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Building vocabulary in two languages: An examination of Spanish-speaking Dual Language Learners in Head Start

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ABSTRACT

This study examines the English and Spanish vocabulary skills that young Dual Language Learners (DLLs) bring to Head Start, as well as their vocabulary learning over the year. Further, we isolate the unique contributions of various child, family, teacher, and classroom factors to these skills. Participants were drawn from a recent cohort of the Head Start Family and Child Experiences Survey. Results show that, for both Spanish and English vocabulary, child and family factors, especially the prevalence of each language in the household, play a role in initial skills and end-of-year skills. The quality of the language of classroom instruction also predicts Spanish and English vocabulary learning over the year for all children; in English, this relation is significantly greater for children with the lowest initial skills. Findings elucidate potential leverage points for intervention to improve Spanish and English vocabulary outcomes during Head Start for these vulnerable early learners.

Introduction

As the population of native Spanish-speaking children in American classrooms grows, our education system needs to find ways to support these children's language skills, both in English and in their home language. Targeting these outcomes in the earliest years of school will help to position children for later success in their academic careers and, thereafter, in the workforce (Barnett, 2011). The Head Start preschool program can play an essential role in supporting this early learning, as it serves the nation's most needy children, a disproportionate number of whom are Spanish-speaking Dual Language Learners (DLLs). This paper examines the experiences of a large sample of Spanish-speaking DLLs who are representative of Spanish-speaking children across the nation who began Head Start in 2006–2007 and remained enrolled through spring 2007. Analyses explore the extent of children's receptive vocabulary knowledge in English and Spanish at the beginning and end of the preschool year as well as the degree to which child, family, and school factors predict vocabulary competence in one or both languages.

Early vocabulary development among children in poverty

Vocabulary development is essential for communicating with others, learning to read, and succeeding in school more broadly (Dickinson, Golinkoff, & Hirsh-Pasek, 2010; LeFevre et al., 2010; Menting, Van Lier, & Koot, 2011; Spere & Evans, 2009). Children learn the meaning of words through multiple exposures in meaningful contexts, such as rich conversations with adults, siblings, and peers (Hart & Risley, 1999; Hirsh-Pasek & Golinkoff, 2012). For many children in poverty, these meaningful exposures may be infrequent due to limited access to resources in the home (Bradley, Corwyn, McAdoo, & Coll, 2001) and community (Hindman, Miller, Froyen, & Skibbe, 2012), as well as limited conversation with adults (Dickinson & Tabors, 2001; Hart & Risley, 1995; Heath, 1983; Hoff, 2003). As a result, typically developing children in poverty often enter kindergarten with vocabulary and other language skills more than a full standard deviation below middle-income peers (Bulotsky-Shearer, Wen, Faria, Hahs-Vaughn, & Korfmacher, 2012; Hindman, Skibbe, Miller, & Zimmerman, 2010;

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Lee & Burkam, 2002). Those who start out behind rarely catch up (Fernald, Marchman, & Weisleder, 2013).

Special vocabulary considerations: Spanish-speaking dual language learners in poverty

Early vocabulary learning is essential, and especially challenging, for young children in poverty who are learning English as well as a different home language. In American schools, more than 10% of students are DLLs, and in some states (e.g., California) this number reaches nearly 30% (National Center for Education Statistics, 2013). Most DLLs are native speakers of Spanish (National Center for Education Statistics, 2012), and this group is expected to grow through the next decade (Lopez & Gonzalez-Barrera, 2013; Ortman & Shin, 2011; Shin & Kominski, 2010). DLL children are disproportionately over-represented among the ranks of America's poor, with the majority (66%) coming from households with incomes below 200% of the Federal poverty level (EPE Research Center, 2009).

Spanish-speaking DLLs in poverty face the vocabulary-learning challenges outlined above in their native language and often enter kindergarten with Spanish vocabulary skills that, when assessed on standardized measures, fall more than one standard deviation (*SD*) below the average skills of more socioeconomically and culturally diverse Spanish speakers (Davison, Hammer, & Lawrence, 2011). Further, these children have varied opportunities to hear and practice English at home (Place & Hoff, 2011), so that they enter school with English skills that may approach 2*SD*s below that measure's native-speaking (monolingual) standardization sample mean (Davison et al., 2011). Catching up in vocabulary is challenging in one language, let alone two (Biemiller, 2004), and generally requires considerable time and support in both languages (Hoff et al., 2012). Consequently, by fourth grade, fully 69% of DLLs cannot read in English at even a basic level, far higher than the 28% of native English speakers who struggle to read (National Center for Education Statistics, 2013). Over time, DLLs face higher risks of chronic underperformance in all content areas and have higher rates of drop out (Aud et al., 2011; Hernandez, 2011; Thomas & Collier, 2002). Outcomes are even worse for DLLs who begin school with relatively lower English skills and/or family socioeconomic status (Kieffer, 2008).

Head Start as a leverage point for building vocabulary knowledge among DLLs

A promising leverage point in the effort to improve the vocabulary skills of young Spanish-speaking DLLs in poverty is the federally funded Head Start program for low-income children and families. Currently, an estimated 37% of the children served by Head Start are of Hispanic/Latino backgrounds, and the majority of those are DLLs (US Department of Health and Human Services, 2013b). English language and vocabulary are a key learning goal of the Head Start program, especially for DLLs (US Department of Health and Human Services, 2013a), and there is some encouraging evidence that Head Start is effective in meeting this goal. For example, the Head Start Impact Study (Puma et al., 2012; US Department of Health and Human Services, 2010) showed that children, whether native speakers or DLLs, who spent one year in Head Start outperformed peers on English receptive vocabulary (ES = 0.09 for those attending at age 4, and 0.18 for those attending at age 3), with four-year-olds also showing continued benefits in first grade vocabulary (0.09) and third grade reading (0.11). However, findings from the Head Start Family and Child Experiences Survey (FACES) study are more mixed, showing that most children make meaningful but small gains (i.e., 2.5 standardized score points) in vocabulary during Head Start, although DLLs learned substantially less English vocabulary from fall to spring than native English speakers (Hindman & Wasik, 2013).

There is considerable support in the field for DLLs' continued development in their native language as well, because (a) this language has essential cultural value in their families, (b) children may be able to use their native language to build complex knowledge (which limited vocabulary makes difficult in English), and (c) this new knowledge may translate to English language learning (August & Shanahan, 2006). Supporting Spanish-language learning for Spanish-speaking DLLs is not currently an explicit goal of Head Start (US Department of Health and Human Services, 2013a), likely because of resource constraints related to staffing and materials (Halle, Hair, Wandner, McNamara, & Chien, 2008). Therefore, DLLs may have varied access to Spanish-speaking teachers and peers in their classrooms. As a result, some data suggest that, similar to other early education programs (Pacini-Ketchabaw & Armstrong de Almeida, 2006), Head Start may not improve Spanish vocabulary for Spanish-speaking DLLs (Puma et al., 2012).

Toward a comprehensive understanding of DLLs' vocabulary learning in Head Start

Thus, Head Start has at least modest benefits for the English vocabulary learning of Spanish-speaking DLL preschoolers in poverty, but there appears to be room to enhance vocabulary growth for these children in both languages. An essential first step in understanding how best to support Spanish-speaking DLLs' vocabulary learning in Head Start is to conduct observational studies to understand these children's experiences with Spanish and English, both at home and school, and to construct a comprehensive model of the extent to which various factors uniquely and cumulatively contribute to vocabulary development in both languages.

Ecological systems theory (Bronfenbrenner, 2005) suggests that children's learning could be linked to a broad constellation of factors, especially those attendant to the child, family, and classroom, making both independent and cumulative contributions to development. Where vocabulary is concerned, this holistic framework is complemented by empirical evidence pointing to specific variables of import, outlined below. To our knowledge, there are currently no large-scale studies of Spanish-speaking DLLs in Head Start or other programs that, informed by Bronfenbrennarian theory and empirical vocabulary research, simultaneously examine a comprehensive collection of potential vocabulary predictors, including objective observations of classroom instruction (Hammer, Jia, & Uchikoshi, 2011a; Hammer et al., 2014). Below, we explain the particular array of relevant factors through which we operationalize this ecological approach.

Child factors

Spanish-speaking DLLs in US schools are learning two languages. Consequently, it is important to explore how development in these two languages is linked over time (Branum-Martin et al., 2009) and what variables explain change in either or both.

Links across languages. Theory (Cummins, 1979) suggests that children could leverage information learned in one language – either conceptual or phonological – to support understanding in another language (Barac & Bialystok, 2012; Bialystok, Majumder, & Martin, 2003; Kim, Curby, & Winsler, 2014); however, empirical data imply that these links are complex. Some work finds that young children who know and/or learn more Spanish vocabulary also know and/or learn more English vocabulary (Uccelli & Páez, 2007) and develop stronger English decoding and comprehension skills (Dressler & Kamil, 2006; Miller et al., 2006). Along the same lines, English vocabulary knowledge has been linked to Spanish vocabulary