Psychic in the Classroom:
The Effects of Teacher Expectations on Student Outcomes
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Introduction

• Studies show teacher expectations have a substantial effect on student achievement. For policy makers on the quest to closing the achievement gap, understanding these effects is essential. It has been proven many teachers treat their high achievers differently than their low achiever, therefore resulting in low performance from the “low” achievers. What then are the long term effects of differential expectations?
  - Do teacher expectations have a long term effect on student outcomes?
  - Student outcomes are expected to be greater when teacher expectations are greater.
  - Previous research points out the positive and negative short term outcomes of teacher expectations.

Christine Davies (2006)
Student Characteristics and Teacher Expectations → Reading Level

Rosenthal and Jacobson (1992)
Teacher expectations → academic achievement

Ray Rist (2009)
Student Characteristics → Teacher Perception

Sample

The participants in this study were 7,159 students with recorded Math and English Teacher Expectations from the Educational Longitudinal Study of 2002; a national sample of young people as they progress from 10th grade through high school and on to postsecondary education and/or the world of work. Following is the breakdown of the students and teachers included in this analysis.

Demographic | Student | English Teacher | Math Teacher
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White | 67% | 90% | 89%
Black | 10% | 4% | 4%
Hispanic | 12% | 3% | 2%
Asian | 9% | 1% | 3%
Other | 5% | 2% | 2%
Male | 48% | 27% | 43%
Female | 52% | 73% | 57%

Measures & Methods

Teacher Expectations

Student Characteristics

• Outcome Variables: Students math test score in follow up year, plans to take the ACT, and type of college student plans to attend
• Explanatory Variables: Math Teacher Expectations & English Teacher Expectations for student categorized as follows less than high school or high school, attend/complete 2 year college, attend/complete 4 year college, more than 4 year degree
• Control Variables:
  - Student Characteristics: student race (Black, White, Hispanic, Asian, & other), student gender, student SES (4 levels)
  - Teacher Characteristics: Teacher experience (total years of experience) & Teacher Level of Education (No Degree, Associate, Bachelor’s, Education Specialist, Master’s, Doctorate, 1st Professional)
  - School Characteristics: School size, % of free-lunch, and location (rural, suburban, and urban).
  - Parent Characteristics: Parent’s level of education

ANALYSIS

• Means: Teacher Expectations by Student Outcomes
• Significance Tests: Collapsed Math Expectations by Student Outcome

Regression:

- Student Outcomes = B0 + B1 Teacher Expectation + B2 Student Race + B3 Student Gender + B4 Student SES + B5 Teacher Experience + B6 Percentage Free Lunch + B7 Location + B8 Parent Education Level

Results

Graph 1: Marked with * indicates significant differences in math teacher expectations when compared to student’s math follow up score at the following significance levels: “p<.05,” “p<.01,” “**”p<.001.

Students’ Outcomes in Comparison to Their Teachers’ Expectations

Graph 2: Marked with * indicates significant differences in math teacher expectations when compared to student’s math follow up score at the following significance levels: “p<.05,” “p<.01,” “**”p<.001.

Discussion

• Students’ mean outcomes were significantly higher for ACT PLANS with Math teachers in category four. Math and English teachers expectations for the student were relatively equal for each outcome.
• Students’ mean outcomes were significantly higher for Math Follow Up Score with Math teachers and English teachers in category four. Math and English teachers expectations for the student were relatively equal for students’ follow up scores.
• Student outcomes was significantly associated with teacher expectations. Student ability (base year scores) had the greatest effect on teacher expectations. Other student characteristics, teacher and school characteristics had little effects, if any.

Acknowledgements

The Center on Education Policy & Workforce Competence and the following faculty served as mentors for this project: Daphna Bassok, Tom Dee, James Wyckoff, Patten Priestly Mahler and Eva Galdo. This project was possible through the Educational Psychology and Applied Developmental Science (EP-ADS) Summer Undergraduate Research Program and The Leadership Alliance Mellon Initiative.