

Child Care & Early Education RESEARCH CONNECTIONS

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Response to Intervention and Other Approaches for Using Ongoing Assessment to Guide Individualized Instruction in Early Education A Key Topic Resource List

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Research Connections conducted a comprehensive search of its collection for resources focused on using ongoing assessment to guide individualized supports for children’s learning in early childhood education programs serving children 0 to 6 years. Since there are multiple terms used to describe this process, key words used in the search were “response to intervention,” “recognition and response,” “ongoing assessment,” “individualize,” “differentiated instruction,” “tailored instruction,” “formative assessment,” “curriculum-based assessment,” “progress monitoring,” “early childhood assessment,” and “tailored teaching.”

This Key Topic Resource List includes an overview and listing of selected resources from the literature from the years 2000-2014. Resources of various types – reports, research articles, and reviews – are included.

Based on the search results, resources are grouped into the following categories:

- Rationale, concepts, and framework
- Implementation processes and challenges
- Outcomes for children’s learning

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OVERVIEW

Early childhood, from birth into the early grades of school, is a period of rapid growth across all domains of development, including language, social-emotional, physical, and cognitive. Individual children's development often varies across domains, and children differ markedly from each other in their development of various skills and interests. In response to this variation, a longstanding hallmark of high quality early childhood practice is teaching and caregiving that are tailored to young children's abilities and interests. This approach is reflected in Head Start Performance Standards (45 CFS Sec 1307.3(b)(2)(ii)), which specify that "individual ongoing, child-level assessment data for all children" will be used "to individualize the experiences, instructional strategies, and services to best support the child." In practice, however, systematic use of this approach has been limited in child care and early education programs, in part due to implementation challenges in other settings. Currently, there is increasing interest in promoting more intentional and consistent use of individualized instructional supports that are informed by ongoing assessments across all child care and early education programs.

The process of using ongoing assessments to plan and deliver individualized learning supports for young children has frequently been called Response to Intervention (RTI). RTI was originally developed for school-age children and used particularly in the special education field to identify children needing additional or different supports for learning beyond what was available through core instructional strategies. The core components of this approach are universal assessment or screening, the use of results to develop individualized instructional plans, and ongoing assessment to continually adjust teaching to meet students' needs. A number of related terms have been used to describe elements related to this process, including progress monitoring (tracking children's learning with assessments and observation), scaffolding (adjusting on-the-spot teaching to children's needs to provide "just enough" support to learn a skill or concept), differentiated teaching (tailoring teaching to the different learning needs of children) and grouping (placing children in homogeneous or heterogeneous groups based on skills and teaching goals).

An approach called *Recognition and Response* (RAR), specifically designed for early childhood settings, has been developed as a set of linked assessment and

tailored teaching practices, with particular attention to the unique learning styles and developmental patterns of young children. RAR and related strategies show promise for improving learning outcomes and reducing disparities for young children. However, high quality, systematic implementation of ongoing assessment and individualization poses many challenges, with implications for both policy and practice. These include:

- identification of child assessment and progress monitoring tools that are sensitive to children's growth and appropriate for children from culturally and linguistically diverse backgrounds;
- selection of individualized instructional practices, based on assessment results, that effectively address children's changing needs;
- pre-service and in-service training of teachers that includes coaching and practice on all aspects of the process including assessment, interpretation of assessment results, individualized planning and implementation of tailored teaching, and continued progress monitoring tied to adjustments in individualized teaching;
- professional development for administrators in supporting this practice, including guidance about staffing and program schedules that give teachers the time they need to assess children and engage in planning and to involve parents as partners in their children's education;
- design of standards and requirements for programs that specify the practice of ongoing assessment and individualized supports for learning.

A growing number of publications present guidance and methods to support implementation of RAR and related practices in the field, while a small, emerging body of research examines the application of this approach in early education programs and outcomes for children's learning. Questions addressed in the resources listed here include:

- What components of this approach are applied in early childhood education?
- What do we know about how this approach is applied in practice?
- What is the evidence for improved development and learning outcomes from this approach?

ACKNOWLEDGEMENTS

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GOVERNMENT

- **United States. Administration for Children and Families. Office of Planning, Research and Evaluation. (2014). Tailored teaching: Teachers' use of ongoing child assessment to individualize instruction: Vol. I. Conceptual framework and measurement plan. (OPRE Report 2014-14). Washington, DC: U.S. Administration for Children and Families, Office of Planning, Research and Evaluation.**

In 2012, the Office of Planning, Research, and Evaluation within the Administration for Children and Families, U.S. Department of Health and Human Services, engaged Mathematica Policy Research and its partners to conduct a project titled "Assessing Early Childhood Teachers' Use of Child Progress Monitoring to Individualize Teaching Practices." The purpose of the project is twofold: (1) to develop a conceptual framework of early childhood teachers' use of ongoing child assessment to individualize instruction and (2) to create a measure to examine this process. Besides defining the key aspects of ongoing assessment and individualization, we are also seeking ways to efficiently examine how they are carried out. The ultimate goal is to help teachers conduct ongoing assessments, use the assessment data to "individualize" instruction for each child, and enhance their children's outcomes. We began by conducting a literature review (see Volume II of this report), using our findings to develop conceptual frameworks for ongoing assessment and individualization. These models focused on the two most common approaches to ongoing assessment used in early childhood classrooms: general outcomes measures and curriculum-embedded approaches. In each model, we identified several indicators of quality to consider when measuring how well a teacher used ongoing assessment to individualize instruction; these indicators served as the foundation for the development of a measurement tool called the Tool for Tailored Teaching (T3). This tool, once fully developed, will analyze how teachers use curriculum-embedded approaches to tailor instruction for specific children. The T3 will be a multi-method measure – that is, it will use several methods to gather data: a document review, video-based observations, and a one-hour teacher interview. Teachers will video-record their assessments over a two-to three-week period, followed by a one-day visit from researchers to conduct the document review, rate the videos, and interview the teachers. We will develop scoring systems for each data source, including holistic rubrics, ratings, and checklists. In the earliest stages of development, we will conduct an iterative pre-test to hone the T3 and assess its feasibility. The pre-test will consist of three rounds of data collection, ultimately including five centers and 10 classrooms that use ongoing assessment systems. Our findings from this study can fill a critical knowledge gap in the early childhood field, particularly in Head Start:

how do teachers use ongoing, curriculum-embedded assessment approaches to deliver high-quality, individualized instruction? The T3 will reveal how teachers use these assessment data to understand children's development and to individualize their instruction. At first, the T3 will primarily be used by researchers to help Head Start staff and early childhood professionals understand how teachers use ongoing assessment. But eventually, teachers, mentors, and coaches will be able to use it to discern the strengths and weaknesses of their programs' ongoing assessment practices. This could ultimately lead to more effective practices in the classroom and better outcomes for children. (author abstract)

UNIVERSITY AND RESEARCH ORGANIZATIONS

- **National Professional Development Center on Inclusion. (2012). Response to Intervention (RTI) in early childhood: Building consensus on the defining features. Chapel Hill, NC: National Professional Development Center on Inclusion.**

This paper offers a framework for thinking about the meaning of RTI in early childhood. In addition, it outlines important considerations for early care and education programs that choose to adopt and implement RTI. Finally, it provides recommendations for how the concept paper can be used by families, practitioners, administrators, researchers, and policymakers to guide and inform future efforts related to RTI in early childhood. (author abstract)

JOURNAL

- **Lieberman-Betz, R. G., Vail, C. O., & Chai, Z. (2013). Examining Response to Intervention using a framework of best practice from early childhood special education. *Exceptionality*, 21(1), 51-67.**

Response to Intervention (RTI) models are likely to be implemented in early childhood settings with greater frequency to target academic and developmental skills. With an increasing number of classrooms serving children with identified special needs, it is necessary to examine how current frameworks for RTI models meet the needs of all children in the classroom, including those with identified developmental delays and disabilities. To do this, we reviewed five comprehensive RTI models proposed for preschool classrooms according to a framework based on foundational tenets in early childhood special education practice. Two independent researchers coded articles that described RTI models for presence of the foundational tenets and associated evidence-based practices described by Odom and Wolery (2003). Several foundational tenets were contained in the majority of RTI models, whereas others were not addressed adequately. Results provide the early childhood education and early childhood special education fields with direction in the development and implementation of inclusive early childhood RTI models.

- **Bagnato, S. J., McLean, M. E., Macy, M. G., & Neisworth, J. (2011). Identifying instructional targets for early childhood via authentic assessment: Alignment of professional standards and practice-based evidence. *Journal of Early Intervention, 33*(4), 243-253.**

Now at middle age, the field of Early Childhood Intervention (ECI) and its professionals have demonstrated a unique capacity to develop their own practice-based evidence (PBE) and professional standards to forge solutions to challenging professional practice dilemmas. This innovative capacity is no more evident than in designing and implementing individualized linkages among assessment/instruction/progress evaluation for all children, particularly those with delays and disabilities. In this article, the authors advocate for the overarching purpose of assessment in ECI – to identify instructional targets and to plan beneficial programs for young children with special needs in inclusive, natural environments. The authors highlight major developments that have changed their professional practices since the passage of PL 99-457; PBE that supports and promotes these practices and the linkage among assessment, instruction, and progress evaluation; and critical issues for future policy, practice, and research. (author abstract)

- **Bayat, M., Mindes, G., & Covitt, S. (2010). What does RTI (Response to Intervention) look like in pre-school?. *Early Childhood Education Journal, 37*(6), 493-500.**

This paper examines the use of Response to Intervention (RTI) in early childhood programs, more specifically in preschool settings. The paper proposes that RTI in preschool could focus on alleviating risk factors as it relates to social emotional competence, and reduction of challenging behaviors during early childhood years. A case-study in which RTI is used for challenging behaviors of a child is examined. Further, recommendations for practice in application of Positive Behavior Support (PBS) in preschool are made. (author abstract)

- **Buysse, V., & Peisner-Feinberg, E. S. (2010). Recognition & response: Response to intervention for PreK. *Young Exceptional Children, 13*(4), 2-13.**

Teachers, specialists, and parents are often the first to recognize that some young children need additional supports to learn academic skills in language, literacy, and math, but many lack specific guidance about the best way to respond to these children. This article describes an emerging early childhood practice called recognition & response (R&R), which is designed to help early educators address each of these issues. We first present the origins of R&R, then identify its major components, and finally, describe several steps to help early educators begin applying the principles of R&R in practice settings. (author abstract)

- **Smith, S. (2009). Supporting struggling learners in preschool: Emerging approaches and opportunities. *NHSA Dialog, 12*(3), 185-191.**

This brief article introduces the reader to a special issue of NHSA Dialog that focuses on approaches to meeting the learning needs of preschoolers who are at high risk of later reading difficulties and academic failure. The paper offers a perspective on the value of examining early-stage evaluations of complex preschool interventions, and briefly reviews research that provides a rationale for focusing on children's language and early literacy skills in preschool. Emerging approaches to promoting the school readiness of struggling learners in preschool, including preschool Response to Intervention models and differentiated instruction, are discussed as a context for the interventions described in the special issue's articles.

OTHERS

- **Fox, L., Carta, J. J., Strain, P. S., Dunlap, G., & Hemmeter, M. (2009). Response to Intervention and the Pyramid Model. Tampa, FL: Technical Assistance Center on Social Emotional Intervention for Young Children.**

- *Response to Intervention (RtI) offers a comprehensive model for the prevention of delays in learning and behavior. While this problem-solving framework was initially designed for application within Kindergarten to 12th grade programs, there is substantial research that supports the value of the model for application within early childhood programs. This paper provides an overview of RtI and discusses the Pyramid Model (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) and its application for promoting young children's social competence and preventing behavior challenges. This discussion is offered by the Technical Assistance Center on Social Emotional Intervention (www.challengingbehavior.org) to provide guidance to early childhood professionals and program administrators as they develop policies and procedures related to the adoption of RtI. (author abstract)*

IMPLEMENTATION PROCESS AND ITS CHALLENGES

GOVERNMENT

- **Early Head Start National Resource Center (Washington, D.C.). (n.d.). Developmental screening, assessment, and evaluation: Key elements for individualizing curricula in Early Head Start programs. (Technical Assistance Paper No. 4). Washington, DC: Early Head Start National Resource Center.**
The developmental assessment of infants and toddlers in Early Head Start (EHS) programs is a continuous process throughout the entire length of the child's enrollment in the program. This technical assistance paper will define the concepts of screening, ongoing assessment, and in-depth evaluation; discuss "best practices" related to developmental assessment and reflected in the Head Start Program Performance Standards (Head Start Bureau, 1996); and illustrate the connection between developmental assessment and curriculum development. (author abstract)
- **United States. Administration for Children and Families. Office of Planning, Research and Evaluation. (2014). Tailored teaching: Teachers' use of ongoing child assessment to individualize instruction: Vol. II. A review of the literature. (OPRE Report 2014-15). Washington, DC: U.S. Administration for Children and Families, Office of Planning, Research and Evaluation.**
This report summarizes the findings of a literature review conducted as part of the Assessing Early Childhood Teachers' Use of Child Progress Monitoring to Individualize Teaching Practices project funded by the Office of Planning, Research and Evaluation within the Administration for Children and Families at the U.S. Department of Health and Human Services. The purposes of the project are to develop a conceptual model of early childhood teachers' use of ongoing child assessment to individualize instruction and to create a measure that assesses teacher implementation of that process; this measure will be called the Tool for Tailored Teaching (T3; see Volume I of this report). The literature review summarized in this volume was designed to (1) identify the critical areas to be addressed by a measure of teachers' use of ongoing assessment for individualization and (2) find examples of how others have measured teachers' use of ongoing assessment for individualization. Overall, limited rigorous evidence is available about the areas critical for the successful implementation of ongoing assessment to individualize instruction. The literature does not provide guidance on how to determine whether these activities are well-implemented, nor does it describe the factors that influence teachers' abilities to implement the activities well. Although the literature does present a picture of the activities we are likely to see when teachers use ongoing child assessment data for individualization, that picture is incomplete and largely limited to the early elementary level in the domain of language and

literacy. Limited research is available about some of the activities involved in this ongoing assessment process, and most of the studies focused on one or two of the activities, leaving few examples that focus on the process in its entirety. Few causal studies have examined the types of ongoing support for teachers, particularly teachers working with children from birth to age 5, that may lead to improvements in both teacher's use of ongoing assessment data to individualize instruction and, ultimately, child outcomes. Of the 173 studies reviewed, only 21 attempted to measure teachers' implementation of ongoing assessment and the individualization process. Only some of those studies provided detailed information about the measures used to assess implementation, and more than half were conducted at the early elementary level. The literature does provide some examples of measures that assess how well teachers implement ongoing assessment tools and whether teachers make any instructional modifications in response to ongoing assessment data. However, the literature provides few examples of measures that assess two important areas: (1) how teachers make instructional decisions based on these data and (2) the knowledge and skills necessary for teachers to successfully implement ongoing assessment for individualization, especially with infants, toddlers, and preschoolers and in home visiting settings. Across all dimensions of implementation, we lack evidence linking assessments of teacher implementation of ongoing assessment to child outcomes. This review points to a number of gaps in the knowledge base about ongoing assessment for individualization that future research should address. The T3 measure will build on the current literature and extend beyond it by capturing an array of the activities involved in the process and assessing implementation across a range of ongoing assessment tools. Ultimately, research will be needed to determine whether high-quality implementation of ongoing assessment to inform individualization as assessed with the T3 is linked to improved instructional practices and, ultimately, positive child outcomes. (author abstract)

UNIVERSITY AND ORGANIZATIONS

- **Riley-Ayers, S. (2014). Formative assessment: Guidance for early childhood policymakers: CEELO policy report. New Brunswick, NJ: Center on Enhancing Early Learning Outcomes.**
This policy report provides a guide and framework to early childhood policymakers considering formative assessment. The report defines formative assessment and outlines its process and application in the context of early childhood. The substance of this document is the issues for consideration in the implementation of the formative assessment process. This guide provides a practical roadmap for decision-makers by offering several key questions to consider in the process of selecting, supporting, and using data to inform and improve instruction. (author abstract)

JOURNALS

- **Kaminski, R. A., Abbott, M., Aguayo, K., Latimer, R., & Good, R. (2014). The Preschool Early Literacy Indicators: Validity and benchmark goals. *Topics in Early Childhood Special Education, 34*(2), 71-82.**
Assessment is at the center of a decision-making model within a Response to Intervention (RTI) framework. Assessments that can be used for universal screening and progress monitoring in early childhood RTI models are needed that are both psychometrically sound and appropriate to meet developmental needs of young children. The Preschool Early Literacy Indicators (PELI), an assessment tool developed for screening and for progress monitoring, was designed to incorporate psychometrically sound assessment practices within an authentic assessment format. The current study provides data on concurrent and predictive validity of the PELI as well as analyses leading to the development of preliminary benchmark goals on the PELI. The PELI demonstrates significant differences in performance by age and growth in early literacy and language skills across the preschool years. Correlations between the PELI and criterion measures of similar skills are moderate to strong and predictive probabilities with respect to outcome measures are moderate to strong. (author abstract)
- **Oslund, E. L., Hagan-Burke, S., Taylor, A. B., Simmons, D. C., Simmons, L., Kwok, O., Johnson, C., & et al. (2012). Predicting kindergarteners' response to early reading intervention: An examination of progress-monitoring measures. *Reading Psychology, 33*(1-2), 78-103.**
This study examined the predictive validity of combinations of progress-monitoring measures: (a) curriculum-embedded phonemic awareness and alphabetic/decoding measures, and (b) Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good & Kaminski, 2002) nonsense word fluency and phoneme segmentation fluency on reading outcomes of kindergarten students in a tier 2 intervention. Results of multiple-regression analyses indicated that curriculum-embedded mastery checks and DIBELS measures each explained a significant amount of variance on the outcome measure. However, curriculum-embedded measures explained statistically significantly more variance at each time point supporting their utility in documenting progress of kindergarten students receiving intervention. (author abstract)
- **Lonigan, C. J., Allan, N. P., & Lerner, M. D. (2011). Assessment of preschool early literacy skills: Linking children's educational needs with empirically supported instructional activities. *Psychology in the Schools, 48*(5), 488-501.**
The importance of the preschool period in becoming a skilled reader is highlighted by a significant body of evidence that preschool children's development in the areas of oral language, phonological awareness, and print knowledge is predictive of how well they will learn to read once they are exposed to formal reading instruction in elementary school. Although there are now a number of empirically supported instructional activities for helping children who are at risk of later reading difficulties to acquire these early literacy skills, limitations in instructional time and opportunities in most preschool settings require the use of valid assessment procedures to ensure that instructional resources are utilized efficiently. In this article, we discuss the degree to which informal, diagnostic, screening, and progress-monitoring assessments of preschool early literacy skills can inform instructional decisions by considering the strengths and weaknesses of each approach to assessment. (author abstract)
- **Kallemeyn, L. M., & DeStefano, L. (2009). The (limited) use of local-level assessment system: A case study of the Head Start National Reporting System and on-going child assessments in a local program. *Early Childhood Research Quarterly, 24*(2), 157-174.**
Using concepts from the evaluation literature, this case study describes the instrumental, conceptual, and political influence of the Head Start National Reporting System (NRS) and on-going child assessments in a local Head Start program. This study found that a local program intentionally aimed to limit the influence of the NRS. The NRS validated the program's performance for the program administrators and local governing bodies. It had no impact on teaching and learning, and was not used to make decisions to guide local program improvement. On-going child assessments were more widely valued within the local program. These assessments had some impact on teachers' individualization of instruction for children, and managers made some effort to use program-level findings to inform program development. Similar to the NRS, the on-going child assessments were also used to provide accountability with local governing bodies. Based on these findings, implications for the use of local-level systems in early childhood programs are discussed. (author abstract)
- **Marcon, R. (2009). Enhancing language and early literacy development of lowest performing preschoolers: Yes we can! *NHSA Dialog, 12*(3), 276-291.**
This discussion article takes a closer look at 5 Early Reading First projects in this special issue. It first explores what needed to be in place before these projects could help teachers individualize instructional support for children. The way in which each project sought to provide effective instruction for all children is then discussed, followed by demonstrated project outcomes. The special emphasis that these projects placed on language is highlighted and its importance for literacy is reiterated. Finally, suggestions for next steps in the research process are made.
- **Smith, S. Murphy, D., Dennis, D., Davidson, S., & Light, R. (2009). Providing extra supports for language and literacy development to struggling learners in preschool. *NHSA Dialog, 12*(3), 210-226.**
Preschool teachers face increasing pressure to ensure that all children acquire the competencies they need to start on the path to becoming successful readers in the early grades, including children who may enter

preschool with exceptionally weak skills. This article describes efforts to provide individually tailored supports to relatively high-risk learners in classrooms that participated in a federal Early Reading First project. It presents methods used to identify and monitor the progress of struggling learners, provide additional supports to these children, and support teachers in their work with high-risk learners. The article also presents findings from the project evaluation that suggest the potential benefits of targeted supports, coupled with a high-quality curriculum, for high-risk learners' language and literacy development and factors that may contribute to children's response to extra learning supports. Last, the article discusses both promising and challenging features of the interventions used and directions for future research that is needed to refine and rigorously assess this model. (author abstract)

- Snyder, P. A., Wixson, C. S., Talapatra, D., & Roach, A. T. (2008). **Assessment in early childhood: Instruction-focused strategies to support response-to-intervention frameworks.** *Assessment for Effective Intervention*, 34(1), 25-34.
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 valida-

tion 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. (author abstract)

- Walker, D., Carta, J. J., Greenwood, C. R., & Buzhardt, J. F. (2008). **The use of Individual Growth and Developmental Indicators for progress monitoring and intervention decision making in early education.** *Exceptionality*, 16(1), 33-47.
Progress monitoring tools have been shown to be essential elements in current approaches to intervention problem-solving models. Such tools have been valuable not only in marking individual children's level of performance relative to peers but also in measuring change in skill level in a way that can be attributed to intervention and development. As such, progress monitoring measures have been central to Response to Intervention (RtI) approaches. In early childhood, progress monitoring measures have only recently been applied to the process of intervention decision-making. The purpose of this article is to describe Individual Growth and Developmental Indicators, contrast them with existing approaches to assessment in early childhood, and illustrate how they can be used within a larger problem-solving model to guide intervention decisions for infants and toddlers. (author abstract)

OUTCOMES FOR CHILDREN'S LEARNING

JOURNALS

- Botts, D., Losardo, A., Tillary, C. Y., & Werts, M. G. (2014). **A comparison of activity-based intervention and embedded direct instruction when teaching emergent literacy skills.** *The Journal of Special Education*, 48(2), 120-134.
This replication study focused on the effectiveness of two different intervention approaches, activity-based intervention and embedded direct instruction, on the acquisition, generalization, and maintenance of phonological awareness, a key area of emergent literacy, by preschool children with language delays. Five male preschool participants with language delay were treated with a modified alternating-treatments design. Embedded direct instruction was more effective and efficient in the acquisition of phonological awareness skills for preschool children with language delays. Embedded direct instruction was also more effective in the generalization of emergent literacy skills to probe generalization sessions, as well as in the percentage of maintained skills. Preschool children who are at risk of acquiring foundational skills necessary for the development of conventional literacy would benefit from an explicit, systematic

instructional approach. Embedded direct instruction provided the structure necessary to promote effective and efficient acquisition of skills, as well as generalization and maintenance of learning. (author abstract)

- Greenwood, C. R., Carta, J. J., Atwater, J., Goldstein, H., Kaminski, R. A., & McConnell, S. R. (2013). **Is a response to intervention (RTI) approach to preschool language and early literacy instruction needed?** *Topics in Early Childhood Special Education*, 33(1), 48-64.
Preschool experience plays a role in children's development. However, for programs with language and early literacy goals, the question remains whether preschool instructional experiences are sufficiently effective to achieve these goals for all children. In a multisite study, the authors conducted a process-product description of preschool instruction, and children's growth and outcomes in typical programs (i.e., Pre-K, Title 1, Head Start, Tuition-Based) using a response to intervention (RTI) perspective. Results indicated that (a) students in their preschool year prior to kindergarten made small gains, but students starting the year in lower Tier 2 and 3 performance levels did not close initial skills gaps,

- (b) variations were noted by program types with varying sociodemographics and instructional processes, and (c) the quality of instruction (Tier 1) received by all was low with room for improvement. Implications for future research on the application of the RTI approach and potential benefits are discussed. (author abstract)
- **Collins, M. F., & Dennis, S. (2009).** Targeting oral language development in high-risk preschoolers. *NHSA Dialog*, 12(3), 245-256.
Among risk factors associated with reading difficulties, poverty and underdeveloped oral language skills can be particularly detrimental to reading success. The City Early Reading First (CERF) project implemented a comprehensive curriculum, professional development, intensive mentoring, and home supports to enhance children's language, literacy, and cognitive skills. Participants (N = 75) were 4-year-old children and teaching staff from 8 Head Start classrooms in a large urban city in the Midwest. Within the larger project, CERF undertook an intervention – Language Enrichment Group (LEG) – that targeted at-risk preschoolers' oral language development, including vocabulary, discourse skills, and content knowledge. LEGs focused on deepening content knowledge, providing opportunities for language development, and fostering social skills. Whereas nearly half of all 4-year-olds were at risk for later reading difficulty according to fall Peabody Picture Vocabulary Test - III (PPVT) scores, only one fifth remained at risk by spring. Supportive features of LEGs, refinements for future projects, and implications for the field of early education are discussed.
 - **Wasik, B. A., Hindman, A. H., & Jusczyk, A. (2009).** Using curriculum-specific progress monitoring to assess Head Start children's vocabulary development. *NHSA Dialog*, 12(3), 257-275.
Children's vocabulary development represents a critical foundation for their reading skills. This article describes a curriculum-based vocabulary progress monitoring tool that was used to track the development of Head Start children – and particularly those at highest risk for later reading difficulty – as they learned new words during the school year and then presents evidence that the progress monitoring tool measures the same underlying construct as a standardized assessment of vocabulary. Further, we explain how teachers used these data to adjust their instruction for individual children and then describe children's growth on the measure. Finally, we provide practical guidance about how this vocabulary progress monitoring tool could be strengthened, implemented, and further evaluated in other contexts. (author abstract)
 - **VanDerHeyden, A. M., Snyder, P. A., Broussard, C., & Ramsdell, K. (2007).** Measuring response to early literacy intervention with preschoolers at risk. *Topics in Early Childhood Special Education*, 27(4), 232-249.
Response to intervention (RTI) is characterized as a logical science of decision making that has applicability for early childhood, particularly in the context of multi-tiered intervention models. This study examined the utility of using curriculum-based early literacy measures as screening tools and for evaluating whether growth in early literacy skills was altered following brief interventions. Thirty-five preschool-age children at risk for learning difficulties participated in a 5-week intervention focused on key phonemic awareness skills delivered in classwide and individual formats. Curriculum-based measurement probes were administered each week to all children. Results showed the curriculum-based measures led to enhanced decision accuracy about children at risk for learning difficulties, particularly when combined with brief classwide interventions designed to systematically address opportunities to learn. For children who were initially low performers, weekly progress monitoring combined with classwide early literacy interventions appeared to be related to accelerated growth toward early literacy targets. Implications for the expansion of RTI decision-making frameworks in early childhood are discussed. (author abstract)