

Abstract

Title: Effects of Home and Classroom Practices on Language, Cognitive, and Social Development of Young Spanish-Speaking English Learners

Topic and Project Type: NCER Early Learning Programs & Policies, Initial Efficacy

Purpose: Young English learners (ELs) living in poverty are at risk for later reading difficulties and are less likely than their peers to encounter the level of responsive, extended conversations in their homes and preschools needed for school readiness. Furthermore, many types of dual language programs in U.S. schools operate in ways that delay regular exposure to English until later grades, rather than systematically teaching in ways that build on students' knowledge of their home language to accelerate English proficiency. The proposed project will evaluate a dual-language approach that: a) maintains and improves the home language of DLLs who speak mostly Spanish in their homes via parent coaching, and b) simultaneously coaches teachers to use an explicit cross-language transfer approach in which sophisticated concepts are introduced in Spanish before English. The expected outcome of this project is increased understanding of effective classroom instruction and family engagement approaches for DLLs' at risk of later reading difficulties.

Setting: The research will occur in the urban Houston Independent School District (Texas).

Sample: The sample will include 90 pre-kindergarten (pre-k) classrooms that use a dual language model called Transitional Bilingual in which 90% of pre-k instruction is in Spanish and 10% is in English. A sample of 720 Tier 2 eligible children and their families within these classrooms will participate. Eligible 4-year-old children will meet screening criterion and speak Spanish at home. We expect almost all Hispanic or Latino participants.

Intervention: We will examine individual teacher and parent coaching interventions as well as a combined teacher+parent intervention. These aligned approaches are designed to improve children's bilingual language development via adults' use of contingent responsiveness, guided learning, and extended discourse. In addition, both interventions include coaching to establish routines that support rich discourse during daily activities and book reading.

Control Condition: The comparison condition will receive family handouts on developmental milestones and books. Teachers will use their existing core curriculum (FrogStreet).

Research Design: In Years 1-4, we will use a randomized controlled trial (RCT) with four cohorts. The RCT uses a factorial design with four groups: 1) teacher plus parent, 2) teacher only, 3) parent only, 4) control. In the final year, we will complete analysis and dissemination.

Key Measures: For teachers and parents we will measure the quality of their child-directed discourse including measures of responsiveness and language facilitation strategies; these include micro-analysis of malleable adult behaviors known to facilitate children's language development. For children, we will measure their Spanish and English oral language outcomes, including proximal and distal measures of basic and academic language. We will assess children's executive function and social-behavioral outcomes. We will also measure a) home language use patterns, b) parent education, c) children's initial skill levels, d) classroom L1/L2 usage patterns, and e) teacher knowledge, all of which may moderate intervention effects.

Data Analytic Strategy: Main data analyses use linear and generalized linear models including analysis of covariance (ANCOVA) framework and multi-level modeling.

Cost Analysis: Our cost estimation approach will include: (a) identifying ingredients/resources; (b) determining the cost of the resources; (c) analyzing the extent to which resource use are aligned with the original design; and (d) calculating cost effectiveness.