

Achievement gaps within racial groups identified for first time

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A University of Michigan study finds that when it comes to achievement gaps within racial groups, catching up over time is common.

In the first known study to analyze reading and math achievement within racial groups during elementary school, researchers found high achievers within all groups and that a substantial proportion of children catch up to the high achievers in their groups over time.

The study, presented today in Washington, D.C. at the annual meeting of the Society for Research on Educational Effectiveness, analyzes data on a national sample of 8,060 students, collected at four points in time, starting in kindergarten and ending in the spring of fifth grade.

"We found significant achievement gaps within racial and ethnic groups," said Pamela Davis-Kean, a developmental psychologist at the U-M Institute for Social Research (ISR) who conducted the study with U-M post-doctoral fellow Justin Jager.

"We also found a significant proportion of students who caught up to the high achievers in their groups by the end of fifth grade, especially in reading. This shows that schooling does have an impact in closing the achievement gap for substantial numbers of children."

In reading, the researchers found that there were high-performing groups in all races. "This is a fact that sometimes gets lost in discussions of the achievement gap between white students and students of other races,"

Davis-Kean said.

In every group except Hispanics, the researchers also found that there were significant numbers who started kindergarten lower in reading achievement but moved into the high-achieving group by the end of fifth grade.

About 30 percent of European Americans, 26 percent of African Americans and 45 percent of Asian Americans were in high-achieving groups by the spring of fifth grade.

These high-achieving groups included approximately 23 percent of African American children and 36 percent of Asian children who caught up with the initial group of high achievers over time, Davis-Kean and Jager found. A much smaller percentage of European American students were in catch-up groups---more than four percent. "This is because a higher percentage of European Americans started kindergarten as high achievers in reading," Davis-Kean said.

Among Hispanic students, the researchers found a different pattern. By the end of fifth grade, just over five percent of Hispanic children were high achievers in reading, while about the remainder---95 percent---tested in the middle range. There were no low achievers and no catch-up groups among Hispanic students.

"We don't know why the achievement trajectory of Hispanic students is different from that of the other groups," Davis-Kean said. "It may be that some aspect of administering achievement tests in Spanish- and English-language versions has the effect of reducing the heterogeneity of Hispanic students' achievement."

In math, the researchers found a different pattern from reading. Far fewer students from all groups were high-achievers, and fewer also

caught up. Only 17 percent of European American students were high-achievers in math by the end of fifth grade, including 13 percent who started kindergarten at a lower achievement level and caught up over time.

About 18 percent of Asian Americans were high-achievers at the end of fifth grade, including about 11 percent who caught up over time. For African Americans, just 0.3 percent were high achievers at the end of fifth grade, while about 26 percent were medium-high achievers; no catch-up group emerged. About 16 percent of Hispanics were high achievers in math, and again, no catch-up group emerged

The differences between patterns in reading and math achievement are noteworthy, according to Davis-Kean.

"In general, our nation is not looking too bad in terms of reading achievement," she said. "That makes sense because in the first years of school, reading gets the bulk of time and attention. But in math, the situation is very different. There are fewer high achievers in all the groups than there are in reading, and there are many more students who seem stuck in lower achievement trajectories. This suggests that schooling doesn't have as strong an impact on math achievement as it does in reading."

Overall, Davis-Kean notes, the findings of the study have some important implications for improving the nation's effectiveness in reducing the stubborn achievement gap between racial and ethnic groups.

"By identifying what the characteristics are of students who can catch up on their own, and what the characteristics are of children who are persistent low-achievers, hopefully we can focus our time and money on the children who really need extra help in order to catch up," she said.

Source: University of Michigan

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