Inclusion for Young Children With Disabilities:

A Quarter Century of Research Perspectives

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Issues affecting inclusion of young children with disabilities over the last 25 years are discussed. A brief history of early childhood inclusion is followed by a discussion of definition, terminology, and models for inclusive services. A summary of synthesis points derived from the research literature focuses on critical outcomes for children with disabilities, the role of specialized instruction, collaboration among professionals, necessary organizational supports, and benefits for typically developing children. Two recent directions affecting the implementation of inclusion, assessment of quality and Response to Intervention (RTI), are discussed. In addition, factors that may affect early childhood inclusion in the future are summarized.

Keywords: *inclusion; early childhood; disabilities; children*

The foundation for current early childhood inclusion policy and practice was established 25 years ago (1986) with the passage of PL 99-457. In the spring of that year, the Executive Board meeting of the Division for Early Childhood (DEC) was held at the Council for Exceptional Children (CEC) convention in New Orleans. At the meeting, board members were hotly debating the bill to reauthorize the then Education for the Handicapped Act (PL 94-142), the flashpoint being whether a preschool mandate and early intervention for children from birth to age 3 should or would be included. The CEC Federal Liaison at the time, Gray Garwood, was in attendance at the meeting. As the meeting drew to a close, Gray was pessimistic about the preschool mandate or the early intervention provision making it into the final draft of the bill to go to Congress. As members prepared to leave, Gray smiled and said, "Well, we can wish, and this is a city of fantasies." The fantasies became public law that summer of 1986, and with it were the provisions that services would be provided to all children with disabilities down to the age of 3, those services should be delivered in the least restrictive environment, and states would be supported to develop an early intervention systems for infants and toddlers with disabilities and their families, which is now our Part C system. (S. L. Odom, personal communication, September 7, 2011).

Our purpose in this article is to examine inclusion as a practice that ensued after PL 99-457 became law. Over the last quarter century, researchers have frequently reviewed and provided commentary about the research literature on early childhood inclusion (Buysse & Bailey, 1993; Odom et al., 2004). Rather than providing another comprehensive review, we will examine points from the research that have emerged over the last quarter century. We begin with a brief introductory discussion about definition and terminology and current provision of inclusive services. A summary of research and policy related to preschool inclusion will be described in a set of synthesis points developed by two national centers. Although PL 99-457 emphasized the provision of service, it was silent about quality of inclusive services. We will discuss conceptualizations and measurement of the quality of inclusive settings. In addition, Response to Intervention (RTI) has become a recent movement in the field and increasingly applied in early childhood settings to address the needs of children who require additional interventions and supports. The relationship between RTI and preschool inclusion will be examined. We will conclude with directions for the future.

Defining Inclusion at the Early Childhood Level

The search for a uniform definition of early childhood inclusion extends beyond the quarter century just noted. Terminologies such as *preschool mainstreaming*, *reverse mainstreaming,* and *integrated special education* were used initially (Odom & Speltz, 1983). The term *inclusion* replaced the previous terminology in the early 1990s and continues to be used by members of the field today, although the term does not appear in the Individuals With Disabilities Education Act (IDEA). The change in terminology was pushed in part by the philosophy that inclusion would mean more than only physical placement of children with disabilities in the same classroom, but rather it conveyed that children with disabilities would become a part of larger social, community, and societal systems. In the 1997 reauthorization of IDEA, *natural environments* was used as a term to describe placement for infants and toddlers enrolled in Part C, and conveys the intent of this larger societal integration. In 2009, the DEC of the CEC and the National Association for the Education for Young Children (NAEYC) published a joint position statement specifying that the defining features of high-quality inclusion are "a sense of belonging and membership, positive social relationships and friendships, and development and learning" (DEC/NAEYC, 2009, p. 2). This shift conveys the current value that placement in a least restrictive environment is not sufficient to meet the intent of inclusion, but rather, participation, social relationships, and learning outcomes for all children are common goals.

Although philosophical definitions of inclusion are essential, inclusion is also defined by the ways it is "enacted" by systems and individuals. To determine the variations of preschool inclusive programs, Odom and colleagues (1999) summarized data collected in 16 programs and found that they varied on organizational and service delivery dimensions. Organizational contexts included community child care, Head Start, and Public Schools, whereas forms of individualized service included itinerant teaching, team teaching, early childhood education, and early childhood special education. In subsequent research, Odom and Buysse (2003) identified one additional inclusive organization model they termed *blended programs*. In the years after this research, blended models have become more com-

mon and, we think, subsumed a model identified as *public school-child care* in the Odom et al. (1999) study.

Prevalence of Early Childhood Inclusion

As noted, in the 1997 reauthorization of IDEA, the regulations specified that infants and toddlers enrolled in Part C should receive services in natural environments. With the natural environment provision of the law, most Part C services became organized around a home-based service delivery option. In the 2007 Office of Special Education Programs (OSEP) Report to Congress, in which placement comparisons for children in Part C in 1999 and 2004 were presented, home-based placements for infants and toddlers increased from 68.4% to 82.7% and placements in noninclusive center-based programs decreased from 14.3% to 4.4%. Notably, placement in inclusive child care programs was only 4.8% in 1999 and declined to 4.4% in 2004. Given that the amount of service in Part C is less than 2 hr per week and typically in home-based settings (Wagner & Hebbler, 2010), leaders in the field have questioned whether there is sufficient "dosage" of essential early intervention services to have an impact on child and family outcomes (Dunst, 2007). Certainly with regards to inclusive placements, the percentages are so small that Part C does not appear to be promoting inclusion with typical peers, which may be less of a concern with young infants with disabilities but more of a concern with toddlers (see Ladd, 2005, for description of emerging peer socialization during toddler years).

The annual OSEP report to Congress on IDEA also contains information about the location in which services are provided to preschool children with disabilities, which yields another perspective on inclusion at the preschool level. In the late 1990s, one of the current authors used this information to report that nearly 50% of the preschool-aged children with disabilities were placed in "regular classrooms" (see 2000 OSEP Report to Congress). Classification terminology changed in the 2002 report, and a new classification was established called *placement in early childhood education settings*. This change in classification yields different conclusions. The trends are remarkably consistent across years and the conclusions are different from reports of previous years. A little less than a third of preschool students are included in early childhood education settings as their primarily educational placement, a very similar percentage are enrolled in self-contained special education settings, and 15% to16% of the children spend part of their time in special education and part of their time in early childhood settings. These data suggest that for preschool children (a) inclusion in regular early childhood settings as a primary placement is occurring less often than we thought was occurring a decade ago, (b) there are some "split placements" that perhaps suggest inclusion is occurring for part of the day for approximately 15% of the children, and (c) the field has made little progress in increasing the placements of children in inclusive settings in the past decade.

Synthesis Points of Information on Early Childhood Inclusion

From the mid-1990s to the present, OSEP has funded two centers to address issues about early childhood inclusion: The Early Childhood Research Institute on Inclusion

Table 1
Research Synthesis Points on Early Childhood Inclusion

1. Inclusion has multiple meanings but is essentially about belonging, participating, and reaching one's full potential in a diverse society.
2. Inclusion takes many different forms.
3. Universal access to inclusive programs is not yet a reality for all children from birth to age 5 with disabilities.
4. A wide variety of factors such as attitudes and beliefs about inclusion, child and adult characteristics, policies, and resources can influence how inclusion is implemented and viewed by families and practitioners.
5. Collaboration is a cornerstone of high-quality inclusion.
6. Specialized instruction, interventions, and supports are key components of high-quality inclusion and essential in reaching desired outcomes for children and their families.
7. Inclusion can benefit children both with and without disabilities.
8. Professional development is likely necessary to ensure that practitioners acquire the knowledge, skills, and ongoing supports needed to implement inclusion effectively.

Note: Sources of information were Early Childhood Research Institute on Inclusion (Odom, 2002), National Professional Development Center on Inclusion (2009), and Buysse and Hollingsworth (2009).

(ECRII; 1994-2000) and the National Professional Development Center on Inclusion (NPDCI; 2006-2012). Although ECRII and NPDCI had slightly different purposes (i.e., research and professional development, respectively), they developed "synthesis points" that summarized either their original research or the research literature. The readers are referred to original sources for more specific information about these points (Buysse & Hollingsworth, 2009; Odom, Schwartz, & ECRII Investigators, 2002). Several of the synthesis points from the two centers are identical and others are closely related. In Table 1, the primary content from the synthesis points of both centers are integrated and themes emerging from these points are discussed in the subsequent sections.

Critical Outcomes of Inclusion

Although inclusive placements take different forms, as noted previously, certain critical child outcomes of belonging, participating, and forming positive social relationships reflect success of inclusive placements for children with disabilities. These could be characterized as sociological outcomes for preschool inclusion, in that they refer to social processes existing in classrooms and community contexts. For many children with disabilities in inclusive settings, engagement (Brown, Odom, Li, & Zercher, 1999), social acceptance (Odom, Zercher, Li, Marquart, & Sandall, 2006), and friendships (Buysse, Goldman, & Skinner, 2002) are realistic and meaningful outcomes. Individualized Education Program (IEP) goals for young children with disabilities are also "psychological" in nature, in that they focus on the acquisition of developmental, academic, or social skills (e.g., improvement of communication, cognitive, gross motor, self-help skills). The expectation that such skills-based progress will occur is fundamental to many of the synthesis points noted in Table 1, as well as the provisions embodied in the DEC/NAEYC joint statement.

Specialized Instruction Is Important

Common agreement exists that specialized instruction focusing on the individual needs of children in inclusive settings is important. That is, a high-quality early childhood education setting itself may provide benefits, but it alone is not sufficient to address the individual learning needs of children with disabilities (Odom & Bailey, 2001). A range of specialized instructional strategies, based on evidence from the empirical literature, have been identified as recommended practices (Sandall, Hemmeter, Smith, & McLean, 2005). Examples of specialized instructional practices that have been used in inclusive settings are naturalistic intervention approaches such as embedded learning opportunities (Horn & Banerjee, 2009), activity-based intervention (Ozen & Ergenekon, 2011), and peer-mediated intervention (Robertson, Green, Alper, Schloss, & Kohler, 2003).

Collaboration

In their research with ECRII, Lieber et al. (1997) documented that the success of inclusive programs was less about the characteristics of the children and more about the collaborative relationships among the adults. They identified seven features of the collaboration that were associated with successful inclusion: joint participation in planning, shared philosophies, shared "ownership" of (i.e., responsibility for) all children, communication, professional roles, stability of relationships, and administrative support. Such collaboration operates differently in different inclusive models. These relationships may involve coaching, mentoring, and/or providing guidance and feedback in inclusive child care programs in which the specialized professional (e.g., special education teacher, speech pathologist, physical therapist) is itinerant and the early childhood professional is the lead teacher. Alternatively, there may be a more closely shared responsibility when early childhood and early childhood special education teachers are in the classroom in a coteaching model.

Adequate Supports are Necessary

A major and important recognition related to preschool inclusion is that individual programs are situated in a large ecological systems context (Peck, 1993), and support from the larger systems context is essential for inclusion at the classroom level to be successful (Lieber et al., 2000). Such systems support includes having key advocacy at the administrative level that commits resources for professional development, ongoing coaching and collaboration, and time for communication and planning. Such supports are necessary to ensure that programs and program personnel are ready for children with a range of characteristics and needs, rather than children with disabilities having to meet entry prerequisites. This feature is critical because traditional professional development in early childhood education usually does not prepare teachers and staff to meet the individual learning needs of young children with disabilities (Chang, Early, & Winton, 2005).

All Children May Benefit From Inclusion

A common value, supported by some evidence, is that typically developing children and children with disabilities will benefit from inclusive settings. No randomized experimental

studies confirm this, but there is some quasi-experimental and descriptive research that informs to this point. Research suggests that typically developing children (a) make similar developmental gains in regular and inclusive preschools (Odom, DeKlyen, & Jenkins, 1984), (b) actively engage in classroom activities in inclusive settings (Brown et al., 1999), and (c) develop friendships in inclusive settings (Odom et al., 2006). In addition, it appears that participation in inclusive programs may positively affect typically developing children's knowledge and attitude about disabilities (Diamond & Huang, 2005).

Continuing and Emerging Themes in Early Childhood Inclusion

The synthesis points convey efforts to capture key findings from the previous literature and communicate them in ways that could inform practice. In addition, there are emerging themes related to the synthesis points that are quite prominent in current discussions of early childhood inclusion. The quality of early childhood inclusion and the application of RTI at the early childhood level are two such themes that require expanded discussion.

Quality and Early Inclusion

The meaning and definition of program quality in early care and education continue to evolve, making program quality a moving target with respect to the field's efforts to improve and regulate it (Wesley & Buysse, 2010). Several prominent ideas and recent trends around early childhood program quality are worth noting, however, particularly as these relate to services and supports for children with disabilities and their families in the context of inclusion.

The first is the growing realization that the definition of quality must reflect the need to customize early care and education practices to ensure that every child—those with learning or behavior difficulties, identified disabilities, and from diverse cultural and linguistic backgrounds—can reach his or her full potential. Building on the DEC recommended practices (Sandall et al., 2005), the DEC/NAEYC (2009) joint position statement on inclusion offers a blueprint in this regard, primarily by organizing specialized intervention practices around the defining features of high-quality inclusion: access, participation, and supports. This framework for defining high-quality inclusion differs considerably from the way in which program quality has been conceptualized within the broader early care and education field, but ideally should be used to complement it.

Within the general early childhood field across the United States, program quality is assessed against, and improvements are guided by, program quality standards (e.g., NAEYC Early Childhood Program Standards and Accreditation Criteria) and tiered rating systems (e.g., Quality Rating and Improvement Systems [QRISs]). Although the broader early childhood field lacks consensus on a single approach for categorizing factors that define program quality, two broad dimensions have been used consistently in the literature to capture the critical predictors of early care and education experiences on children's developmental outcomes. These dimensions include (a) the quality of the curriculum and intentional teaching (e.g., planning, delivering, and evaluating instruction, facilitating positive relationships, and social-emotional development) and (b) structural aspects such

as the physical environment, child–caregiver ratios, caregiver qualifications, and compensation (Early et al., 2007). Although both dimensions are reflected in program standards and have been shown to be strong predictors of child outcomes among the general population of young children who participate in early care and education services (National Research Council & Institute of Medicine, 2000), these may not be sufficient for assessing the quality of programs and services for children with disabilities who are included in these settings (Wesley & Buysse, 2010). This is not surprising, given that these early childhood standards and quality frameworks reflect the needs of the general population of young children rather than the unique learning characteristics and needs of children with developmental delays, cerebral palsy, autism spectrum disorders, and other disabilities.

As mentioned earlier, the DEC/NAEYC position statement on inclusion offered clear, consensus wisdom on the meaning and defining features of high-quality inclusion (access, participation, and supports). The DEC/NAEYC joint position statement defined *access* as the removal of physical or structural barriers (i.e., Universal Design [UD]) as well as the provision of multiple ways to promote learning and development (i.e., Universal Design for Learning [UDL]); *participation* as instructional and intervention approaches used to promote children's engagement in playing and learning activities, and their sense of belonging; and *supports* as broader aspects of the infrastructure or system that undergird the efforts of individuals and organizations providing inclusive services (e.g., professional–family collaboration, coordination of services, professional development, research, public policies). Furthermore, the joint position statement on inclusion identified specific practices that could be used to promote access and participation of young children and their families in the context of inclusion, and the infrastructure necessary to support the implementation of inclusion systemwide (Buysse, 2011).

A second key direction in recent years has been the assessment of the quality of inclusion. Several measures have been developed specifically to assess the quality of inclusive early childhood programs and services. The Quality Inclusive Experiences Measure (QIEM; M. Wolery, Pauca, Brashers, & Grant, 2000) provides a comprehensive, individualized assessment of quality of inclusion, with seven subscales addressing areas such as individualization, accessibility of the physical environment, participation, and engagement. The QIEM is intended to be used in conjunction with other global measures of program quality and is completed separately for each child with disabilities through observation, staff interviews, and document reviews. The QIEM requires further research to validate its use as an inclusive program quality measure.

A more recent measure, the Inclusive Classroom Profile (ICP; Soukakou, in press), was developed and has been validated in inclusive programs in the United Kingdom to assess specific aspects of classroom practice necessary for addressing the developmental needs of children with disabilities in the context of inclusion. The ICP uses a format similar to that of the ECERS-R and consists of 11 items reflecting essential inclusive classroom practices (e.g., adaptations of space and materials, adult involvement in peer interactions, adult guidance, adaptation of group activities, planning, and monitoring), each rated from 1 (*representing the lowest level of quality*) to 7 (*representing the highest level of quality*). A set of detailed quality indicators (i.e., descriptions of teacher behaviors defining each level of quality) accompanies each item to help ensure that the tool can be rated reliably. The results from a validation study showed that the ICP has good interrater reliability, items that are

internally consistent, and a good factor structure (Soukakou, in press). Given the research evidence supporting the validity of this tool, the ICP holds particular promise as a measure of quality inclusive practices that can be used to complement broader measures of program quality.

Although there is far less research available on the effects of program quality for children with disabilities than there is for children without disabilities, at least one study found a relationship between program quality and child outcomes for children with disabilities served in inclusive programs (Odom, Buysse, & Skinner, 2011). This study included a sample of 142 children (with severe to mild disabilities, ranging in age from 48-54 months) served in inclusive community-based programs, public preschools, or Head Start programs in North Carolina and Indiana. A key finding was that individualization, as a measure of quality inclusion, had a positive effect on children's development in the areas of cognition, communication, and motor skills.

A third direction to support high-quality inclusion is related to the broader program quality improvement movement. The field's efforts to improve the quality of inclusive programs and practices must be integrated within larger initiatives aimed at improving program quality for all young children and families (Buysse, 2011). This involves shifting the emphasis from focusing exclusively on standards and accountability systems (which in and of themselves will not lead to quality improvements) to identifying the specific practices (e.g., specialized interventions and customized instructional supports) that define high quality for an individual child and family. Rather than creating separate sets of quality standards and outcome measures for children with disabilities, the goal should be to seek ways to integrate practices that benefit all children (e.g., differentiated teaching and caregiving) into existing quality frameworks and accountability systems to improve program quality for each child. This will require more attention to issues regarding the need to integrate various components of program quality (e.g., early learning standards, quality rating systems, program quality measures, professional development) into a single, coherent system. The most promising ideas for achieving program quality for children with and without disabilities in the future likely will come not through increasing program monitoring and accountability but through innovations that fundamentally change current structures and ways of thinking about program quality to ensure that each and every child succeeds.

RTI and Early Childhood Inclusion

One indication that the early childhood field is moving toward customizing early care and education is the growing interest in the use of tiered models of instruction and intervention that can be employed to address goals related to improving the quality of inclusion. Tiered instructional approaches in early childhood are based largely on RTI, an approach that has gained widespread acceptance in public schools throughout the United States (National Center on Response to Intervention, 2010). It has a dual focus on improving the quality of instructional practices for all students as well as providing additional instructional and behavioral supports for some students to ensure that every student succeeds in school. The key features of this approach involve gathering information on students' skills to help teachers plan and organize instruction, provide evidence-based interventions and supports, and monitor student progress in learning. A growing body of research indicates

that RTI is effective for addressing learning difficulties among school-age children, with strong evidence for the effectiveness of targeted reading and math interventions for this age group (Gersten et al., 2008, 2009).

In recent years, the use of RTI to support learning and development of children prior to kindergarten has attracted widespread interest in the early childhood field (Greenwood et al., 2011). However, there is little research evidence at this time to guide the use of RTI with prekindergarteners. In response to this need, three national organizations—DEC, NAEYC, and the National Head Start Association (NHSA)—are collaborating to produce a joint position statement on RTI in early childhood. Several models of RTI addressing social-emotional development and academic learning have been developed and are being validated for use in early care and education settings; for example, the Teaching Pyramid (Hemmeter, Ostrosky, & Fox, 2006), Recognition & Response (Buysse & Peisner-Feinberg, 2010), and Building Blocks (Sandall & Schwartz, 2008). The Center for Response to Intervention (CRTIEC) is conducting a program of research to develop and validate assessments and tiered interventions that are appropriate for children prior to kindergarten and can be used within an RTI framework (http://www.crtiec.org/). Across all of these models, the emphasis is on helping practitioners organize the way in which they gather information and deliver instruction and targeted interventions/supports to respond effectively to children's learning and social-emotional needs. Tiered models were identified in the DEC/NAEYC joint position statement as a promising approach for promoting the participation of children with disabilities in the context of inclusion.

Contemporary Influences and Future Directions

In concluding, there are influences within and outside of the field of education that have the potential for influencing early childhood inclusion in the future. Issues related to implementation, demographics, and the economy will all be addressed briefly.

Implementation Science

Across human service disciplines, the field of implementation science (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005) is emerging as a major influence. Strategies for moving into practice on a large scale and innovation that has been identified as efficacious or beneficial are becoming well articulated (Fixsen, Blase, Metz, & Van Dyke, in press). Such implementation science strategies are usually based on a systems perspective that promotes organizations' adoption of innovation or change. Early childhood inclusion could well be considered an innovation in many school systems. In their examination of systemic factors supporting preschool inclusion, Lieber and colleagues (2000) identified systems variables present in districts in which early childhood inclusion was adopted and sustained. The factors were (a) presence of key personnel in positions to influence polity, (b) shared vision for inclusion by key participants, (c) state and national policies, (d) training/external support, and (e) organizational structure.

For implementation science to work, there must be a clearly articulated innovation (i.e., an "it" to be implemented), and the development of key features and quality measures

related specifically to early childhood inclusion could provide such a delineation. The NPDCI has followed an approach consistent with implementation science by (a) delineating key features of early childhood inclusion and (b) working with states to promote professional development related to early childhood inclusion. The ongoing refinement of implementation strategies, as is occurring through the National Implementation Research Network (see http://www.fpg.unc.edu/~nirn/), and their application to early childhood inclusion has the potential for creating more high-quality inclusive placements for young children with disabilities (Odom, 2009).

Demographics

The demographics of young children in the United States are changing in that there is increasing ethnic, language, and economic diversity and family circumstance than has occurred in the past (Forum on Child and Family Statistics, 2011). Such changes may make the task of early childhood inclusion more difficult in the future in that teachers and other professionals may need to establish strategies for differentiating learning needs related to cultural or language difference from learning needs related to disability. It may well be that the accommodations made through UDL and the tiered interventions within RTI will address learning needs of all groups, and indeed that is the intent of these strategies. Verifying the efficacy of these strategies will be an important future direction for the fields or early childhood education and early childhood special education.

Two potential positive factors could emerge from these demographic trends. First, if there is a greater variety of learning needs in the classroom, the need to make accommodations for individual learners may become more salient for early childhood teachers. This increased "demand" for more differentiated or individualized instruction could result in great acceptance of RTI or specialized instructional approaches by teachers in early childhood programs. Second, perhaps anticipating or realizing the increased learning needs of young children who will be entering public schools, states have substantially increased the number of prekindergarten programs over the last few years (National Institute for Early Education Research, 2010). Such increase in state-funded programs should create additional opportunities for inclusive placements for children with disabilities, although it is quite possible that this logic could become tied up in state and local policies about which children have access to such programs.

Economy and Retrenchment

As school systems bear the brunt of the current downturn in U.S. economy, the cost of all programs are scrutinized more closely. A perception among administrators has been that early childhood inclusion is a more expensive model than service through a self-contained special education class placement. In their analysis of the costs of preschool inclusion, Odom, Hanson, and colleagues (2001) found that in most cases inclusive programs were equal to or less expensive than self-contained special education placements. Although conducted on a limited sample, they did identify the cost features of inclusive programs and offered suggestions for how early childhood inclusion could be financed (R. A. Wolery & Odom, 2000).

Conclusion

Early childhood inclusion is a primary placement for special education services for a substantial number of children with disabilities. The research and professional literature since the passage of PL 99-457 has provided important findings related to outcome and benefits for children, specialized instruction, collaboration among adults, and necessary supports. Contemporary issues focus on the importance and assessment of the quality of inclusion as well as the RTI model of services and their implications for inclusion. Issues that may affect the provision of early childhood inclusion in the future are related to implementation science, changing child and family demographics in the United States, and current economy, retrenchment, and the cost of inclusion.

References

Brown, W. H., Odom, S. L., Li, S., & Zercher, C. (1999). Ecobehavioral assessment in early childhood programs: A portrait of preschool inclusion. *Journal of Special Education, 33*, 138-153.

Buysse, V. (2011). Access, participation, and supports: The defining features of high-quality inclusion. *Zero to Three Journal, 31*(4), 24-29.

Buysse, V., & Bailey, D. B. (1993). Behavioral and developmental outcomes in young children with disabilities in integrated and segregated settings: A review of comparative studies. *Journal of Special Education, 26*, 434-461.

Buysse, V., Goldman, B. D., & Skinner, M. L. (2002). Setting effects on friendship formation among young children with and without disabilities. *Exceptional Children, 68*, 503-517.

Buysse, V., & Hollingsworth, H. L. (2009). Research synthesis points on early childhood inclusion: What every practitioner and all families should know. *Young Exceptional Children, 11*, 18-30.

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

Chang, F., Early, D., & Winton, P. (2005). Early childhood teacher preparation in special education at 2-and 4-year institutions of higher education. *Journal of Early Intervention, 27*, 110-124.

Diamond, K. E., & Huang, H. (2005). Preschoolers' ideas about disabilities. *Infants & Young Children, 18*, 37-46.

Division for Early Childhood/National Association for the Education for Young Children. (2009). *Early childhood inclusion: A joint position statement of the division for early childhood (DEC) and the national association for the education of young children (NAEYC)*. Chapel Hill: University of North Carolina, FPG Child Development Institute.

Dunst, C. J. (2007). Early intervention for infants and toddlers with developmental disabilities. In S. Odom, R. Horner, M. Snell, & J. Blacher (Eds.), *Handbook on developmental disabilities* (pp. 181-198). New York, NY: Guilford.

Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., . . . Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*, 558-580.

Fixsen, D., Blase, K., Metz, A., & Van Dyke, M. (in press). Statewide implementation of evidence-based programs. *Exceptional Children.*

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (The National Implementation Network [FMHI Publication No. 231]). Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute.

Forum on Child and Family Statistics. (2011). *America's children: Key national indicators of well-being, 2011*. Washington, DC: Author. Retrieved from http://www.childstats.gov/americaschildren/demo.asp

Gersten, R., Compton, D. L., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., et al. (2008). Assisting students struggling with reading: Response to intervention and multi-tier intervention for reading in the primary grades. A practice guide. (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides/

Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J.R., et al. (2009). Assisting students struggling with mathematics: Response to intervention (RTI) for elementary and middle schools (NCEE 2009-4060). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides/

Greenwood, C. R., Bradfield, T., Kaminski, R., Linas, M., Carta, J. J., & Nylander, D. (2011). The response in intervention (RTI) approach in early childhood. *Focus on Exceptional Children, 43*(9), 1-21.

Harms, T., Clifford, R., & Cryer, D. (1998). *Early Childhood Environment Rating Scale* (Rev. ed.). New York: Teachers College Press.

Hemmeter, M. L., Ostrosky, M., & Fox, L. (2006). Social and emotional foundations for early learning: A conceptual model for intervention. *School Psychology Review, 35*, 583-601.

Horn, E., & Banerjee, R. (2009). Understanding curriculum modifications and embedded learning opportunities in the context of supporting all children's success. *Language, Speech, and Hearing Services in Schools, 40*, 406-415.

Ladd, G. W. (Ed.). (2005). *Children's peer relations and social competence: A century of progress*. New Haven, CT: Yale University Press.

Lieber, J., Beckman, P. J., Hanson, M. J., Janko, S., Marquart, J. M., Horn, E. M., & Odom, S. L. (1997). The impact of changing roles on relationships between professionals in inclusive programs for young children. *Early Education and Development, 8*, 67-83.

Lieber, J., Hanson, M. J., Beckman, P. J., Odom, S. L., Sandall, S. R., Schwartz, I. S., . . . Wolery, R. (2000). Key influences on the initiation and implementation of inclusive preschool programs. *Exceptional Children, 67*, 83-98.

National Center on Response to Intervention. (2010, March). *Essential components of RTI-A closer look at response to intervention.* Washington, DC: U.S. Department of Education, Office of Special Education Programs, Author. Retrieved from http://www.cldinternational.org/Articles/rtiessentialcomponents.pdf

National Institute for Early Education Research. (2010). *The state of preschool, 2010*. Piscataway, NJ: Author.

National Professional Development Center on Inclusion. (2009). *Research synthesis points on early childhood inclusion.* Chapel Hill: University of North Carolina, FPG Child Development Institute, Author. Retrieved from http://community.fpg.unc.edu/npdci

National Research Council & Institute of Medicine. (2000). From neurons to neighborhoods: The science of early childhood development. In J. P. Shonkoff & D. A. Phillips (Eds.), *Board on children, youth, and families, commission on behavioral and social sciences and education*. Washington, DC: National Academy Press.

Odom, S. L. (Ed.). (2002). *Widening the circle: Including children with disabilities in preschool programs*. New York, NY: Teachers College Press.

Odom, S. L. (2009). The tie that binds: Evidence-based practice, implementation science, and early intervention. *Topics in Early Childhood Special Education, 29*, 53-61.

Odom, S. L., & Bailey, D. B. (2001). Inclusive preschool programs: Ecology and child outcomes. In M. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp. 253-276). Baltimore, MD: Brookes.

Odom, S. L., & Buysse, V. A. (2003, September). *Quality of preschool inclusion and child outcomes in the United States.* Poster presented at the International Society on Early Intervention 2003 Congress, Rome, Italy.

Odom, S. L., Buysse, V. A., & Skinner, M. (2011). *Cost, quality, and outcomes of preschool inclusion*. Manuscript in preparation.

Odom, S. L., DeKlyen, M., & Jenkins, J. R. (1984). Integrating handicapped and nonhandicapped preschool children: Developmental impact on the nonhandicapped children. *Exceptional Children, 51*, 41-48.

Odom, S. L., Hanson, M. J., Lieber, J., Marquart, J., Sandall, S., Wolery, R., . . . Chambers, J. (2001). The costs of preschool inclusion. *Topics in Early Childhood Special Education, 21*, 46-55.

Odom, S. L., Horn, E. M., Marquart, J., Hanson, M. J., Wolfberg, P., Beckman, P. J., . . . Sandall, S. (1999). On the forms of inclusion: Organizational context and individualized service delivery models. *Journal of Early Intervention, 22*, 185-199.

Odom, S. L., Schwartz, I. S., & ECRII Investigators. (2002). So what do we know from all this? Synthesis points of research on preschool inclusion. In S. L. Odom (Ed.), *Widening the circle: Including children with disabilities in preschool programs* (pp. 154-174). New York, NY: Teachers College Press.

Odom, S. L., & Speltz, M. L. (1983). Program variations in preschools for handicapped and nonhandicapped children: Mainstreamed vs. integrated special education. *Analysis and Intervention in Developmental Disabilities, 3*, 89-103.

Odom, S. L., Vitztum, J., Wolery, R., Lieber, J., Sandall, S., Hanson, M. J., . . . Horn, E. (2004). Preschool inclusion in the United States: A review of research from an ecological systems perspective. *Journal of Research in Special Educational Needs, 4*, 17-49.

Odom, S. L., Zercher, C., Li, S., Marquart, J., & Sandall, S. (2006). Social acceptance and social rejection of young children with disabilities in inclusive classes. *Journal of Educational Psychology, 98*, 807-823.

Ozen, A., & Ergenekon, Y. (2011). Activity-based intervention practices in special education. *Educational Science: Theory & Practice, 11*, 359-362.

Peck, C. A. (1993). Ecological perspectives on the implementation of integrated early childhood programs. In C. Peck, S. Odom, & D. Bricker (Eds.), *Integrating young children with disabilities in community programs: Ecological perspectives on research and implementation* (pp. 3-16). Baltimore, MD: Brookes.

Robertson, J., Green, K., Alper, S., Schloss, P. J., & Kohler, F. (2003). Using peer-mediated intervention to facilitate children's participation in inclusive child care activities. *Education & Treatment of Children, 26*, 182-197.

Sandall, S. R., Hemmeter, M. L., Smith, B. J., & McLean, M. E. (Eds.). (2005). *DEC recommended practices: A comprehensive guide for practical application in early intervention/early childhood special education*. Longmont, CO: Sopris West.

Sandall, S. R., & Schwartz, I. S. (2008). *Building blocks for teaching preschoolers with special needs* (2nd ed.). Baltimore, MD: Brookes.

Soukakou, E. (in press). Measuring quality in inclusive preschool classrooms: Development and validation of the inclusive classroom profile (ICP). *Early Childhood Research Quarterly.*

Wagner, M., & Hebbler, K. (2010, March). *Child-based longitudinal studies: A firm foundation for improving policy and practice for children and youth with disabilities*. Webinar presentation, Consortium for Citizens with Disabilitie*s.* Retrieved from http://www.sri.com/neils/pdfs/CCDbriefing031210.pdf

Wesley, P. W., & Buysse, V. (2010). Changing times and the quest for quality. In P. W. Wesley & V. Buysse (Eds.), *The quest for quality* (pp. 1-19). Baltimore, MD: Brookes.

Wolery, M., Pauca, T., Brashers, M. S., & Grant, S. (2000). *Quality of inclusive experiences measure (QIEM)*. Nashville, TN: Vanderbilt University.

Wolery, R. A., & Odom, S. L. (2000). *An administrator's guide to preschool inclusion*. Chapel Hill, NC: FPG Child Development Institute. Retrieved from http://www.fpg.unc.edu/~assets/pdfs/pubs/AdmGuide.pdf