

Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs[☆]

Carollee Howes^{a,*}, Margaret Burchinal^b, Robert Pianta^c, Donna Bryant^b,
Diane Early^b, Richard Clifford^b, Oscar Barbarin^b

^a Department of Education, University of California at Los Angeles, Box 951521, Los Angeles, CA 90095-1521, USA

^b University of North Carolina at Chapel Hill, USA

^c University of Virginia, USA

Received 13 September 2006; received in revised form 9 May 2007; accepted 10 May 2007

Abstract

We examined children's growth in school-related learning and social skills over the pre-Kindergarten (pre-K) year in state-funded programs designed to prepare children for kindergarten. We expected that children's gains in academic and social skills could be attributed to variations in the structural and classroom process dimensions of program quality. Nearly 3000 ($n = 2800$) children were randomly selected, four per classroom, from approximately 700 randomly selected, state-funded pre-Kindergarten classrooms in eleven states. Enrollment in pre-K appeared related to gains in academic skills. Children showed larger gains in academic outcomes when they experienced higher-quality instruction or closer teacher–child relationships. Gains were not related to characteristics of the child or program (i.e., ratio, teacher qualifications and program location and length). These findings have implications for a range of state and local policy and program development efforts as well as for theories of contextual influences on development. © 2007 Elsevier Inc. All rights reserved.

Keywords: Pre-Kindergarten; School readiness; Classroom quality

1. Introduction

Pre-Kindergarten (pre-K) programs are designed to enhance academic skills and behaviors of preschoolers prior to entry to school. They address increasing concerns about the lack of school readiness in children living in difficult circumstances, particularly poverty. Increasing awareness of the developmental importance of preschool learning (Bowman, Donovan, & Burns, 2000) along with concerns about school readiness provided the impetus for state-funded early education enrichment pre-K programs. Their purpose is to expose 4-year-old children to pre-academic material and school-like activities to enhance school-related achievement skills and social-behavioral competence before children enter kindergarten (Barnett, Hustedt, Robin, & Schulman, 2004; Clifford et al., 2005).

[☆] The NCEDL Multi-State Study of Pre-Kindergarten is being conducted by a team of researchers including Oscar Barbarin, Donna Bryant, Margaret Burchinal, Richard Clifford, and Diane Early at the University of North Carolina at Chapel Hill, Carollee Howes at UCLA, and Robert Pianta at the University of Virginia.

* Corresponding author. Tel.: +1 31 0825 8336; fax: +1 54 1268 6873.

E-mail address: howes@gseis.ucla.edu (C. Howes).

In an era in which state-sponsored preschool programs are required to address academic standards and benchmarks (e.g., [Florida Partnership for School Readiness, 2003](#)), the extent to which variations in components of pre-K programs and aspects of classroom experience contribute to pre-academic skill growth is a critical focus for research. This analysis, which includes nearly 3000 children in eleven states, examines the extent to which children show gains in academic and social skills when they attend pre-K programs, whether such gains vary for children from different types of families, and the degree to which gains can be attributed to variations in the structural and process dimensions of classroom quality. In particular, we were interested in how variations in classroom processes influence children's learning. Given the rapid rate by which pre-K programs are expanding nationally and the increasing pressure on these programs for accountability, results from these analyses have implications for state and national policy as well as for developmental science.

1.1. Do Pre-K programs contribute to gains in children's school readiness?

Recent evidence suggests that children benefit from pre-K programs in terms of academic skills ([Barnett, Lamy, & Jung, 2005](#); [Gormley, Gayler, Phillips, & Dawson, 2005](#); [Magnuson, Ruhm, & Waldfogel, in press](#)). Evaluations of programs in Georgia ([Henry & Rickman, 2005](#)), Oklahoma ([Gormley et al., 2005](#)), and five selected states ([Barnett et al., 2005](#)) indicated that children attending pre-K programs gained academic skills, with effect sizes that ranged from .26 to .79. [Magnuson et al. \(in press\)](#) used propensity scores to estimate the effects of pre-K attendance on school readiness in the ECLS-K data base. Enrollment in pre-K was associated with much higher reading and math scores at kindergarten entry. These evaluations have employed relatively rigorous methodologies to address selection bias problems, but none has identified the classroom processes that account for the apparent gains in academic and social skills.

1.2. What kinds of experiences in Pre-K programs are linked to pre-academic skills and social development?

In some states, pre-K quality is defined and assessed in terms of classroom processes and structural features of the program (e.g., teachers' degree status, length of day, class size), whereas other states only define and assess structural indicators ([Barnett et al., 2004](#)). An earlier analysis of structural features and classroom processes of pre-K programs in the first six of the eleven states in this study reported relatively high levels of structural quality, but moderate to low levels of process quality ([Pianta et al., 2005](#)). In particular, the quality of emotional support and teacher–child interactions was moderately high and of appropriate materials was moderate, but the quality of instructional support for learning in the average classroom was quite low ([Pianta et al., 2005](#)). In this respect children's experiences in pre-K classrooms appear quite similar to recent descriptions of kindergarten and first grade classrooms ([NICHD ECCRN, 2002](#); [Pianta, Hamre, & Stuhlman, 2003](#)).

Low-level support for instruction means that most interactions with teachers occur in whole-group directed activities, with as much time spent in management and routine activities as in academic activities ([Pianta et al., 2005](#)). Instructional interactions tend to be rote and lack conceptual focus, varied vocabulary, and interactive feedback ([Pianta et al., 2005](#)). Interestingly, in this analysis observed classroom processes were nearly unrelated to structural features of program quality (e.g., teaching certification) that are used in most state legislation to ensure that these programs support children's learning ([Early et al., 2006](#); [Pianta et al., 2005](#)). In the present study we increased the number of pre-K programs included in our analysis and focused on the extent to which aspects of structural and processes quality of pre-K programs are related to gains in children's academic and social performance.

1.3. Structural quality

Structural quality consists of regulatable aspects of the program that are assumed to promote the likelihood that classrooms will be of high quality, e.g. teacher qualifications ([Lamb, 1998](#); [Phillips & Howes, 1987](#); [Vandell & Wolfe, 2000](#)). Within community-based child care programs these features often are linked to classroom experiences and to children's pre-academic skills ([Bowman et al., 2000](#)). Despite the relatively small effect sizes associated with these linkages ([Duncan & Gibson-Davis, 2006](#)), these program features are routinely included in program quality metrics advanced by professional organizations ([National Association for the Education of Young Children, 2005](#)) and policy institutes ([Espinosa, 2002](#)). We examined four structural features that are often manipulated by states when creating

Download English Version:

<https://daneshyari.com/en/article/353983>

Download Persian Version:

<https://daneshyari.com/article/353983>

[Daneshyari.com](https://daneshyari.com)