Close-Up #7

Expectations and Student Outcomes

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INTRODUCTION

> ..."You see, really and truly, apart from the things anyone can pick up (the dressing and the proper way of speaking, and so on), the difference between a lady and a flower girl is not how she behaves, but how she's treated. I shall always be a flower girl to Professor Higgins, because he always treats me as a flower girl, and always will; but I know I can be a lady to you, because you always treat me as a lady, and always will."

With this quotation from George Bernard Shaw's play, PYGMALION, Robert Rosenthal and Lenore Jacobson conclude their 1968 publication, PYGMALION IN THE CLASSROOM. Just as the character, Eliza Doolittle, suggests that a person's place in society is largely a matter of how he or she is treated by others, the Rosenthal/Jacobson study concluded that students' intellectual development is largely a response to what teachers expect and how those expectations are communicated.

The original Pygmalion study involved giving teachers false information about the learning potential of certain students in grades one through six in a San Francisco elementary school. Teachers were told that these students had been tested and found to be on the brink of a period of rapid intellectual growth; in reality, the students had been selected at random.

At the end of the experimental period, some of the targeted students--and particularly those in grades one and two--exhibited performance on IQ tests which was superior to the scores of other students of similar ability and superior to what would have been expected of the target students with no intervention.

These results led the researchers to claim that the inflated expectations teachers held for the target students (and, presumably, the
teacher behaviors that accompanied those high expectations) actually CAUSED the students to experience accelerated intellectual growth.

Few research studies in the field of education have generated as much attention and controversy among educators, researchers, and the general public as Rosenthal and Jacobson's Pygmalion study. Theorists argued about the psychological validity of "expectancy effects." Researchers set up attempts to replicate Pygmalion's findings. And in

the popular press, articles began appearing which used the Pygmalion findings as a springboard for the claim that perhaps "Johnny can't read" because his teachers don't have faith in his abilities and don't encourage him, particularly if he is poor or a member of a minority group. Other articles looked at the positive side, giving teachers and parents the message that they could improve children's school performance dramatically by communicating high expectations to them.

In the years since the original Pygmalion study was published, a great many additional studies have been undertaken. Several investigators (Snow 1969; Thorndike 1968; Wineburg 1987) have examined Rosenthal and Jacobson's study and found technical defects serious enough to cast doubt upon the accuracy of its findings. Some replication experiments seemed to confirm the Pygmalion findings, and others failed to do so. Other researchers conducted studies which sought to identify the ways that expectations are communicated to students. Meanwhile, the popular press, for the most part, continued to treat the Pygmalion findings as gospel and sometimes cast aspersions on America's teachers for the failure of some children to learn, claiming that teachers' low expectations were either creating or sustaining the problem.

Whether one is inclined to accept or doubt the findings of the Pygmalion study and other research supporting "self-fulfilling prophecy" effects, it is clear that educators and the general public were and are very interested in the power of expectations to affect student outcomes.

DEFINITIONS

To expect something is to look forward to its probable occurrence or appearance, according to the AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE. TEACHER EXPECTATIONS refer to inferences that teachers make about the future academic achievement of students (Cooper and Good 1983). SCHOOLWIDE EXPECTATIONS refer to the beliefs held by the staff as a whole about the learning ability of the student body.

As originally described by Merton (1948), a SELFFULFILLING PROPHECY occurs when a false definition of a situation evokes a new behavior which makes the originally false conception come true. Thus, the Pygmalion study is seen as a self-fulfilling prophecy effect, because while the imminent intellectual blooming of target students was "false information" given to teachers, believing the information presumably led teachers to act in such a way as to make the false conception a reality. Finally, SUSTAINING EXPECTATION EFFECTS are said to occur when teachers respond on the basis of their existing expectations for students rather than to changes in student performance caused by sources other than the teacher (Cooper and Good 1983). As Good and Brophy (1984) express the difference:

Self-fulfilling prophecies are the most dramatic form of teacher expectation effects, because they involve changes in student behavior. Sustaining expectations refer to situations in which teachers fail to see student potential and hence do not respond in a way to encourage some students to fulfill their potential. In summary, self-fulfilling expectations bring about change in student performance, whereas sustaining expectations prevent change." (p. 93)

The workings of these two kinds of expectation effects are detailed in the section on research findings.

THE RESEARCH BASE ON SCHOOLWIDE AND TEACHER EXPECTATIONS

The present report is supported by 46 documents which offer research evidence about the relationship between expectations and student outcomes (achievement, IQ scores, and attitudes). An additional 21 documents in the bibliography provide information on related topics, such as how teacher expectations develop and how to minimize the negative effects associated with low expectations.

Of the 46 key documents, 22 are primary sources (studies and evaluations), 23 are secondary sources (reviews and meta-analyses), and one presents the results of both a study and a review effort. Twelve reports are concerned with the effects of schoolwide expectations, 30 focus specifically on the effects of teacher expectations in classroom or experimental settings, and four look at both schoolwide and inclassroom expectation effects.

Nineteen of the documents are concerned with students at the elementary level, seven focus on secondary students, nineteen report findings regarding the entire elementary-secondary range, one presents findings regarding postsecondary subjects, and one is concerned with elementary, secondary, and postsecondary students.

The investigations focused on a variety of outcome areas, including student ACHIEVEMENT in areas such as reading, mathematics, language arts, French, history, geography, physics, and biology (34); IQ MEASURES (10); student ATTITUDES toward school, toward particular subject areas, or toward the expectations of them which they perceived their teachers to hold (15); SOCIAL BEHAVIOR (5); and SELF-EFFICACY/EXPECTATIONS FOR SUCCESS (9). Several of the investigations were concerned with more than one outcome area.

SCHOOLWIDE EXPECTATIONS AND THEIR EFFECTS

Every study retrieved for this analysis which sought to identify the critical components in effective schools included high expectations for student learning among the essential variables identified. The presence of high expectations is cited at or near the top of each investigator's list of essential elements, along with such related factors as strong administrative leadership, a safe and orderly environment, schoolwide focus on basic skill acquisition above all other goals, and frequent monitoring of student progress.

Low-achieving schools, meanwhile, are usually found to lack several of these elements. Staff members in these schools generally view their students as being quite limited in their learning ability and do not see themselves as responsible for finding ways to raise those students' academic performance. Low achievement levels are usually attributed to student characteristics rather than the school's managerial and instructional practices.

How are high expectations for students communicated among staff members, to students, and to parents? Researchers cite the following:

- SETTING GOALS WHICH ARE EXPRESSED AS MINIMALLY ACCEPTABLE LEVELS OF ACHIEVEMENT rather than using prior achievement data to establish ceiling levels beyond which students would not be expected to progress (Good 1987)
- DEVELOPING AND APPLYING POLICIES WHICH PROTECT INSTRUCTIONAL TIME, e.g., policies regarding attendance, tardiness, interruptions during basic skills instructional periods, etc. (Murphy, et al., 1982)
- DEVELOPING POLICIES AND PRACTICES WHICH UNDERSCORE THE IMPORTANCE OF READING, i.e., written policies regarding the amount of time spent on reading instruction daily, use of a single reading series to maintain continuity, frequent free reading periods, homework which emphasizes reading; frequent sharing of student reading progress with parents, and strong instructional leadership (Hallinger and Murphy 1985; Murphy, et al. 1982)
- ESTABLISHING POLICIES WHICH EMPHASIZE THE IMPORTANCE OF ACADEMIC ACHIEVEMENT TO STUDENTS, e.g., minimally acceptable levels of achievement to qualify for participation in extracurricular activities, regular notification to parents when academic expectations aren't being met, etc. (Murphy and Hallinger 1985)
- Having STAFF MEMBERS WHO HOLD HIGH EXPECTATIONS FOR THEMSELVES as leaders and teachers, taking responsibility for student performance (Brookover and Lezotte 1979; Edmonds 1979; Murphy and Hallinger, 1985; Murphy, et al. 1982)
- Using SLOGANS WHICH COMMUNICATE HIGH EXPECTATIONS, e.g., "academics plus," "the spirit of our school," etc. (Newberg and Glatthorn 1982)
- Establishing a POSITIVE LEARNING CLIMATE, i.e., the appearance of the physical plant and the sense of order and discipline that pervades both noninstructional and instructional areas (Edmonds, 1979; Newberg and Glatthorn 1982; Murphy, et al., 1982)
- "INSISTENT COACHING" of students who are experiencing learning difficulty (Good 1987; Taylor 1986-87)

In addition, Murphy, et al. (1982) state that

Perhaps the most important thing schools can do to promote high expectations is to frame school purpose policies in terms of one or two academic goals, which can in turn provide the framework for all other school activity (p.24).

TEACHER EXPECTATIONS

Teacher expectations are, of course, a component of schoolwide expectations. In addition, researchers have conducted numerous detailed examinations of the ways teacher expectations are communicated to students in classroom settings and how these messages influence student outcomes.

The most important finding from this research is that TEACHER EXPECTATIONS CAN AND DO AFFECT STUDENTS' ACHIEVEMENT AND ATTITUDES. Among the research materials supporting this paper, all that address this topic found relationships between expectations and student outcomes.

How do teacher expectations affect student outcomes? Most researchers accept Good and Brophy's (1980) description of the process:

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, levels 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 lowexpectation 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 full-blown SELF-FULFILLING PROPHECY EFFECTS can occur only when all the elements in the model are present. 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. Rather, they are based on the best information available about the students (Brophy 1983; Brophy and Good 1970; Clifton 1981; Cooper 1983, 1984; Good 1987, 1982; Good and Brophy, 1984; Meyer 1985; Raudenbush 1984; and Wineburg 1987).

However, even though the initial expectations formed by teachers may be realistic and appropriate, researchers have found that SUSTAINING EXPECTATION EFFECTS can occur and can also limit students' learning and selfconcept development. As noted by Good (1987):

For sustaining expectations to occur, it is only necessary that teachers engage in behaviors that maintain students' and teachers' previously formed low expectations (e.g., by giving low-expectation students only drill work, easy questions, etc.) (p. 34).

THE EXTENT AND STRENGTH

OF DIFFERENTIAL TREATMENT

How widespread is the practice of teachers' communicating differential expectations to students they perceive as having greater or lesser learning potential? While some researchers have concluded that differential treatment is very widespread and very damaging to those students perceived as low potential, most do not agree. Instead, their work has led them to conclude that the majority of teachers both form initial expectations on the basis of viable information and are able to adjust their expectations and instructional approaches as changes in students' performance occur (Brophy 1983; Brophy and Good 1970, 1976; Cooper and Good 1983; Cooper and Tom 1984; Good 1982, 1987; Meyer 1985; Raudenbush 1984; and Wineburg 1987). This is particularly true with experienced

teachers and with teachers who know their students well.

These researchers and others have, however, found that a MINORITY of teachers do: (1) hold unjustifiably low expectations for student achievement on the basis of factors such as race, gender, or socioeconomic status, which have nothing to do with learning potential; or (2) form initial expectations based on appropriate data, but then hold to these expectations so rigidly that changes in student skill or motivation levels are not noted or addressed.

How strong are the effects of teachers' expectancy communications on student learning? The research does not answer this question precisely, but it does give some indications of the extent of their influence. Meyer (1985) concluded that:

The effects of teacher expectancies on students...surely occur, although not with the frequency or intensity that was suggested by earlier investigators (p. 361).

In his 1983 review of the teacher expectations research, Brophy estimated that five to ten percent of the variance in student performance is attributable to differential treatment accorded them based on their teachers' differential expectations of them. Various other researchers have accepted and quoted this estimate.

Five to ten percent is hardly the epidemic of mistreatment and negative outcomes perceived by some educators and members of the general public, but it is significant enough, particularly when compounded through year after year of schooling, to warrant concern. Researchers have also found that younger children are more susceptible to the effects of expectancy communications than are older students, and that communicating low expectations seems to have more power to lower student performance than communicating high expectations has to raise performance.

Much of the literature on teacher expectations calls attention to the fact that students do in fact have different ability levels and require different instructional approaches, materials, and rates. None of the authors whose work was reviewed for this report suggest that teachers should hold the same expectations for all students, nor that they should deliver identical instruction to them all. Rather, they focus on the problems created when differential treatment either creates or sustains differences in student performance which would probably not exist if students were treated more equitably.

HOW INAPPROPRIATE EXPECTATIONS ARE FORMED

If the expectations held by some teachers are not based on appropriate information (such as cumulative folder data, recent achievement tests, etc.), then what are they based on? Brookover, et al. (1982), Cooper (1984), Good (1987), and others have identified numerous factors which can lead teachers to hold lower expectations for some students than others. These include:

- SEX. Lower expectations are often held for older girls--particularly in scientific and technical areas-- because of sex role stereotyping.
- SOCIOECONOMIC STATUS. Teachers sometimes hold lower expectations of students from lower SES backgrounds.
- RACE/ETHNICITY. Students from minority races or ethnic groups are sometimes

viewed as less capable than Anglo students.

- TYPE OF SCHOOL. Students from either inner city schools or rural schools are sometimes presumed to be less capable than students from suburban schools.
- APPEARANCE. The expense or style of students' clothes and students' grooming habits can influence teachers' expectations.
- ORAL LANGUAGE PATTERNS. The presence of any nonstandard English speaking pattern can sometimes lead teachers to hold lower expectations.
- MESSINESS/DISORGANIZATION. Students whose work areas or assignments are messy are sometimes perceived as having lower ability.
- READINESS. Immaturity or lack of experience may be confused with learning ability, leading to inappropriately low expectations.
- HALO EFFECT. Some teachers generalize from one characteristic a student may have, thereby making unfounded assumptions about the student's overall ability or behavior.
- SEATING POSITION. If students seat themselves at the sides or back of the classroom, some teachers perceive this as a sign of lower learning motivation and/or ability and treat students accordingly.
- NEGATIVE COMMENTS ABOUT STUDENTS. Teachers' expectations are sometimes influenced by the negative comments of other staff members.
- OUTDATED THEORIES. Educational theories which stress the limitations of learners can lead to lowered expectations.
- TRACKING OR LONG-TERM ABILITY GROUPS. Placement in "low" tracks or groups can cause students to be viewed as having less learning potential than they actually have.

According to research, those teachers who hold low expectations for students based on factors such as those listed above are rarely acting out of malice; indeed, they are often not even aware that their low expectations have developed based on specious reasoning. Thus, efforts aimed at helping teachers to avoid harmful stereotyping of students often begin with activities designed to raise teachers' awareness of their unconscious biases.

Researchers and reviewers also note that putting too much faith in APPROPRIATE sources of information, such as test scores and cumulative folder information, can lead to unsuitable expectations and treatments. These writers warn that these data should not be viewed as the final truth about students' ability, but rather as guides for INITIAL placement and instructional decisions.

HOW DIFFERENTIAL EXPECTATIONS

ARE COMMUNICATED TO STUDENTS

Of course, merely HOLDING certain expectations for students has no magical power to affect their performance or attitudes. Rather, it is the translation of these expectations into BEHAVIOR that influences outcomes.

It is important to keep in mind that most teachers, as noted above, do NOT translate differential expectations into behaviors that inhibit students' academic growth. Instead, they seek and find ways to help each student reach his or her learning potential. Unfortunately, however, researchers have found that some teachers do interact with students for whom they hold low expectations in such a way as to limit their development. The types of

differential treatment listed below are identified in the work of Brookover, et al. (1982); Brophy (1983); Brophy and Evertson (1976); Brophy and Good (1970); Cooper and Good (1983); Cooper and Tom (1984); Cotton (1989); Good (1987, 1982); Good, et al. (1980); Good and Brophy (1984):

- Giving low-expectation students fewer opportunities than high-expectation students to learn new material
- Waiting less time for low-expectation students to answer during class recitations than is given to highexpectation students
- Giving low-expectation students answers or calling on someone else rather than trying to improve their responses by giving clues or repeating or rephrasing questions, as they do with high-expectation students
- Giving low-expectation students inappropriate reinforcement, e.g., giving reinforcement which is not contingent on performance
- Criticizing low-expectation students for failure more often and more severely than high-expectation students and praising them less frequently for success
- Failing to give feedback to the public responses of low-expectation students
- Paying less attention to low-expectation students than high-expectation students, including calling on low-expectation students less often during recitations
- Seating low-expectation students farther from the teacher than high-expectation students
- Interacting with low-expectation students more privately than publicly and structuring their activities much more closely
- Conducting differential administration or grading of tests or assignments, in which high-expectation students--but not low-expectation students--are given the benefit of the doubt in borderline cases
- Conducting less friendly and responsive interactions with low-expectation students than high-expectation students, including less smiling, positive head nodding, forward leaning, eye contact, etc.
- Giving briefer and less informative feedback to the questions of low-expectation students than those of high-expectation students
- Asking high-expectation students more stimulating, higher cognitive questions than low-expectation students
- Making less frequent use of effective but timeconsuming instructional methods with low-expectation students than with high-expectation students, especially when time is limited.

These kinds of differential treatment have been noted in the behavior of some teachers toward different INDIVIDUALS in classrooms, but they are also observed by researchers looking at teachers' behavior toward different ability GROUPS in classrooms and in tracked CLASSROOMS. Students in low groups and tracks have been found to get less exciting instruction, less emphasis upon meaning and conceptualization, and more rote drill and practice activities than those in high reading groups and tracks (Brophy 1983; Cooper and Tom 1984; Good 1987; and Good and Brophy 1984). Researchers also note that the instructional environment in heterogeneous groups and classes is similar to that in high groups and tracks--more demanding, more opportunities to learn, and a warmer socioemotional climate.

As with the FORMATION of expectations based on inappropriate factors, the COMMUNICATION of differential expectations is often unconscious on the part of teachers. Or, in cases where teachers are aware that they are practicing differential

treatment, they often see this as appropriate to their students different ability levels and fail to perceive its harmful effects. Staff development specialists familiar with these phenomena advocate that preservice and inservice training programs work to raise teachers' awareness of their thinking and behavior with regard to expectations and of the potential negative effects of differential treatment.

Brattesani, et al. (1984), Cooper and Good (1983), Good (1987) and others have conducted research on student awareness of differential treatment and have found that students are generally very much aware of it in classrooms where it is pronounced. These researchers have also found that student attitudes--and particularly the attitudes of low-expectation students- -are more positive in classrooms where differential treatment is low.

Researchers such as Brattesani (1984), Brophy (1983), Cooper and Tom (1984), Cooper, et al. 1982, Good (1987) and Marshall and Weinstein (1984) point out that the negative effects of differential teacher treatment can be either direct or indirect. Giving low-expectation students limited exposure to new learning material and less learning time inhibit their learning in very direct ways. Many of the kinds of differential treatment listed above, however, are indirect in their effects. That is, they give students messages about their capabilities, and to the extent that students believe and internalize those messages, their performance can come to reflect the teachers' beliefs about their ability. In this way, teacher expectation effects are said to be MEDIATED by student perceptions.

SUMMARY AND RECOMMENDATIONS

Major findings presented in the research on schoolwide and teacher expectations include:

- Expectations, as communicated schoolwide and in classrooms, can and do affect student achievement and attitudes.
- High expectations are a critical component of effective schools.
- In effective schools, high expectations are communicated through policies and practices which focus on academic goals.
- Teacher expectations and accompanying behaviors have a very real--although limited--effect on student performance, accounting for five to ten percent of student achievement outcomes.
- Communicating low expectations has more power to limit student achievement than communicating high expectations has to raise student performance.
- Younger children are more susceptible to expectancy effects than are older students.
- Most teachers form expectations on the basis of appropriate information, such as cumulative folder data and change their expectations as student performance changes.
- A minority of teachers form expectations based on irrelevant factors such as students' socioeconomic status, racial/ethnic background, or gender.
- A minority of teachers see student ability as static, and thus do not perceive and respond to changes in students' performance in such a way as to foster their growth.
- A minority of teachers treat low-expectation students in ways likely to inhibit their growth, e.g., by exposing them to less learning material and material that is less interesting, giving them less time to respond to questions, and communicating less warmth and affection to them.
- Teachers who form expectations based on inappropriate data, are rigid and unchanging in their expectations, and/or treat low-expectation students in inhibiting

ways are generally not aware of their harmful thinking and behaviors.

- When teachers engage in differential treatment of high- and low-expectation students, students are aware of these differences.
- Low-expectation students have better attitudes in classrooms where differential treatment is low than in classrooms where it is high.
- In the hands of some teachers, low groups and low tracks are subject to the same kinds of limiting treatment as are individual low-expectation students-- with the same negative effects.
- The negative effects of differential teacher treatment on low-expectation students may be direct (less exposure to learning material) or indirect (treating students in ways that erode their learning motivation and sense of self-efficacy).
- Training can enable school staff members to become aware of their unconscious biases and differential treatment of students, and help them to make positive changes in their thinking and behavior.

Given these findings, what can be done to improve the ways teachers form expectations and communicate them, especially to students they perceive as having limited potential? The following recommendations are drawn from the work of Brophy (1983), Cooper and Tom (1984), Cotton (1989), Good and Brophy (1984), Marshall and Weinstein (1984), Patriarca (1986), and Woolfolk (1985):

- Avoid unreliable sources of information about students' learning potential, e.g., social stereotypes, the biases of other teachers, etc.
- Set goals (for individuals, groups, classrooms, and whole schools) in terms of floors (minimally acceptable standards), not ceilings; communicate to students that they have the ability to meet those standards.
- Use heterogeneous grouping and cooperative learning activities whenever possible; these approaches capitalize on students' strengths and take the focus off weaknesses.
- Develop task structures in which students work on different tasks, on tasks that can be pursued in different ways, and on tasks that have no particular right answer. This will minimize harmful comparisons.
- Emphasize that different students are good at different things and let students see that this is true by having them observe one another's products, performances, etc.
- Concentrate on extending warmth, friendliness, and encouragement to all students.
- Monitor student progress closely so as to keep expectations of individuals current.
- Give all students generous amounts of wait-time to formulate their answers during recitations; this will increase participation and improve the quality of responses.
- In giving students feedback, stress continuous progress relative to previous levels of mastery, rather than comparisons with statistical norms or other individuals.
- In giving students feedback, focus on giving useful information, not just evaluation of success or failure.
- When students do not understand an explanation or demonstration, diagnose the learning difficulty and follow through by breaking down the task or reteach it in a different way, rather than merely repeating the same instruction or giving up.
- In general, think in terms of stretching the students' minds by stimulating them and encouraging them to achieve as much as they can, not in terms of "protecting" them from failure or embarrassment.

The research of Marshall and Weinstein (1984) and other investigators indicates that teachers can be trained to view intelligence as a multi-faceted and continuously changing quality and to move away from holding and communicating unfounded or rigidly

constrained expectations to their students. Given the power of teacher expectations to influence students' learning and their feelings about themselves, providing such teacher training is a good--perhaps essential-- investment in our educational system.

KEY REFERENCES

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> Presents the results of a large-scale survey of high school students regarding their response to having teachers who hold high academic expectations for them. A majority of students reacted negatively, believing that their teachers' expectations were extreme or unfair.

Bhusan, V. RELATIONSHIP OF TEACHER ATTITUDE TO THE ENVIRONMENT OF HIS/HER CLASS. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL, March-April, 1985. (ED 260 118).

> Compares the achievement levels and attitudes of secondary students whose teachers rated high on behaviors such as warmth, high expectations, trust, openness, and flexibility with the achievement and attitudes of students whose teachers were rated as "authoritarian, pessimistic, repressing, and reproachful." Classrooms of this latter group of teachers were characterized by friction, favoritism, dissatisfaction, and lower achievement levels.

Brattesani, K.A.; Weinstein, R.S.; and Marshall, H.H. "Student Perceptions of Differential Teacher Treatment as Moderators of Teacher Expectation Effects." JOURNAL OF EDUCATIONAL PSYCHOLOGY 76 (1984): 236-247.

> Presents the results of two studies which examined the relationships among teacher expectations, students' perceptions of differential treatment accorded to students for whom teachers hold different expectations, student perceptions of teachers' treatment of them personally, and student achievement levels. Results indicate that differential teacher treatment emanating from different expectations sustains and even increases differences in student achievement.

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> Presents the results of a large-scale study of fourth and fifth graders, their teachers, and their principals in approximately 170 schools in the state of Michigan. A variety of social structure and school climate variables were examined in relation to student outcomes.

, and Lezotte, L.W. CHANGES IN SCHOOL CHARACTERISTICS COINCIDENT WITH CHANGES IN STUDENT ACHIEVEMENT. Occasional Paper No. 17. East Lansing, MI: Institute for Research on Teaching, Michigan State University, 1979. (ED 181 005).

> Presents the results of an in-depth analysis of elementary schools, six of which were characterized by improving student achievement, and two of which

exhibited declining student achievement. Identifies high teacher and principal expectations of students as one of the major features distinguishing the high- and low-achieving schools.

; Beamer, L.; Efthim, H.; Hathaway, D.; Lezotte, L.; Miller, S.; Passalacqua, J.; and Tornatzky, L. CREATING EFFECTIVE SCHOOLS: AN INSERVICE PROGRAM FOR ENHANCING SCHOOL LEARNING CLIMATE AND ACHIEVEMENT. Holmes Beach, FL: Learning Publications, Inc., 1982.

Presents an inservice training program for school staff who want to improve student achievement through modifications in the school learning environment. Includes research on what constitutes an effective learning environment and the relationship between school staff expectations and student achievement.

Brophy, J.E. "Research on the Self-Fulfilling Prophecy and Teacher Expectations." JOURNAL OF EDUCATIONAL PSYCHOLOGY 75 (1983): 631-661.

Reviews the literature on self-fulfilling prophecy effects and concludes that a minority of teachers have major expectation effects on their students' achievement. Effects are found to be minimal for most teachers, because their expectations are generally quite accurate and open to corrective feedback.

, and Evertson, C.M. LEARNING FROM TEACHING: A DEVELOPMENTAL PERSPECTIVE. Boston: Allyn and Bacon, 1976.

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, and Good, T.L. "Teachers' Communication of Differential Expectations for Children's Classroom Performance: Some Behavioral Data." JOURNAL OF EDUCATIONAL PSYCHOLOGY 61 (1970): 365-374.

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Clifton, R.A. "Ethnicity, Teachers Expectations, and the Academic Achievement Process in Canada." SOCIOLOGY OF EDUCATION 54 (1981): 291-301.

Investigates the effects of different variables, including teacher expectations, on the academic achievement of French- and German-speaking ninth graders in Ontario, Canada.

Cooper, H.M., and Good, T.L. PYGMALION GROWS UP: STUDIES IN THE EXPECTATION COMMUNICATION PROCESS. New York: Longman Press, 1983.

Reviews research on the effects of teacher expectations, presents a model of the way these effects occur, and describes several studies whose results led to formulation and refinement of the model.

, and Tom, D.Y.H. "Teacher Expectation Research: A Review with Implications for Classroom Instruction." THE ELEMENTARY SCHOOL JOURNAL 85 (1984): 77-89.

> Reviews research on the effects of teacher expectations on student achievement and attitudes. Outlines research findings on the behaviors through which expectations are communicated. Offers a model of the ways expectations influence outcomes, and provides recommendations for minimizing the negative effects of expressing low expectations.

; Findley, M.; and Good, T. "Relations Between Student Achievement and Various Indexes of Teacher Expectations." JOURNAL OF EDUCATIONAL PSYCHOLOGY 74 (1982), 577-579.

> Examines the effect of teacher expectations on student reading achievement. Sixth graders in thirteen classes and their teachers participated. Changes in student achievement levels were affected by teachers' perceptions of student ability.

Cotton, K. CLASSROOM QUESTIONING. CLOSE-UP #5. Portland, OR: Northwest Regional Educational Laboratory, 1989.

> Synthesizes findings from 37 studies of the relationship between teachers' questioning behaviors and student achievement and other outcomes. Supports the use of longer wait-times during questioning sessions and increases in higher cognitive questions.

Crohn, L. TOWARD EXCELLENCE: STUDENT AND TEACHER BEHAVIORS AS PREDICTORS OF SCHOOL SUCCESS. Research Summary Report. Portland, OR: Northwest Regional Educational Laboratory, 1983. (ED 242 704).

> Provides research findings and offers recommendations regarding the effects of teacher and student attitudes and behaviors. Cites research to the effect that teacher expectations are often based on matters unrelated to student ability and that the communication of high or low expectations profoundly affects student performance.

Dusek, J.B., (Ed.). TEACHER EXPECTANCIES. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers, 1985.

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> Reviews research on school factors which increase the achievement levels and enhance the school attitudes of poor, inner-city children. Identifies high expectations as a critical component of effective schooling.

Feldman, R.S., and Theiss, A.J. "The Teacher and Student as Pygmalions: Joint Effects of Teacher and Student Expectations." JOURNAL OF EDUCATIONAL PSYCHOLOGY 74 (1982): 217-223.

> Examines the reciprocal effects of teacher and student expectations on performance and attitudes. This non-naturalistic study involved 144 female college students, some of whom were given "teacher" tasks and some of whom were given "student" tasks. Participants were given preconceptions about their "teacher" or "student." The major findings were that teacher expectations did influence student achievement and that preconceptions influenced both teacher and student attitudes.

Gaddy, G.D. "High School Order and Academic Achievement." AMERICAN JOURNAL OF EDUCATION 96 (1988): 496-518.

> Reviews several major studies on school effectiveness to clarify the relationship between discipline/order and achievement. One conclusion is that holding high learning expectations for students is an essential part of an effective school climate.

Good, T.L. "Two Decades of Research on Teacher Expectations: Findings and Future Directions." JOURNAL OF TEACHER EDUCATION 38 (1987): 32-47.

> Summarizes research findings regarding the effects of teacher expectations on student achievement and attitudes. Discusses self-fulfilling prophecy effects, sustaining expectations effects, and the ways teacher expectations impact individual students, groups within classrooms, whole classrooms, and entire schools.

. "How Teachers' Expectations Affect Results." AMERICAN EDUCATION 18 (1982): 25-32.

> Summarizes research conducted by the author and Jere Brophy on the effects of teachers' expectations on student attitudes and achievement. Also discusses the expectations communication model used to conduct the research.

; Cooper, H.; and Blakey, S. "Classroom Interaction as a Function of Teacher Expectations, Student Sex, and Time of Year." JOURNAL OF EDUCATIONAL PSYCHOLOGY 72 (1980): 378-385.

> Examines the effects of teacher expectations and student sex on teachers' treatment of students and seeks to identify changes in differential treatment over time. Twelve students in third, fourth, and fifth grade classes participated. Teachers' behaviors favored high-ability students in ways congruent with the findings of most other research studies in this area.

, and Brophy, J.E. "Teacher Expectations." Chapter 4 in LOOKING IN CLASSROOMS. New York: Harper & Row, 1984, 93-121.

> Offers research evidence regarding the ways that teacher expectations are formed, how they are communicated to students, and how they influence student self-perceptions and achievement. Also provides recommendations for

ways that teachers can minimize communicating expectations that have negative impacts on students.

Hallinger, P., and Murphy, J. "Characteristics of Highly Effective Elementary School Reading Programs." EDUCATIONAL LEADERSHIP 52 (1985): 39-42.

Identifies schoolwide policies and practices believed to be positively related to the higher-than-average reading achievement levels in eight elementary schools. In the two schools which were spotlighted, policies and practices related to time allocations for reading, curriculum, access to books, emphasis on literature, homework, support services, progress reports, the school improvement program, and instructional leadership were identified.

Hillman, S.J. CONTRIBUTIONS TO ACHIEVEMENT: THE ROLE OF EXPECTATIONS AND SELF-EFFICACY IN STUDENTS, TEACHERS, AND PRINCIPALS. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA, April 1984. (ED 247 290).

Compares ten high-achieving schools with ten lowachieving schools in terms of students', teachers', and principals' achievement expectations for students and their sense of self-efficacy. High achieving schools were characterized by higher expectations and a stronger sense of self-efficacy.

Kester, S.W., and Letchworth, G.A. "Communication of Teacher Expectations and Their Effects on Achievement and Attitudes of Secondary School Students." THE JOURNAL OF EDUCATIONAL RESEARCH 66 (1972): 51-55.

Reports the results of a study in which 150 seventh graders and their teachers participated. Teachers were given false information to the effect that the students were intellectually gifted to determine whether their increased expectations would lead to improvements in student achievement and attitude. No significant changes were noted, although teachers did have more interactions with students they believed to be gifted.

Marshall, H.H., and Weinstein, R.S. "IT'S NOT HOW MUCH BRAINS YOU'VE GOT, IT'S HOW YOU USE IT": A Comparison of Classrooms Expected to ENHANCE OR UNDERMINE STUDENTS' SELF-EVALUATIONS. Washington, DC: National Institute of Education; Bethesda, MD: National Institute of Mental Health; Chicago, IL: Spencer Foundation, 1985. (ED 259 027).

Compares the classroom management techniques and instructional strategies used in two fifth grade classrooms--one in which students perceived that the teacher treated different students very differently, and one in which students perceived that the teacher treated all students similarly. Students treated similarly held higher achievement expectations for themselves.

, and Weinstein, R.S. "Classroom Factors Affecting Students' Self-Evaluations: An Interaction Model." REVIEW OF EDUCATIONAL RESEARCH 54 (1984): 301- 325.

Draws upon a large body of research to identify the factors that influence students' evaluations of their own learning ability. Presents a model which describes the interactions between and among those factors. Recommends

classroom practices which de-emphasize comparisons among students.

Meyer, W.J. "Summary, Integration, and Prospective." Chapter 14 in Dusek, J.B. (Ed.). TEACHER EXPECTANCIES. Hillsdale, NJ: Lawrence Erlbaum Associates Publishers, 1985, 353-371.

> Reviews major points of authors represented in this collection of writings on teacher expectations and offers recommendations for both researchers and theoreticians working in this area.

Miskel, C., and Bloom, S. EXPECTANCY CLIMATE AND SCHOOL EFFECTIVENESS. Lawrence, KS: Learning Disabilities Institute, 1982. (ED 214 246).

> Examines the relationship of "expectancy climate"-- what staff expect of themselves and their students--and the school effectiveness indicators of adaptability, perceived goal attainment, teacher job satisfaction, and student attitudes. Data collected from teachers and students in 89 Kansas schools indicated that all four variables are related to expectancy climate.

Murphy, J., and Hallinger, P. "Effective High Schools- -What Are the Common Characteristics ?" NASSP BULLETIN 69 (1985), 18-22.

> Draws from data collected during a nationwide study of effective secondary schools to identify the 18 most effective high schools in California and the characteristics that make them effective. The presence of high expectations for student achievement and behavior was found to be a critical variable in these effective schools.

; Weil, M.; Hallinger, P.; and Mitman, A. "Academic Press: Translating High Expectations into School Policies and Classroom Practices." EDUCATIONAL LEADERSHIP 40 (1982): 22-26.

> Provides an overview of research on effective school and classroom practices and offers research-based guidelines for communicating high learning expectations to students through schoolwide policies and classroom practices.

Newberg, N.A., and Glatthorn, A.A. INSTRUCTIONAL LEADERSHIP: FOUR ETHNOGRAPHIC STUDIES ON JUNIOR HIGH SCHOOL PRINCIPALS. Executive Summary. Philadelphia, PA: Pennsylvania University, 1982. (ED 236 809).

> Reports the results of a study of the behaviors of principals in four unusually successful inner-city junior high schools. Close attention to instructional goals, use of meaningful slogans, an orderly learning environment, and attention to the curriculum were commonalities noted among these successful principals.

Patriarca, L.A., and Kragt, D.M. "Teacher Expectations and Student Achievement: The Ghost of Christmas Future." CURRICULUM REVIEW 25 (1986): 48-50.

> Presents study results, discusses the teacher expectation research, and offers guidelines to help teachers minimize self-fulfilling prophecy effects-- especially on low-track students in mathematics.

Raudenbush, S.W. "Magnitude of Teacher Expectancy Effects on Pupil IQ as a Function of the Credibility of Expectancy Induction: A Synthesis of Findings From 18 Experiments." JOURNAL OF EDUCATIONAL PSYCHOLOGY 76 (1984): 85-97.

> Applies the technique of meta-analysis to 18 studies of the effect of teacher expectations on student IQ scores. In general, expectancy effects on IQ were either nonexistent or nonsignificant. The evidence also supported the hypothesis that the better the teachers know their pupils at the time of expectancy induction, the smaller the treatment effect. Younger children were more susceptible to expectancy effects than older children.

Rosenthal, R. "Pygmalion Effects: Existence, Magnitude, and Social Importance." EDUCATIONAL RESEARCHER 16 (1987): 37-40.

> Replies to Wineburg's essay in this same issue (see below), and claims that meta-analytic work conducted with the teacher expectations research since the original Pygmalion study demonstrates that "there is a phenomenon to be explained...[and] that the phenomenon is nontrivial in magnitude."

, and Jacobson, L. PYGMALION IN THE CLASSROOM: TEACHER EXPECTATION AND PUPILS' INTELLECTUAL DEVELOPMENT. New York: Holt, Rinehart and Winston, Inc., 1968.

> Describes a research study in which efforts were made to manipulate teacher expectations for student achievement to see if these expectations would be fulfilled. First through sixth graders in one school participated. Some of the children whose teachers were told they had exceptional abilities, outperformed their peers on IQ measures (particularly in grades one and two).

Smith, M.L. "Teacher Expectations." EVALUATION IN EDUCATION 4 (1980): 53-55.

> Presents the results of a meta-analysis of 47 studies on the effects of teacher expectations on student achievement. Teacher behavior was found to vary in relation to teacher expectations "to a modest degree," and teacher expectations had a stronger effect on achievement than on IQ.

Snow, R.E. "Unfinished Pygmalion." CONTEMPORARY PSYCHOLOGY 14 (1969): 197-200.

> Critiques the 1968 Rosenthal and Jacobson publication, PYGMALION IN THE CLASSROOM, calling attention to technical flaws in the design of the Pygmalion research.

Stockard, J., and Mayberry, M. THE RELATIONSHIP BETWEEN SCHOOL ENVIRONMENTS AND STUDENT ACHIEVEMENT: A REVIEW OF THE LITERATURE. Eugene, OR: Division of Educational Policy and Management, College of Education, University of Oregon, 1986.

> Reviews research on the effects of school and community factors on student achievement and attitudes. Schoolwide and classroom expectations for high student achievement and positive social behavior were among the strongest predictors of these outcomes.

Taylor, S.E. "The Impact of An Alternative High School Program on Students Labeled 'Deviant'." EDUCATIONAL RESEARCH QUARTERLY 11 (1986-87): 8-12.

> Presents the results of a survey of students participating in an alternative high school program. Project EASE participants, who had experienced school failure in conventional settings and succeeded in the alternative program, cited caring, an informal, personcentered atmosphere and high teacher expectations as the major causes of the changes in their attitude and performance.

Thorndike, R.S. "Review of Pygmalion in the Classroom." AMERICAN EDUCATIONAL RESEARCH JOURNAL 5 (1968): 708-711.

> Takes issue with the findings of Rosenthal and Jacobson's 1968 Pygmalion study and offers evidence that the data from that study do not justify the conclusions drawn by the researchers.

Weinstein, R.S., and Marshall, H.H. ECOLOGY OF STUDENTS' ACHIEVEMENT EXPECTATIONS. Executive Summary. Berkeley, CA: California University; Washington, DC: National Institute of Education, 1984. (ED 257 805).

> Compares the classroom management methods, instructional strategies, and attitudes toward students of first, third, and fifth grade teachers, some of whom were perceived by their students as treating different students very differently, and some of whom were perceived as treating students similarly. Attitudes of students in low-differential classrooms were more positive; achievement results were mixed.

Wineburg, S.S. "The Self-Fulfillment of the SelfFulfilling Prophecy." EDUCATIONAL RESEARCHER 16
(1987): 28-37.

> Critiques the original Pygmalion study by Rosenthal and Jacobson and other research supporting the existence of self-fulfilling prophecy effects. Discusses reasons why people wish to believe in selffulfilling prophecies.

. "Does Research Count in the Lives of Social Scientists?" EDUCATIONAL RESEARCHER 16 (1987): 42-44.

> Responds to critiques from Rosenthal and Rist regarding his self-fulfilling prophecy article appearing in this same issue (see above). Offers additional data and commentary to demonstrate that Pygmalion effects have not been proven by research.

Woolfolk, A.E., and Brooks, D.M. "The Influence of Teachers' Nonverbal Behaviors on Students' Perceptions and Performance." THE ELEMENTARY SCHOOL JOURNAL 85(1985), 513-528.

> Reviews research on the effects of teachers' nonverbal behaviors on students' achievement and attitudes. Identifies implications for teachers' classroom behavior and recommendations for further research.

OTHER REFERENCES

Arganbright, J.L. "Teacher Expectations--A Critical Factor for Student Achievement." NAASP BULLETIN 67 (1983): 93-95.

  Draws from the research on teacher expectations to discuss factors which influence teachers' development of achievement and behavioral expectations for their students.

Arnold, G.H. AN INTERPRETIVE ANALYSIS OF TEACHER EXPECTATIONS IN EARLY CHILDHOOD EDUCATION. No publisher indicated, 1985. (ED 266 877).

  Investigates the ways that teachers' expectations develop, the views teachers hold about "good" and "bad" students, the ways teacher expectations influence the lives of the children they teach, and the ways teachers notions about the "model" student affect the development and implementation of the curriculum.

Bracey, G.W. "Pygmalion: Yes or No?" PHI DELTA KAPPAN 69 (1988): 686-687.

  Reviews a 1987 EDUCATIONAL RESEARCHER article by Samuel Wineburg challenging the reality of the educational self-fulfilling prophecy.

Carr, M., and Kurtz, B.E. TEACHERS' PERCEPTIONS OF STUDENTS' METACOGNITION, ATTRIBUTIONS, AND SELFCONCEPT. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, 1989.

  Seeks to determine the accuracy and the predictors of teachers' evaluations of their students in the areas of metacognition and motivation. Fifty-four third graders and their teachers participated. Teachers were found to attribute better metacognition, higher self-concept, and stronger effort to high achievers, even when these attributions were unfounded.

Cecil, N.L. "Black Dialect and Academic Success: A Study of Teacher Expectations." READING IMPROVEMENT 25 (1988): 34-38.

  Investigates the effects on teacher expectations produced by teachers listening to tapes of second graders speaking standard English and those speaking black dialect. Though all children had similar IQ test scores, teachers had higher expectations for those speaking standard English.

Darley, J.M., and Fazio, R.H. "Expectancy Confirmation Processes Arising in the Social Interaction Sequence." AMERICAN PSYCHOLOGIST 35 (1980), 867-881.

  Presents a model of the process by which selffulfilling prophecy effects occur and offers
  recommendations for further research on this topic.

Dusek, J.B., and Joseph, G. "The Bases of Teacher Expectancies: A Meta-Analysis." JOURNAL OF EDUCATIONAL PSYCHOLOGY 75 (1983): 327-346.

Presents results of a meta-analysis of 77 studies of the factors on which teacher expectations of student achievement and behavior are based. Factors found to influence teacher expectations included attractiveness, student classroom conduct, cumulative folder information, race, and social class. Unrelated factors included gender and one- or two-parent family structure.

Farley, J.R. "Raising Student Achievement Through the Affective Domain." EDUCATIONAL LEADERSHIP 39 (1982): 502-503.

Provides a brief overview of the Teacher Expectations and Student Achievement (TESA) program developed by the Los Angeles County Schools in 1971. Suggestions are offered to staff developers for ways to make the TESA training maximally interesting and meaningful to participating teachers.

Good, T.L., and Weinstein, R.S. "Teacher Expectations: A Framework for Exploring Classrooms." Chapter 6 in Zumwalt, K.K. (Ed.). IMPROVING TEACHING: 1986 ASCD YEARBOOK. Alexandria, VA: Association for Supervision and Curriculum Development, 1986, 63-85.

Describes observational studies of the ways that teachers communicate expectations in classrooms. Identifies needs for improvement in the classrooms observed and suggests ways that coaches might work with the teachers in question to improve their performance.

Grant, L., and Rothenberg, J. "The Social Enhancement of Ability Differences: Teacher-Student Interactions in First- and Second-Grade Reading Groups." THE ELEMENTARY SCHOOL JOURNAL 87 (1986): 29-49.

Presents the results of a study of ability grouping strategies and effects in eight elementary classrooms. Concludes that ability grouping for reading is both a cause and an effect of teacher expectations, and that this expression of expectations is academically and socially damaging to students placed in "low" groups.

Grayson, D.A. EVALUATING THE IMPACT OF THE GENDER EXPECTATIONS AND STUDENT ACHIEVEMENT (GESA) PROGRAM. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC, April 1987. (ED 283 881).

Describes the GESA program, which was developed to reduce the disparity in the treatment received by boys and girls in the classroom and to improve instructional materials and the learning environment for all children. Discusses program implementation and a validation study conducted in California.

Guskey, T.R. "The Effects of Change in Instructional Effectiveness on the Relationship of Teacher Expectations and Student Achievement." JOURNAL OF EDUCATIONAL RESEARCH 75 (1982): 345-349.

Examines the effects of training to improve instructional effectiveness on the relationship between teacher expectations and student outcomes. The correlations between teachers' initial expectations for students' achievement and students' actual outcomes were lower for control teachers.

Kerman, S., and Martin, M. TEACHER EXPECTATIONS AND STUDENT ACHIEVEMENT: TEACHER HANDBOOK. Downey, CA: Los Angeles County Superintendent of Schools, 1980.

> Contains participant materials for the Teacher Expectations and Student Achievement (TESA) training program designed to raise teachers' awareness of the ways expectations are communicated to students and to teach them how to interact with students equitably.

Kleinfeld, J., and McDiarmid, G.W. "Teacher Expectations as a Political Issue in Rural Alaska Schools." RESEARCH IN RURAL EDUCATION 4 (1987): 9-12.

> Presents the results of a study revealing differential expectations for white and Native students on the part of teachers in rural Alaska schools. Discusses actions that teachers can take to raise expectations and achievement gradually and realistically.

Merton, R.K. "The Self-fulfilling Prophecy." ANTIOCH REVIEW 8 (1948): 193-210.

> Introduces the term "self-fulfilling prophecy" and discusses the concept, particularly as it relates to the opportunities extended to various racial/ethnic groups and the achievements made by members of those groups.

Rampaul, W.E.; Singh, M; and Didyk, J. "The Relationship Between Academic Achievement, SelfConcept, Creativity, and Teacher Expectations Among Native Children in a Northern Manitoba School." THE ALBERTA JOURNAL OF EDUCATIONAL RESEARCH 30 (1984): 213- 225.

> Examines relationships among several variables as these bear upon the education of native Canadian children in grades 3 and 4. Only one significant, positive relationship was discovered--between creativity and teacher expectations.

Rist, R.C. "Do Teachers Count in the Lives of Children?" EDUCATIONAL RESEARCHER 16 (1987): 41-42.

> Offers a critique of Wineburg's article on Pygmalion effects in this same issue (see above). Claims that Wineburg underplays the role of teachers' expectations in children's achievement.

Rolison, M. A., and Medway, F.J. "Teachers' Expectations and Attributions for Student Achievement: Effects of Label, Performance Pattern, and Special Education Intervention." AMERICAN EDUCATIONAL RESEARCH JOURNAL 22 (1985): 561-573.

> Examines the effects on the formation of teacher expectations produced by information about a student's past academic performance, previous special education placements, and label. Previous performance and whether the student was labeled "learning disabled" or "mildly retarded" had the strongest influence on teacher expectations.

Short, G. "Teacher expectation and West Indian underachievement." EDUCATIONAL

RESEARCH 27 (1985): 95- 100.

> Examines allegations (in the Interim Report of the Rampton Committee) that West Indian children are victims of a self-fulfilling prophecy within the British school system, being perceived as less capable than white students and thus treated less favorably. Concludes that available evidence does not substantiate the allegations

Special Populations Project. TEACHER EXPECTATIONS ACTION PACKET. RESEARCH STRATEGIES AND PROGRAMS FOR SPECIAL POPULATIONS. Philadelphia, PA: Research for Better Schools, 1987. (ED 289 830).

> Reviews research on the ways teacher expecttaions can influence student performance and offers research-based guidelines for giving praise to students, posing questions to them, and seating them in the classroom. Inservice programs focusing on teacher expectations are described.

Winifield, L.F. "Teacher Beliefs Toward Academically at Risk Students in Inner Urban Schools." THE URBAN REVIEW 18 (1986): 253-268.

> Teachers in five inner-city schools were interviewed to determine their attitudes and beliefs about their students' capabilities and their own level of responsibility in teaching those students.