

# Full-day kindergarteners' reading, math gains fade by 3rd grade

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Children in full-day kindergarten have slightly better reading and math skills than children in part-day kindergarten, but these initial academic benefits diminish soon after the children leave kindergarten. This loss is due, in part, to issues related to poverty and the quality of children's home environments.

Those are the findings from a new study by researchers at the University of Pittsburgh and Loyola University Chicago. Published in the July/August 2008 issue of the journal *Child Development*, the study sheds light on policy discussions as full-day kindergarten programs become increasingly common in the United States.

Using data on 13,776 children from the Early Childhood Longitudinal Study—Kindergarten Class of 1998-1999, a study of a nationally representative group of kindergartners, the researchers measured children's academic achievement in math and reading in the fall and spring of their kindergarten and first-grade years, and in the spring of their third- and fifth-grade years. The researchers also looked at the type and extent of child care the children received outside of kindergarten, the quality of cognitive stimulation the children received at home, and the poverty level of the children's families.

Overall, the study found that the reading and math skills of children in full-day kindergarten grew faster from the fall to the spring of their kindergarten year, compared to the academic skills of children in part-day kindergarten.

However, the study also found that the full-day kindergarteners' gains in reading and math did not last far beyond the kindergarten year. In fact, from the spring of their kindergarten year through fifth grade, the academic skills of children in part-day kindergarten grew faster than those of children in full-day kindergarten, with the advantage of full-day versus part-day programs fading by the spring of third grade. The fade-out can be explained, in part, by the fact that the children in part-day kindergarten were less poor and had more stimulating home environments than those in full-day programs, according to the study.

"The results of this study suggest that the shift from part-day to full-day kindergarten programs occurring across the U.S. may have positive implications for students' learning trajectories in the short run," notes Elizabeth Votruba-Drzal, assistant professor of psychology at the University of Pittsburgh and the study's lead author. "They also highlight that characteristics of children and their families play noteworthy roles in why the full-day advantages fade relatively quickly."

Source: Society for Research in Child Development

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