Does early childhood education make a difference?

High-quality pre–K programs for three- and four-year-olds can have a significant impact on all children, but especially those from low-income families (4). One aspect of high-quality that has been identified by the National Institute on Early Education Research (NIEER) is the use of specific curriculum and evidence-based teaching approaches (5). For a list of early childhood curricula/teaching approaches and their evidence-base, visit the US Dept. Ed's Institute for Educational Science at http://ies.ed.gov/ncee/wwc/reports/Topicarea.aspx?tid=13.

Research demonstrates that high-quality preschool education can substantially increase children's chances of succeeding in school and in life. Children who attend high quality pre-kindergarten programs are less likely to be held back a grade, less likely to need special education and more likely to graduate high school (2). They are less involved in crime and delinquency (5,6). They also earn more as adults and are less likely to become dependent on welfare. Several studies (including those of the Perry Pre-School in Michigan, the Abecedarian Project in Chapel Hill, N.C., and the Chicago Child-Parent Centers) have documented the value of high-quality programs for disadvantaged children (5, 6). While the strongest results have been shown for atrisk and low-income children, at least some positive effects extend to middle- and higher-income children (8).

Research shows that quality early education programs have positive impacts on all children's cognitive and language development, regardless of income level or program setting. For example, a study of the current pre–K program in Tulsa, Oklahoma found that children from families earning more than 185% of the federal poverty level made significant gains in early literacy skills. This finding is important because middle-income children also experience educational challenges—during the 2005–2006 school year, more than half of all dropouts were from middle income families, and 10% of all middle-income children age 16 to 19 have been retained in grade at least once (8).

Questions have arisen, however regarding the "fade-out" effect by third grade of early childhood programs on children's math and literacy skills. Several studies have indicated that children who have been in Head Start and show higher levels of achievement in early math and literacy than similar children who have not been in Head Start. By third grade however, all of the children who live in poverty have similar skills in these areas. The methodology of these comparative studies has been called into question (1). A recent study of the North Carolina state-funded pre-K program, More at Four, suggests that the children who had participated in that program had greater math and literacy scores on end-of-grade tests in third grade than those of similar children who had not participated in the More at Four program (7).

In summary, while pre–K for all children may have the greatest total impact, the largest per-child impact is clearly on disadvantaged children (9). Longitudinal research on low-income children in high-quality pre–K programs indicates that these children, compared with their peers who did not participate, exhibit stronger early reading and math skills (3) and show significant gains in social and emotional skills, reduced grade retention, reduced placement in special education, increased

likelihood of being in school at age 21, and increased likelihood of attending a four-year university.

References

- 1. Barnette, S, (2002). *The Battle Over Head Start: What the Research Shows*. Paper presented during the Congressional Science and Public Policy briefing on the impact of Head Start.
- 2. Greene, J.P, & Winters, M. (2005). *Public High School Graduation and College-Readiness Rates:* 1991–2002. NY: The Manhattan Institute.

John Locke Foundation (2008). Child care and early childhood education. http://www.johnlocke.org/site-docs/agenda2008/childcare.html

- 3. Melhuish, E.C. (2008). Preschool Influences on Mathematics Achievement, Science, 321.
- 4. National Assessment of Educational Progress (NAEP) (2007). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, and NAEP Data Explorer.
- 5. National Institute for Early Education Research (2007). Facts and Figures: The Promise of Preschool Available at http://nieer.org/docs/?DocID=42.
- 6. National Scientific Council on the Developing Child, "The Science of Early Childhood Development, Closing the Gap Between What We Know and What We Do," Center on the Developing Child, Harvard University, January 2007. Available at http://www.developingchild.net/pubs/persp/pdf/Science_Early_Childhood_Development.pdf.

Palasek, K. (2003). NC preschool programs grow but children at risk is loosely defined. Carolina Journal Online.

- 7. Peisner-Feinberg, E. (2010). *Evaluation of the More at Four State Pre-Kindergarten: The First Ten Years*. UNC-Chapel Hill: Frank Porter Graham Child Development Institute.
- 8. Schulman, K. & Barnett, S. (2005). *The Benefits of Prekindergarten for Middle-Income Children*. National Institute for Early Education Research. Available at http://nieer.org/resources/policyreports/report3.pdf.

Stoops, T. (2010). New More at Four study: Poor kids benefit. John Locke Foundation. http://www.johnlocke.org/lockerroom/index.html?day=4&month=11&year=2010

9. Summary of Essential Findings: A Science-Based Framework for Early Childhood Policy. (2007), Harvard University Center on the Developing Child.

10. U.S. Chamber of Commerce. Institute for a Competitive Workforce (2010). *Why Business Should Support Early Childhood Education*.

http://icw.uschamber.com/sites/default/files/ICW_EarlyChildhoodReport_2010.pdf

Websites with additional information

http://www.centerforpubliceducation.org/Main-Menu/Pre-kindergarten/Pre-Kindergarten

http://www.sciencedaily.com/releases/2011/10/111026091225.htm (positive impact of inclusion on language development for peers and for students with disabilities)

http://www.preknow.org/

http://nieer.org/

http://ecs.org/ecsmain.asp?page=html/newsMedia/PK-3.asp

http://www.ncsl.org/Default.aspx?TabID=756&tabs=951,64,217#217