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What is This?
Assessment in Early Childhood

Instruction-Focused Strategies to Support Response-to-Intervention Frameworks

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The current emphasis on alignment of early learning guidelines, assessment, curricular practices, and accountability in early education and care systems has provided an opportunity to revisit and refine early childhood assessment practices. Practitioners, researchers, and policy makers are increasingly interested in developing instruction-focused assessment strategies that have instructional and intervention validity. In particular, progress is being made in the development and validation of universal screening assessments and progress-monitoring methods that can support the application of response-to-intervention models in early childhood settings. This article provides a brief review of select assessment tools in early childhood that demonstrate instructional validity. The authors suggest future directions for strengthening the instructional and intervention validity of early childhood assessments in the context of response-to-intervention frameworks.

Keywords: assessment; early intervention; young children; instructional validity

The current early childhood landscape is dominated by efforts focused on aligning early learning guidelines or standards, assessment, curricular practices, and accountability systems. Almost all states either have early learning guidelines or standards or are in the process of developing them (Division for Early Childhood [DEC], 2006). National organizations, such as the National Association for the Education of Young Children and the DEC of the Council for Exceptional Children, have published position statements that emphasize the important and transactional relationships among early childhood curriculum, assessment, and program evaluation (DEC, in press; National Association for the Education of Young Children, 2003). These position statements include key recommendations, rationales, and indicators of effectiveness for each of these components, including assessment practices.

Practitioners who work in early intervention and early childhood special education have a long history of using assessment practices to help inform decisions about services, supports, and instruction for young children with or at risk for disabilities and their families (McConnell, 2000). Primarily, these assessment practices have been designed to inform decisions about whether young children (and their families) are eligible to receive targeted services and supports, to plan individual programs (e.g., Individualized Family Service Plan [IFSP] or Individualized Educational Program [IEP]), and to evaluate child progress. Recommended practices in early intervention—early childhood special education assessment (Bagnato & Neisworth, 2005) have evolved over several decades and currently stress authentic assessment practices, those that probe or sample children’s abilities and skills in the context of everyday learning activities or routines.

Efforts focused on the integration of early childhood systems combined with increased emphases on results-focused accountability have resulted in the need to revisit and refine early childhood assessment practices. As promising models and practices that support and accelerate the growth and learning of all young children are being developed, implemented, and evaluated, valid assessment practices must be an inextricable part of these early intervening or recognition and response frameworks (Coleman, Buysse, & Neitzel, 2006; VanDerHeyden & Snyder, 2006).
Intervention or instructional validity is an important concept for supporting the movement toward instruction-focused assessment practices in early childhood. Traditional psychometric approaches to assessing young children, such as the use of standardized, norm-referenced cognitive and developmental assessments, which might debatably be useful for diagnosis or classification decisions, provide practitioners and caregivers with relatively little information to guide service delivery, instructional planning, or progress monitoring. These types of measures also have significant limitations when used in the context of early childhood accountability systems (cf. Meisels, 2006). Researchers and practitioners are increasingly interested in the development of assessment practices and measures that allow for flexibility in administration, can be implemented in natural contexts, utilize developmentally appropriate and engaging materials, and capture the dynamic nature of young children’s learning and development.

Consideration of the instructional and intervention validity of early childhood assessments shifts attention solely from considering psychometric properties (e.g., internal consistency score reliability, criterion-related evidence for score validity) to the need to address questions such as the following (Meisels & Atkins-Burnett, 2000): Is this assessment useful in practice? Does this assessment help inform decisions about which children might need more intensive or differentiated instruction? Does this assessment contribute to beneficial (intervention) outcomes? With the advent of recognition and response (Coleman et al., 2006) and response-to-intervention (RTI) models in early childhood contexts (VanDerHeyden & Snyder, 2006), the development, validation, and dissemination of assessment strategies that demonstrate intervention validity are essential for supporting the implementation of these promising frameworks.

The Trouble With Traditional Measures

The promotion of intelligence, as measured by norm-referenced cognitive and developmental assessments, was the initial focus of many early intervention programs (Shonkoff & Phillips, 2000). One example of this early intervention focus was Head Start, which was based on Susan Gray’s efforts to develop a preschool program “to prevent ‘progressive retardation’ (i.e., boost IQ) and foster school readiness in poor African American children” (Halpern, 2000, p. 364). Although initial evaluations of Head Start’s effectiveness demonstrated modest gains in IQ scores, these gains rapidly dissipated in subsequent follow-up evaluations of participants. This result is not totally unexpected in light of what is known about the limitations of scores on norm-referenced assessments. They are “standardized for age and therefore (are) not useful as a measure of growth or developmental change” (Shonkoff & Phillips, 2000, p. 347).

Moreover, despite their long history of use, norm-referenced instruments have questionable intervention validity. For example, these instruments typically

- Provide information about children’s point-in-time performance in structured testing situations but limited information about their ability to learn or acquire new skills and behaviors;
- Emphasize factual and conceptual knowledge rather than problem-solving strategies and creativity; and
- Provide limited or no information on other factors that can influence learning and development, such as motivation, social skills, self-regulation, attention, and engagement (D. Fuchs, Fuchs, Benowitz, & Barringer, 1987; Meisels & Atkins-Burnett, 2000; Meltzer & Reid, 1994).

In addition, traditional norm-referenced cognitive and developmental assessments are generally administered using unfamiliar materials outside children’s natural (family and school) contexts, an assessment situation that generally results in information about “. . . the strange behavior of children in strange situations with strange adults for the briefest possible periods of time” (Bronfenbrenner, 1979, p. 19). Although these data might be useful in limited circumstances (e.g., to inform decisions about how a child’s performance in a structured testing situation compares relative to the performance of same-aged peers who also were tested in similar circumstances), results from these measures are generally of limited use to guide decisions about the design, delivery, and monitoring of instruction. In short, they lack instructional or intervention validity.

Toward Assessments With Instructional and Intervention Validity

In lieu of traditional psychometric assessments primarily focused on making diagnostic or classification decisions, many early childhood practitioners, researchers, and policy makers have called for implementation of assessment practices that demonstrate intervention validity and produce information useful for guiding decisions about instructional design and evaluation (Bagnato, 2007; Barnett, Carey, & Hall, 1993; Meisels & Atkins-Burnett, 2000). The Division for Early Childhood of the Council
for Exceptional Children has created a series of recommended practices in assessment in early intervention and early childhood special education (Bagnato & Neisworth, 2005). Of this comprehensive list of practice guidelines, several recommendations directly relate to instructional or intervention validity:

- Program supervisors, in concert with the early intervention and early childhood special education team, use only those measures that have high treatment validity (i.e., that link assessment, individual program planning, and progress evaluation);
- Professionals choose and use scales with sufficient item density to detect even small increments of progress (especially important for children with more severe disabilities);
- Professionals conduct longitudinal, repeated assessments to examine previous assumptions about the child and to modify the ongoing program; and
- Professionals report assessment results in a manner that is immediately useful for planning program goals and objectives.

Meisels and Atkins-Burnett (2000) called for a “fusion” of assessment and intervention for young children. This fusion is based on three assumptions: (a) Assessment in early intervention and early childhood education should consist of information collected from a variety of individuals from a variety of contexts at multiple times, (b) the provision of instruction and intervention leads to new assessment information that can result in reevaluating and redesigning services, and (c) the meaning of an assessment is dependent on utility of the resulting information to guide practice and monitor outcomes. The fusion of assessment and intervention described by these authors is consistent with the concept of instructional validity.

Bagnato (2006) suggested that early childhood practitioners should use authentic assessment strategies. Authentic assessments are conducted in children’s natural environments (e.g., classrooms, home, and community), focus on behaviors that are functional and socially valid, allow for a variety of responses that demonstrate competence, and draw on the expertise and observations of a variety of caregivers (parents, teachers, child care providers) rather than being dependent on only highly trained educational and psychological diagnosticians. As Bagnato (2006) noted,

The evidence-based movement towards authentic curriculum-based “probes” or samples to capture the everyday problem-solving capabilities of young children in natural or facilitated play or learning situations is the right direction to transform early childhood measurement for all purposes including eligibility determination, but especially for monitoring progress toward expected outcomes. (p. 618)

**RTI Frameworks**

The implementation of RTI frameworks in early childhood is dependent on the development and validation of assessments that demonstrate instructional validity (L. S. Fuchs & Fuchs, 2006; VanDerHeyden & Snyder, 2006). RTI emphasizes prevention and intervention approaches within a logically organized decision-making framework. Instruction is provided at various levels of intensity (e.g., whole-class instruction, small-group instruction, intensive individualized intervention), and children’s learning is monitored to determine the instructional contexts and supports that facilitate their learning and development.

RTI frameworks typically propose multiple tiers of assessment-linked instruction and intervention (see Figure 1). Different types of assessments are used in each tier or at decision points between tiers. The application of RTI in early childhood is an emerging practice (Buysse & Snyder, 2007). However, it is clear that early childhood assessment practices are being revisited and refined for use in these frameworks (Bagnato, 2006; L. Fuchs, Buysse, & Coleman, 2007). In 2000, when describing the future of assessment in early intervention and early childhood special education, McConnell predicted that “formal systems for assessing child growth and development and using ecobehavioral data to plan intervention programs will merge into well-articulated decision-making models for monitoring child progress and planning revised intervention” (p. 47). The types of assessments needed to support RTI in early childhood contexts include (a) authentic curriculum-referenced assessments linked to early learning standards or guidelines that provide information useful for characterizing children’s mastery of critical skills or desired learning outcomes in high-quality education and care contexts, (b) universal screening approaches and measures for identifying children who may not be making expected progress toward mastery of critical skills or desired learning outcomes when provided high-quality instruction and care, and (c) progress-monitoring measures that allow practitioners and families to evaluate children’s responses to targeted or intensive individualized interventions.

The next section of this article provides examples of existing assessment tools and strategies that might be used to address each of these requirements. Each of the reviewed assessments is likely to have instructional
validity when used within an RTI decision-making framework. The article concludes with a brief discussion of future directions for strengthening the instructional validity of early childhood assessments in the context of RTI frameworks.

### Examples of Assessment Tools and Strategies

#### Curriculum-Referenced Assessments

At the primary prevention or universal tier in RTI systems, curriculum-referenced assessments might be used to provide information about young children’s mastery of critical or desired skills and abilities. These assessments are important in an RTI framework because they should be logically linked or aligned with the early childhood core curriculum and referenced to early childhood standards or guidelines. Therefore, the information provided by curriculum-referenced assessments is essential to answering questions about whether the child has acquired skills or competencies judged to be important or whether the child’s skills or competencies are more advanced than they were on previous measurement occasions (McConnell, 2000). Two curriculum-referenced assessment instruments are briefly reviewed below.

**Assessment, Evaluation, and Programming System for Infants and Children (AEPS).** The second edition of AEPS is a set of two assessment tools with corresponding curricula that allow practitioners and families to make decisions about whether children have mastered generative and functional developmental skills organized under two broad age categories (i.e., birth to age 3 and age 3 to age 6). The AEPS Test is intended to assess mastery of skills associated with six developmental areas: fine motor, gross motor, cognitive, adaptive, social communication, and social (Bricker, 2002). The AEPS system compiles assessment information into a visual progress report that helps practitioners identify problem areas and create IFSPs and IEPs. The initial AEPS focused on the developmental age range of birth to 3 years. Beginning in the mid-1980s, the system was extended to address the needs of 3- to 6-year-olds.

Before expanding its developmental focus, Bailey and Bricker thoroughly studied the *AEPS Test for Birth to Three Years* (Bricker, 2002). They found that interrater score agreement and test–retest score reliability coefficients ranged from adequate to good for all areas except cognitive and from adequate to good for all areas, respectively, for the *AEPS Test for Birth to Three Years*. Through item content analysis, Bricker and colleagues determined that most goals on the *AEPS Test for Birth to Three Years* are arranged from simple to more complex. This hierarchical sequencing mimics instructional and intervention content in that the goals progressively require more ability or skill. In fact, Notari and Drinkwater (1991) noted that the *AEPS Test for Birth to Three Years* had a hierarchical teaching sequence that teachers could incorporate into
their instructional goals and objectives for children (Bricker, 2002). In the study conducted by Notari and Drinkwater, goals and objectives used for the AEPS Test for Birth to Three Years were found to be functional in regards to instructional content. Further testing by Straka (1994) confirmed that the AEPS was useful for developing goals and objectives in terms of format, efficiency, and functionality (Bricker, 2002).

Similar research has been conducted on the AEPS Test for Three to Six Years. Slentz (1986) reported adequate to good score agreement and test–retest score reliability, except in the gross motor and adaptive areas (Bricker, 2002). Hsia (1993) found that the scores on AEPS Test for Three to Six Years distinguished among children of different ages. This result confirmed the hierarchical nature of the AEPS test, which is intended to be sensitive to differences in performance among various age groups. As the goals and objectives get progressively more difficult, the AEPS test can identify children at risk for developmental delays if they cannot perform skills within the average range of the age bracket. Additional federally funded studies of the instructional validity of the AEPS test indicated that its use was conducive to writing more functional IFSPs and IEPs (Bricker, 2002).

The AEPS tests can be used to aid in the decision-making process in regard to children’s mastery of core or universal skills (Tier I in RTI) or appropriate targets for individualized interventions at Tier 3. The AEPS can be used to chart the developmental progress made by a child, although it is currently not designed to monitor rate of progress or change. Recently, Grisham-Brown, Hallam, and Brookshire (2006) demonstrated the utility of the AEPS as an authentic curriculum-referenced assessment for evaluating children’s progress toward early learning standards.

Developmental Continuum Assessment System. According to a survey by the National Head Start Association (McKey, 2003), the Creative Curriculum for Preschool is a leading curricular model used by Head Start programs. Creative Curriculum is an integrative curricular model that offers early childhood practitioners a range of teaching approaches, with explicit guidance in how to teach in the content areas of language development, early literacy and numeracy, cognition, general knowledge, and social competence (Lambert, 2003). In addition to providing teaching strategies, the Creative Curriculum program offers guidance on arranging the classroom, creating a schedule, setting curricular goals, and assessing goal achievement.

The Creative Curriculum program includes the Developmental Continuum Assessment System (Dodge, Colker, & Heroman, 2002), which evaluates child development via 50 curricular goals and four stages of mastery. The curricular goals are organized under four areas of development: social–emotional (sense of self, self and others, and prosocial skills), physical (gross motor and fine motor), cognitive (problem solving, logical thinking, and symbolic thinking), and language (listening and speaking, and reading and writing) (Dodge et al., 2002). The 50 goals, along with children’s work samples and anecdotal observations, are evaluated during the fall, winter, and spring of the program year, permitting assessors to evaluate child change or progress over time. Children’s performance is categorized in one of four stages (Forerunner, Step I, Step II, or Step III), which are characterized by specific behaviors and functional areas that help teachers rate the developmental level of each child. Teachers also can access a Web-based resource in which to compile data, generate summary reports, and develop instruction.

Lambert (2003) conducted a study with 1,590 preschoolers to determine the content validity of the Developmental Continuum Assessment System. The children were assessed during the winter period, and, as predicted by national norms, the majority of 3-year-olds were rated at Forerunner (developmental or emerging skills) or Step I stage, 4-year-olds generally were rated in the Step I or Step II categories, and 5-year-olds were primarily placed in Step III (mastery). Lambert also investigated the construct validity of scores on the Developmental Continuum Assessment System. Using factor analytic procedures, the data supported a four-dimensional structure: social, physical, cognitive, and expressive language. In addition, concurrent validity analyses showed strong correlations between scores on emergent literacy and cognitive development.

The Developmental Continuum Assessment System can be used to address children’s status or progress in relation to mastering skills. Thus, it is another example of a curriculum-based assessment that uses a critical skills mastery approach. Within an RTI framework, it might be useful for aligning early learning standards, curricular goals and activities, and universal monitoring of child status and progress.

Screening Assessments

Early childhood developmental and behavior screening has traditionally been used to inform decisions about which children might need additional evaluations or assessments. In a traditional developmental screening and surveillance system, children who screen positive (do not “pass” a screening) are referred for more in-depth evaluations or
assessments. Those who screen negative (pass a screening) do not receive additional evaluations or assessments. Only those children whose in-depth evaluations or assessments confirm a delay or disability are eligible to receive early intervention or early childhood special education services or targeted interventions.

Within an RTI framework, screening is a system that moves beyond a within-child explanation for performance or learning delays and includes focus on environmental quality, fidelity of implementation of the core or universal curriculum, and effectiveness and efficiency of instructional strategies used in Tier 1. A positive screen in an RTI framework is related to decision making about how to design and deliver additional supports or instruction rather than immediate consideration for eligibility for specialized early intervention services (VanDerHeyden & Snyder, 2006). Within an RTI framework, it is important not only that infants and young children with suspected developmental delays or disorders are accurately screened but also that screening is extended to include all children (universal screening). In a universal system, all children in a class or program are screened on a regular basis (e.g., weekly, biweekly, monthly, quarterly). Screening measures might include observations of children’s performance in authentic contexts, administration of curriculum-based measurement (CBM) probes, work samples, teacher- or parent-completed rating scales, or standardized norm-referenced measures.

The approaches to be used and the regularity with which universal screening needs to be implemented have not yet been empirically examined within early childhood RTI frameworks (L. Fuchs et al., 2007). Regardless, the need for universal screening and surveillance protocols, technically adequate measures, and development of decision-making criteria for determining which children should receive secondary (Tier 2) supports or interventions has been identified (VanDerHeyden & Snyder, 2006). The screening system also must include attention to the quality of the instruction provided to children at the universal or Tier 1 levels. Researchers and practitioners will have to address questions such as what combinations of procedures and measures are feasible and effective and will improve the accuracy of screening decisions (Speece & Walker, 2007).

Two traditional screening measures commonly used in early childhood are briefly reviewed below. The instructional or intervention validity of these measures within an RTI framework has not been empirically evaluated. Nevertheless, these measures, when combined with other procedures and measures, might hold promise.

**Ages and Stages Questionnaires (ASQ).** The ASQ (Bricker & Squires, 1999) is a widely used screening tool that has been shown to distinguish those infants and young children who require more extensive evaluation and support from children who do not. The ASQ is a screening system that consists of 19 questionnaires designed to be completed by parents or primary caregivers. Each questionnaire can be completed in 10 to 20 minutes and corresponds with a particular age interval between 4 and 60 months of age. Items are organized under five areas: (a) communication, (b) gross motor, (c) fine motor, (d) problem solving, and (e) personal–social. Serial screening assessments using the ASQ should be ongoing and completed on a regular basis because of rapid developmental changes that occur in early childhood. Empirical evaluations of the ASQ began in 1980 when it was first called the Infant/Child Monitoring Questionnaires. Research focused on the accuracy of screening decisions and reliability and validity of ASQ scores has been conducted for more than 20 years (cf. Yovanoff & Squires, 2006). Many advantages have been identified for using the ASQ system in traditional screening programs to identify children who need further evaluation or assessment. Use of the ASQ in comprehensive universal screening protocols associated with early childhood RTI frameworks has yet to be fully explored, although it might hold promise for several reasons. First, the system can be used to screen large numbers of children over time, efficiently and feasibly. Second, the screening measures and administration procedures involve gathering data from families or caregivers who are familiar with the child, which increases social validity via parents’ willingness to participate in the screening process. Third, because the ASQ requests that parents or caregivers play with and observe the child in everyday activities or routines, it is an authentic assessment. Finally, not only has the ASQ system been demonstrated to be beneficial and accurate for traditional screening purposes, it also has been shown to be useful for monitoring the development of children who are at risk for developmental disabilities or delays in the context of developmental screening and surveillance systems (American Academy of Pediatrics, 2006).

**Brigance early childhood screens.** The Brigance screens were initially created based on items from the original version of the Brigance Diagnostic Inventory of Early Development. Renorming and updating of the Brigance screens for the various developmental levels was conducted in 1995 and 2001. Similar to the ASQ, the Brigance screens were initially developed to identify children who needed additional evaluation or assessment. The Brigance screening system is divided into four assessments, which are designed for children from birth to first grade: (a) Infant & Toddler Screen (Brigance & Glascoe, 2002), (b) Early Preschool Screen–II (Brigance, 2005a), (c) Preschool Screen–II (Brigance, 2005b), and (d) K & I Screen–II (Brigance, 2005c). The items for the Brigance...
screens are designed to be completed by teachers or parents through observation and interaction with the child, targeting five key developmental areas: (a) cognitive, (b) language, (c) motor, (d) self-help, and (e) social–emotional skills. Like the ASQ, the Brigance screens are easy to administer, either individually or in groups, and are time and cost-effective, taking about 10 to 15 minutes to screen each child.

The Brigance screens are part of a larger system that integrates assessment and instruction. Once children experiencing learning or developmental difficulties have been identified through screening assessments, other instruments in the Brigance Early Childhood system can aid in developing individualized instruction, advising parents on strategies to promote development, measuring and reporting individual child and program progress, and, if necessary, guiding referrals for more comprehensive assessment or special services. Information about each child gained through the screening process is directly correlated with the Brigance Readiness: Strategies and Practice (Brigance, 1985) and the Brigance Inventory of Early Development–II (Brigance, 2004). The Brigance Readiness: Strategies and Practice offers developmentally appropriate activities and techniques that might be relevant for use with children who need more targeted instruction. Finally, the Brigance Early Childhood system also offers a data-based decision-making component, which consists of online services that customize reports for individuals and groups and facilitate ongoing data management, reporting, and instructional planning.

Although these and other screening approaches and measures might hold promise in relation to instructional validity in early childhood RTI frameworks, progress-monitoring tools and approaches are often used to monitor the trajectory and rate of progress or change in response to instruction or systematic opportunities to learn. These progress-monitoring measures should be curriculum based and part of a general outcomes measurement approach (McConnell, 2000).

Progress-Monitoring Assessments for Targeted and Intensive Interventions

At the secondary and tertiary tiers in early childhood RTI models, practitioners and families need access to relatively brief measures of key developmental or functional skills that can be frequently repeated to monitor intervention progress, are related to a desired long-term outcome or goal, are sensitive to small changes associated with development or instruction, and permit evaluation of progress at the individual, group, and program levels. The general outcome measurement approach (Deno, 1997; L. S. Fuchs & Deno, 1991), which guided the development of the several research-validated CBMs available for K–12 students, has provided a framework for developing early childhood progress-monitoring tools and approaches.

Several features of a general outcomes measurement approach are important in the development of measurement systems for monitoring young children’s progress.

In this approach, key skill elements that have been specifically linked to important outcomes and selected to represent the domain of interest are measured. . . . The same set of key skill elements are measured repeatedly over time allowing for the depiction of growth toward identified outcomes. (Carta et al., 2002)

In addition, assessments that embrace a general outcome measurement approach

1. Produce data that describe individual children’s trajectory and rates of growth, supporting evaluations of the effectiveness of instructional efforts;
2. Can be implemented and understood by a cross-section of stakeholders, including teachers, care providers, and family members; and
3. Result in data that are comparable across children and classrooms and, therefore, can be aggregated to describe programs outcomes and effectiveness (McConnell et al., 1998).

Individual Growth and Development Indicators (IGDIs)

In 1996, the Early Childhood Research Institute on Measuring Growth and Development (ECRI-MGD) was funded by the Office of Special Education Programs to develop and validate an assessment system for early intervention, preschool, and primary-grade programs serving children with disabilities from birth to 8 years of age and their families. This project brought together a team of researchers from Kansas, Minnesota, and Oregon with expertise in early intervention, early childhood special education, child development, and CBM. To achieve the objective of developing an assessment system that could monitor individual children’s growth and development, the ECRI-MGD team utilized a general outcome measurement approach.

The ECRI-MGD research team’s efforts resulted in the development of IGDIs, a series of brief assessment probes designed for monitoring the development and progress of infants, toddlers, and preschoolers. The IDGIs were designed to be general outcome indicators: “That is, rather than representing child performance on a specific task or skill, performance on the [IGDIs] typically reflects child
performance across a cluster of skills, from simple to complex” (McConnell et al., 1998, p. 6). A review of existing research literature and available assessments in early intervention and early childhood special education was conducted to develop a comprehensive list of potential general outcome indicators. A national survey of different stakeholder groups (including parents, early childhood educators, and school psychologists) subsequently reviewed this list of potential outcome indicators, resulting in the identification of a final list of 15 highly valued general growth outcomes (Priest et al., 2001).

From this list of outcomes, IGDI for assessing the progress of infants and toddlers (ages birth–3 years) were developed for the following domains: (a) communication, (b) movement, (c) social competence, (d) problem solving, and (e) parent-child interactions. Administration materials and directions for each of these measures are available at http://www.igdi.ku.edu/index.htm. In addition, IGDI were developed for preschool students (ages 3–5 years) in the domains of expressive language (picture naming) and early literacy (alliteration and rhyming). Materials and administration guidelines for the preschool measures can be accessed at http://gsg.umn.edu/. Currently, preschool-level IGDI for social interaction and movement are being developed and validated by researchers at the University of Minnesota. In addition to the IGDIs developed by the ECRI-MGD researchers, other researchers have developed preschool curriculum-based progress-monitoring measures focused on early numeracy (Floyd, Hojnoski, & Key, 2006; VanDerHeyden et al., 2004).

The use of the IGDIs (or other forms of general outcome measurements) are likely to be important in the application of RTI frameworks in early childhood contexts. Like the CBM probes developed for use with elementary and secondary students, IGDIs allow practitioners and families to collect ongoing data about child progress through repeated administrations of multiple forms of the assessment tasks. In addition, the IGDI tasks use child-friendly materials (e.g., toys, colorful pictures) and are relatively time efficient (e.g., 6 minutes for each measure for infants and toddlers; 1 to 2 minutes for preschool students), which makes them easier to implement in children’s natural environments. The IGDIs focus on discrete, observable skills and behaviors resulting in a measurement system that should be sensitive to the effects of instruction and intervention. Using frequent data collection and graphical representation of results, teachers, family members, and other care providers can make data-based decisions about the effectiveness of their instructional efforts. Programs and practices that produce meaningful changes can be retained, those that do not result in desired outcomes can be modified or replaced, and children who do not evidence desired trajectories or rates of learning can be provided with more individualized and intense interventions (Tier 3).

Future Directions

The application of RTI decision-making frameworks in early childhood will require rethinking and revisiting traditional assessment practices. Using key position statements and recommended early intervention and early childhood special education assessment practices are likely necessary, but not sufficient, for advancing the future of early childhood assessment. Assessment is more than testing (McConnell, 2000), and choosing and using measures and approaches that have instructional or intervention validity should be a central tenet of contemporary early childhood assessment systems. As described in this article, at least three types of assessment measures or approaches will likely be needed to support the application of RTI in early childhood contexts: (a) universal and authentic curriculum-referenced assessments linked to early learning standards or guidelines that provide information useful for characterizing children’s mastery of critical skills or desired learning outcomes in high-quality education and care contexts; (b) screening measures for identifying children who may not be making expected progress toward mastery of critical skills or desired learning outcomes when provided high-quality instruction and care; and (c) progress-monitoring measures that allow practitioners and families to evaluate children’s responses to targeted or intensive individualized interventions.

The future of early childhood assessment within RTI frameworks is linked to our ability to recognize early and accurately those children who are or are not making adequate progress in high-quality learning environments, respond to children’s needs for additional supports or instruction using evidence-supported practices, and monitor the impacts of instruction on children’s growth and learning. As Bagnato (2006) noted, “When assessment is compatible with early childhood philosophy and curricula, it will be embraced” (p. 618). More than ever before, early childhood practitioners have an opportunity to embrace assessment practices that meaningfully inform instruction and are part of a larger outcomes-focused accountability system focused on alignment of early learning standards, curricular practices, and child outcomes.

References


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