
Promoting Positive Outcomes for Children with Disabilities:

Recommendations for Curriculum, Assessment, and Program Evaluation



Developed by the Division for Early Childhood of the Council for Exceptional Children

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Promoting Positive Outcomes for Children with Disabilities: Recommendations for Curriculum, Assessment, and Program Evaluation (2007) has been developed by the Division for Early Childhood (DEC) of the Council for Exceptional Children to serve as a companion document to a 2003 joint position statement, Early Childhood Curriculum, Assessment, and Program Evaluation—Building an Effective, Accountable System in Programs for Children Birth Through Age 8, created by the National Association for the Education of Young Children (NAEYC) and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE). The DEC document includes three sections: “Curriculum”; “Assessment”; and “Program Evaluation.” The intended audiences for the document include early childhood administrators and personnel who work with young children with disabilities. Teacher educators, those providing professional development, family members, and state and federal policy makers will also benefit from these materials.

Background, History, and Context

The NAEYC-NAECS/SDE position statement.

As described in the NAEYC and NAECS/SDE document (2003), a number of converging factors led to the development of the two organizations’ joint position statement. NAEYC and NAECS/SDE had previously published a joint position statement on early childhood curriculum and assessment (1990). Since then:

Much more has become known about the power of high-quality curriculum, effective assessment practices, and ongoing program evaluation to support better outcomes for young children. Yet the infrastructure of the early childhood education system, within and outside the public schools, has not allowed this knowledge to be fully used—resulting in curriculum, assessment systems, and program evaluation procedures that are not of consistently high quality. (NAEYC & NAECS/SDE, 2003, p. 5)

These and other issues prompted the decision to create a new position statement and to form a working group including leaders from both organizations and other experts. As part of this process, the two organizations sought the views of other stakeholders, including the leadership of DEC. Drafts were placed on the NAEYC and NAECS/SDE Web sites and sent to experts for feedback; conference sessions invited further discussion of the position statement’s recommendations. The

result of these efforts was a document that was approved both by NAEYC’s Governing Board and by the membership of NAECS/SDE.

Connections between this document and the NAEYC-NAECS/SDE position statement.

After the NAEYC-NAECS/SDE position statement (2003) was approved by the NAEYC Board, the DEC Executive Board endorsed the paper. They also approved the development of a companion paper to the NAEYC-NAECS/SDE position statement. A workgroup was formed that included experts in curriculum, assessment, and program evaluation, as well as a liaison from the DEC Executive Board and NAEYC. The specific charge to the workgroup was to review the general recommendations from the NAEYC-NAECS/SDE position statement (2003) and consider them in light of specific issues for programs serving young children with disabilities and their families. These issues included:

1. Significant increases in accountability evaluation in the area of early intervention and early childhood special education (EI/ECSE) through both the No Child Left Behind Act (NCLB) of 2001 and the Individuals with Disabilities Education Improvement Act (IDEA) of 2004. This included the identification of child outcomes that were to be measured by all Part C and Preschool Special Education Programs under IDEA.
2. An increase in the mandates in IDEA related to inclusive settings, including serving children in natural environments for early intervention, and access to the general curriculum for preschool children with disabilities.
3. Increased attention to quality in inclusive settings, as evidenced in DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall, Hemmeter, Smith, & McLean, 2005) and the NAEYC revised program standards and accreditation criteria.

The recommendations in the NAEYC-NAECS/SDE position statement (2003) explicitly included and made reference to children with disabilities. For example, with respect to curriculum, the 2003 position statement stated, “The content and implementation of the curriculum builds on children’s prior . . . learning, is inclusive of children with disabilities, and is supportive of background knowledge gained at home and in the community” (NAEYC & NAECS/SDE,

p. 7). Similarly, the “Assessment” section of the 2003 position statement recommends that “Assessments are designed for and validated for use with children whose ages, cultures, home languages, socioeconomic status, abilities and disabilities, and other characteristics are similar to those of the children with whom the assessments will be administered” (NAEYC & NAECS/SDE, p. 11).

DEC intends that this document be read and used in conjunction with the NAEYC-NAECS/SDE position statement (2003), which puts forth general recommendations and guidance intended to apply to curriculum, assessment, and program evaluation practices for all young children, including those with disabilities. The recommendations in this DEC document are not alternatives, nor do they contradict the NAEYC-NAECS/SDE recommendations. Rather, they extend, more specifically apply, and further explicate the recommendations in the more general position statement. By reading and implementing both sets of recommendations, practitioners and policy makers will have the benefit of complementary perspectives and expertise.

Guiding Principles and Values

Besides convergence in the two documents’ recommendations, both have been guided by similar principles and values. As articulated in the NAEYC-NAECS/SDE position statement (2003), these include:

- A belief in civic and democratic values, including respect, equality, and a participatory approach to decision making;
- A commitment to ethical behavior on behalf of children;
- The use of educationally and developmentally significant goals as guides in designing and implementing curriculum, assessment, and program evaluation;
- Coordinated systems that connect curriculum, assessment, and program evaluation;
- Support for children as individuals and as members of families, cultures, and communities;
- Respect for children’s abilities and differences, so that systems of curriculum, assessment, and program evaluation promote the development and learning of all children;
- Partnerships and communication with families;
- Respect for evidence, including research as well as professional consensus; and
- Shared accountability for giving all children opportunities to reach essential goals—including accountability of programs, staff, administrators, and policy-makers.

Readers will see these principles and values repeatedly emphasized and applied in this document’s recommendations, as they were in the NAEYC-NAECS/SDE position statement (2003). These principles and values are also consistent with and support the values embodied in DEC Recommended Practices: A Comprehensive Guide for Practical Application

(Sandall et al., 2005), which are designed to guide educators, other practitioners, families, and administrators in providing high-quality services for young children with disabilities. Of great importance within these contexts are values related to collaboration and teaming; participatory decision making; and the rights of all children to participate actively and meaningfully within their families and communities, with additional consideration for universal access or universal design.

Organization of this Document

This document is organized into three major sections that parallel and are consistent with the organization of the NAEYC-NAECS/SDE position statement (2003): Curriculum, Assessment, and Program Evaluation. Each section begins with a key recommendation, followed by the rationale for the recommendation, key issues for children with disabilities, specific indicators of effectiveness, and frequently asked questions. Additional resources are included in the Appendix, including examples of specific activities to support the rationale and/or indicators, and references.

Desired Effects of this Document

The DEC anticipates that Promoting Positive Outcomes for Children with Disabilities: Recommendations for Curriculum, Assessment, and Program Evaluation (2007) will have a number of positive effects on the profession and on young children and their families.

First, DEC offers information about issues that are both high-stakes and controversial, such as how to include children with disabilities when decisions about curriculum, assessment, and program evaluation are being made. Answers are not always clear, and yet the experts who wrote the paper drew together a significant body of evidence that should help provide guidance to those making these decisions.

As this document becomes widely disseminated, DEC also anticipates that it will promote critical dialogue and reflection both about its recommendations and about effective ways to implement the recommendations. Because of the multidisciplinary nature of our field, this dialogue should be especially productive, cutting across disciplines and traditional academic fields.

By building on and referring back to the general position statement from NAEYC-NAECS/SDE (2003), this document will also help create a common language and frame of reference across the fields of early childhood education and ECSE. For example, the concept of “universal design” can be a powerful idea for all those involved in working with young children, although its use has often been limited to those in special education.

Consistent with one of the major goals of DEC, we hope the recommendations and related evidence put forth in this

document will influence national and state policies. The reauthorization of IDEA has created both new opportunities and challenges. At the same time, broader state systems of standards, assessment, and accountability in pre-k, early childhood special education, and other early childhood initiatives have major implications for young children with disabilities. This is especially important as programs around the country begin to provide national data on the extent to which young children with disabilities are meeting the three national child outcomes required by the Office of Special Education Programs for children served under IDEA.

Of course, the ultimate goal of this document is to create conditions that will allow all children to experience joyful, nurturing environments that produce positive outcomes in all aspects of their development and learning.

What Else Is Needed?

For the desired effects outlined in this document to be realized, additional supports will be needed. As pointed out in all three sections of this document, capacity building is essential. This includes an enhanced emphasis on professional development, both at the pre-service and in-service levels, so that higher education faculty, trainers, teachers, and administrators have the knowledge and skills to implement the recommendations. In addition, the multidisciplinary nature of EI/ECSE requires special attention to the needs of therapists and specialists who are part of the child's team to ensure they have access to professional development and support needed to both understand and meaningfully participate in the curriculum, assessment, and program evaluation processes.

Capacity building is also needed within programs. This includes ensuring that ratios and class sizes are structured to allow teachers to implement the kinds of curriculum and assessment practices recommended in this document. In addition, the field also needs to develop the capacity of early childhood practitioners (both generalists and specialists in ECSE) to articulate and advocate for the practices recommended here. In many cases, this means advocating for new public policies consistent with the document's recommendations, and the resources to implement those policies.

The mission of DEC is to promote policies and practices that support families and enhance the optimal development of children. This document provides one mechanism for accomplishing this mission by providing specific recommendations on how families, teachers, providers, and administrators can meaningfully include young children with disabilities in curriculum, assessment, and program evaluation efforts so that positive outcomes can be achieved.

CURRICULUM

Key Recommendation

To benefit all children, including those with disabilities and developmental delays, it is important to implement an integrated, developmentally appropriate, universally designed curriculum framework that is flexible, comprehensive, and linked to assessment and program evaluation activities. Such a curriculum framework can help ensure successful access, which in turn facilitates participation and learning of all children and families regardless of need, ability, or background.

A comprehensive curriculum framework encompasses four elements: assessment; scope and sequence; activities and intervention strategies; and progress monitoring. A curriculum framework is a dynamic system that should guide all aspects of a high quality program.

Rationale

The NAEYC-NAECS/SDE position statement on early childhood curriculum, assessment, and program evaluation makes clear that curriculum is more than a collection of enjoyable activities (2003). Curriculum is a complex idea containing multiple components including goals, content, pedagogy, and instructional practices. Curriculum should serve as a comprehensive guide for instruction and day-to-day interactions with young children (Branscombe, Castle, Dorsey, Surbeck, & Taylor, 2003; Davis, Kilgo, & Gamel-McCormick, 1998; Dodge & Bickart, 2003; Goffin & Wilson, 2001; Hass, 2000; Hitchcock, Meyer, Rose, & Jackson, 2002; Karger & Hitchcock, 2003; Sands, Adams, & Stout, 1995; Wolery & Sainato, 1996).

Key Issues in Curriculum for Young Children with Disabilities

The purpose of this section is to describe a comprehensive curriculum framework that is built on the principles of universal design as a means of ensuring access, participation, and progress for all learners. Further, a curriculum framework as described here provides a set of recommended practices for (a) promoting active engagement and learning; (b) individualizing and adapting practices for each child based on ongoing data; (c) providing opportunities for children's learning within regular routines; and (d) working collaboratively and sharing responsibilities among families and professionals (Sandall et al, 2005).

Universal design for learning.

The 2004 amendments to IDEA require that all children, regardless of ability, have access to the general curriculum, and have the opportunity to participate and make progress in the general curriculum. While the mandate is not new, many providers working with young children continue to struggle with understanding how to make each component of the mandate a reality.

Access and participation mean more than placing children in child care programs, preschools, or primary classrooms. Although a child may be present in these programs or classrooms, cognitive, sensory, affective, physical, linguistic, or cultural barriers impact the degree to which a curriculum is truly accessible to them. In addition, a curriculum that is effective for some children may not result in positive outcomes for others.

An accessible curriculum means that all aspects of the curriculum (i.e., the environment, the goals, the content, the instructional methods and interactions, the assessments, and the toys/materials) invite active participation of all children, regardless of disability or special needs. But how can access and participation be achieved for all?

Educators, caregivers, and therapists work diligently to make the curriculum accessible to children with disabilities by varying content, providing instructional support, designing developmentally appropriate activities, and adapting toys or materials. For example, they may add a switch to allow a child with physical impairments to operate a toy, or create a series of picture cards to clarify the daily schedule for a child with communication delays. However, these efforts to make the curriculum accessible and encourage active participation are generally geared toward a single child (i.e., designed for one child at a time) and are added after the fact. While critical to meeting the needs and interests of the individual child, making the curriculum accessible after the fact can be time consuming, challenging for the educator or caregiver, and beneficial to only a small number of children at a given time or within a given activity.

The practice of making adaptations to an existing curriculum framework is like adding a wheelchair ramp to an existing building rather than designing the ramp during construction. The after-the-fact method is more expensive, takes more time, and may be awkward and unsightly. Today's architects, operating from a universal design perspective, build in access from the design stage, creating ramps, rails, and manageable entrances from the inception. Not only are these adaptations attractive, they are useful for individuals with and without disabilities, thereby benefiting many people simultaneously.

A curriculum framework can be designed in the same way. That is, the curriculum developer builds in universal access from the beginning rather than as an after-the-fact adaptation. When a curriculum framework is being designed, the full range of diversity represented in the children and families who may participate should be considered.

Universally designed daily activities, instructional supports, and toys/materials help ensure that all children have meaningful and successful access to and participation in the curriculum (Karger & Hitchcock, 2003). Considering children's individual

needs and interests from the beginning decreases the likelihood that an adaptation will draw unwanted attention to a child. A universal perspective to curriculum design also increases the likelihood that all children will achieve positive outcomes.

There are three essential principles of universal design for learning that have been identified (Blackhurst et al., 1999; CAST, 2004; Orkwis, 1999; Orkwis & McLane, 1998). A universally designed curriculum framework provides:

- Multiple means of representation. This principle ensures instruction, questions, expectations, and learning opportunities are provided in various formats and at different levels of complexity, addressing a range of ability levels and visual, auditory, and kinesthetic needs. (This principle is reflected in the activities listed in Table 1A in the Appendix.)
- Multiple means of engagement. This principle ensures various opportunities are presented for arousing children's attention, curiosity, and motivation, addressing a wide range of interests, preferences, and personal styles. Engagement is then maintained by providing various levels of scaffolding, repetition, and appropriate challenges to ensure successful learning. (This principle is reflected in the activities listed in Table 1B in the Appendix.)
- Multiple means of expression. This principle ensures children have a variety of formats for responding, demonstrating what they know, and for expressing ideas, feelings, and preferences. In addition, children have options in their use of resources, toys, and materials, addressing individual strengths, preferences, and abilities. (This principle is reflected in the activities listed in Table 1C in the Appendix.)

These principles of universal design for learning are essential for ensuring both physical access and meaningful participation across daily routines and activities for all young children (e.g., children with diverse cultural or linguistic backgrounds, children who have identified disabilities, or children who need additional support to master content). Even with thoughtful design, teams may find it necessary to make accommodations and modifications to meet the individual needs of particular children and/or families. Built upon definitions provided by Wrightslaw (2003), we define accommodations as acts made to level the playing field and provide equal access and opportunity without substantially altering what children are expected to learn and be able to do. Examples of accommodations include altering instruments, toys/materials, allowing various response formats, and/or altering the settings or timing. Modifications are defined as substantial changes in practices and expectations. Examples of modifications include changes in instructional level, content, and performance criteria, and changes in test form or format including alternate assessments.

Regardless of the setting in which early care and education services are provided or the model for providing the service,

the principles of universal design for learning are at the heart of an effective curriculum framework and articulate a comprehensive approach to meet the needs of all young children. The following section describes the integrated elements of a cohesive, universally designed curriculum framework. This is followed by a discussion of the need for collaboration and partnerships among service providers, families, and community members.

Curriculum framework.

Developing, implementing, and evaluating a curriculum framework can be complex and at times challenging. Yet a curriculum framework is important in ensuring:

- Access to and full participation by all children;
- Adherence to the program’s mission and goals;
- Assurance that individual children’s and families’ needs are met; and
- Accountability to agency and state standards/mandates.

Consistent with the NAEYC-NAECS/SDE position statement (2003), an effective curriculum framework emphasizes the interrelated and cyclical relationships between assessment and curriculum and does not necessarily have a specific beginning or ending point. In other words, a comprehensive and universally designed curriculum framework creates feedback spirals that allow teams to inform and change practice (Dodge, 2000; Grisham-Brown & Pretti-Frontczak, 2003; Helm & Gronlund, 2000; McAfee & Leong, 2002). Feedback spirals encourage teams to see change as a necessary process to quality instruction and programming. Feedback spirals also encourage teams to engage in ongoing data gathering, analysis, reflection, and revision. Therefore, it is critical for teams to have a clear idea of intended outcomes.

The specific elements of a cohesive, universally designed curriculum framework include assessment and progress monitoring, scope and sequence strategies, and activities and intervention strategies; these elements also require collaboration with other members of the team. These specific elements, described more fully in the following section, must also take into consideration universal design for learning, the essential need of partnering, and an understanding that providers will need to be flexible when implementing a curriculum framework, and provide accommodations and modification as needed.

Assessment and progress monitoring.

It is important that teams conduct comprehensive, universally designed, and authentic assessment and ongoing monitoring of all children’s development and learning. Team members need a clear understanding of all children’s current skills and abilities to ensure access and participation, and to develop appropriate learning opportunities.

As teams implement assessment/progress monitoring, there may be times when accommodations to toys/materials, procedures, and items are necessary to obtain accurate information about what a child knows, can do, and is starting to do. Examples of accommodations that can be made during assessment/progress monitoring include:

- Extended wait or performance time;
- Presentation of information verbally and/or visually;
- Increased size of print/pictures; and
- Presentation of toys/materials that are adjustable and flexible in how they are used.

Teams may also find it necessary to provide more individualized or specialized practices for some children. For example, they need to modify or change their assessment/progress monitoring practices to ensure all children are able to participate and that children are not penalized for having a disability. Modifications may include (a) using an alternative measure, (b) changing how a child demonstrates or performs a skill or task, (c) assessing underlying, earlier, or prerequisite skills, and/or (d) reducing the number of items assessed/monitored. A more detailed examination of assessment and progress monitoring is provided in the Assessment section of this paper. Examples of how assessment/progress monitoring can go from generic practices to highly individualized interventions are provided in Table 2A.

Scope and sequence.

Scope refers to broad, often-integrated areas of development (e.g., motor, communication, adaptive, social) and/or content areas (e.g., mathematics, science, literacy). Sequence refers to the order (ages/stages/grade levels) in which the content will be taught and learned and is often specified in a developmental hierarchy (from easier to more difficult) or by grade level.

Over the last several years, policy, public interest, and research have led to the development of state and/or program standards (Schumacher, Irish, & Lombardi, 2003). A standard is defined as a “general statement that represents the information, skills, or both, that students should understand and be able to do” (Bodrova, Leong, Paynter, & Semenov, 2000, p. 33). Standards (sometimes referred to as content standards, child or learning outcomes, and indicators) are designed to organize, prioritize, and frame what children are to learn at various stages or ages of development/education (Kurtenbach, 2000; McLaughlin & Shepard, 1995). For scope and sequence, broad outcomes for all learners are often set by state and/or program standards and these standards may serve as the common scope and sequence for all learners in a particular state, region, or program.

When federal, state, or program standards are used as a common scope and sequence, it is important to note that in some cases they may not include all skills and knowledge important for early development (e.g., some standards documents may not address social, adaptive, or motor development) (NAEYC & NAECS/SDE, 2003; Scott-Little, Kagan & Frelow, 2005), either in general or specifically in terms of children with disabilities. Therefore, the scope and sequence for young children should include all areas of development and learning, not just those areas covered in federal, state, or program standards.

For some children, teams may find that accommodations are needed to ensure children are progressing through the scope and sequence outlined. The main concepts or ideas embedded within the standards are targeted for all, but teams may need to alter the learning environment, provide additional supports, and/or allow children to use alternative communication devices to demonstrate knowledge and skill.

Individually targeted skills may also be needed within the scope and sequence and are identified based upon the unique needs of children. These skills are often documented in individualized family service plans (IFSPs) and individualized education plans (IEPs) for children with identified disabilities (Grisham-Brown, Hemmeter, & Pretti-Frontczak, 2005). Individually targeted skills, while remaining aligned with common standards for all children, represent a substantial modification or change in terms of expectations, performance criteria, and/or form or format. Individually targeted skills should not be simply a restatement of what is being addressed for all learners, but rather the underlying, earlier, or prerequisite skills that are necessary for a child to have access to and participate fully in the curriculum. Examples of how the scope and sequence can go from generic practices to highly individualized practices are illustrated in Table 2B in the Appendix.

Activities and intervention strategies.

Young children's learning occurs as a part of the routines and activities of daily life and play (Sandall et al., 2005). This is true of all children; as stated in the NAEYC-NAECS/SDE position statement (2003), "Researchers have found that young children with and without disabilities benefit more from the curriculum when they are engaged or involved" (p. 6), and the point is underscored in this document with respect to young children with disabilities. Learning opportunities are created by adults, peers, and the environment itself. Thus children's learning can be enhanced by ensuring that daily activities and routines are rich with learning opportunities, rather than being created during contrived situations directed by adults (Horn, Lieber, Li, Sandall, & Schwartz, 2000; Sandall et al., 2002). The use of daily routines and activities as the context for learning in a universally designed curriculum framework ensures that standards and

individually targeted skills are addressed in a manner that expands, modifies, or is integral to the activity in a meaningful way (Pretti-Frontczak & Bricker, 2004).

High quality learning contexts that incorporate the three principles of universal design serve as the foundation for intervention planning for all children. For children with disabilities that need additional support, accommodations are provided to ensure that these children are progressing (Robertson, Green, Schloss, & Kohler, 2003; Sandall et al., 2002; Vaughn, Ae-Hwa, Morris-Sloan, Hughes, Batya, & Dheepa, 2003). To make such accommodations, teams can:

- Provide social supports (e.g., peer-mediated intervention strategies, cooperative learning);
- Use visual, auditory, and kinesthetic methods (e.g., use pictures and models when explaining);
- Use a range of reinforcers (e.g., smiles, hugs, praise, provision of desired toy/object, continuing play);
- Adapt toys/materials to allow children to use a variety of movements in different positions;
- Alter the physical, social, or temporal environment;
- Alter the schedule of activities and routines;
- Adjust the amount and type of support provided; and
- Divide an activity into smaller steps.

Similarly, individualized instructional opportunities and modifications should be provided as necessary to meet a child's unique learning needs (Sandall et al., 2002). For example, the team might plan specific teaching episodes or embedded learning opportunities (ELOs) to address the individual child's specific learning priorities within the context of the ongoing routines and activities (Horn et al., 2000). ELOs should be created by service providers, family members, and community members and should encourage children to actively explore the environment through participation in daily activities.

When creating ELOs, teams should use a variety of strategies that fall on a continuum from (a) non-directive: an adult or peer serves as a facilitator in supporting a child's participation during usual routines and activities, to (b) mediating: adults and peers model and provide scaffolding to maintain children's interest and motivation, and promote learning, to (c) directive: adults and peers guide or lead the interaction (Bredenkamp & Rosegrant, 1992, 1995; Grisham-Brown et al., 2005; Sandall et al., 2005; Widerstrom, 2005). A teaching continuum implies that teams are purposeful in making decisions about how to provide support to young children. Regardless of the part of the continuum used, three overarching principles should be applied to fully implement a universally designed curriculum framework.

First, teams should use the full continuum of teaching strategies. As stated in the NAEYC-NAECS/SDE position statement

(2003), in implementing effective curriculum, “pedagogy or teaching strategies are tailored to children’s ages, developmental capacities, language and culture, and abilities or disabilities” (p. 7). When teams focus only on one end of the continuum (e.g., nondirective instruction) or another (e.g., directive instruction), it is difficult to meet the full range of children’s needs.

Second, teams need to be systematic in their selection, development, and use of the supports they provide young children. To do this, teams need to determine which skills require specific support, what type of support children need to move toward learning, and the circumstances under which support will be provided (e.g., how long a caregiver waits before providing the support). It is important to understand that systematic teaching applies to all strategies along the continuum and should be employed by all members of the team (Grisham-Brown et al., 2005).

Third, it is important to remember the critical role adults play in responding to, expanding, and supporting children’s communicative attempts, play, and interactions. Examples of how the activities and intervention strategies panel can go from generic practices to highly individualized practices are provided on Table 2C in the Appendix.

Feedback spirals: Revisiting assessment and progress monitoring practices.

Assessment/progress monitoring helps ensure continuous feedback spirals. Feedback spirals are necessary to inform and change practice, guide interactions and the selection of toys/materials, and inform decision making regarding all aspects of the program (e.g., goals, instructional efforts, professional development, expenditures). This requires the use of a variety of methods to ensure collection of reliable, valid, and useful assessment/progress monitoring data (Branscombe, Castle, Dorsey, Surbeck, & Taylor, 2003; Helm, Beneke, & Steinheimer, 1998; Wolery, 2004) and adequate and collaborative time to review and interpret the data to inform and change practice (Dodge, 2000; Grisham-Brown & Pretti-Frontczak, 2003; Helm & Gronlund, 2000; McAfee & Leong, 2002).

Collaboration and partnering.

Collaboration and partnerships between program personnel and families or other members of the community serve as the structure and support for a curriculum framework. Collaborative efforts or partnerships are formed between a teacher and an assistant, a home visitor and a caregiver, or a child care provider and an itinerant teacher. These types of partnerships happen routinely for most, if not all, children.

In some instances it may be necessary to increase the number of members of the collaborative partnership, the intensity of the partnership, and/or the expertise of the members to address the needs of a child with a disability. For example,

if a child presents challenging behaviors, team members may include the family, child care providers, an intervention specialist, a communication specialist, and a behavior specialist. These team members may need to communicate often as they develop, implement, and evaluate a plan to address the child’s challenging behaviors

Regardless of type or intensity of the partnerships, collaboration is not only desirable, but also necessary in providing services to young children that (a) are accessible, (b) ensure full participation, and (c) promote progress (Sandall et al., 2005). Collaboration should be sought in the design, implementation, and evaluation of a curriculum framework.

Indicators of Effectiveness

All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

This indicator is especially critical for children who have disabilities or other special learning needs.

Multiple means of representation are provided so that the curriculum is accessible to all children regardless of ability, needs, or background.

When multiple means of representation are provided, the presentation of the instruction, the interactions between adults and children, the materials and toys, and the environment are all designed to offer different and various opportunities that allow children to participate most effectively. This built-in flexibility ensures that the curriculum framework is both challenging and attainable for children functioning at different levels. Just as stairs and ramps allow people to arrive at the same destination, using a variety of formats in the design and implementation of a curriculum framework allows children to arrive at the same desired destination.

An example of a curriculum framework with multiple means of representation is one where adults use practices such as differentiated instruction and the development of learning opportunities at different levels of complexity. For instance, the teacher gives children options for learning about the moon from a collection of books that range from easy to difficult, videos, Internet sites, models, or planetarium visits. These options accommodate a range of ability levels as well as visual, auditory, and kinesthetic needs. Another example is the use of strategies such as scaffolding, in which the adults build on what children already know and guide them to the next level. For example, a caregiver knows that some of the infants in her care will be able to hold objects in one hand but not both. Anticipating their needs, she plans learning opportunities that can occur during activities throughout the day, such as providing pull-apart toys and toys with two easy-grip handles or giving children two crackers at the same time.

Further, since some children may do better when they hear information while others need to see it, adults should provide multi-sensory options in different formats, such as giving instructions with both words and pictures. For example, a daily schedule can be written, and pictures or objects can be provided for children with visual impairments. Flexible practices and multiple formats give children alternative ways to access and participate in the curriculum regardless of their background, experience, prior knowledge, or physical challenges. See Table 1A in the Appendix for additional examples.

Multiple means of engagement are available so that children fully participate in the curriculum regardless of ability, needs, or background.

Since children's interests and abilities vary, the curriculum framework should provide flexible options that appeal to children with different abilities, developmental levels, preferences, and cultural backgrounds. The combination of optional supports and various levels of challenges should facilitate children's engagement where novelty (randomness and surprise) is balanced with familiarity (repetition and predictability). Such practices should appeal to individual differences and help children maintain engagement.

An example of a curriculum framework with multiple means of engagement is one in which children may select toys/materials that are creative and open-ended or structured and controlled. They may choose to work in bright and noisy areas or places that are dim and quiet, with groups or individually. They may take advantage of the optional supports, such as handles on puzzle pieces or an easy setting on an interactive early reading software program, or select from a range of challenges appropriate for different levels. See Table 1B in the Appendix for additional examples.

Multiple means of expression are supported so that children can demonstrate what they know and are able to do regardless of ability, needs, or background.

A flexible curriculum framework encourages all children to communicate and show what they know and are able to do using any method they can or prefer. In general, children should be encouraged to use a variety of verbal and non-verbal expressions to demonstrate the skills and concepts they have acquired, those that are emerging, and those that team members need to continue to support and provide practice opportunities for. Adults should encourage and support any form of expression, including the use of speech, signs, gestures, pictures, objects, writing, art, and assistive technology. By allowing children to express themselves in multiple ways, children will have greater independence and success in getting their wants and needs met and in sharing their ideas. See Table 1C in the Appendix for additional examples.

Programs adopt curriculum goals that are clear and shared by all.

As emphasized in the NAEYC-NAECS/SDE position statement (2003), common goals (also referred to as outcomes or standards) should stem from critical concepts and skills deemed important for all young children to acquire (i.e., for children with disabilities, children at risk, and children without identified disabilities). At times, particular children may need more individualized goals (often identified on an individualized family service plan/individualized education plan). Individualized plans help team members address the possible reasons a child is having difficulty accessing and participating in daily activities and routines and making progress toward the common goals in the general curriculum. Individualized needs for children should represent underlying, earlier, or prerequisite concepts and skills that once obtained will enhance a child's access, participation, and progress in daily activities and the general curriculum.

Curriculum is comprehensive.

Programs should have a curriculum framework that is well understood by all stakeholders and covers all areas of growth and development considered important for young children, and one that addresses federal, state, or agency standards (NAEYC & NAECS/SDE, 2003). A comprehensive, universally designed curriculum ensures that children are exposed to and participate in a wide variety of experiences. A comprehensive curriculum should employ a continuum of teaching strategies from adult-directed, to mediated, to child-directed to ensure children's individual needs are met. Feedback spirals within the curriculum framework allow teams to inform and change practice, responding promptly to children's needs.

Programs strive to build and maintain successful partnerships as curriculum is implemented.

A curriculum framework is only as strong as the partnerships that support it. All young children should be served by community, school, and family members who share a common vision for supporting their health, growth, and development. Programs serving young children are strengthened by collaborative relationships among program personnel, families, and community members. Collaboration occurs when individuals interact and engage in shared decision making in an effort to achieve a common goal. Effective collaborative partners have a shared vision and jointly assume responsibility for serving children. Partnerships vary both in frequency and formality. Regardless of the frequency or formality of collaboration, open communication, mutual trust, and shared values are essential for successful partnerships.

Frequently Asked Questions

1. Why are the principles of universal design for learning important for all programs and people working with young children? For example, what do the principles mean for a mom interacting with her baby, for those providing home visits, for child care providers in community settings, for an inclusive preschool special education teacher, or for a general education 1st grade teacher?

Whether someone is working with infants, toddlers, preschoolers, or students in the elementary grades, the principles of universal design for learning provide a foundation for ensuring full access and active participation for all learners. Regardless of the setting, children are more likely to thrive when they are given a variety of supports and opportunities to meet their diverse needs.

For example, a mom's interaction with her baby would include rich and varied forms of communication, including singing, talking, sharing books, making faces, using gestures, playing simple games, dancing, showing pictures, and playing with toys or other materials. Home visitors would be prepared to offer an abundant repertoire of activities and strategies appropriate for different levels of difficulty, sensitive to different cultures, and adaptable for the different settings in which they would be practiced.

Child care providers and educators, whether in a home or center-based setting, design the environment, instructional strategies, activities, materials, and resources to meet the needs of the diverse groups of children and/or families they might serve. The principles of universal design for learning ensure that the learning needs of all children with and without identified disabilities are addressed using multiple means of representation, engagement, and expression to create various opportunities for children to learn and develop.

2. What is the “general curriculum” for young children?

The general curriculum includes activities, interactions, and learning opportunities provided for young children throughout their daily routines. The general curriculum should be consistent with young children's development and state/program standards. However, the general curriculum should be thought of as more than any single set of standards or developmental expectations, single resource (e.g., DAP guidelines), or single textbook.

Curriculum for young children is highly complex and, as presented here, composed of many elements. The primary purpose of a curriculum is to guide learning activities and provide consistency of expectations, content, methods, and outcomes (Karger & Hitchcock, 2003). It is critical that the same curriculum established for young children without disabilities be afforded to young children with disabilities.

3. Are national, state, district, or program standards along with professional organization guidelines (e.g., DAP, recommended practices), commercially published curricula, or a child's individualized plan sufficient for ensuring access to participation in the general curriculum?

Ensuring access to and participation in the general curriculum requires programs to design or select, implement, and evaluate a curriculum framework consistent with principles of universal design. These principles provide a foundation for and collaboration among personnel, families, and community members.

National, state, district, or program standards along with commercial materials or a child's individualized plan are important, but not sufficient to ensure that a comprehensive curriculum framework is in place. The standards and the individualized plan provide scope and sequence, while commercially available materials may provide ideas regarding activities and instructional strategies but do not complete the curriculum framework. The principles of universal design and collaboration are still needed, along with assessment and progress monitoring practices.

4. How can individualized plans (e.g., IFSPs and IEPs), written using domains of development (e.g., fine motor, gross motor, adaptive, cognition, social communication, social) be aligned with standards organized by content area (e.g., literacy, mathematics, science, social studies)?

A primary concern for those working with young children with disabilities is that the areas of literacy, mathematics, science, and social studies or other content areas targeted in standards will become the sole focus of intervention efforts. Teachers and others involved in providing services are concerned that if they target the critical skills such as feeding, walking, expressing wants and needs, getting along with others, or playing with toys that they will not be able to show alignment with and progress toward content area standards.

It is important to understand that various states and programs define alignment differently (Nolet & McLaughlin, 2000). Some will interpret alignment between individualized plans and standards as parallel—a more one-to-one notion—while others suggest there should be reference from the individualized plan back to standards. Despite how alignment is defined, standards are designed to organize, prioritize, and frame what children are to learn at various stages or ages of development/education (e.g., Kurtenbach, 2000; McLaughlin & Shepard, 1995), not to dictate or limit what is taught. Further, standards are only one part of a curriculum framework, which should be comprehensive and integrated across all areas of learning.

Individualized plans (particularly IFSPs and IEPs) are designed to help teams understand and address what is needed in order for the child to access and participate in the general curriculum. Individualized plans should not be restatements of the general curriculum. Rather, IFSPs and IEPs should emphasize those things a child and/or family needs to ensure access and participation. Individualized plans should include a focused, coherent sequence of intentionally designed intervention to efficiently address a child's and family's needs.

Therefore, there are times when individualized plans may closely align with standards. For example, most states have standards related to reading comprehension. A child's individualized plan can have a target skill that addresses the need to improve reading comprehension. This is especially true if a child's challenges, with respect to this skill, are keeping the child from accessing and participating in the general curriculum and requires specially designed instruction. There may be times when the alignment is not as close (i.e., when it is necessary to address underlying or prerequisite skills not directly found in standards). For example, if a child presents several challenging behaviors, the individualized plan should address such behaviors as helping the child learn to express his or her wants and needs and play appropriately with toys and others. Such specific skills may not be directly noted or found in state/program standards, but they are critical for ensuring a child has access to and can participate in the general curriculum and attain the skills specified by standards.

5. Who is responsible for ensuring a universally designed curriculum framework is in place?

The saying "it takes a village to raise a child" is applicable to assigning responsibility for ensuring that a comprehensive and universally designed curriculum framework is in place. All team members need to understand which practices are in place for all children and determine when more individualized efforts are required. Further, all team members need to understand what is expected of and developmentally appropriate for young children.

Given that programs serving young children are becoming more diverse and are under increasing pressure to be accountable regarding child outcomes, curriculum planning needs to concurrently address (a) what children should learn, (b) what they already know and can do, (c) how they will be taught, and (d) the activities and interactions that will be used to facilitate learning (e.g., Helm & Gronlund, 2000; Meisels, 2000). Further, collaborative planning time needs to include:

- Reflection and discussion;
- Interpretation of data patterns; and
- Consideration by all team members for needed changes.

Lastly, the involvement of all team members helps ensure that multiple and varied learning opportunities occur across a child's daily routine using a variety of strategies.

6. How can I use this document to improve services for young children?

It is important that teams understand and support the curriculum practices described. Becoming knowledgeable may involve taking the following steps:

- a.** Engage in self-study and reflection. Begin by reflecting on the overall recommendations in the NAEYC-NAECS/SDE position statement (2003), considering the practices in this document within this broader foundation. Then, consider whether the practices described in this paper (e.g., principles of universal design, elements of a curriculum framework, the need for collaboration) are present, and to what extent, in your own practice and within your program/agency.
- b.** Engage in discussion among team members about which features are not in place and how changes can be made. Remember to start small by improving one practice at a time. Form a study group with colleagues, families, or other members of your community to discuss and learn more about the practices presented here. For example, select recent journal articles describing effective or innovative practices (e.g., articles published in the *Journal of Early Intervention* or *Early Childhood Research Quarterly*) or the practices described in the DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall et al., 2005) and try them out and then discuss what worked and did not work.
- c.** Review the examples and illustrations provided in Table 1 and Table 2 in the Appendix for additional ideas on how to implement the practices described in this paper.

ASSESSMENT

Key Recommendation

Assessment is a shared experience between families and professionals in which information and ideas are exchanged to benefit a child's growth and development. Assessment practices should be integrated and individualized in order to: (a) answer the questions posed by the assessment team (including family members); (b) integrate the child's everyday routines, interests, materials, caregivers, and play partners within the assessment process; and (c) develop a system for shared partnerships with professionals and families for the communication and collection of ongoing information valuable for teaching and learning. Therefore, assessment teams should implement a child- and family-centered, team-based, and ecologically valid assessment process. This process

should be designed to address each child's unique strengths and needs through authentic, developmentally appropriate, culturally and linguistically responsive, multidimensional assessment methods. The methods should be matched to the purpose for the assessment, linked to curriculum and intervention, and supported by professional development.

Rationale

Assessment practices valid for all young children and appropriate to support learning and instruction should be used to identify children who may need additional services (Kagan, Scott-Little, & Clifford, 2003), to plan programs, and to monitor intervention progress (Neisworth & Bagnato, 2005) by early childhood practitioners. When engaged in assessment activities, interdisciplinary team members behave in ways congruent with DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall et al., 2005) and the recommendations and indicators of effective assessment in the position statement of NAEYC and NAECS/SDE (2003).

While practices should be appropriate for any and all children, each child and family is unique. Therefore, the tools, methods, and team selected to assist in the assessment process should be unique and individualized to ensure the best contextual match for the child and family (Meisels & Fenichel, 1996; Neisworth & Bagnato, 2004). Team members should include individuals who can best make decisions needed to address critical questions necessary to determine the appropriate services for children with disabilities and their families. For example, for children with specific sensory or developmental needs (e.g., visual and/or hearing impairments, movement problems, or learning difficulties) the team should include individuals with both the expertise essential to assess the child's unique needs and those with the skills to use assessment procedures including appropriate (i.e., within standardization procedures) modifications, adaptations, or accommodations to describe the child's needs within the context of the his/her typical routines and activities in meaningful environments. This may mean that the professional assessment team members provide consultation or coaching to the family and other team members within an integrated assessment process (Boone & Crais, 1999). It is also essential that the child and family's cultural and linguistic preferences are considered in the development of the team and the design of the assessment process to limit bias and to promote collaboration and communication (Hanson & Lynch, 2004).

Assessments should be conducted within an ecological framework or model that accounts for each participant or aspect of the assessment process: the child, the family, the environment (home, community, and school/center), the instruments and tools, and the team members. Practitioners are encouraged to participate in assessments that: (1) contribute to intervention outcomes, (2) make sense in the

child's family, community, and culture to ensure cultural and ecological validity, and (3) focus on natural systems such as families, schools, communities, and the role and contributions of caregivers and peers (Barnett, Macmann, & Carey, 1992; Neisworth & Bagnato, 1992).

Key Issues in Assessment for Young Children with Disabilities

The purpose of this section is to provide an overview of key issues related to assessment in EI/ECSE, to identify important quality indicators for those involved in the assessment process, and to provide information about additional resources that might assist those interested in or charged with implementing assessments. This section will also provide specific information on how to implement assessments that are (1) family centered and team based, and (2) individualized and appropriate. This is followed by a discussion of how to select assessment tools and utility of assessment. Finally, specific recommendations related to communicating assessment results and ethical and legal practices will be presented. The section will conclude with Indicators of Effectiveness, followed by Frequently Asked Questions.

Family centered and team based process.

The role of families in assessment is addressed in the position statement of NAEYC and NAECS/SDE (2003) but is of even greater importance when considering assessment of children with disabilities. Within integrated child- and family-centered assessment teams, family members are equal and contributing partners (Boone & Crais, 1999; Woods & McCormick, 2002). Family members provide critical and functional information to describe child status and level of functioning, identify concerns, and develop specific intervention goals. Teams must solicit the knowledge of family members to increase the richness of assessment information and engage families in the assessment process to understand and validate their concerns. The assessment process must be designed to facilitate family inclusion at multiple levels in response to family preferences and with sensitivity to family values, needs, language, and culture. Additionally, in early childhood in particular, the assessment process is often a family's first experience with early intervention and the special education process. The outcome of the assessment process may have powerful significance for family members. It is therefore the responsibility of professional team members to ensure an honest and collaborative experience for family team members.

The role of the family as the child's first and most significant teacher is firmly acknowledged within the fields of early childhood, early intervention, and preschool special education. The assessment team benefits from the family's "teaching experience when they inquire about the child's preferences for activities, materials, play partners, and schedules" (Woods & McCormick, 2002. p.4).

Families contribute to the assessment process in multiple ways. Families:

- Enhance team observations by describing their child's performance in other settings;
- Suggest options, activities, and materials for interaction;
- Facilitate child engagement; and
- Interact with their child in play and care-giving routines (Bailey, 2004; McCormick & Nellis, 2004).

Families not only support their child during the assessment process but also validate the findings suggested by other team members, identify discrepancies in performance, report on typical patterns of behavior, and co-assess with team members to ensure the best performance by their child. In addition, professional-family partnership in assessment provides opportunities for family members to identify their preferences for roles and acknowledges their expertise and competence as team members (Boone & Crais, 1999).

Individualized and appropriate process.

The assessment of young children requires an individualized and appropriate multimodal assessment model to generate and confirm findings (McCormick & Nellis, 2004; Roid & Sampers, 2004). The NAEYC-NAECS/SDE position statement (2003) asserts that an effective assessment system “emphasizes repeated, systematic observation, documentation, and other forms of criterion- or performance-oriented assessment using broad, varied, and complementary methods ...” (p.11). There is an even stronger rationale for this approach for children with disabilities, who need more and perhaps different opportunities to respond. Tools used to gather information may include direct evaluation of child skills; assessment within a group; dynamic, formal, and informal observation; video recordings; interviews; and ratings of skills and behaviors. Modifications of response demand and other forms of adaptations and accommodations must also be considered. As discussed previously, this multimodal assessment process is more easily, accurately, and reliably accomplished by a team of professionals and family members who are jointly responsible for conducting and supporting data gathering.

The assessment process should be initiated through a problem-solving model that seeks to answer specific questions about the child. These specific questions should be answered in a family-friendly, linguistically, and culturally responsive manner, and in the mode that best addresses any challenges that might be present (i.e., learning concerns for a child with visual impairment). Therefore, the team begins the assessment process with conversations with staff and family members to determine measures, times for observations, and appropriate team members/participants. Multiple observations by professional and family team members may be the primary method of data gathering in tandem with a review of existing information collected by staff. Team members

should also review strategies used previously to enhance development, learning, academic, or social skills to determine child sensory, behavioral, and learning preferences.

The assessment process answers important questions related to family concerns, eligibility for services, and ongoing service provision for a child. It is individualized for the child and family and incorporates high-quality and technically sound tools and procedures based on the child's developmental, physical, sensory, and behavioral needs. A high-quality assessment is comprehensive and addresses appropriate domains of learning, levels of support necessary for success, and sufficiency of skill use in a variety of environments (i.e., generalization). The team should provide opportunities to gather information from multiple settings and sources using multiple measures so that they can support the child and family's participation in meaningful and authentic routines and activities.

Information gathered through the assessment process should be used to support the family and professional team members in the decision-making process. The formative and summative analysis of assessment information for decision making goes beyond the generation of labels or scores and the use of deficit models and descriptors to a more useful and functionally meaningful summary. The assessment process seeks to identify the child's needs and family preferences so that specific decisions can be made about screening and program eligibility; individual service development and plans (goals and objectives); placement; and intervention. The assessment tools used by the team must also be carefully reviewed and selected to meet recommended practices and standards. A discussion of three critical attributes of high-quality assessments follows.

1. Assessment tools have utility and are used for specific purposes.

Assessment team processes and decisions answer important questions including: (a) What do we need to know about this child? (b) What information do we already have? (c) What questions do family members want answered? (d) What are family priorities and concerns? (e) What environments are important to successful integration within the community? and (f) How can child participation within these environments be reliably assessed? The assessment process necessary to answer these questions integrates criterion-based instruments, informal assessment tools, and published or teacher-made checklists and behavior samples with traditional norm-referenced assessment tools.

The utility or usefulness of the assessment is an important consideration when choosing an assessment tool. For young children with disabilities, assessment tools are typically selected to address seven different purposes: (1) screening, (2) diagnosis (or identification) of delay or disability, (3) eligibility

determination for early intervention or special education services, (4) instructional program planning/intervention assessment, (5) placement, (6) progress monitoring, and (7) program evaluation (Wolery, Strain, & Bailey, 1992). These purposes are consistent with, and elaborate on, the broader purposes of assessment as described in the NAEYC-NAECS/SDE position statement (2003) and in the work of the National Education Goals Panel on assessment (Shepard, Kagan, & Wurtz, 1998). The decisions and measurement practices within these areas are included in Table 3 in the Appendix. It cannot be overstated that one tool or procedure will not successfully fulfill all seven assessment purposes. For example, children should never qualify for special education or related services based on screening information or based on a single test score. Such a practice violates the non-discriminatory principle included in special education law (IDEA, 2004).

Finally, the assessment team must also select assessment tools that address specific questions and concerns from the family that may be outside the scope of the child's referral and/or eligibility determination. Often these questions may not be easily answered with a traditional assessment. For example, families may be concerned with important attributes such as child temperament or social development, playing with friends, or adaptive and self-help behaviors. These important family questions and concerns about their child's performance in typical and daily routines and activities can and should become part of the assessment process.

The specific assessment tools are selected based on the purpose of assessment, child need, family concern, service model, and setting. The assessment team should select tools and methods that allow family members to participate to the greatest extent possible. Potential assessment tools include: (1) record review/developmental history, (2) interviews, (3) observations, (4) checklists/rating scales, (5) portfolios, and (6) tests. Tests may be norm-referenced, criterion-referenced or curriculum-based; however, the most reliable outcomes for young children are generated when these tools are used within an authentic assessment model. Because data gathered from traditional norm-referenced assessments may not provide adequate information for developing IFSP/IEPs, monitoring child progress, evaluating the effectiveness of intervention, or planning new services, norm-referenced assessments should always be used concurrently with criterion or curriculum-based and ecological assessments.

The purpose for assessment also drives the selection of assessment tools. The issues here are similar to those discussed in the NAEYC-NAECS/SDE position statement (2003), but with additional considerations when assessing children with or at risk for disabilities and developmental delays. First and foremost, any assessment instrument selected for use must have the ability to provide necessary information to answer

the referral concern and family/team questions. Second, selected instruments must have technical adequacy, or evidence of reliability (consistency) and validity (meaning). If a measure is reliable, results across examiners, children, and over time can be trusted. The validity of an assessment tool communicates whether it is measuring what it says it measures (e.g., a "language test" actually measuring language development).

Assessment team members make multiple decisions throughout the assessment process. Two critical decisions are (a) the determination of the existence of a delay or disability, and (b) the determination of the child's eligibility for services. For diagnostic and eligibility decisions to be valid, collaboration between families and professionals is essential. When a young child is assessed to determine eligibility for special education services, a team must select tests capable of providing information to help make this decision. Assessment teams must keep potential IFSP/IEP goals in mind and gather appropriate assessment information to inform the goal-writing process. Assessment information should describe a child's current state of development, as well specific skill strengths and skill weaknesses. To accomplish this, it is critical that families are included in the assessment process and that the tools used are ecologically valid and authentic.

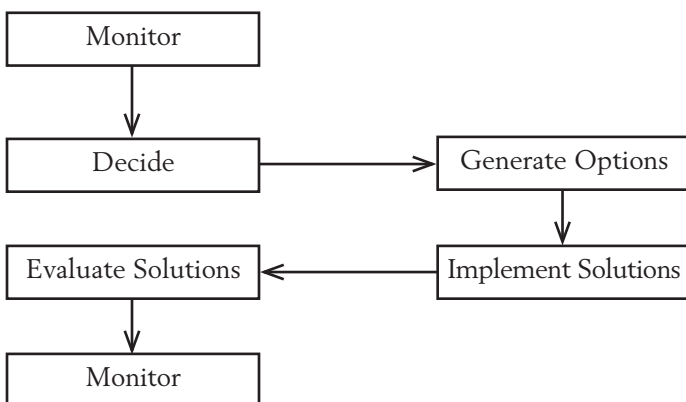
In addition to determination of eligibility for specialized services, IEP development, and program planning, assessment teams also participate in assessment for the purpose of ongoing assessment and progress monitoring. Ongoing assessment and progress monitoring are critical and often forgotten processes in the assessment system. The primary purpose of ongoing assessment is to help teachers implement and modify curriculum and teaching practices to ensure that all children, including children with disabilities, are progressing toward identified goals. For some children this may include full participation in the classroom or center assessment with little or no adaptation or modification necessary; other children may need minimum or significant modification. (See the Curriculum section of this paper for more information on this topic.)

Ongoing assessment and progress monitoring create an integrated assessment system whereby initial assessment decisions are monitored and evaluated through an integrated loop of assessment that is continuous, ensuring that services are meeting the child's current and relevant needs. Ongoing assessment provides the mechanism for both individual programming and program evaluation. (See the Program Evaluation section of this paper for more information.) Assessment outcomes may also be used within a program evaluation plan to inform program, school, and district-wide decisions. In short, collaborative family and professional team decision making occurs at multiple points in the assessment process.

Assessment teams have two general assessment options for monitoring a child’s progress: (a) a critical skills mastery approach, in which the mastery of individual skills at single points in time is examined for progress, or (b) a general outcome measurement approach, where indicators or skills (e.g., vocabulary, phonological awareness) related to a larger developmental domain (e.g., literacy) are monitored over time to determine progress (McConnell, 2000).

There are benefits and drawbacks to both options. Assessments with a focus on critical skills mastery can be helpful for both setting IFSP/IEP goals and for determining whether children are meeting IFSP/IEP goals, but they contribute little understanding of whether children are making progress toward long-term goals over time—information that children’s classroom teachers and early interventionists find essential to their planning and curriculum implementation. General outcome measures address this weakness. Data generated from ongoing, standardized assessments with general outcome measures produce growth trends reflective of development in the larger domain, and growth trends can be interpreted for response to intervention (Greenwood, Luze, & Carta, 2002; McConnell, Priest, Davis, & McEvoy, 2002). All general outcome measurement models tend to follow the process in Figure 1, where use of general outcome measures generate data for interpretation and decision making to improve the overall trend of performance and to provide an ongoing measure of progress over time.

Figure 1 *General outcome measurement model process.*



2. Assessment tools are authentic.

In practice, an integrated child- and family-centered model of assessment relies heavily on authentic assessments and observations of young children in interaction with objects, peers, and family members in familiar settings during typical routines (Losardo & Notari-Syverson, 2001; Neisworth & Bagnato, 2004). Criterion-referenced measures and informal, teacher-made checklists and behavior samples (administered non-intrusively through observation of the child within the context of daily routines and activities) provide valid and functional information

for understanding the child within the family and community. An accurate assessment of all environments in which the child participates is also essential in an integrated child- and family-centered model of assessment.

Assessments that are child-centered and interactive, rather than those that simply enumerate or quantify the presence or absence of isolated skills, generate a strong base of knowledge about the child and the child’s ability to interact with the everyday environment (Fewell, 2000). Assessments that yield information about child behavior and preferences with people, objects, events, and settings together with information obtained from standardized developmental assessments provide a more accurate and holistic view of the child. Therefore, the goal of the assessment team is the development of an effective multi-method data collection process that is driven by family and team concerns and focused on decision making to fully reflect child status and need and to plan appropriate intervention and related services.

Using authentic, ecological, and criterion- or curriculum-based assessments has several advantages. These types of assessment tools typically include a large number of behaviors across multiple domains and therefore provide a level of specificity sufficient to accurately reflect child developmental status. Items are typically useful and relevant to family concerns. The tools also allow the child multiple opportunities to demonstrate a behavior or skill in multiple settings with preferred and multiple partners, objects, and materials, resulting in a more valid estimate of developmental status (Fewell, 2000). Because the participants or informants for most criterion- or curriculum-based assessments are teachers and care providers who know the child best, these assessments may be more efficient and may also facilitate the development of collaborative partnerships. Results also provide a direct and functional link to IFSP/IEP development, curriculum planning, and implementation. The information collected can easily be translated for use in instruction.

Evaluating the child within the context of play, social interactions, and care-giving routines requires that the assessment process focus on the demands and expectations of the environments where children live, learn, play, and work rather than merely children’s relative standing in a normative group. This ecological perspective recognizes that physical, social, and psychological contexts are interwoven and affect performance; and that domain (e.g., communication, motor, cognitive), discipline (e.g., speech and language pathology, occupational therapy), and specific skills and behaviors (e.g., pincer grasp, personal pronouns, spatial relations) are inconsequential when assessed out of context (Neisworth & Bagnato, 2005).

Strategies to provide ecologically valid and community relevant information include the use of observation or data-gathering techniques such as questionnaires, document review,

anecdotal records, and interviews. Within this model, the assessment process addresses functional supports in a way that is congruent with the child's natural environment and supports the relationship of the child within the ecological context. In this way, the support and interventions are part of a typical routine rather than an intervention that separates the child from the world. For example, the assessment and recommended intervention of motor activities evolve not by the child visiting the physical therapist at an office or clinic, but by the therapist watching and observing the child on the playground with a group of children as she participates in activities that demonstrate motor skills. The therapist may then use the information to consult or coach the teacher or family member in activities that would support the development of motor skills on the playground. In addition, the assessment process for children with disabilities often includes an analysis of the child's interaction with the environment (i.e., physical, social, and instructional) in order to address the concerns of teachers and families and to provide immediate and meaningful data for program planning. This model also easily incorporates the necessary adaptations, modifications, and accommodations.

3. Assessment tools have good psychometric qualities.

In early childhood, good psychometric evidence is of particular concern for three reasons. First, many early childhood measures tend to produce scores that are relatively unstable (Bailey, 2004). Very young children learn and grow at remarkable and unpredictable rates that are unmatched during other age periods. Because of this, scores from assessments administered to very young children tend to be unstable. Tests of cognitive development (e.g., IQ tests) are the most frequent culprit of this phenomenon, but it is true of assessment in other developmental domains as well (Sattler, 2001). Second, young children with disabilities introduce even more instability to results because although they experience growth spurts just like young children without disabilities, their rates of growth in general tend to be more unpredictable (McLean, 2004). Third, particularly when the interest is early academic development (e.g., literacy and reading), many measures in early childhood lack predictive validity, meaning that test results have not been determined to be related to later development (Bracken, 2000). Given that the purpose of assessment of early academic development is often to identify and improve skills to increase the likelihood of later educational and life success for a child, early educators should look for instruments with evidence of predictive validity.

The assessment process often may include the use of individually administered tools that are norm-referenced. These tools are often used to address specific questions (e.g., eligibility) regarding a child's development (Roid & Sampers, 2004). Where some tests require a contrived setting, results for these tests require additional confirmation of the child's typical behavior in other settings. Other assessment tools are applied in more authentic, realistic settings and situations

that provide a more natural measure of abilities. Methods that can be used in the natural environment can support the assessment process continuously over time by using repeated measurements, and can provide more specific evidence for service modifications (Neisworth, 1993).

The assessment tools and process must be appropriate for the age and characteristics of the child and must specifically address referral or intervention questions. The response demands of the assessment tool must be carefully analyzed during assessment planning to determine individual and developmental appropriateness. For example, some tools require verbal fluency and high levels of expressive communication; others require motor behavior for responding; most place demands on the child's sensory system (McCormick & Nellis, 2004). The assessment team must select tools that best reveal the child's skills and abilities while minimizing the impact of disability on the results.

Genuine and meaningful communication.

Because most families involved in early childhood assessment are learning about the assessment process and special education for the first time, assessment teams must be thorough, explicit, sensitive, and patient communicators. Even if family members have been active partners in the assessment process and are aware of all the assessment details, it is still critically important to communicate assessment results sensitively and thoroughly. Assessment reports must accurately and completely include the: (1) purpose for assessment, (2) titles and descriptions of all assessment tools used, (3) scores from tools including detailed explanations of what scores mean in general (e.g., a percentile rank is a comparison to other children of the same age) and for the child specifically (e.g., average range), (4) implications of assessment results, and (5) suggestions for placement, service, and intervention (Sattler, 2001). Because family members have the right to refuse intervention or special education services offered as a result of an eligibility determination, teams must be very careful not to presume what parents will decide. Teams must write assessment reports that offer suggestions rather than plans for next steps. Families need time to digest assessment results and often they need an additional meeting (or several) to talk seriously about intervention planning.

Ethical and legal practices.

Professionals completing assessments are responsible for adhering to the requirements of the state in which they practice, their professional group affiliations, and publisher qualifications for test administration. Ethics also dictate that assessors use the most appropriate and recent version or edition of the test. In the case of norm-referenced testing, this means that the assessor uses the most recent test edition because the norms are more likely to reflect the child's development (NAEYC, 2005).

In summary, the assessment process should provide opportunities for families and professionals to work as a team to make decisions about eligibility for program services, settings, and the identification of appropriate IEP/IFSP goals and instructional strategies, ongoing progress monitoring, and program evaluation. Throughout the assessment process team members must be diligent in focusing on the child and family. Conversations, review of records, observations, direct assessment, and reflection provide team members the opportunity to begin to know the child and understand his or her needs. They can better answer the important questions: What are the educational and therapeutic needs of this child? Do these needs require specialized intervention or education? What is the best way to meet these needs in the community and at home? What behaviors should be targeted for change? Where, when, with whom, and how should intervention and subsequent evaluation occur? Do these decisions honor family preference and community values? In other words, the assessment “begins where the team wants to end” and keeps that goal in mind.

Indicators of Effectiveness

Effective assessment in ECSE has several hallmark features. Foremost, the assessment process is centered on the child and family. As such, open and safe communication occurs on a regular basis between families and school or program staff in response to identified priorities, goals, and concerns. At the same time, a breadth of information is collected in unique ways from multiple sources in ethical and professional practices. Finally, effective assessment is ongoing, with the goal of collecting information to make decisions that will improve the education of and services for young children with disabilities—including day-to-day decisions about what to teach and how to teach. The process, style, and measures of assessment in EI/ECSE have evolved significantly over the years. The DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall et al., 2005) recognizes the importance of the assessment process as an entry into the system of services for young children with disabilities and their families, as well as a key source of information to inform instruction in early childhood programs.

Key features described as essential to the overall assessment process include: (a) developing partnerships with parents and families as essential stakeholders in the assessment process, and (b) using assessment methods and materials that are developmentally appropriate and culturally and linguistically responsive (Neisworth & Bagnato, 2005). These important ideas are critical to assessment from the beginning of the process. It is also critical that assessment be individualized in the identification of appropriate and functional supports for young children with disabilities and their families and that a team process be utilized. The following indicators are aligned with DEC Recommended Practices: A Comprehensive Guide for Practical Application (Sandall et al., 2005) and are closely aligned with indicators from the NAEYC-NAECS/SDE position statement.

Assessment involves family-professional partnerships.

Assessment involves shared experiences between families and professionals in which information and ideas are exchanged to benefit a child's growth and development. Family concerns, resources, and priorities are integral to the individualized process the team develops. The process must be designed to facilitate family inclusion at multiple levels in response to family-identified preference and with sensitivity to family values, needs, language, and culture. It is the responsibility of professional team members to ensure an honest and collaborative experience for family team members.

The assessment process should involve the family and professionals working together to capture the child's way of learning about the world and the child's developmental status (Meisels & Fenichel, 1996). From this team advantage, members share information that will help to identify children needing additional assessment and services, enhance the quality of the child's individual service plan and education, and influence the child's daily activities and instruction. Ultimately, the assessment process should support the family's decision making on behalf of their child (Preator & McAllister, 1995).

Communication among all team members—including families—supports planning and implementation of an assessment process that answers the questions team members pose. Families and professionals initiate communication by sharing information related to the purpose for the assessment, process, and specific information about the child. Families and staff must feel comfortable sharing information related to the assessment process as well as specific information about the child (Roid & Sampers, 2004). This process is reciprocal. Family members share information related to the families' routines and history (e.g., medical records, photographs, videos, journals). Team members share information about the logistics of the assessment process (e.g., who to contact, participating team members, locations and times, roles for team members and the family), environmental characteristics and demands, available supports, adaptations, accommodations, and program options.

The team's communication supports comfortable and confident family member participation. The team works jointly to ensure confirmation of observations and substantiate findings. Good team processing supports family understanding of why the child is being assessed, what the assessment process is, how the information from assessment will be used, and the family's rights in the process. Information generated through the assessment process results in a sensitive discussion of findings and a formal report. The report reflects complete and clear, family-friendly, culturally responsive information.

Assessments should be developmentally and individually appropriate and educationally significant.

Assessments that are developmentally and individually appropriate include the use of authentic and multiple measures and sources to assess child status, progress, and program impact and outcomes. Children are assessed within typical routines and daily activities using familiar materials, and assessment results inform decisions about curriculum and instructional practices. Assessment procedures are designed to accurately reflect child status and need, using materials and procedures that accommodate sensory, physical, and temperamental differences.

As discussed in the Curriculum section of this paper, assessment to plan intervention and curriculum for young children with disabilities must incorporate two critical elements. First, measurement tools include items sufficient for documenting incremental and small rates of growth. In other words, they must be sensitive to individual rates of growth and development and include a broad range of developmental tasks. Second, and equally important, assessments reflect socially valid goals and outcomes (e.g., language, literacy, social development) for natural and inclusive environments. Natural environments include home and community routines; therefore assessment should involve the functioning of children and families in those routines.

When assessment is for monitoring progress or measuring outcomes, the assessment must provide sufficient information to accomplish this purpose. This includes documentation of the attainment of IFSP and IEP goals and objectives, response to intervention, and fidelity of intervention implementation. The behavior of all young children tends to be greatly influenced by context. This is especially true for young children with disabilities, particularly with infants and toddlers. Therefore, the assessment process requires use of varied and multiple methods (e.g., observation, testing, interview, record interviews) and sources of information (e.g., parents, teachers, caregivers, relatives) collected over time.

Special care should be taken to ensure adherence to professional ethics and practices.

Use of assessment instruments for their intended purposes is particularly critical in the assessment of children with disabilities. An array of assessment tools is available for use in early childhood: checklists, rating scales, criterion-referenced tools, norm-referenced tools, interviews, and observations. Ethical practice requires selecting tools and interpreting results in accordance with the purpose of the assessment and the characteristics and applications of the tools as recommended by the publisher (NAEYC, 2005). It may be necessary to go beyond assessment of general functioning, using assessment tools matched to developmental concerns (e.g., challenging behaviors, pervasive developmental delays, early language development). The appropriateness of the assess-

ment process to the child's cultural, ethnic, and linguistic experiences is also important, including familiarity and comfort in group settings and taking directions from a non-familial adult. The validity of the assessment is tied to the appropriateness of the procedures and tools for the specific child being assessed.

Because the assessment of young children with disabilities may often result in critical decisions such as eligibility for early intervention and special education services or the maintenance of services, professionals must be diligent in their use of standardized procedures and adherence to the intended purpose and use as recommended by the publisher. Therefore, assessment tools with measurement or categorization properties should hold the highest level of psychometric quality and integrity.

Early childhood professionals should work collaboratively with families and with one another to design individualized and appropriate assessment activities that are aligned with specific purposes and decisions. This includes the use of authentic measures that inform instruction and intervention decisions and link to program content and goals. Professionals should share information with family members about all aspects of the assessment process including appropriate adaptations, modifications, and accommodations. When using norm-referenced tools, professionals should ensure that they are developed, validated, standardized, and normed with children similar to the child being assessed. Finally, assessment team members (including family members) participate in an ongoing review of child progress and instructional utility/effectiveness.

The first step of the intervention process for children with disabilities and their families is the knowledge of and participation in the assessment process by family and staff as members of the team. This requires a commitment to ongoing professional development on the part of both staff and administrators. Staff must be supported in their professional development to gain knowledge and skills for conducting assessment in culturally and linguistically sensitive ways, and to work collaboratively with a wide range of diverse families. Additionally, staff must have regular access to training that allows them to incorporate and apply assessment results to home- or classroom-based intervention and improved outcomes for children.

Frequently Asked Questions

1. Are there standards for how the assessment process works for children with disabilities?

IDEA Parts C and B clearly outline legal mandates for the assessment process. Individual states work within these federal guidelines to determine acceptable assessment methods and components, as well as eligibility criteria. Readers are referred to their Department of Education and Part C lead agency's state guidelines.

2. What should be assessed?

First and foremost, an identified question or concern about a child's development and learning should be posed. For example, a referral concern from a parent, a question about a child's progress in relation to expectations for growth and development, or early learning standards should all drive assessment. In other words, only relevant information directly linked to the purpose of the assessment should be gathered. With that in mind, assessors should gather information from multiple sources and people close to the child.

3. Which assessment tools should be used?

Assessment tools should be appropriate for gathering information about the topic of interest (e.g., motor development, language development); appropriate for the person completing the evaluation (e.g., parent, trained professional); and appropriate for the purpose (e.g., screening, evaluation, program planning, and progress monitoring).

4. For what purpose is norm-referenced testing appropriate?

Truly, it depends on what the assessment team wants to know, what decisions must be made, or what the purpose is of conducting the assessment. Because norm-referenced tests tend to be lengthy and comprehensive, they are typically most appropriate for eligibility determination. They can have a place in program evaluation (see section on Program Evaluation) and progress monitoring; however, it should be noted that oftentimes a less time- and energy-intensive measurement can be just as informative.

5. Which assessment tools are most appropriate for monitoring children's progress?

The best assessment tools for progress monitoring have the following features: (1) efficient to administer (e.g., fast and inexpensive), (2) easy to administer (e.g., the administrator does not need extensive specialized training or certifications), (3) reliable and valid, (4) related to outcomes of importance (e.g., reading, social competence), (5) sensitive to skill growth over time, and (6) repeatable.

6. How should families be included in assessment?

Family members are equal and integral members of the assessment team. The entire assessment process should acknowledge, respect, and accommodate the family's needs, values, and priorities. Accordingly, assessment team members must understand the assessment process from the family's perspective. Families should be included in every phase of assessment. Families should be heavily involved in helping assessment team members understand the areas of concern and provide information in those areas (i.e., through interviews, testing, questionnaires). Families should be part of assessment interpretation and intervention planning, as well as goal writing and evaluation.

7. What happens after assessment is complete?

Assessment is an ongoing process. If after completion of the evaluation for eligibility component, the determination is that the child is not in need of intervention at the current time, the child's developmental progress should continue to be monitored. If, however, the determination is that the child is in need of specialized intervention, assessment is also ongoing in the form of progress monitoring. As a result of initial assessment, goals for improvement are developed and the child's progress toward the goals must be documented. Additionally, intervention services must be designed to meet children's needs and help them reach their individual goals. As children reach their goals, intervention services are modified accordingly. The assessment process is really never complete—the gathering of information continues to modify services according to the child's needs.

8. How does assessment link to service and support?

Service is in direct response to the child's needs as determined by assessment. "Service" really means "unique environment designed specifically to address a child/family's needs and assist his/her development." Service is a broad term that includes a diverse array of direct, consultative, and informational supports such as resources for the family or specific supports to an early care educator and should not be limited to mean the delivery of a service such as physical therapy. "Service" should be determined by the team, should be based on the child and family priorities, and change as a result of data-based decision making using assessment information in the form of progress monitoring. As a result, service must be flexible, ongoing, and responsive to immediate child/family needs.

9. What is the distinction between assessment and evaluation?

In general, the term "assessment" is used in reference to gathering information for an evaluation. Assessment includes multiple methods of measurement and as many sources of information as possible. "Evaluation" is the overall process of summarizing present concerns, collecting information, and determining what (if anything) to do next (e.g., special placement or intervention). For Part C programs these terms have very different meanings or definitions as prescribed by IDEA (2004). For more guidance about program evaluation, see the Program Evaluation section in this document.

PROGRAM EVALUATION

Key Recommendation

Program evaluations should be conducted so that they (a) focus on clearly specified program goals, (b) gather reliable and valid data, (c) assess desired outcomes and impacts, (d) consider factors that mediate outcomes, (e) involve stakeholders as partners in key aspects of the evaluation, and (f) facilitate decision-making about the program. Contemporary program evaluations should advance understandings about what kinds of services have what kinds of impacts on which children and families, under what circumstances, and at what cost (Shonkoff, 2004).

Rationale

Program evaluation has been defined as the process of “systematically collecting, synthesizing, and interpreting information about programs for the purpose of assisting with decision making” (Snyder & Sheehan, 1996, p. 359). Many EI/ECSE programs have conducted program evaluations as required by their federal, state, or local funding agencies or perhaps as required by an accrediting program such as the NAEYC. Typically, the focus of evaluation has been on “process” or “input” variables such as staff qualifications, staff-child ratios, hours of service, or quality of the environment. Program evaluation traditionally has been an administrative responsibility, and typically the focus of program evaluation has been shaped by the requirements of funding or accrediting agencies.

Key Issues in Program Evaluation for Young Children with Disabilities

The purpose of this section is to provide an overview of key issues related to program evaluation in EI/ECSE, to identify important quality indicators for those involved in program evaluation efforts, and to provide information about additional resources that might assist those interested in or charged with implementing program evaluation.

Contemporary perspectives about program evaluation: Interfaces with accountability.

Recently, the concept of accountability, which can be one focus of program evaluation, has gained increased attention in education. Accountability in public education refers to the “systematic collection, analysis, and use of information to hold schools, educators, and others responsible for the performance of students and the education system” (Education Commission of the States, 1998, p. 3). America’s k-12 education system has come under increasing pressure to demonstrate results in the form of increased student achievement. The increased emphasis on results is actually government-wide, and affects all federally funded programs, including EI/ECSE. The Government Performance and Results Act (GPRA) requires that all federal programs establish and report

evaluation data related to specific program goals. In addition, the federal Office of Management and Budget (OMB) reviews and rates federal programs each year according to the Program Assessment Rating Tool (PART) as part of the budget development process.

For educators, accountability has been most evident in school-age policies like the No Child Left Behind Act. Early care and education programs also have been impacted through legislation tied to the Head Start program and recently through the Good Start, Grow Smart early childhood initiatives. IDEA (2004) also has accountability requirements that will have an increasing impact on EI/ECSE programs. In addition, many states are focusing increased attention on efforts designed to demonstrate the cost-effectiveness and value of human service programs. In fact, the multiple initiatives at federal and state levels, which have been evolving separately, frequently intersect at the program level, creating challenges for program personnel charged with addressing complex and diverse accountability or program evaluation requirements (Harbin, Rous & McLean, 2005).

In the current era of accountability, program evaluation is a complex process, particularly in relation to documenting which interventions lead to what outcomes and impacts for which children and families. Continuous improvement and continuing evaluation, or what Haskins (2004) has referred to as “continuing accountability,” is having significant impacts on how program evaluations are designed and implemented in EI/ECSE. Programs are challenged to answer the simple question, “Does it work?” (Gilliam & Leiter, 2003). Complexity is introduced as efforts are directed to defining and measuring “it” (i.e., the program) and “work” (i.e., outcomes and impacts).

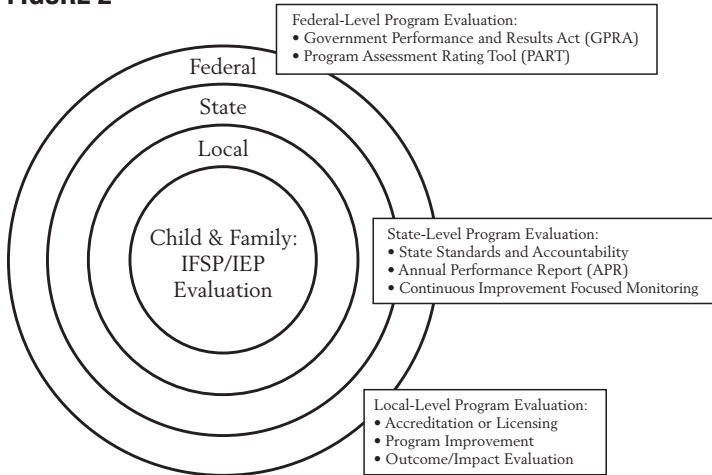
Unique aspects of program evaluation in early intervention/early childhood special education.

From a program evaluation perspective, defining the term “program” is essential because this definition helps determine the nature of evaluation goals and outcomes, factors that affect outcomes, and the range of stakeholders who have a significant investment in the results of the evaluation.

An ecological framework (see Figure 2 on page 20) can be used to illustrate that there might be multiple EI/ECSE programs and services delivered or managed at local, state, and federal levels and to highlight relationships that might exist across evaluations at the various levels.

At the center of the ecological framework, each child with or at risk for a disability or developmental delay who is eligible for EI or ECSE services has an individualized program—either an IFSP or IEP. These individual programs are evaluated on an ongoing basis by the teams that develop them, including the child’s parent(s), to evaluate progress related to each specified outcome or goal/objective.

FIGURE 2



Evaluation at the individual child/family level is necessary for assessment and curriculum and/or intervention decisions that are made for individual children or their families.

At a local program level, evaluation might focus on an administrative issue (e.g., impact of program policies on child/family participation levels), an intervention-oriented strategy (e.g., impact of new routines-based intervention model implemented in the program), or general outcomes for children and families served by the program. Locally initiated program evaluation often differs from evaluations required by state, federal, or licensing agencies. Most local programs, however, contribute key information to state and federal program evaluation efforts, as required by funding agencies. For example, all local IDEA programs provide data on the number of children served through IDEA so these data can be aggregated statewide and submitted to the federal government. In addition, an early intervention program might be required to contribute child and family outcome data to the state led agency as a requirement of participation in the statewide program. These evaluation data might be useful not only for the state but for the local program.

State evaluations typically involve monitoring state-funded programs for compliance with operational standards or using evaluation information across local programs to understand trends in program processes, outcomes, or impacts (Kellegrew, O'Brien, & Groppenbacher, 2003). For operational standards, an example might be data reporting by local Part C (early intervention) programs on the percentage of children served in natural environments.

States also are held accountable to the federal government for the implementation of their early intervention and preschool special education programs. States must set targets in multiple components of the IDEA program (e.g., transition, inclusion, and natural environments) and report on annual progress for meeting these targets in an annual performance report

(APR). In this way, the APR serves as the planning and reporting tool of the federal continuous improvement and focused monitoring system, which is designed to help states improve performance and compliance with IDEA requirements. In addition to demonstrating that they are meeting all of the federal requirements under IDEA, there is also an increased emphasis on demonstrating the positive impact of IDEA programs in relation to child and family outcomes. States receiving IDEA funds to support EI/ECSE programs must report annually on the achievement of child and family outcomes through the APR. From a program evaluation perspective, this system emphasizes planning, implementing, and evaluating improvement strategies.

At the federal level, the U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs uses these state evaluation data to report to Congress on IDEA goals established under the GPRA. Currently there are five Part C GPRA indicators and three Preschool GPRA indicators. Indicators that measure child outcomes include:

- “The percentage of children participating in Part C that demonstrate positive social-emotional skills (including social relationships); acquire and use knowledge and skills (including early language /communication); and demonstrate appropriate behaviors to meet their needs” (Individuals with Disabilities Education Act Amendments, 2004, 20 U.S.C. 1416 (a)(3)(A) and 1442); and
- “The percentage of preschool children with disabilities participating in the Preschool Grants Program who demonstrate positive social-emotional skills (including social relationships); acquire and use knowledge and skills (including early language/communication and early literacy); and use appropriate behaviors to meet their needs” (Individuals with Disabilities Education Act Amendments, 2004, 20 U.S.C. 1416 (a)(3)(A)).

In addition, one of the Part C indicators measures a family outcome:

- “The percentage of families that report that early intervention services have helped them 1) know their rights; 2) effectively communicate their children’s needs; and 3) help their children develop and learn” (Individuals with Disabilities Education Act Amendments, 2004, 20 U.S.C. 1416 (a)(3)(A) and 1442).

These outcomes are important to local programs because programs might be asked to collect and report data about these outcomes as part of their participation in EI/ECSE programs funded under IDEA.

Evaluation beyond accountability.

At a local level, program evaluation is often conducted for purposes other than program accountability. Results from a well-planned evaluation can inform program decision making

and improvement planning. A melding of the earlier described “process” or “input” variables and “outcome/impact” data is needed to look at relationships between what the program does and what difference it makes for participants.

One of the biggest challenges in program evaluation is resisting the urge to try to be all things to all audiences. It is important, but sometimes difficult, to clarify the purpose of the evaluation and to design the evaluation to answer the most important questions. For example, is the purpose of the evaluation to respond to an external accountability demand, to make a specific decision about how to reduce costs, or to find out which intervention strategy works best for specific children?

Also challenging in evaluating programs for young children, and especially programs for young children with disabilities, is finding appropriate tools for measuring child and family outcomes. As discussed previously in the Assessment section of this paper, assessment of young children is generally more difficult than assessment of older children, and assessment of young children with disabilities is more difficult than the assessment of young children without disabilities. Difficulties include the variability in a young child’s behavior from day-to-day and setting-to-setting. This variability might lead to reduced reliability in assessment scores and extreme variations in functional levels among the population of young children with disabilities. Many assessments that are used to measure growth and development of children who are typically developing might not be well suited for young children with disabilities.

Inclusion of children with disabilities or delays in program evaluations of early education and care programs.

The NAEYC-NAECS/SDE position statement on early childhood curriculum, assessment, and program evaluation (2003) suggests that a snapshot of children and families served by early childhood programs today would look very different than one taken in 1990. The snapshot of today would include more children with disabilities, as well as more children who are immigrants, more who live in poverty, and more whose home language is not English. The diversity of the children and families served by early care and education programs has greatly increased and will probably continue to increase in the future.

In recent years, there has been increased recognition of the importance of early education by those working toward educational reform in our country (Bowman, Burns, & Donovan, 2001; Shonkoff, J. & Phillips, D., 2000). Federal policies such as Good Start Grow Smart have focused on the development of state standards for pre-kindergarten children, and these standards are increasingly linked to curriculum and evaluation frameworks. The early childhood standards and curriculum frameworks being developed by states should apply to children with disabilities and other special

needs (Scott-Little, Kagan & Frelow, 2003). Similarly, evaluation efforts designed to measure progress toward standards will also include children with disabilities and special needs. According to the federal IDEA, children with disabilities must be included in any state- or district-wide assessments that are established for typically developing children.

Evaluation of progress toward state standards might be considered to be “high stakes” assessment to the extent that programs are penalized by lack of improvement over time. Programs that serve the most “vulnerable” children might be at risk of being penalized by the misuse of child outcome data (Hebbeler, 2004). To ensure the appropriate interpretation of child outcome data for all children, including children with disabilities, and in keeping with the procedures included in the position statement of NAEYC and NAECS/SDE (2003), program evaluation should be used for continuous improvement rather than to penalize programs for poor outcomes.

Indicators of Effectiveness

When considering indicators of effective program evaluation, standards developed by the Joint Committee on Standards for Educational Evaluation (1994) are a useful place to start. A brief description of these standards and related documents follow. Additional indicators of effective program evaluation that we believe are particularly relevant in EI/ECSE are also discussed. A list of the suggested indicators of effectiveness in program evaluation is included in Table 4 in the Appendix.

Evaluation efforts conform to evaluation standards including utility, propriety, feasibility, and accuracy.

The Joint Committee on Standards for Educational Evaluation (1994) suggest sound program evaluations, regardless of their emphasis or focus, should adhere to four basic standards: (a) utility, (b) propriety, (c) feasibility, and (d) accuracy.

Utility refers to ensuring that the informational needs of intended program evaluation users are met. An example of a utility standard is, “Persons involved in or affected by the evaluation should be identified, so that their needs can be addressed.”

Feasibility refers to promoting realistic, prudent, diplomatic, and frugal evaluations. An example of a feasibility standard is, “The evaluation procedures should be practical to keep disruption to a minimum while needed information is obtained.” Propriety means evaluations will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation and those affected by the results. An example of a propriety standard related to complete and fair assessment is, “The evaluation should be complete and fair in its examination and recording of strengths and weaknesses of the program being evaluated, so that strengths can be built upon and problem areas addressed.”

Accuracy standards focus on ensuring the evaluation provides technically adequate information about features that determine worth or merit of the program. In relation to validity or meaningfulness of findings, an example of accuracy standards is “The information-gathering procedures should be chosen or developed and then implemented so they will assure that the interpretation arrived at is valid for the intended use.”

The Joint Committee also has developed explicit advice about conducting program evaluations, which are based on the standards. Among the evaluation functions addressed in these documents are (a) defining the evaluation problem, (b) designing the evaluation, (c) collecting information, (d) analyzing information, and (e) reporting information. The evaluation standards and related documents are excellent resources for those interested in program evaluation and can be found at the following Web site: <http://www.wmich.edu/evalctr/jc/>

Logical approaches for conceptualizing and conducting program evaluations are used.

Most decisions made about programs concern allocation of resources to improve program success and serve needs. Program evaluations should therefore (a) inform stakeholders about achievement of program goals, (b) identify the factors that are associated with program outcomes, and (c) describe unmet needs of children, families, and communities. This requires that program evaluation clearly specify the program’s aspirations for children, families, community, and staff and collect data from the targeted groups. While program evaluations can focus on one or more outcome(s) or need area(s), program administrators are ultimately responsible for documenting

and evaluating the major outcomes. Data might also be collected about costs, resources, staff activities, or other factors that impact program success. Documenting child progress on the IEP/IFSP or common measures of child development might be informative but typically will not provide sufficient information to inform key program evaluation decisions.

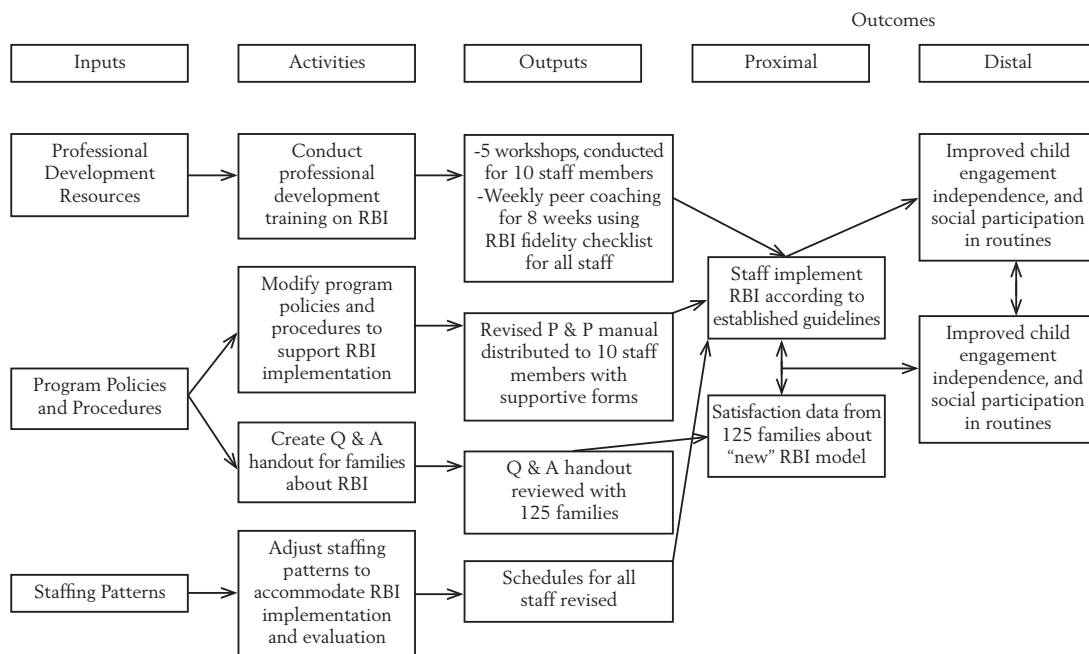
One way to conceptualize and conduct program evaluation is to use a logic model. Although not the only type of program evaluation model available, the logic model approach to program evaluation shares several features in common with other types of goal-based evaluation approaches (Stufflebeam, 1985; Patton, 1997).

A logic model is a depiction (often graphic) of program processes and outcomes. The logic model details what the program is, what anticipated outcomes are expected for participants, and how anticipated outcomes are expected to be reached (Gilliam & Leiter, 2003). From a logic model perspective, program processes involve three components: (a) inputs, (b) activities, and (c) outputs. Outcomes include two aspects: intermediate (proximal) and end (distal).

Figure 3 shows an example of a logic model. In this example, staff from an early intervention program wants to implement a routines-based approach to delivering services and supports, and to evaluate outcomes.

Inputs include resources available to the program (e.g., funds, staffing patterns, facilities, equipment, supplies) or constraints on the program (e.g., regulations, policies, funding restrictions). Activities are what the program does with its inputs to carry out its program goals and objectives. In the example, activities include participating in professional development focused on routines-based intervention (RBI), modifying a policy and

FIGURE 3



procedure manual to support implementation of RBI, and adjusting staffing patterns to implement RBI.

Outputs are direct products of program activities and typically are measured in terms of the amount of service or supports provided to participants. Using the example, this might include collecting information about the mean number of child-focused, routines-based intervention sessions conducted during a 1-year period.

Outcomes are the results for participants during and after program activities are implemented. Intermediate or proximal outcomes frequently focus on attitudes of consumers, their perspectives about the services, supports they receive, or how these services and supports are delivered to them. Intermediate or proximal outcomes might include participants' views about the timeliness, accessibility, satisfaction, or helpfulness of the services they receive. In the example, parents might be asked to complete a measure that seeks their perspectives about the RBI approach. Distal or end outcomes are associated directly with program goals and objectives. If one anticipated outcome of using an RBI approach is to improve child independence, engagement, and social participation, then measures that operationalize these three outcomes and yield valid and reliable scores might be administered to participating children. This permits evaluation of whether the program, as designed, is achieving intended outcomes for participants.

Correspondence should exist between program goals/objectives and evaluation questions and methods.

Although it seems obvious that there should be a match between program goals/objectives, measured goals/objectives, and evaluation questions and methods, as Sheehan and Gallagher (1983) noted, this frequently does not occur. All program evaluation activities should begin with specification of program goals/objectives. What is the program attempting to accomplish? For whom is the program attempting to accomplish its goals/objectives? Evaluation questions should follow logically, based on the program goals/objectives. Based on the evaluation questions posed, those involved in conducting the evaluation should determine which program evaluation design and methodologies should be used to address evaluation questions.

Evaluation efforts employ participatory models.

A key purpose of program evaluation is to promote sound decision-making regarding program performance and program improvement. To support effective decision making, it is logical that the evaluation should involve those persons who will be impacted by the decisions and those who will be accountable for implementing any proposed reforms to policies, practices, or expenditures. To the extent feasible, staff, families, and community representatives should be involved when (a) determining the goals of an evaluation, (b) designing the evaluation, (c) disseminating and interpreting results, and (d) supporting the implementation of valid and

reliable decisions informed by the evaluation. Involvement of people who have a legitimate investment in the program's success encourages shared ownership of the value, conduct, and use of the program evaluation. Program evaluation is not something that is "done to" program staff and program participants. It is something that is "done with" them.

Program evaluation describes what happened to participants.

One area of program evaluation often overlooked when attempting to address questions such as "Did it work?" is defining what it means. In the context of program evaluation, this involves describing what happens to participants (e.g., what interventions are delivered) and the extent to which programs were implemented as intended. This often is accomplished by documenting "treatment fidelity." Treatment fidelity includes descriptions of the program implementation schedule (e.g., frequency and intensity of intervention). Preferably, treatment fidelity also should document the extent of implementation and descriptions of participants' involvement in the program. Treatment fidelity involves documenting what services were actually delivered to children and families.

Failure to achieve desired program evaluation outcomes might be a function of inconsistent delivery of services or failure to implement a model of intervention correctly. Similarly, program evaluations designed to evaluate the impact of staff training efforts might not show desired changes in knowledge, skills, or dispositions if the training was of poor quality, delivered inconsistently, or poorly attended or practiced by staff. Further, an intervention program is not the only thing children or families might experience that impacts their achievement of desired outcomes. Experiences of children and families outside of the intervention program might contribute just as much (or more) to outcomes as the intervention program itself.

Describing what happens to participants and measuring treatment fidelity is critical to supporting claims about program effectiveness and to improving program operations. Documenting influences outside of the program that potentially impact outcomes is also necessary to put program evaluation results into perspective.

Data collection is efficient and feasible.

Ideally, program evaluation should be an ongoing, routine, and integrated component of program delivery and management. When designing program evaluations, the simplest procedures that provide valid and reliable answers to questions and inform decisions are typically most desirable. Simple and efficient data collection procedures reduce disruptions within program delivery and facilitate clear communication to groups of stakeholders. Data collection systems that cannot be easily integrated into the ongoing routines of program staff risk compromising service delivery

by taking staff away from critical roles or compromising data quality due to the lack of attention.

Measures used in program evaluation yield reliable and valid scores for young children with disabilities and their families.

Reliability refers to the consistency of scores and reflects the extent to which scores derived from measurement are free from error. The more error a score contains, the less reliable it is. Validity refers to the types of meaningful conclusions that can be drawn from scores obtained from program evaluation measures.

To draw meaningful conclusions about program evaluation outcomes, measures used in program evaluation must yield reliable and valid scores for the samples of young children with disabilities and their families with whom they are used. Reliability and validity, however, are not static features of measures and should be evaluated each time a measure is used with a sample of children or families in a specified program evaluation context. This is particularly important when characteristics of the children or families differ substantially from those involved in normative studies or in other program evaluation situations in which the measure was used. For example, a measure normed using a sample of young children without disabilities might not yield comparable reliability and validity estimates when used with young children with disabilities. Establishing reliability and validity of scores as part of program evaluation activities before using these scores to answer evaluation questions is important. Failure to consider reliability and validity of scores could result in inaccurate conclusions about program impacts. For example, suppose an intervention is designed that in reality yields extraordinarily positive impacts. However, scores on an outcome measure used as part of program evaluation have poor reliability for the sample included in the program evaluation. The program evaluator might incorrectly conclude that the intervention is worthless (Snyder, Lawson, Thompson, Stricklin, & Sexton, 1993).

Program evaluation data are used to inform decision making.

Evaluation data should be used to inform decisions about program processes and implementation as well as whether programs are achieving desired results. At the individual child level, data might be used to evaluate response to intervention and to determine whether instructional modifications are needed. At the local program level, decisions about whether a routines-based intervention approach is effective for particular children and families might be based on data related to changes in children's levels of participation in routines over time or families' perspectives about changes in caregiving demands. At the state level, data related to the percentages of children served in natural environments in the Part C program might prompt a state to create fiscal incentives for serving children in natural environments. At the federal level, data that show the percentage of children identified as eligible for early intervention (under age 1) to

be below established benchmarks might inform decisions about allocating resources to establish a national center focused on Child Find.

The most significant challenge facing local program administrators when designing evaluations is to understand why they are doing the evaluation. What decisions do they or key stakeholders want to make? How can the evaluation inform these decisions? The data that must be collected, aside from data required for compliance reporting, should be determined by the nature of decisions that the program faces. Staff, families, and community members will believe in the importance of data collection and program evaluation when they see the information being used to inform programmatic decisions. From an administrative perspective, stakeholder investment in program evaluation will increase when the staff can describe improvements to the program that have resulted from program evaluation. Without this connection, program evaluation will feel like an exercise rather than a tool to serve the needs of children and families.

Program evaluation data are used to inform continuous program improvement.

The goal of program evaluation is continuous program improvement. As a result of the program evaluation process and associated findings, program goals and objectives might be modified, new elements might be added to the program, or existing elements might be refined, and strategies used to collect program evaluation might be changed. Evaluation should be viewed as a continuous process, rather than a once-a-year review of the extent to which program goals and objectives have been met.

Program evaluation needs to be alert to unforeseen positive or negative consequences of a program.

Although intended consequences of a program are specified when the evaluation is planned by specifying important variables to be measured, unforeseen consequences might arise. These consequences should be acknowledged, particularly if they are relevant to interpretations of findings. Morell (2005) defined unforeseen consequences as those that are easily observable but not examined. In the context of program evaluation in a preschool program, an unforeseen consequence might occur when a program specifies that the literacy skills of all children enrolled in the program will be evaluated at program entry and program exit to evaluate impacts of an early literacy curriculum used in the program. An unintended positive consequence of the early literacy curriculum, which might place emphasis on shared storybook reading, could be increases in children's social-emotional skills, particularly their interactions with peers. Conversely, too much emphasis on early literacy might have negative consequences for the development of children's social competence and peer relations.

Evaluation results are presented in formats relevant to diverse stakeholders.

A variety of stakeholders might be interested in the results from a program evaluation, including program consumers, program staff, policy makers, and funding agencies. These individuals might have preferences for evaluation results to be presented in different formats based on their viewpoint related to the evaluation. For example, families might be interested in succinct and easy to understand descriptions of how a program was structured and delivered to children and the resulting outcomes for children, including whether different outcomes occurred for children with disabilities or those who are English-language learners. Policy makers might be interested in short, executive summaries. Program staff might be interested in reports that clearly describe purposes, procedures, and findings of the evaluation, including implications or recommendations for program improvement. Evaluation results should be presented in formats that are relevant and useful for diverse stakeholders.

Program evaluators distinguish between formal efficacy research and program evaluation.

Program evaluation focuses on gathering data for the purposes of documenting program delivery and assisting with decision making. Formal efficacy research seeks to make generalizable connections between features of programs and outcomes. Such research often tests treatment models and typically involves comparison between such models. Because of the commitment to reaching scientifically generalizable conclusions (i.e., results that apply to children and families beyond the program evaluated), formal efficacy research requires substantially greater technical rigor than might be required for a program evaluation. To collect and interpret data required for state or national compliance monitoring does not require a rigorous research design, but it does require rigorous data collection procedures. Collecting data for the purpose of making internal improvements to a specific program does not require the development and implementation of complex research designs. This is not to say that program evaluation does not require attention to technical issues. Rather, the point is that program evaluation is more akin to “action research” with a focus on internal program improvement rather than scientific inference. If administrators at a state or national level are interested in determining which program model works best in different conditions (e.g., varying fiscal or community resources, children of different ages or disabilities) to impose or recommend treatment policies, efficacy or effectiveness research is appropriate.

Sampling may be used in large-scale program evaluation.

As discussed in the NAEYC-NAECS/SDE position statement, sampling is a technique that can be used for large-scale program evaluation. For children with disabilities who participate in large-scale program evaluation requirements under the Individuals with Disabilities Education Act, the

Office of Special Education Programs is permitting states to use one of three approaches: 1) sampling, 2) phase-in of representative samples, or 3) including every child in the large-scale evaluation (population-based). Arguments for and against each of these approaches should be considered to increase the likelihood that data will be valid and most representative of the population. If sampling is used for a statewide evaluation of early childhood programs that include young children with disabilities, then children with disabilities must be included in the sample and potentially over-sampled in order to provide any results that are meaningful and useful for program improvement.

Frequently Asked Questions

1. Why has the emphasis on program evaluation increased over the past five years?

The accountability movement has resulted in increased emphasis on program evaluation. A variety of stakeholders (e.g., policy makers, consumers, administrators) are interested in learning whether program investments are resulting in meaningful and measurable results. In addition, with an emphasis on program results, increased attention also is being directed to documenting what participants experienced and examining intervention impacts in relation to interventions being delivered.

2. What are the types of questions posed by program evaluators?

Evaluation questions are generally divided into two types: formative and summative. Formative questions focus on the process of program implementation, looking for ways to improve service delivery at any point in the program’s life cycle. Summative questions focus on determining a program’s effectiveness to make decisions about its ongoing use.

Examples of formative questions include: Which aspects of the program are easy to implement and which are difficult? How do the program’s “consumers” perceive the program? What can be done to make implementing the program more efficient? How much does it truly cost to implement the program? Examples of summative questions include: Did the program achieve the intended outcomes for children and families? Is it worthwhile to continue the program? If not, why?

While understanding the distinction between these two types of evaluation questions is helpful, the most important issue is asking the questions specific to your program that will allow you to know if and how your program is making a meaningful difference in the lives of the children and families you serve. In most cases, you will need to ask (and answer) formative and summative questions to achieve this goal.

3. Can program evaluation data be “misused”?

Yes, program evaluation data can be misused in a number of ways. Program staff might pay exclusive attention to outcome (summative) data without paying sufficient attention to procedural (formative) data, thus making it difficult to know how to improve the program to enhance outcomes, particularly if outcome data reinforce regard for problems rather than nudge evaluators to seek solutions. Program evaluation data can also be misused if outcomes are disseminated without paying sufficient attention to understanding and describing the population of children and families served by the program. Programs serving children with disabilities or children considered at risk for experiencing developmental difficulties, such as children living in poverty or children labeled as English-language learners, might be penalized if outcome data are compared to results of programs serving children without disabilities or children not considered at risk, without taking these child- and family-level differences into account. While the full range of data misuse cannot be described here, or even predicted, following the indicators of effectiveness in program evaluation explained in this paper will substantially reduce the risk of misusing data.

4. What resources are available if I want to learn more about program evaluation across the various levels?

Readers interested in learning more about conducting program evaluation in early intervention are encouraged to read the references cited in this paper. While it is beyond the scope of this paper to provide a comprehensive list of relevant sources, several key resources warrant comment. The Evaluation Exchange is an online journal published by the Harvard Family Research Project. Recent issues of the journal have focused on evaluation of family involvement programs (Winter 2004/2005) and evaluation of early childhood programs (Summer 2004). The archives of this journal contain other valuable articles. In addition, two online resources provide useful places to start for readers interested in finding more resources. The National Early Childhood Technical Assistance Center provides a number of references and resources related to program evaluation at <http://www.nectac.org>. The Early Childhood Outcomes Center provides a number of resources relating to measuring child and family outcomes as well as some discussion of program evaluation at <http://www.fpg.unc.edu/~eco/index.cfm>.

Appendix

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Tables

The following tables have been designed to extend the information presented in this paper. None of the information on the tables is designed to be exhaustive in terms of how the practices described in this paper should be applied, but rather the information should serve as examples of recommended practice.

Table 1 is composed of three parts: multiple means of representation, multiple means of engagement, and multiple means of expression. Each part contains definitions and examples of how the principles of universal design for learning might appear when working with infants/toddlers, preschoolers, and students in early elementary classrooms. Readers are encouraged to examine all of the examples provided but might want to focus on those related to the population of children they serve.

Table 2 provides examples and illustrations of how each element of a comprehensive and universally designed curriculum framework goes from generic to individualized (i.e., how each panel of the umbrella can be divided into three layers). As with Table 1, the information is arranged by practices that would be applicable for working with three different age groups. Readers are again encouraged to review all examples but may want to center their efforts on the population of children they serve.

Table 3 provides a summary of the assessment decision-making practices presented by Wolery, Strain, & Bailey (1994) across seven areas: (1) screening; (2) diagnosis (or identification) of delay or disability; (3) eligibility determination for early intervention or special education services; (4) instructional program planning/intervention assessment; (5) placement; (6) progress monitoring; and (7) program evaluation.

Table 1: Curriculum in programs for infants, toddlers, preschoolers, kindergartners, and primary grade children.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 1A

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Multiple Means of Representation		
<p>Multiple means of representation are built into the curriculum to address the widest range of learners possible. The goals and expectations, learning opportunities and lessons, toys/materials, and resources are designed to be multi-sensory, available in different formats, flexible, and to have multiple access points and levels of complexity, allowing children to participate in ways that best meet their needs. This chart describes just a few of the numerous possibilities.</p>		
<p>Caregivers provide toys/materials that combine different and multiple sensory features for children to experience. For example:</p> <ul style="list-style-type: none"> • Colorful toys/materials that make sounds. • Toys/materials with interesting shapes and textures. • Toys/materials that move. • Toys/materials that can be held, shaken, and mouthed. <p>Caregivers communicate/interact with children in many different ways including:</p> <ul style="list-style-type: none"> • Talking. • Singing songs. • Reading books. • Showing pictures. • Playing music. • Dancing. • Sharing toys and materials. • Playing finger games. • Using gestures. 	<p>Teachers use different and multiple formats to provide important information. For example, teachers inform children about the daily schedule by:</p> <ul style="list-style-type: none"> • Presenting the schedule verbally. • Discussing the schedule in groups or one-on-one. • Posting the schedule on the wall in a series of simple icons and/or photographs. • Writing the schedule with simple words. • Making the schedule available on rings of cards or with Velcro pictures to provide visual reminders of the daily routine. • Recording the schedule on a cassette tape that is available in the listening center. • Preparing the schedule for children to use on a computer. <p>Teachers use multiple means of support. For example, to help children learn to share teachers might:</p> <ul style="list-style-type: none"> • Role-play sharing situations. • Read stories about sharing. • Watch and discuss a video. • Depict sharing with drawings. • Discuss sharing prior to activities. 	<p>Teachers use different and multiple formats to provide new information and review critical concepts. For example, when teaching a new letter of the alphabet, a kindergarten teacher might provide opportunities to:</p> <ul style="list-style-type: none"> • Write the letter on paper or on an overhead transparency that is projected on the wall. • Make the letter out of Play Doh. • Write the letter in sand/shaving cream. • Find the letter in alphabet noodles. • Move the children’s bodies into the letter shape. • Sing silly letter songs. • Read books about the letter. <p>More complex opportunities are simultaneously provided for children who are ready, such as a creative writing center where children work on their own stories using the new letter.</p> <p>New concepts are explained in many ways. For example, co-teachers might explain a new science concept using:</p> <ul style="list-style-type: none"> • Graphic organizers. • Pictures and 3-dimensional models. • Charts with critical points mounted on the wall. • Individual materials for later study/review. • Models for children to manipulate and explore through touch. • Interactive computer programs.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 1B

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Multiple Means of Engagement		
<p>Multiple means of engagement are provided in order to appeal to, motivate, and meet the needs of a wide range of children. Children may choose for themselves from an array of options, enabling children to pursue their goals, develop preferences, build confidence, establish priorities, persist in the face of difficulty, and care about learning. These examples are just a few possibilities.</p>		
<p>Caregivers provide toys/materials that offer different levels of complexity, such as:</p> <ul style="list-style-type: none"> • Rattles that can be held with one or two hands. • Blocks of different sizes, weights and textures. <p>Caregivers ensure that multiple and varied learning opportunities, daily activities, and toys/materials are available so children can select what appeals to them. For example:</p> <ul style="list-style-type: none"> • Children may choose various levels of independence by selecting activities and toys/materials that are simple, straightforward, and foster independent play, or choose things that require adult support and organization. For example, a child may be able to explore a mirror mounted in an easily held rattle frame but may need support to explore a pop-up book. • Children may select activities and toys/materials that are familiar and predictable, such as an easily activated light-up music box, or items that are new and surprising, such as a jack-in-the-box. • At different times children may prefer toys/materials that are soft and cuddly, or things that invite active, boisterous play. 	<p>Teachers provide multiple and varied ways for children to direct their play and be involved in routine and planned activities. For example:</p> <ul style="list-style-type: none"> • Children may select from an inspiring array of creative materials for an art project. Rather than just copying an adult’s model, children may cut or tear, color or paint, glue or tape, build a model, and create alone or work with a peer. • Children in the dramatic play area may choose among a collection of creative, open-ended materials such as scarves, writing supplies, and containers of odds and ends that encourage them to participate in personally meaningful ways. They may choose to act out roles and scenarios that are either fantasy- or reality-based, that represent their own or other cultures, and that are simple and customary or complex and imaginative. 	<p>Teachers provide multiple and varied opportunities for children to be involved in learning. For example:</p> <ul style="list-style-type: none"> • The kindergarten teacher designs many different opportunities to engage children in practicing their mathematics skills. Children are encouraged to: <ul style="list-style-type: none"> • Distribute snacks and determine how many napkins are needed. • Choose among a variety of manipulatives such as cubes, links, beads and tiles, as well as equipment for measuring, counting and solving problems. • Play a rousing board game with dice, or quietly connect the dots. • Select among number books, computer software programs, and counting songs. • Everyone in a second grade class will be reading about the same topic, and the teacher provides resources and enables children to: <ul style="list-style-type: none"> • Choose among a collection of narrative and expository books with varied levels of difficulty. • Explore a number of Web sites and software options, and decide for themselves which combination of resources will work best for them.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 1C

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Multiple Means of Expression		
<p>Multiple means of expression ensures children have a variety of formats for responding, demonstrating what they know, and for expressing ideas, feelings, and preferences. In addition, children have options in their use of resources, toys, and materials, addressing individual strengths, preferences, and abilities. This chart presents just a few examples of the many ways that children might demonstrate what they know and are able to do.</p>		
<p>Children are encouraged to show preferences, what they are able to do, and what they know in different and multiple ways. For example:</p> <ul style="list-style-type: none"> • Children show how they prefer to play with blocks by acting upon them in different ways such as building, stacking, linking, making patterns, banging, holding, or mouthing. • Children respond to caregiver comments and questions using verbal expressions (e.g., speaking, using assistive technology with voice output) and/or non-verbal expressions (e.g., facial expression, gestures, pointing to pictures). • Children are allowed to participate during a playgroup by answering simple questions, labeling, reciting, watching, sorting, or remaining with the group. 	<p>Children are encouraged to express their understanding in many different ways. For example, children learning nursery rhymes may:</p> <ul style="list-style-type: none"> • Recite or sing the rhymes individually or in small groups. • Act them out in the dramatic play area or with puppets. • Create a visual representation in the art area. • Review the rhymes in the listening center, and record themselves saying the rhymes or creating their own rhymes. • Use the overhead projector to create and display their work. • Use the Smart Board to visit an interactive Web site to share with their peers. <p>Children are encouraged to communicate with peers in a variety of ways including:</p> <ul style="list-style-type: none"> • Using words to talk. • Writing notes and letters. • Making pictures. • Creating songs or poems. • Using sign language or gestures. • Using communication boards or assistive devices. 	<p>Children have multiple opportunities to demonstrate their knowledge and skills, ideas, feelings, and preferences. For example, children in third grade are given a list from which they may select the way they want to show what they have learned in their social studies lesson. They may work alone, with a partner, or may form small groups to:</p> <ul style="list-style-type: none"> • Write a report on one of several key topics. • Write a story about the time period discussed. • Create a newspaper representing stories and goods from the time period. • Put on a dramatization. • Write and/or perform a song or rap. • Create a PowerPoint slide show. • Make a model or diagram. • Create a collage or artistic representation.

Table 2: Elements of a Comprehensive and Universally Designed Curriculum Framework.

KEY RECOMMENDATION: *Implement an integrated, developmentally appropriate, universally designed curriculum framework that is flexible, comprehensive, and linked to assessment and program evaluation activities.*

Table 2A

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Assessment/Progress Monitoring		
<p>Assessment/Progress monitoring conducted on groups of children or an individual child should be done by collaborative teams using multiple valid and reliable measures. Assessment/progress monitoring procedures should vary in terms of (a) format of items/questions (e.g., presented/posed through verbal questions, written directions, gestures, tactile models, and/or pictures); (b) complexity, wherein items represent a wide range of developmental skills and abilities; and (c) expectations, wherein children can demonstrate their knowledge and skills in a variety of ways (e.g., use of speech, signs, gestures, pictures, writing, art, and assistive technology). Assessment/progress monitoring procedures do not penalize children for physical, sensory, or cultural differences. Assessments used with young children should also accommodate their individual strengths, preferences, abilities, and visual, auditory, and kinesthetic needs. Program administration provides support for collaborative data collection, analysis, interpretation, and use in decision making.</p>		
Foundational Practices for All Children		
<ul style="list-style-type: none"> • Assessment/progress monitoring is ongoing and conducted in the natural environment during typical routines and interactions by those who know the child best (e.g., family members, early intervention specialists, and therapists). For example, a child’s caregiver observes during bathing, dinner, car travel, at the grocery store, and during play at the child care center. • All areas of infants’ and toddlers’ growth and development are assessed/monitored using a common comprehensive, universally designed, authentic, curriculum-based assessment(s) that provides information regarding strengths, interests, and emerging skills (e.g., Assessment, Evaluation, and Programming System (AEPS) presented by Bricker, 2002). • Assessment/monitoring data are used to inform day-to-day practices and enhance the lives of children and families, not just to meet federal, state, or agency requirements. For example, teams should use data to make changes to the physical environment (make toys more accessible), create additional learning opportunities, and/or provide more support to enhance learning. 	<ul style="list-style-type: none"> • Assessment/progress monitoring is ongoing and conducted during child-directed, routine, and planned activities by those who know the child best (e.g., family members, teachers, early childhood educators, therapists). For example, a child’s preschool teacher and family observe during playtime, snack/lunch, and art. • All areas of preschool age children’s health, growth, and development are assessed/monitored using a common comprehensive, universally designed, authentic, curriculum-based assessment(s) (e.g., The Work Sampling System presented by Meisels, Jablon, Marsden, Dichtelmiller, & Dorfman, 1994) that aligns with federal, state, and agency standards. • Assessment/monitoring data are used to inform day-to-day practices and enhance the lives of children and families, not just to meet federal, state, or agency requirements. For example, teams should use data to plan daily activities, adapt equipment, and/or guide the type and frequency of services. 	<ul style="list-style-type: none"> • Assessment/progress monitoring is ongoing and conducted across all aspects of the curriculum by those who know the child best (e.g., family members, teachers, therapists). For example, a child’s teacher observes during specific lessons and transitions, and families help observe during extracurricular activities such as after-school club meetings. • All areas of students’ health, growth, and development are assessed/monitored using a common comprehensive, universally designed, authentic, and curriculum-based measure(s) that aligns with state standards (e.g., writing and spelling probes and commercially available measures such as the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) presented by Good & Kaminski, 2003). • Assessment/monitoring data are used to inform day-to-day practices and enhance the lives of children and families, not just to meet federal, state, or agency requirements. For example, teams should use data to plan daily lessons, adapt equipment and learning materials, and/or guide the type and frequency of services.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 2A continued...

Infants/Toddlers	Preschoolers	Kindergarten/Primary
<ul style="list-style-type: none"> Summaries or aggregated data are presented clearly to stakeholders including policymakers. Age equivalencies are avoided due to confusion surrounding interpretation. For example, teams describe what the child can do and is starting to do (e.g., the child can take two steps when holding onto an adult’s hand and is beginning to stand unsupported), rather than using broad statements such as a child is functioning at a 12-month level. 	<ul style="list-style-type: none"> Summaries or aggregated data are presented clearly to stakeholders including policymakers. For example, teams compile children’s work into a portfolio or electronic slide show, graph children’s performance, talk about strengths and emerging skills, and write narrative summaries that are objective and positive. Age equivalencies are avoided due to confusion surrounding interpretation. 	<ul style="list-style-type: none"> Summaries or aggregated data are presented clearly to stakeholders including policymakers. Age and grade equivalencies are avoided due to confusion surrounding interpretation. For example, teams describe a student’s reading skills (e.g., fluency, number of sight words, comprehension, oral reading abilities, vocabulary), rather than using broad statements such as the student reads at a 1st grade level. Teams can also compile students’ work into a portfolio or electronic slide show, graph performance, talk about strengths and emerging skills, and write narrative summaries that are objective and positive.
Adding Accommodations As Needed		
<p>Accommodations to assessment toys/materials, procedures, and items are made as needed. For example:</p> <ul style="list-style-type: none"> Extended wait or performance time. Presentation of information verbally and/or visually. Increased size of print/pictures. Presentation of toys/materials that are adjustable and flexible in how they are used. 	<p>Accommodations to assessment toys/materials, procedures, and items are made as needed. For example:</p> <ul style="list-style-type: none"> Extended wait or performance time. Presentation of information verbally and/or visually. Increased size of print/pictures. Presentation of toys/materials that are adjustable and flexible in how they are used. 	<p>Accommodations to assessment toys/materials, procedures, and items are made as needed. For example:</p> <ul style="list-style-type: none"> Extended wait or performance time. Presentation of information verbally and/or visually. Increased size of print/pictures. Presentation of toys/materials that are adjustable and flexible in how they are used.
Making Modifications		
<p>Modifications to assessment practices are also made as needed. For example:</p> <ul style="list-style-type: none"> Using an alternative measure. Changing how a child demonstrates or performs. Assessing critical earlier or prerequisite skills. Reducing the number of items assessed/monitored. 	<p>Modifications to assessment practices are also made as needed. For example:</p> <ul style="list-style-type: none"> Using an alternative measure. Changing how a child demonstrates or performs. Assessing critical earlier or prerequisite skills. Reducing the number of items assessed/monitored. 	<p>Modifications to assessment practices are also made as needed. For example:</p> <ul style="list-style-type: none"> Using an alternative measure. Changing how a child demonstrates or performs. Assessing critical earlier or prerequisite skills. Reducing the number of items assessed/monitored.

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Table 2B

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Scope and Sequence		
<p>The scope and sequence of a curriculum framework is identified by the aims of all caregivers, professionals, and members of the community (e.g., medical and school personnel) involved in the lives of young children. The skills and processes specified by the curriculum framework’s scope and sequence represent all areas of growth, development, and learning (e.g., fine motor, gross motor, adaptive, cognition, communication, social, literacy, mathematics, science, social studies, health and safety, creativity etc.) and are culturally and individually relevant. Expectations regarding children’s performance allows for individual differences and abilities. Children are exposed and encouraged to learn at their own rate rather than based upon contrived milestones or age equivalencies.</p>		
Foundational Practices for All Children		
<ul style="list-style-type: none"> • The scope of the curriculum framework for infants and toddlers is comprehensive and inclusive of all areas of development and learning. No one area is prioritized over another. • The order in which skills are taught or expected is based upon an understanding that development is variable and cannot be predicted or dictated by information found on charts, assessments, or standards. <ul style="list-style-type: none"> • For example, if a milestone chart states that 18-month olds typically speak about 15 words it does not mean that all 18-month olds will use 15 words; some will continue to rely more on gestures and sounds while their expressive language continues to develop. 	<ul style="list-style-type: none"> • The scope of the curriculum framework for infants and toddlers is comprehensive and inclusive of all areas of development and learning. No one area is prioritized over another. • The order in which skills are taught or expected is based upon an understanding that development is variable and cannot be predicted or dictated by information found on charts, assessments, or standards. <ul style="list-style-type: none"> • For example, if a screening instrument contains an item as to whether children can write their first name it should not be assumed that all children will be able to do so at a given age or that all children, even if they can write their first name, will demonstrate the ability during the screening. 	<ul style="list-style-type: none"> • The scope of the curriculum framework for infants and toddlers is comprehensive and inclusive of all areas of development and learning. No one area is prioritized over another. • The order in which skills are taught or expected is based upon an understanding that development is variable and cannot be predicted or dictated by information found on charts, assessments, or standards, or based upon arbitrary grade assignment. Further, the way students demonstrate their knowledge may differ across skills. <ul style="list-style-type: none"> • For example, if a state standard indicates second graders should be able to model problem situations using objects, pictures, numbers and other symbols, teams need to allow students to use any of the methods versus allowing only one acceptable way to model problem situations.
Adding Accommodation As Needed		
<p>The same standards apply to all children but accommodations are made as needed to ensure full access and participation in daily activities and routines.</p> <ul style="list-style-type: none"> • For example, teams may alter the learning environment, provide additional supports, and/or allow children to use alternative communication devices to demonstrate knowledge and skill related to state/agency standards and developmental expectations. 	<p>The same standards apply to all children but accommodations are made as needed to ensure full access and participation in daily activities and routines.</p> <ul style="list-style-type: none"> • For example, teams may alter the learning environment, provide additional supports, and/or allow children to use alternative communication devices to demonstrate knowledge and skill related to state/agency standards and developmental expectations. 	<p>The same standards apply to all children but accommodations are made as needed to ensure full access and participation in daily activities and routines.</p> <ul style="list-style-type: none"> • For example, teams may alter the learning environment, provide additional supports, and/or allow children to use alternative communication devices to demonstrate knowledge and skill related to state/agency standards and developmental expectations.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 2B continued...

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Making Modifications		
<p>Expectations for all children, while important to be high, need to be established with consideration of individual children’s developmental readiness. Modifications to what is expected or addressed are necessary to meet the needs of all learners. Teams may need to develop individualized plans or target individual skills that, while aligned with common standards for all children, represent a substantial change in terms of expectations, performance criteria, and/or form or format.</p> <ul style="list-style-type: none"> For example, if a state standard for toddlers is to “begin to use writing tools to make marks on paper” and the child is just beginning to reach, grasp, release, and cross mid-line, teams may need to address prerequisites that are necessary for a child to perform the skills identified by the standard. 	<p>Expectations for all children, while important to be high, need to be established with consideration of individual children’s developmental readiness. Modifications to what is expected or addressed are necessary to meet the needs of all learners. Teams may need to develop individualized plans or target individual skills that, while aligned with common standards for all children, represent a substantial change in terms of expectations, performance criteria, and/or form or format.</p> <ul style="list-style-type: none"> For example, if a state standard for preschoolers is to “demonstrate an understanding of time, length, weight, capacity and temperature” and the child is just beginning to answer simple yes/no questions, sort objects based upon function, and recall events, teams may need to address prerequisites that are necessary for a child to perform the skills identified by the standard. 	<p>Expectations for all students, while important to be high, need to be established with consideration of individual students’ developmental readiness. Modifications to what is expected or addressed are necessary to meet the needs of all learners. Teams may need to develop individualized plans or target individual skills that, while aligned with common standards for all students, represent a substantial change in terms of expectations, performance criteria, and/or form or format.</p> <ul style="list-style-type: none"> For example, if a state standard for Kindergarten is to “Compare and order whole numbers up to 10” and the student is just beginning to count, teams may need to address prerequisites that are necessary for a child to perform the skills identified by the standard.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 2C

Infants/Toddlers	Preschoolers	Kindergarten/Primary
Activities and Intervention Strategies		
<p>Team members work collaboratively and are given adequate time to jointly design interactions, activities, and lessons to address the needs of all children. The principles of universal design are at the heart of team planning, and learning opportunities are developmentally, culturally, and individually appropriate. The child’s natural environment and daily routines are used as the context for teaching by all team members. A continuum of strategies is used to provide necessary levels of support and promote independence.</p>		
Foundational Practices for All Children		
<p>Learning for infants and toddlers occurs as a part of the natural routines and activities of daily life and play. For example, while:</p> <ul style="list-style-type: none"> • Reading cardboard books. • Playing peak-a-boo. • Taking the bus to the park. • Swimming at the YMCA. • Getting ready for bed. <p>Universally designed, engaging, fun, and developmentally appropriate activities and routines are the foundations of quality programs intended to promote growth and learning of young children, regardless of their background, experience, culture, prior knowledge, or developmental/physical challenges.</p>	<p>Learning for preschoolers occurs during child-directed, routine, and planned activities. For example, during:</p> <ul style="list-style-type: none"> • Snack. • Art. • Center activities. • Play at the park. • Church/synagogue services. • A stay at their grandparents. <p>The preschool classroom activities and routines should be universally designed to meet the needs of the widest range of learners possible, regardless of their background, experience, culture, prior knowledge, or developmental/physical challenges.</p>	<p>Learning for elementary age students occurs during curricular and extracurricular activities. For example, while:</p> <ul style="list-style-type: none"> • Engaged in a science lesson. • Reading a book. • Completing a spelling test. • Riding the bus home from school. • Visiting a local museum. <p>Lessons and activities should be universally designed for learning, developmentally and individually appropriate, and built upon the interests and unique learning abilities of all students, regardless of their background, experience, culture, prior knowledge, or developmental/physical challenges.</p>
Adding Accommodation as Needed		
<p>Caregivers provide accommodations to increase access and participation by infants and toddlers. Accommodations enable children to make progress toward age appropriate outcomes. For example, caregivers may:</p> <ul style="list-style-type: none"> • Reduce the amount of noise or the number of distractions for a child who needs help maintaining attention. • Provide supported seating with wrap-around headrest for a toddler who needs physical support sitting at the table. • Illuminate and/or magnify brightly colored picture books for a child with low vision. 	<p>Teams provide accommodations to increase access and participation by all preschoolers. Accommodations do not change the instructional content or the performance expectations, and children given accommodations will be expected to achieve age-appropriate outcomes. For example, teachers and family members may:</p> <ul style="list-style-type: none"> • Adapt the height, angle, and positioning of work areas for a child who uses a wheelchair. • Use a personal amplification system for a child with hearing impairment. • Provide an arm support and/or a cuff/strap for a child who has difficulty holding objects. 	<p>Teachers, other school personnel, and families provide accommodations to increase access and participation for all learners. Accommodations do not change the instructional content or the performance expectations, and children given accommodations will be expected to achieve grade-level standards. For example, teachers may:</p> <ul style="list-style-type: none"> • Reduce the amount of noise or the number of distractions for a student who needs help maintaining attention. • Provide screen readers, Braille, and Braille/tactile labels for a child with vision impairment. • Equip books with page fluffers so that a child with fine motor impairment can turn pages.

KEY RECOMMENDATION: All learners have access to and participate in the curriculum through multiple means of representation, engagement, and expression.

Table 2C continued...

Infants/Toddlers	Preschoolers	Kindergarten/Primary
<ul style="list-style-type: none"> Adapt toys/materials to allow children to use a variety of movements in different positions (e.g., add Velcro, magnets, or handles for a child who has difficulty grasping objects). 	<ul style="list-style-type: none"> Break down multi-step activities into single steps (e.g., break clean-up into asking a child to stop a specific activity/action, ask the child to return a single toy to desired location, and then request the child line up at the door). 	<ul style="list-style-type: none"> Provide a voice output device for a child who needs an augmentative alternative communication system.
Making Modifications		
<p>Modifications can also be made by using various intervention strategies to create embedded learning opportunities to address children’s individual needs during ongoing routines and activities. Modifications involve changes to the developmental levels and performance expectations. For example, caregivers encouraging an 18-month-old child with developmental delays to make eye contact can create embedded learning opportunities such as:</p> <ul style="list-style-type: none"> Playfully calling the child’s name during diaper changing. Offering preferred foods during mealtime. Playing peek-a-boo with the washcloth during bathing. Offering a favorite toy during playtime. 	<p>Modifications can also be made by using various intervention strategies to create embedded learning opportunities to address children’s individual needs during child-directed, routine, and planned activities. Modifications involve changes to the developmental and content levels and to performance expectations. For example, to help a 4-year-old child with severe language delays learn how to label objects and events:</p> <ul style="list-style-type: none"> Her father asks her if she wants juice or eggs for breakfast. The teacher builds on her interest in the fish tank by asking her what she sees. The teacher asks her which color paint she wants first. She sits with two peers who speak well as they share a picture book. During bath her mother names her body parts and invites her to repeat them. 	<p>Modifications can also be made by using various intervention strategies to create embedded learning opportunities to address children’s individual needs during curricular and extracurricular activities. Modifications involve changes to the content level and to performance expectations. For example, if a third-grade student with cognitive disabilities is working on increasing reading comprehension:</p> <ul style="list-style-type: none"> Adults and peers can ask basic or developmentally earlier types of questions about what was read (e.g., “What was the main idea of the story,” or “Who was the main character?”). Adults and peers create opportunities for the child to improve reading comprehension by giving directions that involve printed materials (e.g., “Please put each letter in the corresponding teacher’s mail box” and each teacher has his/her name printed on mailbox). Embedded learning opportunities can be created by asking the child to categorize written materials based upon a common attribute (e.g., categorizes all books about volcanoes and in the classroom or sorts magazines by type (e.g., sports, fashion, hobbies) can be created). While same-age peers may be expected to read and then write in a journal, the student with a disability may be expected to read with a partner and then explain/share/describe to adults or peers what was read (e.g., after reading a poem, the student tells a peer what he liked about the poem, or after reading a passage from a book, tells an adult what he learned).

Table 3: Assessment for Decision Making (from Wolery, Strain, & Bailey, 1992)

Decision	Assessment Type	Relevant Questions	Measurement Practices
Determine whether to refer the child for further assessment.	Screening.	<p>Do screening outcomes indicate potential for delay?</p> <p>Does hearing or vision screening indicate potential sensory problems?</p> <p>Does health screening and physical examination indicate need for medical services?</p>	<p>Use of multi-domain norm-referenced screening measures.</p> <p>Use of screening measures with specific criteria for referral for audiological/visual follow-up.</p> <p>Conducted by health professional.</p>
Determine whether the child has a developmental delay or disability.	Diagnostic.	Does a developmental delay or disability exist? If so, what is the nature and extent of the delay or disability?	Individualized measures and procedures that frequently include standardized measures.
Determine whether the child is eligible for special services.	Eligibility.	Does the child meet state criteria to receive specialized services?	Frequently synonymous with diagnostic assessments because children are made eligible for services based on established diagnosis; however, may also include other requirements.
Determine what the child should be taught.	Intervention and/or instructional program planning assessment.	<p>What is the child's current level of functioning?</p> <p>What does the child need to function independently in authentic environments (classroom, home, and community)?</p> <p>What are the effects of environmental or instructional modifications, adaptations and levels of assistance on child performance?</p> <p>What response patterns and interactions with environmental variables appear to influence child performance?</p>	<p>Curriculum or criterion-based assessment measures used in tandem with direct observation of children in multiple natural environments, informal testing, and interviews with other professionals and/or caregivers, including families. Frequently conducted by interventionists (i.e., teachers and therapists).</p> <p>Direct observation in these settings and interviews with caregivers and family members.</p> <p>Direct observation, informal assessment with multiple levels and types of assistance in authentic and natural settings.</p> <p>Direct observations, informal assessments, interviews with caregivers and family members, reinforcement preference assessment, trial use of intervention and instructional procedures, and clinical judgment.</p>

Table 3: Assessment for Decision Making (from Wolery, Strain, & Bailey, 1992)

Decision	Assessment Type	Relevant Questions	Measurement Practices
Determine where the child should receive services and what services are needed.	Placement.	What does the child need? Which placement options within authentic, natural, and least restricted environments best meet the child's needs? Does the child need specialized services (i.e., speech/language therapy, physical therapy, occupational therapy or dietary supervision)?	Intervention and instructional program planning assessment. Direct observation, rating scales, and interviews to determine the characteristics & potential of each possible placement, with consideration of family preferences. Assessments conducted by therapists in these various disciplines; may be norm-referenced measures supplemented by observation and clinical judgment.
Determine whether the child is making adequate progress in learning important skills.	Progress monitoring of intervention or instructional programs.	What is the child's typical performance of important skills? Is the child using important skills in natural environments and routines?	Data collected from unstructured and structured observations of the child in natural environments or routines; data collected from periodic probes of the child's performance. Reports by caregivers and family members of the child's application of important skills.
Determine whether the desired outcomes were achieved.	Program evaluation.	Did the child make expected progress?	Measures and measurement procedures may vary, typically include performance on developmental assessments as well as acquisition of specified objectives.

Table 4: Indicators of Effectiveness in Program Evaluation

1. Evaluation efforts conform to evaluation standards including utility, propriety, feasibility, and accuracy.
2. Logical approaches for conceptualizing and conducting program evaluations are used.
3. Correspondence should exist between program goals/objectives and evaluation questions and methods.
4. Evaluation efforts employ participatory models.
5. Program evaluation describes what happened to participants.
6. Data collection is efficient and feasible.
7. Measures used in program evaluation yield reliable and valid scores for young children with disabilities and their families.
8. Program evaluation data are used to inform decision making.
9. Program evaluation data are used to inform continuous program improvement.
10. Program evaluation needs to be alert to unforeseen positive or negative consequences of a program.
11. Evaluation results are presented in formats relevant to diverse stakeholders.
12. Program evaluators distinguish between formal efficacy research and program evaluation.

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