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Research on the Implementation of Preschool Intervention Programs: Learning by Doing

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“For the things we have to learn before we can do them, we learn by doing them.”

- Aristotle, *Nicomachean Ethics*

Data from the Early Childhood Longitudinal Study – Birth cohort (ECLS-B), demonstrate that in the United States, the achievement gap between children from disadvantaged sociodemographic groups and their more advantaged peers emerges by 24 months of age (Fuller et. al., 2009; Hillemeier, Farkas, Morgan, Martin, & Maczuga, 2009), and persists through 48 months of age and beyond (Chernoff, Flanagan, McPhee, & Park, 2007). The long-term consequences of early-childhood poverty (Duncan, Ziol-Guest, & Kalil, 2010), and the importance of school readiness skills for later achievement (Duncan et al., 2007), are coming into clearer focus thanks to the existence of multiple longitudinal datasets. What is less clear, however, is how to meaningfully intervene to ameliorate these early differences and thus prevent pernicious effects later in life. The implementation of preschool intervention programs, much like the role of professional development in such interventions (Griffin, 2009), has been woefully understudied. This special issue provides a rare peek behind the curtain of what occurs during the implementation of these school readiness programs, and the relationship between intervention implementation and outcomes.

All of the intervention studies included in this special issue were funded through the Interagency School Readiness Consortium (ISRC). The ISRC was formed in 2003 by the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), the Administration for Children and Families (ACF), and the Office of the Assistant Secretary for Planning and Evaluation (ASPE) within the Department of Health and Human Services (DHHS), and the Office of Special Education and Rehabilitation Services (OSERS) of the U.S. Department of Education. The ISRC was established to fund rigorous scientific studies of the effectiveness of integrative early childhood interventions and programs across a variety of early childhood settings. A total of eight research grants were awarded, featuring interventions implemented in public settings including Head Start, state Pre-Kindergarten and child care programs (ACF, 2009). Dr. Kyle Snow served as the first NICHD ISRC Program Officer from 2003 – 2005, and the author became the NICHD Program Officer for the Consortium in 2006.

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The peer-reviewed ISRC projects were selected based on their approach to systematic, programmatic, multidisciplinary research to determine the most effective early childhood interventions in promoting children's school readiness. Specifically, the research was designed to increase understanding of the types of integrative programs and their components (individually and in combination) that promote child learning and development across multiple domains of early childhood competence, including language and communication, emergent and early literacy, early mathematics, early science, self-regulation of behavior, emotion and attention, social competency, and motivation to learn, as well as those that address teacher, caregiver, or parent behaviors to promote children's development in these areas. Three of the eight ISRC studies are not represented in this special issue; however, information can be found elsewhere on studies lead by John Fantuzzo (McDermott et al., 2009), Carrolle Howes and Allison Sidle Fuligni (Fuligni, Howes, Lara-Cinisomo, & Karoly, 2009; Lara-Cinisomo, Fuligni, Ritchie, Howes, & Karoly, 2008), and Cybele Raver (Raver et al., 2008; Raver, et al, 2009). The ISRC studies, coupled with the findings of the Preschool Curriculum Evaluation Research Consortium (PCER, 2008), funded by the Institute of Education Sciences, U.S. Department of Education, have greatly expanded the number of randomized controlled trials (RCTs) conducted on school readiness interventions in diverse early childhood program settings.

The studies included in this special issue represent the diversity of approaches one can take when conducting implementation research. Baker and his colleagues explore patterns and predictors of teacher participation rates in their *Building Bridges* preschool preventive intervention program. Hamre and her collaborators examine three aspects of implementation fidelity (dosage, adherence, and quality of delivery) and the association between these three implementation variables and preschoolers' growth in language and literacy skills in the context of the *My Teaching Partner* (MTP) on-line professional development intervention program. Knoche and her coauthors use videotapes from home visits with families from their *Getting Ready* project to learn how high implementers of their intervention strategies differ from colleagues who were low implementers. In contrast to the other studies in this special issue, which drew their program samples from a limited geographic area, Odom and his collaborators examine the implementation of their *Children's School Success* curriculum at preschool programs in five geographically diverse states to assess both structural and process measures of implementation and their association with child school readiness outcome measures. Domitrovich and her coauthors examine four dimensions of implementation quality (dosage, fidelity, generalization, and child engagement) for the *Research-based, Developmentally Informed* (REDI) program intervention and their association with multiple child outcome measures. Durlak provides an informed and insightful commentary on the current state of knowledge regarding implementation research, as well as lessons learned from these papers and their implications for future research on the implementation of early childhood education intervention programs. Those new to the area of implementation research are advised to read the first section of Durlak's commentary prior to reading the research papers to have a better grasp of the issues being addressed.

Taken together, these papers demonstrate both the need for and the value of assessing multiple dimensions of implementation that are embedded within early childhood education research intervention studies. Demonstrating the efficacy of a school readiness intervention is necessary (e.g., Bierman et al., 2008; Raver et al., 2009), but the value of such knowledge is limited if it is not accompanied by a thorough examination of the intervention's implementation and the relationship between implementation and outcomes. This has been a limiting factor in the scaling-up of early childhood interventions that have demonstrable effects, and must be addressed in future research efforts. As such, this special issue showcases the knowledge that can be gained when implementation is assessed in a thorough and systematic manner. Aristotle would be proud.

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