

## TEACHER EXPECTATIONS AND STUDENT PERCEPTIONS: A DECADE OF RESEARCH

The publication of *Pygmalion in the Classroom* (Rosenthal and Jacobson, 1968) created great interest in examining the ways in which teachers interact with their low- and high-achieving students. Rosenthal and Jacobson claimed that by creating higher teacher expectations for students, it was possible to improve student performance. In order to increase teachers' expectations for student performance, teachers were told that a test given to their students would identify those who were about to bloom intellectually and who could be expected to show large achievement gains during the school year. In actuality, there was no reason to believe that these children would show above-average growth. Hence, if the children showed gains it would only be because the teacher believed they would do so.

Achievement information at the end of the school year provided some

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evidence that children described as bloomers did do better than comparable students not described as bloomers. However, the results were confined mostly to the first two grades and, unfortunately, there were serious questions about the interpretability of the achievement test at these grade levels. As a result, there was considerable controversy over the data that Rosenthal and Jacobson presented (Snow, 1969; Claiborn, 1969).

Rosenthal and Jacobson explained their results in terms of the self-fulfilling prophecy effects of teacher expectations. That is, because teachers felt that these special children could make exceptional progress, they treated them in ways that stimulated and encouraged achievement. Whether teachers did in fact treat these students any differently from other students is impossible to determine because researchers did not observe classroom behavior.

Although Rosenthal and Jacobson had attempted to increase teachers' expectations, it seemed important to me to observe how teachers interacted with students they viewed as high and low achievers. Because teachers are always forming their own expectations, it seemed useful to explore how teachers' perceptions might relate to their own behavior and to the behavior of their students.

In my doctoral dissertation (Good, 1968, 1970), I asked four first-grade teachers to rank their students accord-

ing to their academic achievement, and I observed teachers' interaction patterns with several students who were either high or low on teacher ranking lists. The results demonstrated that these particular teachers provided more response opportunities to high-achieving students than to low-achieving students. I assumed that such differential teacher behavior would eventually erode low students' performance, but I did not investigate this possibility.

After moving to the University of Texas in 1968, Jere Brophy and I decided to systematically examine the role of teacher expectations in the classroom. Jere had been developing coding systems for exploring mother-infant interaction patterns during instructional episodes in his work at the University of Chicago. Our mutual interest in observational techniques and instructional interactions made the joint exploration of teacher expectation and instructional behavior possible.

Initially, we created a coding system<sup>1</sup> that was sufficiently complex to code a variety of teacher behaviors, and which would also reflect the possibility that many interactions in the classroom are initiated by *students* (they raise hands, approach the teacher, ask questions, make comments, and so on), not by teachers.

The initial coding system focused on teachers' verbal interactions with students during instructional activities. We realized that expectations could be expressed in a variety of

ways, and the focus on verbal behavior was basically due to three factors. First, we felt (and still do) that teachers' verbal statements are mediators of student learning. Also, any research effort is restricted in scope by time and human resources, and we chose to study one area intensively rather than several areas in a more limited fashion. Finally, our backgrounds probably made instructional interaction and related variables most salient.

### Teacher Expectations: A Model

Before reviewing the findings from this program of research, we should consider the model that guided the project, not only because the model presents hypotheses about how teachers may influence student behavior and achievement, but also because it can be used as a blueprint to determine what topics research has so far examined. The model appears as follows:

1. The teacher expects specific behavior and achievement from particular students.
2. Because of these varied expectations, the teacher behaves differently toward different students.
3. This treatment communicates to the students what behavior and achievement the teacher expects from them and affects their self-concepts, achievement motivation, and levels of aspiration.
4. If this treatment is consistent over time, and if the students do not resist or change it in some way, it will shape their achievement and behavior. High-expectation students will be led to achieve at high levels, whereas the achievement of low-expectation students will decline.
5. With time, students' achievement and behavior will conform more and more closely to the behavior originally expected of them.

The model is broadly conceived, and this general conceptualization has both advantages and disadvantages. As more data have been collected and as the diversity of life in classrooms becomes more evident (especially the various ways in which high- and low-achievement students are treated), the breadth and general abstractness of the model seem to be well-stated.

The model focused on the behavior and achievement of individual students (not classes or groups of stu-

dents) and on overt differences in teacher behaviors. Step 3 in the model suggested the possibility of both direct effects of teacher behavior (that is, pupils will have less work to do) and indirect effects (student motivation). In retrospect, it is now clear that most of the research on teacher expectations has examined direct effects of differential teacher behavior rather than indirect effects (student perception of teacher behavior or their inferences about teacher behavior).

The fourth step of the model suggested that students were important and that some of them would be more affected by classroom process than others. However, our earlier conceptualization emphasized the reactive effects of students on teachers (how they resist teacher influence attempts) rather than how students proactively influence teachers (although our writing did indicate that the formation of teacher expectations—Step 1—was based in part upon student behavior). Little research has focused specifically on how students can alter or control teacher expectations. Similarly, very little research has focused on Step 5: the effects of teacher expectations and behavior upon student achievement.

Despite the potential number of questions that could be raised about teacher expectation effects, a decade after teacher expectation research began, most of the research has focused on Step 2 (Do teachers treat high- and low-achieving students differently?). Also, most studies have only examined differential verbal teacher behavior; other important variables have not been studied. Although the coding system developed for our own work emphasized verbal behavior (Brophy and Good, 1970a), the model itself did not exclude other forms of differential behavior, such as grading.

### Research Findings

What, then, do the research findings indicate? In what specific ways have teachers been found to vary their behavior toward high- and low-achieving students? They do so in a variety of ways:

1. Seating slow students farther from the teacher or in a group (making it harder to monitor low-achieving students or treat them as individuals).
2. Paying less attention to lows in academic situations (smiling less

often and maintaining less eye contact).

3. Calling on lows less often to answer classroom questions or make public demonstrations.

4. Waiting less time for lows to answer questions.

5. Not staying with lows in failure situations (providing clues, asking follow-up questions).

6. Criticizing lows more frequently than highs for incorrect public responses.

7. Praising lows less frequently than highs after successful public responses.

8. Praising lows more frequently than highs for marginal or inadequate public responses.

9. Providing low-achieving students with less accurate and less detailed feedback than highs.

10. Failing to provide lows with feedback about their responses more frequently than highs.

11. Demanding less work and effort from lows than from highs.

12. Interrupting the performance of low achievers more frequently than that of high achievers.

These and other communication patterns are presented in detail elsewhere, along with procedures that teachers can use to communicate more appropriate expectations (Good and Brophy, 1978, 1980). One important outcome of research on teacher expectations has thus been the identification of specific ways in which some teachers treat high and low students differently.

Not all teachers treat high- and low-achieving students differently. In our early research it was evident that some teachers behaved toward low-achieving students in ways that seemed to be consistent with self-fulfilling prophecies, but other teachers did not.

This is not to suggest that "sameness" toward high and low students is a desirable characteristic. Teachers can err by treating students too alike or too differently. For example, Carolyn Everson (1980) reports that many junior high teachers were found to treat their high- and low-ability classes in comparable ways and that by doing so they created managerial problems for themselves in the low-ability classrooms.

In contrast, teachers can create

## HIGHLIGHTS FROM RESEARCH ON TEACHER EXPECTATIONS AND STUDENT PERCEPTIONS



In general, teachers expect students to behave in specific ways and attain certain levels of achievement; thus, teachers behave differently toward different students. This differentiating behavior affects and, over time, will shape students' self-concepts, achievement motivation, and levels of aspiration. High-expectation students will be led to achieve at high levels; low-expectation students' achievement will decline. And, over

time, students' achievement and behavior will conform more and more closely to teachers' expectations.

There are several ways in which teachers vary their behavior toward high- and low-achieving students; for example, by:

- Seating slow students farther away from the teacher, making it more difficult to monitor these students or treat them as individuals
- Paying less attention to slow students, by smiling and making eye contact less often
- Calling on slow students less frequently to answer classroom questions
- Waiting less time for slower students to answer questions
- Failing to provide clues or ask follow-up questions in problem situations with slower students
- Criticizing slower students more frequently for incorrect answers
- Praising slower students less often for correct or marginal responses
- Giving slower students less feedback and less detailed feedback
- Demanding less effort and less work from slower students
- Interrupting the performance of slower students more frequently.

As a result, slower students become less willing to take risks in the classroom by volunteering answers or seeking the teacher's help. They may devote their efforts to pleasing the teacher rather than learning the subject content. Without sufficient teacher feedback, students are unable to evaluate how they are doing. And without sufficient contact with the students, the teacher is less able to make appropriate changes in his or her own behavior.

Some teachers criticize slower students for incorrect responses and are basically intolerant of slower students; others reward marginal or even wrong answers and are unnecessarily protective of slower students. In each case, the teacher fails to provide feedback that is consistent with the adequacy of student performance. *Positive but appropriate* teacher expectations are associated with high-achieving classrooms.

Teachers' expectations seem to have greater influence in the primary grades when students still accept the authority of the teacher's role and are not yet fully aware of their own power to influence. Even if teachers' expectations and behaviors do not create differences in student performance levels, they do sustain the differences.

Conversely, students may influence teacher behaviors by actively accepting or rejecting the teacher's expectations and, by taking the initiative in class, eliciting more responses from the teacher, thereby enabling the students to learn more.

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problems by overreacting to differences between high- and low-ability classrooms and by behaving too differently toward them. In one study, a junior high teacher taught a general mathematics class considerably differently than he taught his algebra class. The instructor's awareness of differences in student ability across the two classrooms resulted in less teacher effort and presumably less learning in one of the classrooms (Jere Confrey, personal communication).

Although these two examples illustrate teachers' reactions toward classes of students, it seems reasonable to believe that the same expectation-behavior relationships apply to their reactions toward individual students. It is important that teachers develop and communicate appropriate behaviors (Good and Brophy, 1978, 1980).

To express low expectations and impede student performance, it is not necessary for teachers to differentiate their behavior toward high- and low-achieving students in many ways. If teachers present low-achieving students less content than they can handle, then low students will have less opportunity to learn. On the other hand, a teacher might treat low students in some of the ways consistent with the model presented earlier and still not affect student progress in negative ways. For example, the fact that a teacher ignores a particular student may encourage the student to try harder and to become a more autonomous learner. Hence, a student can in part determine the impact of teacher expectations and behavior.

By altering their instructional methods, teachers can make certain of their behaviors functional rather than dysfunctional. A teacher who does not call on low students frequently may not depress student performance if that teacher is working with low achievers privately to develop their responding skills so that they can become more active participants later in the year. Failure to call on lows in public, however, if not compensated for in other ways, will guarantee that in time the capacity of most students for active participation will decline.

A single process measure cannot be used as a sign of effective or ineffective communication. The desirability of a particular teaching behavior depends on the teacher's total instructional plan (for instance, homework

is not an effective form of distributed practice if students are not prepared for the work or if teachers fail to check it). The 12 teaching behaviors presented earlier can stimulate teachers' efforts to consider their behavior carefully and understand their impact on particular students.

### **Variability of Teacher Behavior Toward Lows**

Teachers also show differences in the way they express expectation effects. Sometimes these style differences are very dramatic. Some teachers criticize low achievers more frequently than highs per incorrect response, and praise lows less per correct answer than is the case for highs. In contrast, other teachers will praise marginal or incorrect responses given by low achievers. These findings appear to reflect two different types of teachers (Good, 1980a). Teachers who criticize lows for incorrect responses seem to be basically intolerant of these pupils. Teachers who reward marginal (or even wrong) answers appear to be excessively sympathetic and unnecessarily protective of lows. Both types of teacher behaviors illustrate to students that effort and classroom performance are not related (Good and Brophy, 1977).

Over time, such differences in the way teachers treat low achievers (for example, in the third grade a student is praised or finds teacher acceptance for virtually any verbalization but in the fourth grade the student is seldom praised and is criticized more) may reduce low students' efforts and contribute to a passive learning style. Other teacher behaviors may also contribute to this problem. The low students who are called on very frequently one year (the teacher believes that they need to be active if they are to learn), but who find that they are called on infrequently the following year (the teacher doesn't want to embarrass them) may find it confusing to adjust to different role definitions. Ironically, those students who have the least adaptive capacity may be asked to make the most adjustment as they move from classroom to classroom. The greater variation in how different teachers interact with lows (in contrast to the more similar patterns of behavior that high students receive from different teachers) may be because teachers

agree less about how to respond to students who do *not* learn readily.

It may also be the case that even within a given year low achievers are asked to adjust to more varied expectations. This may be true in part because low achievers have different teachers (in addition to the regular teacher they may have a remedial math, reading, or speech teacher). The chance for different expectations is thus enhanced. Certain teachers may also be more likely to vary their instructional styles toward lows within a given year. For example, they may give up on an instructional technique prematurely (when the phonetics approach initially fails the teacher tries another instructional method).

Interestingly, when I described this belief to Carolyn Evertson, she was stimulated to examine her interview data with junior high teachers. She found that teachers report using more varied techniques when working with low- than high-achieving students.

The behavioral data which illustrate that teachers treat low achievers in different ways (much acceptance/little acceptance) is matched by student perception data. Students perceive much more variability in how low-achieving students are treated in different classrooms than in how highs are treated (Weinstein and others, 1980). Students in different classrooms describe similar types of interactions and response opportunities for the high-achieving students.

Hence, behavioral observation of classroom process, student reports of life in classrooms, as well as teacher self-reports of their classroom behavior all suggest that low-achieving students experience a greater variety of teacher behavior as they move from class to class.

### **Teacher Variability**

In 1970 there was little knowledge of teaching behavior (Schwab, 1969). This state of affairs has not changed for many aspects of classrooms. However in some areas, such as how teachers behave toward high- and low-achieving students, we now have a lot of information. This information consistently illustrates that individual teachers vary greatly in their behavior toward high- and low-achieving students and groups. Some teachers spend more time working with the highest reading group, but in other

classrooms teachers spend more time with the lowest group.

One myth that has been discredited by classroom observation is that schooling is a constant experience with teachers behaving in similar ways and pursuing similar goals with a common curriculum (Good, 1980b). Carew and Lightfoot (1979) illustrate that it is possible to find teachers (at the same grade level in the same school) who differ notably in their classroom behavior and goals. Furthermore recent research has also illustrated that students perceive important differences among teachers' classrooms (Weinstein and others, 1980).

What we need to begin to consider now are the circumstances under which major differences in teacher behavior are adaptive and for which types of students. For some styles of learners, variations in teachers' instructional behavior and expectations will surely have positive effects in many instances.

### **Passivity Model**

What are the implications if teachers provide fewer chances for lows to participate in public discussion, wait less time for them to respond when they are called on (even though these students may need more time to think and to form an answer), criticize them more per incorrect answer, and praise them less per correct answer than they do for high students? It seems that a good strategy for students who face such conditions would be not to volunteer or not to respond when called on. Students would appear to be discouraged from taking risks and chances under such an instructional system. To the extent that students are motivated to reduce risks and ambiguity—and many argue that students are strongly motivated to do so (Doyle, 1980)—it seems that students would become more passive in order to reduce the risks of noncontingent teacher feedback.

The passivity model that I have conceptualized draws inferential support from several sources, although there are no direct data available for testing the model. King (1979) intensively examined the covert and overt responses of four sixth-grade students (two successful; two unsuccessful) during a two-week unit on mathematics. He found that one unsuccessful student's thinking about classroom

participation reflected some concern with ways to avoid participation. Furthermore, both of the unsuccessful students seemed to focus a good deal of their thinking on trying to please the teacher.

Junior high students whom I recently interviewed (research in progress) indicated that, in general, they did not want to approach the teacher or ask questions, especially if the teacher had already commented on the question or procedure. One girl told me that she would circle the room asking other pupils for help before approaching the teacher for assistance. Students indicated to me that some teachers were more approachable than others, but students generally were reluctant to seek out teachers. Furthermore, many lows, who would seem to need clarification more frequently, seemed hesitant to ask teachers for help.

Part of the reason is that lows want to maintain a sense of self-respect (looking good to peers and to the teacher); however, this coping mechanism prevents them from developing real skills and reduces their actual achievement. Without feedback from their teachers, low students cannot know how well they are doing. Students' reluctance to approach the teacher also makes it difficult for the teacher to realize that he or she has given ambiguous or incomplete directions. The teacher's capacity for adjusting instructional strategies and expectations is thus reduced and the system is self-sustaining. Teachers who want to monitor and creatively examine their own behavior in order to reduce inappropriate behavior would do well to develop strategies for encouraging students to seek information as needed. As long as students feel there is more risk in making errors than there is payoff in learning, they will remain passive learners.

#### **Role of Teacher Expectations in Facilitating Achievement**

The fact that teachers can exert a powerful influence on student achievement does not prove that teacher expectations are an influential determinant of student achievement. Every research effort that has examined the relationship between student achievement and teacher expectations has yielded positive relationships; how-

ever, all of this evidence is correlational.

McDonald and Elias (1976) report a positive correlation between teacher expectations and student residual gain performance on achievement tests. Similarly, Brophy and Everson (1976) found that successful teachers (those who obtained better-than-expected achievement gains from students) had belief systems which reflected positive attitudes that they could teach and that students could learn. These studies are correlational, and it could be that teachers reported higher expectations because students were performing at high levels.

However, there are studies which make it plausible to argue (but do not prove) that appropriately high expectations stimulate teaching effort and student performance. Rutter and

others (1979) report that teachers in secondary schools in which students were achieving at higher levels and behaving more appropriately in the classroom exhibited more behavior which communicated positive expectations for student performance than was the case for teachers in low-achieving schools with comparable student populations. Given the tight control that demonstrated that students' performance in elementary school was not sufficient to account for achievement and behavioral differences that were observed in the secondary schools, it seems reasonable to assume that something in the secondary school setting was responsible for higher student achievement.

Other indirect support for the teacher expectation argument comes from a research program directed by Mary Martin and Sam Kerman in inner-city



schools in Los Angeles (Martin, 1973). They presented to teachers some of the findings derived from the book, *Looking in Classrooms* (Good and Brophy, 1973, 1978). The teachers who participated in the training program obtained better student attitudes and achievement than did control teachers. However, the treatment program involved behavioral skill training and classroom observation as well as the development of more appropriate teacher expectations.

In actuality, appropriate teacher expectations without appropriate teaching skills would probably do little good. It seems, though, that positive teacher expectations are associated with student achievement. This relationship has been shown in a variety of studies (including ones not reviewed here). Thus the belief that students can learn and that the teacher can bring about learning would appear to be a sufficient, although not necessary, condition for learning.

Because research has shown that some teachers can make a difference in student learning (Brophy, 1979; Good, 1979), and that positive but appropriate teacher expectations are associated with high-achieving classrooms, it would seem important to determine what expectations teachers have as they enter the teaching profession. In particular, it would be important to examine the expectations that new teachers have about their ability to influence students' learning. Perhaps, in subtle ways, teacher training programs create inappropriate expectations for beginning teachers. Teacher education programs may help to create problems by fostering too high or too low expectations. Teachers' high expectations for immediate student learning may turn into anger, frustration, and withdrawal. Similarly, the belief that some learning situations (such as innercity schools) are so complex that teachers can do little, if anything, to improve student learning, would also appear to adversely affect student learning.

#### Teacher-Student Influence

In summary, data on teacher expectation research have revealed that some teachers treat high- and low-achieving students differently, and that teachers' expectations appear to be associated with student achievement. This view

has been consistently established by literature reviews (for example, Brophy and Good, 1974; Cooper, 1979; Braun, 1976). Furthermore, a recent meta-analysis by Smith (1980) also reports that teacher behavior and student achievement vary in relation to teacher expectations. Most of the data have been collected naturalistically; thus it is not possible to state that teacher expectations cause student behavior. It could be that higher teacher expectations are caused by more responsive student behavior and not vice versa (West and Anderson, 1976).



**"Without feedback from their teachers, low students cannot know how well they are doing."**

I recently visited a seventh-grade science teacher who was teaching the same subject to two different classes (Good, 1980b, 1980c). It was clear that the students influenced not only how the teacher behaved in general, but also the content the teacher presented.<sup>2</sup> There were several differences in content taught to the two groups because the initiative of students in seeking information and in raising questions varied notably across the two classes. However, it was also noted that the instructor could reduce differences between the two classes when he chose to do so. It would appear that both students and teach-

ers influence classroom behavior.

My experience suggests that in elementary schools teachers are typically much more important sources of influence. Students become relatively more important in secondary schools, as they develop more awareness of their ability to influence teachers, as well as communications skills and influence strategies.

Probably the most accurate statement about the direction of classroom influence is Cooper's (1979) argument that, at a minimum, teachers' expectations and their subsequent behavior *sustain* differences in student

performance levels, even if they do not create them. Obviously, maintaining student achievement at an unnecessarily low level is an unfortunate problem that needs attention.

#### New Developments in Teacher Expectation Research

Most of the research conducted to date has examined differential verbal behavior of teachers toward high- and low-achievement students. Studies that explore other ways in which teachers communicate different expectations are needed. Some of the many areas that would merit research include teachers' comments on student papers

and the nature of assignments that students are asked to complete. Most research has studied teacher behavior toward individual students. We now need more studies of how teacher expectations influence teacher behavior toward the entire class as a whole and toward groups of students. As far as I know, there have been no studies relating teachers' expectations toward the class to classroom behavior and affective or academic outcomes. There has been some research that profitably examined teacher behavior toward groups of students (Weinstein, 1976; Allington, 1980), but no explicit measurement of teacher expectations for group achievement has been related to actual group progress.

More attention also needs to be paid to the teacher expectation variable itself. A variety of expectation beliefs probably influence teacher behavior; however, to date, attention has focused on teachers' performance expectations for individual students. There have been some attempts to study other teacher beliefs. For example, based on Cooper's (1979) attributional-feedback model, we attempted to relate teachers' beliefs about interaction control to classroom behavior (Cooper, Hinkel, and Good, 1980). We thought that teachers might refuse to stay with a student or might criticize a student not because of the student's behavior, but because the teacher had to worry about managing the class as a whole. Our data produced some weak support for the control notion, and the research seems to represent a useful step in broadening the measurement of teacher expectations. However, as I have noted elsewhere (Good, 1980a), teachers' affective reactions to students are linked to many beliefs other than optimizing control. Studies that explore a variety of teacher beliefs simultaneously would be useful (teachers' beliefs about their ability to teach, students' abilities to learn, beliefs about particular students, and so on).

It has been argued that some teachers treat high and low students differently because they have to make quick decisions and interpret ambiguous clues. Students also live in a busy, complex world and have to interpret teacher behavior. It seems reasonable to believe that how students interpret teacher behavior and the significance

that students place on particular classroom tasks will influence what and how they attempt to learn.

Asking students about teacher treatment may lead to understanding that classroom observation cannot provide. Student responses in Weinstein and others' (1979, 1980) research indicate that students see differential teacher treatment toward highs and lows in terms of tasks assigned and classroom management. High students are perceived to have more choice of tasks and more time to complete work if they request it. I have obtained comparable findings in interviews with junior high students. Students indicated that high-achieving students have more rights and more autonomy in the classroom than do lows. Students also believed that teachers would accept the excuses of high students more readily than those of lows.

Jere Brophy and I noted in our original model (Brophy and Good, 1970b) that students play an active role in whether teacher expectations are internalized or whether they are actively resisted. The work of Rhona Weinstein and colleagues may help to clarify this process. Similarly, Harris Cooper and I are presently testing one such link in the expectation-student outcome process, using a model described in detail elsewhere (Cooper, 1979). In particular, our work examines the relationship between affective teacher feedback and students' effort-outcome beliefs (Cooper and Good, in progress). It may be that what students think about instruction and themselves as learners mediates achievement outcomes.

Teacher expectations remains an important topic. Despite a decade of research, it is still possible to find teachers who interact with low-achieving students in unprofitable ways (Good and others, 1980). Given the continuing presence of mainstreaming and desegregation issues, research on teacher expectations will also continue to be a most important inservice issue in the 1980s. Fortunately, much of the unprofitable interaction that low-achieving students receive is due to the fact that teachers are simply unaware of interaction patterns. Most teachers appear to appreciate information about the effects of low expectations, and they benefit from suggestions for improving classroom behavior. ■

<sup>1</sup> Many graduate students were very helpful in assisting us to build and test the coding system. Carolyn Evertson's work was especially useful, particularly in later revisions of the system.

<sup>2</sup> Jere Confrey observed some of these class sessions with me and was very helpful in sharpening my focus on content variables.

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