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Professional development in emergent literacy: A design experiment of Teacher Study Groups

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ABSTRACT

This study features a design experiment of a teacher study group model of professional development. Our goal was to support teachers' development of the knowledge and practices that promote children's emergent literacy in the preschool classroom. Three sequential cohorts involving a total of 19 teachers in a district serving a high-need, under-resourced community participated in a year-long intervention; child outcomes were examined for 101 randomly selected preschool children. Consistent with previous research, teachers demonstrated low initial levels of knowledge of phonological awareness, and phonological awareness activities in classrooms were of low quantity and quality. Pre- and post-test analyses revealed significant changes in teachers' phonological awareness ability, content knowledge, and pedagogical knowledge. Increases were also seen in the quantity and quality of phonological awareness activities in the classroom. Finally, the children in our sample demonstrated significant gains on a measure of their phonological awareness skills and made more progress in this area over the course of the study than would be expected based on national norms of same-aged children. This work offers initial support for the use of relationship-based models of professional development as a means to address many of the challenges inherent in the current early childhood education landscape. Teacher study groups offer a promising means of developing a qualified, competent, confident workforce that is well equipped to meet the needs of the children they serve.

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Introduction

The early childhood field continues to advance in its understanding of the development of emergent literacy and language skills (Neuman & Dickinson, 2011). A growing body of research is dedicated to examining how best to support teachers in helping children develop these necessary competencies in the preschool classroom (Diamond, Justice, Siegler, & Snyder, 2013). Fostering emergent literacy and language skills is a complex task requiring strong content knowledge, an understanding of how these skills develop in young children, as well as the use of evidence-based, high-quality instructional practices. With the rapid expansion of pre-k in the United States, there is greater demand for responsive and skilled early childhood teachers, along with scalable, effective models of professional development (Zaslow, Tout, Halle, Vick Whittaker, & Lavelle, 2010).

Just as classroom learning is increasingly seen through the lens of teacher–child interactions (Curby et al., 2009a; Mashburn & Pianta, 2010), teacher knowledge and development may also be successfully constructed through relationship-based learning approaches. Indeed, experts have called for a shift away from isolated, one-day workshops and trainings as the primary mode of delivery (Wayne, Yoon, Zhu, Cronen, & Garet, 2008) with a movement toward *relationship-based professional development* (RBPD) models (Bowman, Donovan, & Burns, 2001; Fukkink & Lont, 2007). These more intensive models aim to foster change and cultivate teacher knowledge and pedagogical skills within the context of a relationship with a highly skilled professional (National Child Care Information and Technical Assistance Center, 2009). Limited yet growing research documents the effectiveness of RBPD approaches, such as mentoring, coaching, consultation, and technical assistance in increasing teacher knowledge and use of effective classroom practices (Neuman & Cunningham, 2009; Powell, Diamond, Burchinal, & Koehler, 2010; Raver et al., 2008).

This study is an examination of a relationship-centered approach, specifically a *teacher study group* (TSG) model. In this

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form of professional development, a small group of teachers meets regularly with a highly trained, knowledgeable facilitator. The goal is to work collaboratively toward deepening content knowledge and integrating research-based practices into teaching. Although TSGs have been shown to be effective for teachers at the early elementary level (Gersten, Dimino, Jayanthi, Kim, & Santoro, 2010), this model has not been comprehensively developed for preschool teachers. The data in this study are from a 3-year design experiment of a TSG model focused on emergent literacy, with an emphasis on phonological awareness.

The need for effective professional development in emergent literacy

During the last two decades, the field of reading and emergent literacy research has devoted increasing attention to the underlying, or foundational, skills that young children need to possess in order to become successful readers (Catts, Fey, Zhang, & Tomblin, 2001; McCardle, Scarborough, & Catts, 2001; National Early Literacy Panel [NELP], 2008). Progress in reading begins with the development of emergent literacy skills, such as alphabet knowledge, phonological awareness (PA), oral language skills including vocabulary, as well as familiarity with the written language system (Hoff, 2006; Lonigan & Shanahan, 2008; Whitehurst & Lonigan, 2001).

Alphabet knowledge, a skill included under the umbrella of print knowledge, is highly predictive of reading achievement (Bowey, 2005; Storch & Whitehurst, 2002). In order to begin reading, a child must be able to identify letters in print, as well as their corresponding sounds, referred to as the alphabetic principle. Indeed, this ability to decode or sound out words accurately and fluently is one of the hallmarks of children's reading acquisition. Development of the alphabetic principle depends upon a rudimentary level of phonological awareness (Adams, 1990; Bowey, 2005; Byrne & Fielding-Barnsley, 1991; Stanovich, Cunningham, & Freeman, 1984; Storch & Whitehurst, 2002; Wagner & Torgesen, 1987). Children who are phonologically aware, that is, those who are adept at noticing and manipulating the sound structure of language, are more able to learn how to read. Specifically, children must first identify the individual sounds that letters represent before blending them together to form words.

Beyond these code-based skills, oral language has been identified as a central component of literacy skill development. Several longitudinal studies demonstrate the causal nature of preschool oral language skills in predicting fourth grade reading comprehension (Dickinson & Tabors, 2001; Hart & Risley, 1995; Storch & Whitehurst, 2002).

Emergent literacy skills tend to be correlated with children's socioeconomic status (Snow, Burns, & Griffin, 1998). Young children from low-income families have fewer opportunities to interact with print (Justice & Ezell, 2001) or engage in cognitively stimulating conversations with adults (Fernald, Marchman, & Weisleder, 2013; Hart & Risley, 1995). Consequently, children reared in poverty often begin kindergarten with less developed levels of alphabetic knowledge, phonological awareness, and oral language skills (Denton, West, & Walston, 2003; Hecht, Burgess, Torgesen, Wagner, & Rashotte, 2000; Lonigan, Burgess, Anthony, & Barker, 1998; National Center for Education Statistics [NCES], 2011). Because competency in these areas predicts reading acquisition and subsequent achievement (Storch & Whitehurst, 2002; Strickland & Shanahan, 2004), children lacking early development of these skills are at risk for reading difficulties and lower academic outcomes (Walker, Greenwood, Hart, & Carta, 1994). Notably, phonological awareness has been shown to be particularly difficult for some children to acquire on their own. Therefore, it is crucial to build children's PA and other emergent literacy skills during the preschool period through the provision of high-quality learning opportunities.

Current classroom practices

There is a striking absence of PA instruction and learning opportunities in preschool classrooms. In an intervention study (Phillips, Menchetti, Lonigan, & Farver, 2007), repeated observations of classrooms in a "business-as-usual" control group revealed very low levels of phonological awareness activities, which occurred in only 12–15% of total observations (as reported in Phillips, Clancy-Menchetti, & Lonigan, 2008). Similarly, a large, multistate study of state-funded prekindergarten programs found that only 3% of total daily time was allocated to letter or sound (i.e., phonological awareness) activities (National Center for Early Development and Learning [NCEDL], 2005). Even when teachers devote time to PA activities, these learning opportunities do not necessarily follow research-based recommendations. For example, preschool teachers predominantly use incidental and implicit methods of developing phonological awareness (e.g., reading rhyming stories, whole-group clapping to syllables, and singing word play songs; Phillips et al., 2008). Although important and enjoyable, these activities do not necessarily draw children's attention to the sound structure of language. A more explicit, systematic type of instruction is indicated for building both conceptual understanding and sequential skills in PA (Phillips et al., 2008). Furthermore, such activities are optimally conducted in small-group or one-on-one settings (Phillips et al., 2008), yet preschool teachers often offer instructional experiences only in large or whole-group settings. For example, the NCEDL (2005) study found that only 6% of daily time was spent in small-group contexts, suggesting that many teachers are missing important opportunities to individualize, differentiate, and scaffold instruction in smaller group settings.

Current levels of teacher knowledge

Teaching PA is a complex task that involves deep knowledge of child development and pedagogical strategies. *Content knowledge* is the most basic form of knowledge teachers are expected to possess in a specific domain, such as emergent literacy (Cunningham, Zibulsky, & Callahan, 2009). Specifically, in the area of PA, teachers need to be aware of different levels of such awareness (e.g., word, syllable, onset-rime, phoneme), the progression of skill development for children, and how these abilities connect to later reading development. Furthermore, effective teachers also possess *pedagogical knowledge*, or an understanding of how to teach and cultivate emergent literacy skills. Such knowledge involves a deep understanding of how children construct knowledge and how teachers can facilitate the learning process through scaffolding, linking formative assessment and differentiated instruction, implementing effective classroom management techniques, and tailoring instruction for dual language learners and children with special needs.

Research shows that educators who have a rich understanding of emergent literacy and language development and who can apply such knowledge in classrooms are able to positively affect student outcomes (Piasta, Connor, Fishman, & Morrison, 2009). However, recent studies suggest that many preschool teachers may have insufficient content and pedagogical knowledge necessary to effectively promote emergent literacy and language skills (Crim et al., 2008; Cunningham et al., 2009; Dickinson & Brady, 2005), perhaps due to the high variability in teachers' pre-service and in-service training (Cunningham et al., 2009; Fuller, Kagan, Loeb, & Chang, 2004). This underscores the need for ongoing professional development experiences that help teachers develop the foundational knowledge of how to support children's emergent literacy and language learning in the classroom.