intervention and progress.
- Use functional analysis of behaviors to assess the extent and reasons for challenging behaviors.
- Use measures that have high treatment validity (i.e., that link assessment, individual program planning, and progress evaluation).
- Assess the consistency of a particular skill across multiple settings and with other people before determining whether a child has mastery over it.
- Determine the level of support a child needs in order to perform a task.
- Use assessment scales that have enough items to detect even small increments of progress.
- Use a curriculum-based assessment as the "mutual language" for team assessments.
- Repeat assessments in order to examine previous assumptions about the child, to monitor progress, and to modify the program.

- Report assessment results in a timely manner to increase usefulness for planning program goals and objectives.

The written assessment report is an important resource for planning interventions. It provides a record of the best estimate of children's abilities at a particular point in time and can be used to compare later performance (Wolery, 2004). Reports help families and professionals better understand children's strengths and needs. In writing assessment reports, professionals should use clear, objective, and jargon-free language. The report should present the information gathered during the assessment in a manner that is both respectful of the family and detailed enough to inform intervention (Wolery, 2004).

Additional detailed information regarding the sharing of assessment results and using assessment results for intervention planning is provided in Session 4 of this module.

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