

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

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

### **Activity A: Panel Discussion**

#### **Participant Guidelines**

The purpose of this activity is to learn about the implementation of IDEA 2004 at the state and local levels from professionals in a variety of disciplines.

**Materials.** Major points A and D from Session 1 of *Assessment of Infants and Toddlers With Visual Impairments*.

#### **Directions**

1. Preferably, this activity should be completed as a class. If that option is not available, the instructor will inform you of other options.
2. The instructor will invite four to six early intervention professionals from a variety of disciplines and positions to participate on the panel. Each participant will give a 20-minute presentation, followed by a discussion session.
3. Read major points A & D.
4. Prepare at least five questions for panel members based on your reading of the major points.
5. During the panel presentation take notes and write down potential questions. After all panelists have presented time will be allotted for questions and discussion.
6. After panelists have left, you will have the opportunity to further discuss the presentations.

## 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).

## **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 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.