

60 years later, high school quality may have a long-term impact on cognition

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A study of more than 2,200 adults who attended U.S. high schools in the early 1960s found that those who attended higher quality schools had better cognitive function 60 years later.

Previous studies have found that the number of years spent in [school](#) correlates with cognition later in life, but few studies have examined the impact of educational quality.

"Our study establishes a link between high-quality education and better late-life cognition and suggests that increased investment in schools, especially those that serve Black children, could be a powerful strategy to improve cognitive health among [older adults](#) in the United States," says Jennifer Manly, Ph.D., professor of neuropsychology at Columbia University Vagelos College of Physicians and Surgeons and senior author of the study.

Study details

The study, led by Manly and Dominika Šeblová, Ph.D., a postdoctoral research scientist at Columbia, used data from Project Talent, a 1960 survey of high school students across the United States, and follow-up data collected in the Project Talent Aging Study.

The researchers examined relationships between six indicators of school quality and several measures of cognitive performance in participants nearly 60 years after they left [high school](#).

Since high-quality schools may be especially beneficial for people from disadvantaged backgrounds, the researchers also examined whether associations differed by geography, sex/gender, and race and ethnicity (the survey only included sufficient data from Black and white respondents).

Teacher training linked to late-life cognition in students

The researchers found that attending a school with a higher number of

teachers with graduate training was the most consistent predictor of better later-life cognition, especially language fluency (for example, coming up with words within a category). Attending a school with a high number of graduate-level teachers was approximately equivalent to the difference in cognition between a 70-year-old and someone who is one to three years older. Other indicators of school quality were associated with some, but not all, measures of cognitive performance.

Manly and Šeblová say many reasons may explain why attending schools with well-trained teachers may affect later-life cognition. "Instruction provided by more experienced and knowledgeable teachers might be more intellectually stimulating and provide additional neural or cognitive benefits," Šeblová says, "and attending higher-quality schools may also influence life trajectory, leading to university education and greater earnings, which are in turn linked to better cognition in later life."

Greater impact on Black students

Though the associations between school quality and late-life cognition were similar between white and Black students, Black participants were more likely to have attended schools of lower quality.

"Racial equity in school quality has never been achieved in the United States and school [racial segregation](#) has grown more extreme in recent decades, so this issue is still a substantial problem," says Manly.

For example, a 2016 survey found that U.S schools attended by non-white students had twice as many inexperienced teachers as schools attended by predominantly white students.

"Racial inequalities in school quality may contribute to persistent disparities in late-life cognitive outcomes for decades to come," Manly adds.

Jennifer Manly, Ph.D., is a professor in the Department of Neurology, the Gertrude H. Sergievsky Center, and the Taub Institute for Research on Alzheimer's Disease and the Aging Brain at Columbia University.

The findings were published May 2 in the journal *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring* in a paper titled "High school quality is associated with cognition 58 years later."

More information: Dominika Seblova et al, High school quality is associated with cognition 58 years later, *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring* (2023). DOI: 10.1002/dad2.12424

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