Revealing Stereotypes about Immigrant Students to Middle School Teachers in Italy

Researchers:

Alberto Alesina

Michela Carlana

Eliana La Ferrara

Paolo Pinotti

Sector(s): Education

J-PAL office: J-PAL Europe

Location: Italy

Sample: 65 schools, 533 teachers, 6,031 students

Target group: Teachers

Outcome of interest: Discrimination

Intervention type: Information

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Teachers may have negative stereotypes against immigrants, which may bias their assessment of immigrant students' academic performance. In in-school and online settings, researchers evaluated the impact of informing middle school teachers in Italy about their implicit stereotypes towards immigrant students on end-of-term grading. Both math and literature teachers eligible to receive feedback before the end-of-the-term grading reduces the native-immigrant grade gap. Results were driven by teachers without explicit negative views towards immigrants, suggesting that they may not have been aware of their own stereotypes but updated their grading once they became aware.

Policy issue

Stereotypes are over-generalized representations of characteristics of a certain group that may cause biased judgment or discrimination. Discrimination, in turn, may influence the behavior of discriminated groups to fit that stereotype, potentially reducing effort, self-confidence, and/or productivity. One particular problem is the potential discrimination that young students may face from their teachers. If students feel discriminated against, they may be discouraged, work less, and attain less or lower quality education, which may have long-term impacts on their future careers and well-being. Do teachers in Italy grade native students and immigrants of the same ability differently? Can informing teachers of their stereotypes against immigrants impact how they grade immigrants and native students? Finally, is there a difference between receiving information on general biases versus learning of one's own biases?

Context of the evaluation

In the Italian schooling system, the share of immigrant children—defined as children without Italian citizenship—has increased substantially in the last two decades, increasing from less than 1 percent in 1998 to 10 percent in 2018. Immigrant students come from diverse backgrounds; about 65 percent of children from immigrant families are born in Italy and the most represented nationalities are: Albanian, Chinese, Indian, Filipino, Moroccan, and Romanian.

Education in Italy is free and compulsory for all children ages 6 to 16, with five years of primary school, three years of middle school, and five years of high school. During middle school, students remain in the same class for all subjects and the same teachers typically instruct students all three years. Each week students spend at least six hours with their math teacher and five hours with their literature teacher. Generally, the scoring of students is between 3 and 10 with 6 being a passing grade, typically these grades are the average of test scores rounded up or down to the nearest whole number by subjective measures at teachers' discretion. At the end of grade 8, students choose whether to go to academic, technical, or vocational high school, where academic and technical schools offer better educational and employment prospects. In addition to teachers assigning grades, the National Institute for the Evaluation of the Italian Education System (INVALSI) assesses students' academic performance through blindly-graded, standardized tests.

The Implicit Association Test (IAT), widely used in social psychology, exposes participants to two concepts and detects how strongly individuals connect these concepts. One application of this test is to understand how strongly people associate certain groups with certain stereotypes. According to the IAT, 67 to 80 percent of teachers who participated in this study exhibited moderate to severe bias, and most underestimated their biases. Furthermore, when comparing the grades of native and immigrant students who received the same scores on the INVALSI, teacher-assigned grades were systematically higher for native students than immigrant students. In particular, teachers with stronger stereotypes gave lower grades to high-performing immigrant students.



A teacher points to one of many students raising their hands in a classroom.

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Details of the intervention

Researchers conducted a two-part randomized evaluation to test if informing teachers of their inherent stereotypes towards immigrants changed their grading behavior towards immigrants and native students.

The first study involved math and literature teachers across 65 middle schools in five cities in Northern Italy. To gain a baseline understanding of teacher beliefs about immigrants, researchers surveyed teachers about the role of teachers advising students on high school choice. The survey included two IATs – one using girl names and one with boy names -- aimed at measuring teacher's implicit stereotypes toward immigrants. The IAT captured how teachers associated Italians and immigrants with positive and negative concepts. In addition, the survey included a series of questions on teachers' demographic characteristics, teaching experience, and explicit beliefs about immigrants.

After conducting the surveys, teachers had the opportunity to receive feedback on their IAT scores. More than 80 percent of teachers chose to receive feedback. Researchers randomized the timing of feedback across schools. Teachers in half of the schools (the intervention group) received the feedback before the end-of-term grading. Teachers in the other half of schools (the comparison group) received the feedback after they submitted end-of-semester grades, or about two weeks later. Researchers provided feedback via e-mail. Each teacher received their IAT score, a brief description of the test, and the common thresholds of bias ("slight," "moderate," or "strong"). The email also reassured teachers that their results would not be shared with anyone.

The second study, conducted online, aimed to isolate the effects of revealing one's own bias compared to generic debiasing messaging. In this group, 179 teachers from 74 schools completed a single IAT survey, in addition to providing additional basic demographic information. Following their survey teachers were asked about their expected bias ("no bias," "slight," "moderate," or "strong"), which was considered an underestimation if their self-assessment was lower than their IAT score.

Teachers in the comparison group were sent debiasing messages alone, while those in the intervention group received debiasing messages along with their IAT scores. Three weeks after receiving these messages, all teachers were contacted to grade ten short tests, which were randomly assigned native- or immigrant-sounding student names.

Results and policy lessons

Informing teachers of their implicit stereotypes improved the grades teachers gave to immigrant students. Results were driven by teachers without explicit negative views towards immigrants, suggesting that they may not have been aware of their own stereotypes but updated their grading once they became aware.

Impact on student grades: Teachers eligible to receive feedback on their IAT before end-of-semester grading gave an average of 0.20 more points to immigrant students relative to a comparison group mean of 6.37. Further, teachers in this group had a 0.35 lower point gap in grades between immigrant and native students. These results were driven by implicit standardization of grade distribution, whereby increasing grades for immigrant students translates to lower grades for native students. Native students of teachers that received this information had .15 point lower grades relative to the comparison group mean of 7.03.

Impact on grading online tests: In the online experiment, receiving feedback about one's own IAT generally did not lead to a reduction in the native-immigrant grade gap. Specifically, teachers who only received a generic debiasing message exhibited a tendency to grade immigrants higher if their IATs were neutral, while higher IATs led to lower grades for students with immigrant-sounding names. On average there was no difference in grading among teachers who received the generic debiasing message and those who learned their IAT score. However, among teachers who learned their IAT results and had strong revealed implicit

stereotypes, immigrant students were assigned much higher grades.

Impact on failing rates: In the in-school evaluation, receiving IAT feedback before a grading period may be particularly impactful for teachers who are close to failing students (i.e. giving a grade of 5 versus 6). Offering the option for early feedback decreased the probability of teachers failing immigrant students by 6 percentage points. There was no effect on the failure rates for native students.

Informing teachers about their own stereotypes may be a simple, low-cost, and effective policy to reduce discrimination in grading. However, the policy implications are not straightforward. While informing teachers of their bias may make grading more fair, it is also possible that teachers who hold negative stereotypes but do not discriminate in grading might also react to this information and favor immigrant children in grading.

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1. The IAT required teachers to quickly categorize typical Italian names and common names among immigrant children in Italy with positive or negative adjectives in the schooling context. To the extent that teachers are biased against immigrant students, they should react more slowly when the immigrant-sounding names are associated with positive adjectives, because those associations are more difficult for their minds to process.