

Study explores link between curiosity and school achievement

April 30 2018



Larkmead School. Credit: CC-BY-SA-2.5,2.0,1.0

Researchers know that certain factors give children a leg up when it comes to school performance. Family income, access to early childhood programs and home environment rank high on the list.

Now, researchers are looking at another potentially advantageous element: [curiosity](#).

The more curious the child, the more likely he or she may be to perform better in school—regardless of economic background—suggests a new study published in *Pediatric Research*.

Researchers at University of Michigan C.S. Mott Children's Hospital and the Center for Human Growth and Development analyzed data from 6,200 kindergartners from the Early Childhood Longitudinal Study, Birth Cohort. The cohort is a nationally representative, population-based study sponsored by the U.S. Department of Education that has followed thousands of children since birth in 2001.

The U-M team measured curiosity based on a behavioral questionnaire from parents and assessed reading and [math achievement](#) among kindergartners.

The most surprising association offered new insight: Children with lower [socioeconomic status](#) generally have lower achievement than peers, but those who were characterized as curious performed similarly on math and reading assessments as children from higher income families.

"Our results suggest that while higher curiosity is associated with higher academic achievement in all children, the association of curiosity with academic achievement is greater in children with low socioeconomic status," says lead researcher Prachi Shah, M.D., a developmental and behavioral pediatrician at Mott and an assistant research scientist at U-M's Center for Human Growth and Development.

The findings present an opportunity for families, educators and policymakers.

"Curiosity is characterized by the joy of discovery and the desire for exploration and is characterized by the motivation to seek answers to the unknown," Shah says. "Promoting curiosity in children, especially those from environments of economic disadvantage may be an important, underrecognized way to address the achievement gap."

Cultivating curious kids

When it comes to nurturing curiosity, the quality of the early environment matters.

Children who grow up in financially secure conditions tend to have greater access to resources to encourage reading and math academic achievement, whereas those from poorer communities are more likely to be raised in less stimulating environments, Shah notes. In less-stimulating situations, the drive for academic achievement is related to a child's motivation to learn, or curiosity, she explains.

Parents of children enrolled in the longitudinal study were interviewed during home visits; the children were assessed when they were nine months and two years old, and again when they entered preschool and kindergarten. Reading levels, math skills and behavior were measured in these children when they reached kindergarten in 2006 and 2007.

U-M researchers factored in another important known contributor to academic achievement known as "effortful control," or the ability to stay focused in class. They found that even independent of those skills, children who were identified as curious fared well in math and reading.

"These findings suggest that even if a child manifests low effortful control, they can still have more optimal academic achievement, if they have high curiosity" Shah says. "Currently, most classroom interventions have focused on the cultivation of early effortful control and a child's self-regulatory capacities, but our results suggest that an alternate message, focused on the importance of curiosity, should also be considered."

Shah notes that fostering early academic achievement in young children has been a longstanding goal for pediatricians and policymakers, with a growing awareness of the role social-emotional skills in school readiness.

And while more study is needed, similar efforts to boost curiosity could one day follow.

"While our results suggest that the promotion of curiosity may be a valuable intervention target to foster early academic [achievement](#), with particular advantage for children in poverty, further research is needed to help us better understand how to develop interventions to cultivate curiosity in young [children](#).

"Promoting curiosity is a foundation for early learning that we should be emphasizing more when we look at [academic achievement](#)."

More information: Prachi E. Shah et al. Early childhood curiosity and kindergarten reading and math academic achievement, *Pediatric Research* (2018). [DOI: 10.1038/s41390-018-0039-3](https://doi.org/10.1038/s41390-018-0039-3)

Provided by University of Michigan

Citation: Study explores link between curiosity and school achievement (2018, April 30)
retrieved 9 April 2024 from <https://phys.org/news/2018-04-explores-link-curiosity-school.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--