

# Great Expectations?

## An Investigation of Teacher Expectation Research

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Research clearly depicts that teacher expectations can have both positive and negative effects on student learning and achievement. Ormrod (1999) insists that expectations influence the ways in which teachers evaluate students, behave toward students, and make decisions about students. These expectations create an intersubjective reality in which students tend to perform up to expectations. Bruner (1996) explains intersubjectivity as "how humans come to understand each other's minds" (p.12). As teachers form expectations about their students' minds and students come to understand what is in their teachers' minds about their ability, reality is formed for both. Student performance, and indeed their future choices, may be determined through the reality created.

### *The Pygmalion Effect*

Attention first came to the issue of teacher expectations in 1966, when Robert Rosenthal and Lenore Jacobson published the results of a powerful study later known as the Pygmalion Effect. According to Tauber (1998), the Pygmalion Effect asserts that "one's expectations about a person can eventually lead that person to behave and achieve in ways that confirm those expectations" (p. 1). The study gained attention across the country, even beyond education, and continues to be discussed today.

Rosenthal and Jacobson's research, conducted at an elementary school, required teachers to administer to each student the Test of General Ability (TOGA), which is designed to measure a student's IQ (as cited by Spitz, 1999). After the students completed the test, some were chosen at random to be labeled as academic bloomers, and their names were then given to their teachers (as cited by Spitz, 1999). At the end of the academic year, when the students were re-tested, those students thought by teachers to be academic bloomers showed a more significant increase in TOGA scores than students not thought to be academic bloomers (as cited by Spitz, 1999). Thus,

Rosenthal and Jacobson concluded that teachers' expectations could influence students' intellectual abilities, a statement that sparked national attention, including featured articles in The New York Times and The New Yorker (Spitz, 1999).

Despite the study's positive publicity, however, it was also met with much criticism in education, specifically due to Rosenthal and Jacobson's research methods (Spitz, 1999). In 1968, for instance, Thorndike published an article that claims the experiment is flawed due to problems with the TOGA exam, and, in 1969, Jensen criticized the study because the teachers administered the TOGA (as cited by Spitz, 1999). Most notably, Elashoff and Snow's Pygmalion Reconsidered (as cited by Spitz, 1999) maintains that Rosenthal and Jacobson's data is skewed to further promote the idea that teachers' expectations can increase students' intellectual capabilities. Nonetheless, Elashoff and Snow's book (as cited by Spitz, 1999) includes the conclusion that "teacher expectancy probably does not affect pupil IQ . . . [but] may affect pupil achievement" (p. 218). Rosenthal (1994) has reported a 30-year perspective on the effects of interpersonal expectancies.

Like the statement above, much of the information available today links teachers' expectations with students' achievement, but not specifically students' IQs. The effects of teachers' expectations on students are also connected to the idea known in psychology as the self-fulfilling prophecy (Spitz, 1999). The self-fulfilling prophecy states, much like the Pygmalion Effect, that "once an expectation is held, an individual tends to act in ways that are consistent with the belief and eventually his or her actions may cause the expectation to become a reality" (Cooper & Good, 1983). Teachers' expectations, then, may be linked to students' self-image and achievement levels.

For the purposes of this paper, teacher expectations will be defined as "inferences that teachers make about the future academic achievement of students" (Cooper & Good, 1984, p. 4). This paper, much like the current research, contends that teachers' expectations do indeed influence students' achievement and explores the ways in which teachers' expectations are shaped and conveyed.

### *Understanding the Basis of Teachers' Expectations*

Many studies have been conducted to determine if teachers have higher expectations for a specific type of student. Because every teacher has his/her own way of constructing reality, no two teachers will have the exact same expectancy. In fact, the expectation is determined partly upon the environment in which a teacher is teaching. For example, in a private school that requires boys to wear a uniform consisting of a coat and tie, a teacher may think negatively of a boy who refuses to wear a tie. In a public school, however, where students come to school dressed in jeans and a T-shirt,

wearing a tie would seem quite out of the ordinary. Despite the inconsistency among teacher expectations, studies still determined that teachers favor specific characteristics in students. Teachers could take any of the following into consideration: socioeconomic class, home background, clothing and personal belongings, disposition, effort, location of seating, race, appearance, gender, and/or past performance. Although there are many factors that play into teacher expectancy, this section will look specifically at past performance, race, socioeconomic status, and gender.

According to Jussim, Smith, Madon, and Palumbo (1998), "By far, the strongest influences on teaching are usually students' past performance and motivation" (p. 27). The effects of these expectations are cyclical. A student who performs well in the past is expected to perform well in the future, just as a student who performs poorly in the past is expected to perform poorly in the future. If a student who usually performs well happens to perform poorly on a specific assignment, the teacher may conclude that the student is capable of doing the work but did not put enough time and effort into the assignment. Likewise, if a poor performing student performs unusually high, the teacher may conclude that the student had a burst of luck. Despite this new assignment, the instructor will continue to treat both students based on prior performance. The first student will most likely continue to be praised and continually do good work. The second student is likely to be criticized, encouraging a belief that he/she cannot do the work, and causing his/her continued poor performance.

In addition to past performance, race also plays a part in teacher expectancies. Baron, Tom, and Cooper (1985) compiled sixteen studies on race to determine an overlying theme of teacher expectancies based on race. Of the sixteen studies, nine studies showed that teachers favored white students, one favored black students, and six showed no evidence either way. Similarly, Finn, Gaier, Peng, and Banks (as cited by Baron, Tom, & Cooper, 1985) studied eight teachers from predominantly white schools and six teachers from predominantly black schools. In all cases, teachers placed had higher expectancies for white students than black students. In addition to only black and white students, three studies conducted by Williams and Naremore, Jensen and Rosenfeld, and Wilkerson (as cited by Baron, Tom, & Cooper, 1985) found that teacher expectancies were higher for white students than black or Mexican-American students. Wong (as cited by Baron, Tom, & Cooper, 1985), however, found that teachers held higher expectancies for Asian-Americans than white students.

Baron, Tom, and Cooper (1985) also compiled eleven studies on teacher expectancies based on socioeconomic class. Six studies found higher expectations for middle-class students, one study found higher expectancies for lower-class students, and four found no evidence of expectancy bias. Other studies completed individually by Wong, Williams, and Smith (as cited by Baron, Tom, & Cooper, 1985) and Dusek and Joseph (as cited by Jussim, et al., 1998) also found similar results but only for select time

periods. Wong found teacher expectancies higher for middle-class students only in elementary school. This expectancy, though, only held true in the beginning of the school year. After the teacher became familiar with the students, the expectancy disappeared.

More contested than any of the previously discussed factors, gender appears to determine teacher expectancies. Multiple studies such as Jussim, Eccles, and Madon (as cited by Jussim, et al., 1998), Heller and Parsons (as cited by Peterson & Barger, 1985), and Wiley and Eskilson (as cited by Peterson & Barger, 1985) found little to no difference in expectations based on gender. Other studies, however, found different results. Stipek (1998) argues that gender biases are based on cultural stereotypes. Boys tend to do better in math and science because of the way they are raised. Parents believe boys are better in these two areas than are girls and push their sons to partake in activities such as using the computer in order to promote these skills. Leinhardt, Seewald, and Engle (as cited by Good & Findley, 1985) discovered that, in the classroom, girls tend to have more contact and instructional time with the teacher than boys except in the case of math and science. Adams and Cohen (as cited by Good & Findley, 1985) also found that teachers viewed girls as more intelligent than boys. Clearly, then, gender does have influence in the classroom, and expectations could certainly be affected.

Although no two teachers are alike, research shows that teachers tend to have higher expectations for certain types of students than they do for others. In the case of past performance, race, socioeconomic status, and gender, teachers tend to have higher expectancies for students who have been high performers in the past and are white and middle-class. In math and science courses, high expectancies are held for boys, and in all other classes higher expectancies are held for girls. Teachers, in multiple ways, demonstrate these different levels of expectancies.

### *Teacher Behaviors Based on Expectations*

Formed through the interplay of past performance, race, socioeconomic status, and gender, teacher expectancies have an undeniable influence on students' learning. Skinner and Belmont (1993) point out the following about teacher behavior:

- 1) Teacher behavior influences students' perceptions of their interactions with teachers.
- 2) Teacher behavior influences student engagement.
- 3) Student engagement influences teacher behavior.

In light of these findings, it is imperative that a clear understanding of teacher behavior be established. What exactly do teachers do to communicate their expectancies to students?

Brophy (1983) concluded that teachers behave differently towards students for whom they held high expectations than they did towards

students for whom they held low expectations. Teachers were more likely to praise high-expectancy students for success and less likely to criticize them for failure in classroom tasks. Moreover, teachers typically offered high-expectancy students feedback on assignments at a higher rate than they offered it to low-expectancy students (97% and 85% respectively). This tendency for feedback extended into classroom interchanges as well, where teachers sought improved responses from high-expectancy students when they offered incorrect answers, rather than simply moving on as they tend to do with low-expectancy students.

While Brophy indicated that teachers criticized high-expectancy students less than lows, Mittman (1985) noticed that when teachers do criticize high-expectancy students, they do so for very different purposes. Teachers tended to use criticism as a means of communicating challenge and high standards to students for whom they held high-expectancies. When criticizing low-expectancy students, teachers used it as a means of degrading them, cutting them off from attempts to complete work constructively.

Not only did these teacher behaviors hinder the learning of low-expectancy students, Brophy (1983) cites other teacher behaviors that also tend to minimize their learning:

- 1) Teachers wait less time for low-expectancy students to answer questions.
- 2) Teachers are more likely to give low-expectancy students the answer than probe an inaccurate response.
- 3) Teachers tend to reward inappropriate or incorrect responses from low-expectancy students.
- 4) Teachers generally pay less attention to low-expectancy students.
- 5) When they do pay attention to low-expectancy students, teachers do so privately more often than publicly.
- 6) In heterogeneous classrooms, teachers call on low-expectancy students less frequently.
- 7) Teachers seat low-expectancy students further away from teachers in classrooms.
- 8) Teachers smile less and offer less eye contact to low-expectancy students.
- 9) Teachers offer less learning material to low-expectancy students.

Brophy (1983) indicates numerous studies for each point that describe these teacher behaviors.

Beyond classroom interaction, teachers may very well grade low-expectancy students differently. Jussim (1991) points out that grading is

based less on objective characteristics of the assignment, than on expectancies of the grader. Typically, teachers inferred high effort on the basis of previous high performance. In addition, teacher perceptions of students' normative behavior in the classroom influenced their grading of student work. Brophy (1983) made a similar point, indicating high-expectancy students were more likely to be given the benefit of the doubt in grading practices than were low-expectancy students.

*Students' Perceptions of Teacher Expectations*

All of the teacher behaviors mentioned can ultimately lead to a "self-fulfilling prophecy" where the students will then perform as expected. But in her doctoral dissertation, Mros (1990) points out that, "Teacher expectations cannot influence a student's performance unless perceived by the student" (p. 8). Seemingly obvious, the importance of students' perception in determining their behavior, as well as influencing their beliefs and goals, cannot be overemphasized (Young, 1997). Babad and Taylor (1992), who note that teachers don't believe their expectations are being expressed, found expectations are expressed. When three groups of students watched clips of teachers talking to and about certain students, all were able to detect the teacher's liking of the student as well as the student's excellence based on the teacher's body language or verbal comments. Students' ability to interpret teacher behavior is supported as well by Dusek (1985). He found that students perceive that teachers treat high and low expectancy students differently in both traditional and non-traditional classrooms (Dusek, 1985).

Student perception remains problematic because different students may perceive identical teacher behaviors differently. Several factors influence the manner in which students perceive teacher behavior. Students may perceive certain behaviors, often different than those intended by the teacher, based on personal expectations (Dusek, 1985). In such a case, a teacher must consciously make him/herself aware of the student's specific perception (Stevens, van Werkhoven, Castelijns, 1997). Similarly, students perceive teacher behaviors based on their own view of the existing teacher-student relationship (Muller, Katz, Dance, 1999). This perception of the relationship often stems from the student's self-perceived ability-level, influencing perceptions of the teacher's treatment of high and low expectancy students. Moreover, several studies point to conditions or contexts in which a student's behavior influences that student's perception (Dusek, 1985; Mros, 1990).

Interestingly, some factors that influence student perception are similar to those that influence teacher expectations. One factor influencing both is gender. Studies have shown that girls and boys perceive their environment in different ways (Dusek, 1985; Young, 1997). Also, just as teacher expectations can be influenced by cultural stereotypes, student perceptions of teacher behaviors can be influenced by these same

stereotypes. Mros (1990) examines this idea through three categories that encompass the cultural influence exerted on perception. First, students' culture may place more importance on certain teacher behaviors than the culture of the teacher, resulting in differing perceptions of those behaviors. Second, the absence of the student's cultural familiarity with various items or practices may hinder perceptions of them. Third, systems of communication differentiate a student's beliefs, customs, heritage, and social practice from others, again causing problems. Muller, Katz, and Dance (1999) found some excellent examples of this type of perception. In one case, a ninth-grade African American student recalls a bad experience with his sixth-grade white teacher. His frustration in her class stemmed from a disagreement about Black History Month. Through his cultural perceptions, he felt the teacher refused to teach the subject thoroughly because she was a racist.

Ultimately, students develop a general perceptual system based on four distinct areas (Mros, 1990):

- 1) The motives of the perceived (teacher)
- 2) The sentiments of the perceived (teacher)
- 3) The beliefs of the perceived (teacher)
- 4) The personality traits of the perceived (teacher)

Combining these four factors into a perceptual system through which they interact with their teacher, students may very well determine the effects the teacher's expectations will have on their performance (Mros, 1990).

### *The Effects of Teachers' Expectations*

Teachers' expectations about students' learning can have profound implications on what students actually learn. Expectations affect the content and pace of the curriculum and the organization of instruction and evaluation. Instructional interactions with individual students and many subtle and not so subtle messages that affect students' own expectations for learning and behaviors stem from teachers' expectations.

These expectations may be one of the most influential factors in determining student motivation (Bakash, 1984). When teachers have more positive expectations regarding student academic performance, they are more likely to induce superior levels of performance among their students. Research has also attempted to identify the processes through which teachers' expectations are translated into student academic performance (Baksh, 1984).

Regardless of the process, however, teacher expectations can and do affect students' achievement and attitudes (Baksh, 1984). Students who embrace the high expectations of teachers demonstrate this internalization of high expectancy in self-reports. These students state that their teachers expectations are quite reasonable because "the only way to get ahead is to study and do well in your school work" (p.341). In addition, these students internalize these expectations, stating that all students must be more accepting of the teacher's high expectations and that "students are expected to give their best and if that is what they give them it is appreciated by everyone else in school (p.341).

In a review of the expectation literature, Robert Rosenthal found 112 studies that tested the effects of expectations in everyday situations (as cited by Good, 1987). Nearly all these studies involved teachers and learners, though the settings varied from typical classrooms to YMCA swimming pools. Rosenthal found the following about expectation effects:

- 1) Teacher expectation effects are most likely to occur in subject areas that allow the greatest variation in instructional styles.
- 2) Some instructional behaviors are more likely to produce expectation effects than others.
- 3) Severe self-fulfilling prophecies rarely exist in the classrooms, but "mild" self-fulfilling prophecies and sustaining expectation effects are matter for concern.
- 4) The actual ability and motivation levels of students primarily determine teacher expectations.

A major effect of teacher expectations concerns self-efficacy (Pintrich, 1996). Schunk defines self-efficacy as people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performances (as cited by Pintrich, 1996). One aspect of the self-efficacy theory proposes that outcome expectations are judgments or beliefs regarding the contingency between a person's behavior and the anticipated outcome (Pintrich, 1996). In the academic domain, these two definitions come together as students maintain self-efficacy judgments of their capabilities, skills, and knowledge to master school-related tasks. A student who perceives that he is expected to do well develops confidence and high standards, promoting his self-efficacy and encouraging the student to achieve consistently. Another student who perceives he is expected to do poorly develops failure expectations and low aspirations and persistence in working on assignments, damaging his self-efficacy and preventing the second student from achieving his full



potential. These teacher expectations have the potential for affecting student achievement both directly, by affecting the amount of material that the student learns, and indirectly, by affecting the motivation to try to learn at all (Pintrich, 1996).

While most research suggests that the existence of expectation effects are well established, it is equally clear that expectation effects do not occur in every case; some teachers are prone to produce them, and others are not (Brophy, 1974). The occurrence of expectation effects in classrooms depends on teacher (or instructional) style and on the subject matter being taught. Also, there is little research to support the notion that severely inaccurate teacher expectations can substantially alter student performance. Apparently, biased expectations cannot be maintained in real-life classroom situations (Brophy, 1974). If a student consistently demonstrates clear potential, most teachers will change their expectations for the student; they will not change the student.

Regardless of the exceptions, teacher expectations are still a major component of student performance. Particularly interesting is the process through which the effects of teacher expectations are realized within students' achievement and attitudes. Most researchers accept Good and Brophy's (1980) description of the process (Cotton & Wikelund):

- 1) Early in the school year, teachers form differential expectations for student behavior and achievement.
- 2) Consistent with these differential expectations, teachers behave differently toward various students.
- 3) This treatment tells students something about how they are expected to behave in the classroom and perform on academic tasks.
- 4) If the teacher treatment is consistent over time and if students do not actively resist or change it, it will likely affect their self-concepts, achievement motivation, level of aspiration, classroom conduct, and interactions with the teacher.
- 5) These effects generally will complement and reinforce the teacher's expectations, so that students will come to conform to these expectations more than they might have otherwise.
- 6) Ultimately, this will affect student achievement and other outcomes. High-expectation students will be led to achieve at or near their potential, but low expectation students will not gain as much as they could have gained if taught differently (Restated in Good 1987, p. 33).

While this is a useful model for describing the way that expectations can affect student outcomes, researchers offer several cautions about its usefulness for describing what occurs in classrooms. For one thing, they point out that self-fulfilling prophecy effects can occur only when all the elements in the model are present (Cotton & Wikelund, 1989). While this can and sometimes does occur, most researchers have concluded that teacher expectations are not

generally formed on the basis of "false conceptions" at all (Cotton & Wikelund, 1989). Rather, they are based on the best information available about the students.

### *Final Thoughts*

Even though the initial expectations formed by teachers may be realistic and appropriate, researchers have found that sustained expectation effects certainly do occur and often limit students' learning and self-concept development. This evidence suggests that teacher expectations play an awesome role in the learning of students. It seems contradictory, then, that those teacher expectations play such a small role in most teacher education training programs. Since expectation effects are vast and too often unrecognized by teachers, it seems the only remedy is to focus attention on teacher expectations through in-service and pre-service training. Simply put, teacher expectation research should permeate all facets of teacher education programs. Only when every teacher becomes cognizant of the behaviors that express expectations and fully understands these expectations' effects on students, can educators guarantee that they promote positive learning experiences for all students.

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