Effects of Teacher Expectations on Student Academic Performance

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One important question that sociologists study is how children define their self-identity. According to Charles Cooley's "Theory of Looking Glass Self," children come to understand themselves by experiencing how others react to them (Giddens et al. 116). For instance, a child that believes they are particularly smart may answer more questions in class, in such a way that leads the child's classmates and teachers to perceive them as intelligent. The child's peers and teachers may then react to them in a way that either confirms or denies the child's original supposition, which may encourage or discourage the child from continued intellectual effort, and ultimately influence the child's actual intellectual ability. In this way, children learn about their place in the world through a complex web of interactions between their expectations and those of others. One form these expectations can take is the self-fulfilling prophecy, where through complex sociological factors, expectations of an individual can influence that individual's reality. This paper explores the effects of self-fulfilling prophecies in the classroom, and particularly the extent to which teachers' expectations of their students influence the students' academic outcomes.

In 1965, Rosenthal and Jacobson conducted a now classic experimental study to determine if teacher expectations affected student performance (72). The authors arbitrarily divided students at a public elementary school into two groups. They shared these groups with the school's teachers, telling them that the students' learning could be predicted based on their previous test results through a fictitious Harvard Test of Inflected Acquisition. The teachers were told that one set of students was predicted to rapidly gain in intellectual ability, while the other set was predicted to gain more slowly. The primary purpose of the experiment was to measure what effects these artificial teacher expectations would have on student performance. Secondarily, if they found differences in student performances between the two groups, the authors were interested in the relative differences by age, sex, minority status, and previous academic achievement. Rosenthal and Jacabson found that students "predicted" to do better did in fact, do much better, especially among the younger grades (first and second) (74). The benefits of teachers' positive expectations were very similar for girls and boys (78). However, within the experimental group (the students for which teachers had artificial positive expectations), boys gained more in verbal IQ while girls gained more in reasoning IQ (78). Rosenthal and Jacabson suggest this discrepancy may be influenced by the fact that boys initially had higher verbal IQ, and girls higher reasoning IQ (78). In other words, it's possible that positive expectations were more beneficial in areas that the students already possessed greater proficiency in. The study found little difference in the effects of positive teacher expectation on performance among the groups based on previous academic achievement (78). However, the study did find that kids of minority group status, in this case Mexican, gained more from the positive teacher expectations than their non-minority peers (but the differ-

ence was not statistically significant) (82).

While Rosenthal and Jacabson's study provides strong support for the idea of self-fulfilling prophecies in the classroom, and that a teacher's expectations can have strong repercussions for their students, it has been criticized for making the teachers' expectations too artificial. Some argue that in a natural classroom setting a teacher would be less likely to develop such strongly inaccurate expectations for students, and that teachers' natural biases would be unlikely to have such large ramifications on student performance (Baker et al. 180). Fortunately, future studies did examine the effects of more "natural" teacher expectations on student academic performance.

Rubie-Davies investigated the differences in teacher habits of teachers with different expectations of students at the level of the entire class (289). Previous studies by the same author had identified teachers with either high or low expectations of achievement for their entire classes, by comparing the teachers' expectations with actual class performance (Rubie-Davies 291). This measure of teacher expectations is more "natural" than that used by Rosenthal and Jacobson because it wasn't manipulated by the experimenters. The selected teachers were then divided into three groups based on their expectations and the performance of their students. Low expectation teachers were the teachers whose students achieved better than they expected. The high expectation teachers were the teachers whose expectations were significantly above their students' achievement levels, and whose students made significant gains in reading achievement during the study. The third group consisted of teachers with relatively high expectations but whose students did not perform as well in reading achievement as those of the high expectation group (called the average progress group).

All the teachers in the study taught at primary schools in New Zealand. Each teacher was studied during two half-hour reading lessons at different times during the year. During each lesson, the researchers followed a protocol to record and code every statement and behavior the teacher made. The different broad categories were teaching/learning, feedback, questioning, behavior management, and procedural. Most of these categories were further broken down into more specific subcategories; for instance, each feedback statement was classified as either praise, criticism, or learning feedback. The researchers then analyzed how many times the teachers of each different group used each different type of statement or question, with some interesting results.

In general, the study found that the high expectation and average progress teachers employed relatively similar teaching styles, at least compared to the low expectation teachers (Rubie-Davies 300). High expectation and average progress teachers both made more teaching statements, more instructions, and explanations and asked more questions than did low expectation teachers (Rubie-Davies 300). However, high expectation and average progress teachers did differ in some key areas, which the author suggests could be the cause for the average progress students' relative lack of progress (Rubie-Davies 301). For instance, high expectation teachers gave more feedback to students, asked more complex open-ended questions, gave more positive behavior management statements, and praised students more frequently than either average progress or low expectation teachers (Rubie-Davies 301). The author summarizes the key differences between high expectation and average progress teachers as being that "the socioemotional environment created by high-expectation teachers was likely to be more positive and caring than that found in the classrooms of the other two teacher groups" (Rubie-Davies 303).

Rubie-Davies found strong evidence that teacher expectations for an entire class influence the ways in which the teacher interacts with the class, which could quite possibly in-

fluence student performance. The study also provides some evidence for the idea that high teacher expectations are good for student performance (the high expectation group greatly outperformed the low expectation group). However, because the average progress group also had high teacher expectations but did not significantly outperform the low expectation group, the study also suggests that other aspects of teaching style and classroom environment are at least equally important as teacher expectations to student reading achievement. Rubie-Davies found that teachers' expectations of students could not completely explain student performance. In contrast, Sorhagen found that teachers' expectations of students in first grade predicted student achievement all the way into high school (470).

Sorhagen examined the relationship between teacher expectations and student academic success over a long time period, from first grade to high school (465). The students involved in the study came from a very large sample, selected at birth from across the United States. The sample was later refined and ended up at 1,273 students. The students' ethnicities and family incomes were recorded. Teacher expectations were measured in first grade, by having the teachers rate the students in various academic areas, such as math, reading, and language. The inaccuracies of the teachers' expectations were then calculated by comparing the teachers' expectations to the students' actual academic performance in first grade. In this manner, the author's measured the extent to which teachers over or underestimated their students' abilities. The students' academic achievement was measured with the Woodcock-Johnson --- Revised Test of Achievement and the Woodcock-Johnson --- Revised Test of Cognitive Abilities, which were applied before first grade, during first grade, and in the students' first years of high school. Statistical analyses were done on the data, controlling for gender, ethnicity, family income, and pre first grade test scores. The key result was that teacher over or under estimation of student ability in first grade predicted relative student ability in high school for all the academic areas tested (Sorhagen 470). Secondarily, the study found that over or under estimation of student math and language abilities had a particularly pronounced effect on the later academic performances of students from poorer families (Sorhagen 471).

Sorhagen found that natural teacher expectations formed in first grade predict student performance all the way into high school, particularly for poorer children. Clearly then, teacher expectations do have a powerful influence on student performance. The final study examined here investigates whether students' expectations for their own academic success may also have an important role.

Rappaport & Rappaport examined the effects of artificially created positive expectations of both teachers and their students on reading achievement (531). The students were black, 5-6 years old, and participating in a compensatory education program. All the students had scored similarly (around a D) on the Metropolitan Reading Readiness Test prior to the beginning of the study. The experimenters randomly created five groups of students: three experimental groups and two control groups. Students from four of the five groups did a set of standardized tasks (from the Miniature Situation Tests) in front of the researchers for 30 minutes each, twice a week, for several months. Each experimental group was exposed to a slightly different experimental variable in how the researchers responded to them and their teachers about the students' completion of the tasks. In one variable group (teacher expectancy), the researchers told the teachers how well the students were doing the tasks and did their best to make the students' performances of the tasks seem generalizable to greater academic success. In the student expectancy group, the students were given as much positive feedback

as possible about their performance of the tasks and told they would do correspondingly well in school. In the teacher and student expectancy group, both the students and teachers were given the positive feedback. In one control group (interaction control) the students did the tasks without feedback. In the other control group (control) the students did not even do the tasks. The students took the Metropolitan Reading Readiness Test again after the study period ended to provide a measure of gains in reading achievement. All the experimental groups did much better on the reading test than did the control groups (Rappaport and Rappaport 534). Interestingly, the teacher and student expectancy group also did significantly better than the teacher expectancy group, which the researchers argued may show that student expectations are even more important than those of their teachers in determining student success (Rappaport and Rappaport 535). Regardless, the study found that student expectations were as important as those of the teachers and should not be ignored when discussing self-fulfilling prophecy effects in the classroom.

Following Rosenthal and Jacobson's study, subsequent research both affirmed and refined the idea that teacher expectations could have powerful effects on student academic success. Rubie-Davies found that natural teacher expectations for an entire class impacted the teachers' behavior but could not entirely explain academic performance. In contrast, Sorhagen found that inaccurate teacher expectations in first grade impacted student performance all the way into high school. Rappaport and Rappaport also found that teacher expectations influenced student success, but they suggest that student expectations may be at least equally important. Apparently, both student and teacher expectations can and often do have important impacts on student academic performance, a finding that makes sense within Cooley's "Theory of Looking Glass Self." Students, particularly young ones, can create a self-fulfilling prophecy through their expectations of themselves. However, it seems teachers can "short circuit" the looking glass self model, and directly influence students' academic performance through their expectations, another form of self-fulfilling prophecy. As it is unrealistic for young children to keep in mind the power of their own expectations and prioritize learning, it is up to the teachers to emphasize positive expectations for their students.

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