

Young children develop better learning skills when taught by teachers of the same ethnicity, US study suggests

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Young children who are taught by a teacher of the same ethnicity as themselves develop better learning and problem-solving skills by the age

of seven, new research suggests.

The effect was most pronounced in Black and Latinx children, the findings—looking at more than 18,000 pupils across the US—showed.

Published in *Early Education and Development*, the study revealed that if the ethnicity of children is shared with that of their teachers, the children are more likely to go on to develop better working memory. This is the ability to hold and process information in your mind—a skill that is essential for learning and problem solving.

"Diversifying the educator workforce represents a key step toward promoting greater equity in schools across the United States," says lead author Professor Michael Gottfried from the University of Pennsylvania's Graduate School of Education.

"Our results add to the substantive evidence that ethno-racial representation among American educators matters by underscoring a key way in which students' developmental skills are developed in schools. This is a critical step forward as students' working memory, a core component of executive function, has been consistently linked to improvements in [student achievement](#) and is most malleable in early childhood."

It's been known for some time that being taught by a [teacher](#) from the same ethno-racial background can improve a [student's](#) academic attainment, such as math and reading test scores. However, this study is one of the first to explore the effect of teacher/student ethno-racial matching in children younger than age nine, and to look at how it affects not only academic attainment, but also development.

The research analyzed data from 18,170 children who were part of the US Department of Education-led Early Childhood Longitudinal

Study—Kindergarten class of 2011. This study follows a representative sample of children from the US population who were in kindergarten (pre-school children aged 3 to 6) in 2011. The study analyzed information on these children when they were in kindergarten through to the end of first grade (age 6 to 7).

Specifically, the research looked at the effect of matching the race/ethnicity of Asian, Black, Latinx and white teachers and students on two measures of brain power known as "executive function" that help children to engage in behavior working towards a goal. One measure was working memory, the ability to hold and process information in our minds. The other was so-called cognitive flexibility, the ability to change our attention and perspectives.

To measure cognitive flexibility, the researchers tested children's ability to switch between thinking about different concepts. This was done through a task in which they had to sort cards by shape, color and border. Working memory was assessed by the researchers asking children to repeat a dictated series of numbers, with one extra digit added to the series every time the child remembered the previous series correctly. The study also looked at the effect of matched student-teacher race/ethnicity on children's reading and math achievement scores. All groups were compared with a [control group](#) taught by a teacher from a different ethno-racial background.

Findings suggested that when students have an ethno-racial match with their teacher, their reading and math achievement scores were higher. The size of the effect was greatest in Black students and Latinx students. Hand in hand with this, working memory also improved in Black and Latinx children matched with a teacher of the same race/ethnicity. However ethno-racial matching appeared to have no effect on cognitive flexibility.

These findings held true regardless of differences in standards of teaching, whether children were taught for one year or two by a matched ethnicity teacher and whether or not the child attended a public or private school.

The authors say that while the effect size is relatively small, when scaled up to [population level](#) and across multiple years of schooling, the effects could make a big difference.

There is growing interest in executive function skills because they can predict both strong human development and academic success. Previous research has also shown that there are stark differences in executive function based on race/ethnicity and levels of wealth. One study has shown that on average, Black and Latinx children start kindergarten significantly behind their white peers in terms of working memory and cognitive flexibility.

It may be that Latinx and Black teachers are better able to support their students' development, the study authors suggest. If that is the case, then promoting ethno-racial teacher/student matches could help to reverse the inequalities seen in executive function in younger children.

"Researchers have found that teachers of color are more likely to provide culturally relevant pedagogy, and when they do, they are able to better connect with students whose culture and experiences are often not reflected in standard school curricula and approaches," adds Dr. Gottfried.

Other factors at play could be students responding to having a role model at the front of the class of their own race/ethnicity or even unconscious bias of teachers.

"What a teacher believes about certain groups of students can alter how

they deliver instruction, interact with parents, and grade papers, for example. This perspective could play out with a non-matched teacher not accurately recognizing the skill or developmental level of a student of color and thus not providing appropriate levels of scaffolded instruction, which has been linked to improvements in executive functions in addition to academic achievement," says Dr. Gottfried.

Future research should try to pinpoint the reasons that ethno-racial matching of students and teachers has this positive effect on attainment and development, the authors say.

More information: Student-Teacher Ethnoracial Matching in the Earliest Grades: Benefits for Executive Function Skills?, *Early Education and Development* (2023). [DOI: 10.1080/10409289.2023.2172674](https://doi.org/10.1080/10409289.2023.2172674)

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