# Creating Birds of a Feather: The Potential of Similarity to Connect Teachers and Students

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## Key Points

- Race- and income-based achievement gaps affect many schools, and racial mismatches between teachers and students can trigger problems of cross-cultural misunderstanding.
- Developing a diverse cohort of teachers will take time and extensive resources. Meanwhile, strengthening teacher-student relationships offers a promising solution to improve student outcomes in education now.
- We developed an intervention to improve teacher-student relationships by showing teachers and students what they have in common, and we found that when teachers saw similarities between themselves and their students, the achievement gap was reduced by more than 60 percent.

Many schools struggle with race- and income-based achievement gaps. While gaps in test scores and grades garner most of the attention, other inequities compound these problems. Nominations for gifted programs vary by the student's race. Discipline is meted out unequally. As a result, the road to academic success has many more potholes for poor, black, and Latino children than for their more affluent, white, and Asian peers.

Many circumstances conspire to produce these inequitable student outcomes. Recently, the demographic differences between teachers and students in US public schools have received increased attention as a potential contributing factor. According to the National Center of Educational Statistics, in 2012 the proportion of white teachers hovered just above 80 percent in US schools, while the percentage of white students stood at 51 percent.[1] These racial mismatches between teachers and students can trigger problems of cross-cultural misunderstanding. However, strengthening teacher-student relationships offers a promising solution.

Cultivating a teaching force that more closely matches the student population is one obvious solution. Unfortunately, developing a diverse cohort of teachers will take time and extensive resources. What to do in the meantime looms as a giant challenge. Changing attitudes and behaviors through diversity training is unlikely to help; these programs have typically shown lackluster results.[2] As society strives to diversify the teaching population, we advocate for greater focus on individual relationships between teachers and students.

In a recent study, we developed an intervention to improve teacher-student relationships by showing teachers and students what they have in common with one another.[3] When teachers saw similarities between themselves and those they taught, relationships improved and students' grades increased, reducing the achievement gap

by over 60 percent. Thus, strengthening teacher-student relationships offers a promising approach to diminishing inequities in America's schools.

## The Power of Similarity

Social psychologists consistently find that when individuals perceive common ground with others, social bonds are strengthened. For example, if you share a birthday with someone, you will be more likely to do that person favors.[4] Small groups that contain members who share the same initials work more effectively together.[5] Speaking similarly bolsters attraction. In a speed-dating study, participants whose word choices matched more often were more likely to end up on second dates and still be dating months later.[6]

In sum, we like those who are like us. Even when the similarities are trivial, we form better relationships with these similar others. Furthermore, because social relationships matter so much in our daily lives, they spawn a multitude of downstream benefits such as improved mental health, happiness, and even life span.[7]

But how can similarity be leveraged between teachers and students? No magic potion can make students interested in teachers' favorite topics. We cannot force teachers to change their musical preferences, clothes, or hobbies to match those of their students.

Our recent study leverages the power of similarity to improve teacher-student relationships and other student outcomes. We show how the benefits of establishing similarities between teachers and students might be harnessed in a way that is efficient, powerful, and scalable.

## Study Summary

As researchers, we could not change the reality of what students and teachers had in common. Instead, we focused on influencing teachers' and students' *perceptions* of what they had in common.

In the study, we guided 25 teachers' and their 315 students' perceptions through a "get-to-know-you" survey delivered early in the school year. Each party responded to about 30 survey questions asking about personal characteristics, learning preferences, and values. By asking a large number of questions, we were able to find at least five things in common for each teacher-student pair, and we then directed the attention of the students and teachers toward only those shared beliefs or values. To test whether learning about commonalities mattered, we varied the feedback we presented to four different groups:

- In the first group, our "control group," *neither students nor teachers* received feedback.
- In the second group, *only students* were told about five commonalities they shared with their teacher.
- In the third group, *only teachers* were told about five commonalities they shared with their students.
- In the fourth group, *both students and teachers* learned about the five things they had in common.

Through a follow-up survey administered almost six weeks later, we measured perceptions of similarity and relationships from both teachers' and students' perspectives. We also had access to the grades students earned in the relevant class. Many worry that grades are a problematic measure. (For example, they might be influenced by teacher biases.) However, they wield a substantial effect on students' academic trajectories, such as future course taking and college enrollment, and thus remain an important outcome.

## Key Findings

By the end of the grading period, we recorded a number of encouraging findings. Teachers and students who had been told that they shared five commonalities perceived themselves as being more similar. Teachers who learned that they shared commonalities with their students (groups two and four) rated their relationships with those students more positively. In contrast, students who learned they shared commonalities with their teacher did not significantly alter their perceptions of their relationships with the teacher. When teachers learned about commonalities, students garnered higher grades in that teacher's class.

Additional analyses indicated that the intervention did not affect all students equally.

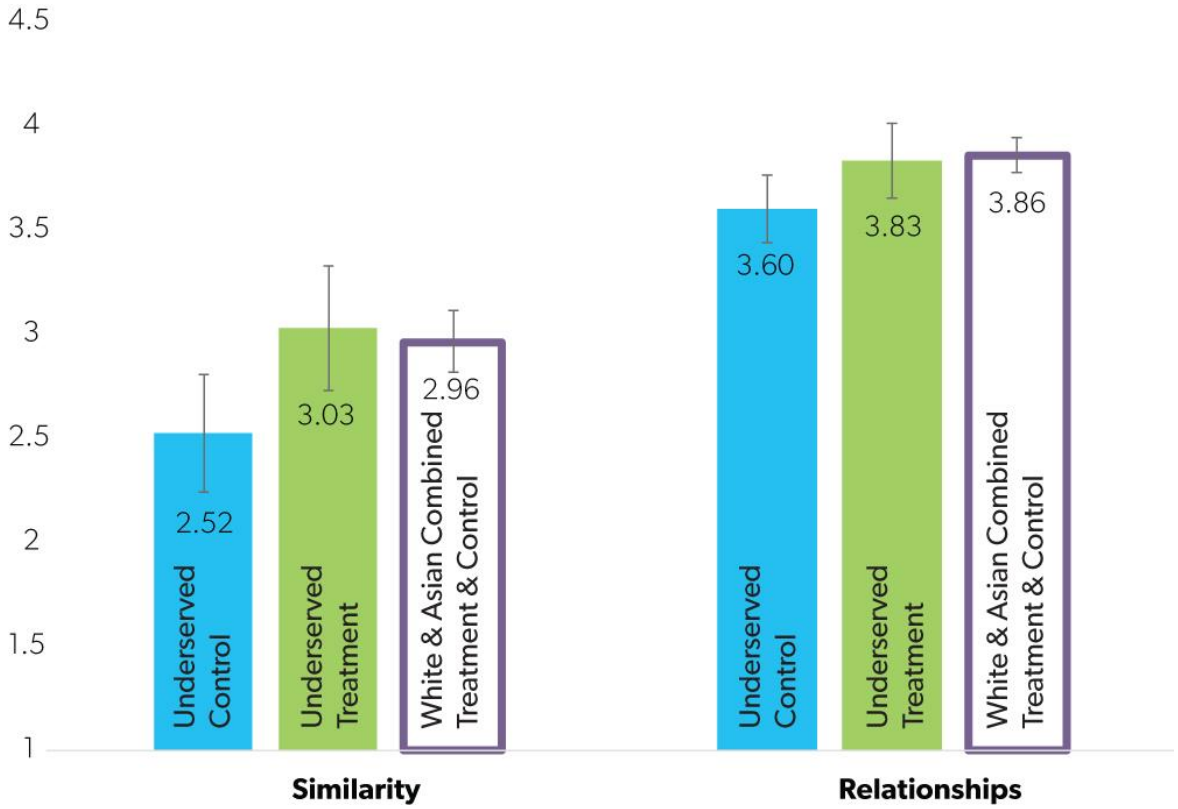
We examined results for white and Asian students, who are often well served in schools, separately from the other students at the school (predominantly black and Latino students), who have been historically underserved. In doing so, we discovered that the intervention's main effects were localized to teachers' perceptions of their underserved students. When teachers received feedback on their underserved students, they felt much more similar to these students and much more positive about their relationships with them, as shown in Figure 1.

Figure 1 presents mean differences and 95 percent confidence intervals on teachers' perceptions of their similarities to and relationships with their students (on a 1–5 scale, where 5 signals greater perceived similarity or positivity in the relationship). The blue teacher control group combines groups 1 and 2 (in which teachers did not learn what they had in common with their students); the green teacher treatment is represented by groups 3 and 4 (in which teachers did learn what they had in common with their students). The white and Asian students in the treatment and control groups are combined (because there were no meaningful differences) and presented for comparison. For each variable, the difference between the blue and white bars represents the typical race gap at the school; the green bars show how much the intervention closes that gap.

Furthermore, the underserved students' grades improved substantially, ultimately reducing the usual gap in grades between well-served and underserved students at this school by about 65 percent (from less than a B– to a solid B), as shown in Figure 2.

Figure 2 also presents the mean difference and 95 percent confidence intervals for underserved students, broken out by whether their teacher received similarity feedback about them. The white and Asian students in the treatment and

**Figure 1. Differences in Perceived Similarity and Teacher-Student Relationships Between White and Asian Students as Compared to Historically Underserved Students**




Source: Authors' calculations.

control groups are again combined (because there were no meaningful differences) and presented for comparison. In this figure the outcome represents students' end-of-quarter grades in their focal class on a 4.0 grade-point-average scale. The difference between the blue and white bars represents the typical achievement gap at the school; the green bar shows how much the intervention closes the achievement gap.

We interpret these findings with cautious enthusiasm. The intervention (the initial "get-to-know-you" survey and the completion of the feedback forms) took less than 40 minutes for most participants and required little more than brief access to computers. Thus, we are optimistic that this type of intervention could be scaled relatively easily, cheaply, and quickly. In fact, Panorama Education, a data analytics company for K–12 schools, has developed a free version of the get-to-know-you survey for teachers and students.[8]

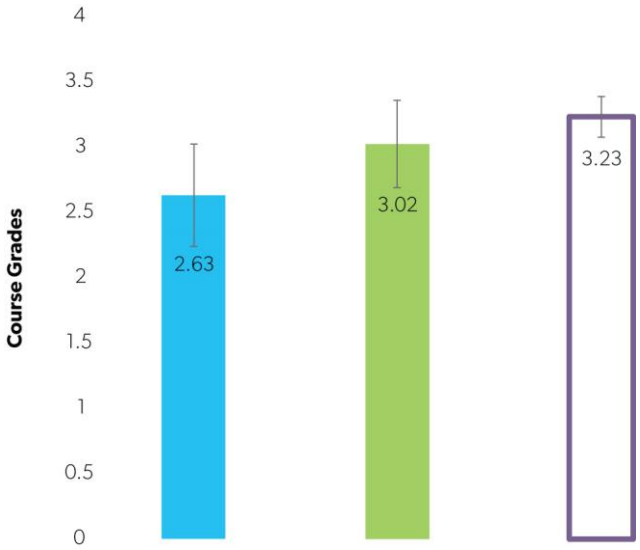
At the same time, much remains to be learned about the power of similarity and how it can be used in the classroom. Researchers and practitioners should be able to make substantial contributions by addressing the following.

**Replication.** First and foremost, the intervention needs to be repeated in more schools and grade levels to gain clarity on how these results might generalize to other settings and populations of students.

**Scaling for Individual Teachers.** Second, the study tracked results for only a single class period. Middle and high school teachers often teach more than 100 students. Thus, it will be a formidable challenge to deliver the similarity information for so many students in a way that teachers can remember.

**Underlying Mechanisms and Additional Outcomes.** Third, we can learn a lot more about the causes and effects of the intervention. We know that students' grades improved, but was the cause an increase in student learning, a reduction of teacher bias, or both? Furthermore, it seems likely that the intervention may have affected other important outcomes that we did not measure (for example, changing teachers' expectations for students).

**Figure 2. Closing of the Achievement Gap Between White and Asian Students as Compared to Historically Underserved Students**




Source: Authors' calculations.

**Strengthening the Intervention.** Finally, we are also confident that as we learn more about the intervention, we can find ways to improve it. Choosing better similarities, helping participants process the feedback forms more deeply, and delivering reminders (akin to "booster shots") might all enhance the potency of the intervention. We are currently attempting two replications and seeking funding to pursue additional work.

## Implications

Though preliminary, our findings underscore how important perceptions of teacher-student similarity can be for relationships and achievement. These results also illustrate how educational institutions can progress on some of the challenging problems of race facing our society. Our findings also raise a host of additional possibilities.

- Can improved teacher-student relationships help ameliorate test-score gaps, disproportionate disciplinary consequences, or gifted identification?

- Can improved interpersonal bonds and social motivations be used to reduce persistent racial and class gaps in other ways?
- Should charter school and district leaders experiment with more ways to strengthen teacher-student social connections?
- Can similarity be used to improve peer relationships between students or between teachers? What about between teachers and school leaders?

Given how little this intervention costs, how little time it takes, how large the initial effects were, and how easily it might be scaled with a web application, we are optimistic that it offers a promising practice for teachers and their students. Although a more diverse teaching force seems years away, similarity between teachers and students might be leveraged to improve student outcomes in education now.

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## Notes

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