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The Effects of Teacher Expectations of At-Risk Students on Teacher Instructional Behaviors

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The Effects of Teacher Expectations
of At-Risk Students on
Teacher Instructional Behaviors

by

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A thesis submitted to the Division of Curriculum
and Instruction in partial fulfillment of the requirements
for the degree of Master of Education in Elementary Education

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Abstract

This study investigated the degree to which teacher expectations of at-risk students affect the teacher's instructional behaviors. Four elementary teachers were observed and videotaped for 20 minutes each during a language arts lesson. The videotapes were analyzed using an instrument consisting of ten behaviors from the Florida Performance Measurement System that reflect Rosenthal's four factors of teacher expectations, climate, input, output, and feedback. The teacher's instructional behaviors were recorded each time the behavior occurred during the 20 minute observation. The data were analyzed to determine if a relationship exists between the teacher's expectations for average or above average students and at-risk students and the teacher's instructional behaviors. The findings are displayed in two forms: raw score numbers and percentages of the behavior occurrences. The results of the study appear to indicate that teacher's expectations of different ability level students affect the

teacher's instructional behaviors.

Chapter 1

Introduction

Studies have confirmed that the different expectations teachers have of students, depending on their ability levels, may affect student performance. This study investigated how different expectations are manifested in teachers' classroom behaviors. Although the study did not investigate specifically how teacher expectations affect students' achievement, the review of the literature does address that issue. Specifically this study answered the question, (what are the effects of teacher expectations on the teacher's instructional behaviors?) Teacher expectations influence student and teacher behavior, and it is important to be aware of the interrelationships between expectation and behavior.

Research confirms that student achievement is affected by teacher expectations and behaviors which, in turn, are affected by the teacher's perceptions of students' abilities and achievement (Rosenthal & Jacobson, 1968). High teacher

expectations result in a higher student performance while low teacher expectations produce lowered student performance.

While researchers agree on the correlation of these variables, they are in disagreement as to the degree to which student performance is affected by teacher expectations.

The differing expectations teachers have of students are manifested in teacher classroom behaviors (Cooper, 1979). Students are aware of the differences in teachers' behavior towards high and low achievers (Brattesani, Weinstern, & Marshall, 1984). Since Slavin and Madden (1989) indicate that one characteristic of at-risk students can be low achievement, then teachers need to be aware of potential problems that may occur as a result of their instructional behaviors.

Problem Delimitation

After reviewing the literature, this researcher conducted teacher observations to determine whether there is a relationship between teachers' expectations of average or above average students and at-risk students and teachers'

instructional behaviors. While the results of the study will not have widespread implications because of the limited number of participants, they will help educators become more aware of the effects of teacher expectations on classroom behavior and their relationship to student achievement.

Definition of Terms

At-risk students: Students in danger of failing to complete their education with an adequate level of skills. A practical criterion for identifying at-risk students is eligibility for Chapter I, special education, or other remedial services (Slavin & Madden, 1989).

Climate: The general atmosphere of the school or class: its purpose, mode of operations, and tempo (Arganbright, 1983).

Feedback: Teachers' use of praise and/or criticism in an academic exchange (Cooper, 1979).

Input: Quantity and quality of teacher attempts at instruction (Cooper, 1979).

Teacher Expectations

Output: Frequency with which academic interactions take place and the teacher's persistence in pursuing interactions to a satisfactory conclusion (Cooper, 1979).

Teacher expectations: Inferences that teachers make about the present and future behavior or academic achievement of students (Brophy & Good, 1974).

Teacher expectations effects: Student outcomes that occur because of the actions teachers take, in response to their own expectations (Good, 1987).

High expectation students: Students who are high achievers and are expected to perform well (Brophy, 1983).

Low expectation students: Students who are low achievers and are not expected to perform well (Brophy, 1983).

Chapter 11

Review of the Literature

The first major study to address teacher expectations and how they influence student achievement was Pygmalion in the Classroom, conducted in 1968 by Rosenthal and Jacobson. Teachers were told several of their students had been identified as having potential for large achievement gains during the school year. Actually, the students' names were chosen at random. The purpose was to see whether teachers had higher expectations for the identified students. Eight months later the same students had greater gains on an IQ test than did the nonidentified students. Rosenthal and Jacobson concluded that the students had been treated differently because of what teachers had been told.

Although subsequent research confirms that teacher expectations do influence student achievement, several questions have been raised concerning the validity of Rosenthal and Jacobson's study. Elashoff and Snow (1971)

conducted a case study of Rosenthal and Jacobson's study and conclude that their report as a whole is inadequate:

Descriptions of design, basic data, and analysis are incomplete. Inconsistencies between text and tables, overly dramatic conclusions, oversimplified, inaccurate or incorrect statistical discussions and analyses all contribute to a generally misleading impression of the study's results. (p. 6)

Crano and Mellon (1978) criticize the study because the conclusions are based only on students' gains in first and second grades. The students in the other four grades participating in their study show no significant differences in pre/post test scores. Another reservation about the results of the study concerns the interpretability of achievement tests at the primary grade levels (Good, 1981). Many questions were raised concerning the interpretability of the tests.

Since the time of this controversial study, much research has been conducted regarding teacher expectations

and their effects on student achievement. The majority of the studies have confirmed Rosenthal and Jacobson's results. However, since there are many kinds of teacher expectations that influence different teacher behaviors, the studies have generated additional questions.

It is important for teachers to have expectations about students, since these enable teachers to set realistic academic goals and to provide individualized instruction (Patriarca & Kragt, 1986). Such expectations are formed in a number of ways. According to Arganbright (1983), teachers form expectations of students' abilities through previously acquired information and through encounters in the classroom. Previously acquired information is gained from teachers' perceptions of siblings, from permanent records, test scores, other teachers, student's previous ability grouping, and from expectations based upon the student's social class.

One criticism of such practices is that expectations so acquired may result in inaccurate perceptions. However,

Brophy (1983) found several studies indicating that most teacher perceptions of students are accurate and are based on the best available information. Most information in permanent records is correct and so helps teachers form correct expectations about students' abilities. This information, combined with students' classroom performances, usually results in accurate perceptions. Inaccurate ones are generally corrected when more dependable information, such as student achievement, becomes available, according to Brophy.

Patriarca and Kragt (1986) assessed the accuracy of teachers' expectations of students' achievement, using the Stanford Diagnostic Mathematics Test with ninth grade general math students. Teachers identified for each test item whether or not students had been taught that specific item. If the students had been taught the item, the teachers were asked to predict how well their high-, middle-, and low-achieving students would score on the particular item. The results show the teachers to have predicted accurately only 40% of the

time, with high-achievers scoring less well and low-achievers scoring higher than expected. Thus, research confirms that teachers tend to overestimate the achievement of high ability students and underestimate the achievement of low ability students.

Factors Associated with Teacher Expectations

Cooper (1979) cites four factors or effects which Rosenthal discovered to be associated with teacher expectations: climate, input, output, and feedback. However, research shows not all teachers are prone to expectancy effects. The phenomenon depends on the teaching style and subject matter (Cooper, 1979; Cooper & Tom, 1984).

The first factor Rosenthal associates with teacher expectations is climate. Teachers appear to create warmer environments with nonverbal behaviors for the high expectation students. Teachers smiled and nodded their heads more with high expectation students than with low expectation students. The teachers also leaned towards these

students and made more eye contact with them. Climate has been found to be one of the most important variables in mediating expectancy effects (Harris, Snodgrass, & Rosenthal, 1979).

Teachers' verbal input to students also reflects performance expectations. "Slower" students have fewer opportunities to answer questions and have less material to learn than brighter students. Brophy and Good summarized 20 studies that assessed the frequency of teacher and student interactions. Thirteen of these studies show teachers to engage more often in academic contacts with students for whom they hold high expectations than they do with those for whom they hold low expectations. The remaining seven studies report no differences in teacher behaviors (Cooper, 1979).

Verbal output, the third factor, is the teacher's persistence in insuring the success of academic interactions. Elements of verbal output include questioning techniques and wait time. According to Cooper (1979), teachers extend more

wait time to the high expectation students than they do to low expectation students. These students are also given more clues, more repetition, and more rephrasing of questions. Braun, Neilsen, and Dykstra (1975) found that the lower expectation students may not be given as many opportunities to answer higher level questions as are high expectation students. Teachers do not persist with the lower expectation students as long as they do with the higher expectation students, as evidenced by their providing the higher expectation students with clues and prompts in response to incorrect answers.

Rosenthal's fourth factor is feedback, as evidenced by the teachers' use of praise and criticism. Research shows that high expectation students are praised more and also praised proportionately more per correct answer than are low expectation students. Conversely, the low expectation students are criticized more and given less detailed feedback than are high expectation students (Brattensani, Weinstern, &

Marshall, 1984; Brophy & Good, 1970; Cooper, 1979; Cooper & Tom, 1984; Good, 1981).

Many students whose teachers have low expectations of them are labelled "at-risk". According to Slavin and Madden (1989), factors that contribute to a student's being identified as at-risk include low achievement, grade retention, behavior problems, poor attendance, low socioeconomic status, and attendance at schools with a large number of poor students. Teachers typically have lower expectations for students from lower class backgrounds (Blumenfeld, Hamilton, Bossert, Wessels, & Meece, 1983). Some researchers believe that the roots of at-risk behavior begin in the elementary grades and are manifested in low achievement patterns, a high absenteeism rate, and low self-esteem (Donnelly, 1987).

While it is good for at-risk students to be identified so that they may receive additional support from the school, such identification may result in a student's being labelled (Koehler, 1988). Teachers often resist the placement of low

achievers or students with academic handicaps in their classes. Developing lessons for these students takes time that teachers could be spending with others more likely to profit from the teacher's efforts. The at-risk students are then seen as a burden (Madden & Slavin, 1983).

This viewpoint affects the way at-risk students are treated by their teachers and their peers. The label itself may be detrimental because previous studies indicate teacher expectations to be lower for labelled than nonlabelled students (Rolison & Medway, 1985; Toner & Hagan, 1983); and labels such as Learning Disabled can be a stigma (Foster & Yseldyke, 1976; Good, 1987). Students with academic handicaps are often rejected by their nonhandicapped peers both in and outside the classroom. Regular class students reported playing with "normal" children in their neighborhood more than did special class students (Madden & Slavin, 1983). Palmer (cited in Rolison & Medway, 1985) concludes that both labels and previous performance influence teacher expectations,

which in turn affect the quality and nature of student instruction and feedback.

Teacher Expectations and Student Achievement

The different behaviors associated with teacher expectations of different ability level students may have a serious impact on student achievement. Teacher expectations do affect how much and how well students learn (Cooper & Tom, 1984; Rosenthal & Jacobson, 1968). According to Brophy (1983), when teachers expect a student to perform a certain way, they increase the probability of the student's conforming to that expectation. The phenomenon is known as the self-fulfilling prophecy. However, there is disagreement regarding the degree to which teacher expectations influence student achievement.

In his meta-analysis of the research, Brophy (1983) concludes that teacher expectations do influence student achievement. However, the average difference is only 5 to 10%. Wartenberg-Ekren's study (cited in Rosenthal & Jacobson,

1968) finds students' performance unaffected by teacher expectancy, although students were subtly aware of being treated differently.

In an attempt to measure teachers' expectations against students' performance, O'Connell, Dusek, and Wheeler (1974) compared the Stanford Achievement Test (SAT) results for two second grade classes and two fourth grade classes with teachers' rankings of the students on the basis of their expected year-end performance in reading and math. This ranking was intended as a measure of teacher expectancy for students' performance. The researchers provided teachers with a list of half the students, identifying them as possessing the greatest potential for academic gains. The remaining eight students were the control group. This design was intended to measure the effects of teacher bias, as well as to test the replicability of Rosenthal and Jacobson's study. At the end of the year the researchers discovered teacher expectancy effects to be strongly correlated to students'

performance on the SAT. However, their study did not replicate Rosenthal and Jacobson's findings because telling teachers that students would perform well did not, itself, alter the students' SAT performances. Instead, they found the teachers' expectancies to be good predictors of the students' performance.

In general, studies show both at-risk students and those not at-risk to be aware of the differences in teachers' treatment of high and low achievers. Students as young as first grade are aware of these differences. Students describe the low achievers in their class as recipients of more frequent negative feedback and direction from the teacher, including more work- and rule-oriented treatment. The students observed that high achievers had more opportunities and choices than did low achievers (Brattensani et al., 1984). Unfortunately, when teacher expectations are low, the students' expectations reflect this. And when the students' expectations are low, so is their achievement. So teachers and

at-risk students often become locked in a vicious cycle. The at-risk student who perceives school as boring, threatening, non-productive, and a waste of time is likely to behave and perform at a low level. The teacher then sees this student as lacking drive, energy, and ambition. Efforts to motivate the student fail, which, in turn, frustrate the teacher. Any visible sign of the teacher's irritation reinforces the student's original perceptions (Eschenmann, 1988). Beyond the direct effect that differential teacher treatment might have on student achievement, such treatment ultimately affects the student's self-image and motivation. Consequently, underachieving students attribute any successes they have to luck, while attributing failure to their lack of ability, and so are less likely to reattempt a failed task (Payne & Payne, 1989).

Researchers have examined group size as an influence on teacher behavior toward high expectation and low expectation students, depending on group size. Brophy (1983) concludes

that data from whole class settings often give the impression of teacher favoritism of high expectation over low expectation students, while data gathered in small group settings show few differences and reflect teacher attempts to work more intensively with low expectation students.

The at-risk population is growing, both in raw numbers and as a percentage of the total student population (Cardenas, cited in Lennon, 1989). Because no single definition of "at-risk" exists, it is difficult to estimate accurately the size of this group. The largest federal program addressing the needs of low-achieving, disadvantaged students is Chapter I. A total of five million students, or one in nine, receives Chapter I services (Guttman & Henderson, cited in Slavin, 1989). With the school age population increasing, one can expect the number of at-risk students to continue to increase. Since the national population aged 18 and under is expected to increase by about four percent between the years 1988-2020, the total number of students should rise from 63.6 million in 1988 to

around 66.4 million in 2020 (Natriello, McDill, & Pallas, 1990). Accordingly, the at-risk student population can be expected to increase.

Summary

Analysis of the research confirms the importance of teacher expectations on student achievement. Differential teacher classroom behaviors are attributed to teachers' perceptions of students' abilities and achievement. Much of the research finds a correlation between teachers' expectations and behaviors and student achievement. If expectations are high, students perform well. If they are low, students do not perform as well. Other research is conflicting about the degree to which student performance is affected.

It is important to note that teacher expectations are not necessarily bad. Teachers need to have a realistic idea of student capabilities in order to teach effectively. Only when these expectations become rigid and interfere with the teachers' behavior do they become negative.

All students need to feel challenged in the classroom. Teachers tend not to challenge low achievers as much as they do high achievers. Consequently, low achievers become trapped in a pattern which is not conducive to effective learning. With the number of at-risk students increasing, it is important for teachers to realize potential problems that may occur as a result of their classroom behaviors.

Because of the conflicting research, more study needs to be conducted regarding teacher expectations and their effects on student achievement. It is the researcher's belief that the more educators are aware of these effects and their implications in the classroom, the more students will benefit.

Chapter III

Description of Procedures

Following an extensive review of the literature on teacher expectations, the researcher developed procedures for analyzing teacher instructional behaviors in light of the expectations they reflected for individual students. The researcher then observed and videotaped four elementary teachers to obtain data reflective of teacher expectations. The data collected were analyzed to determine whether a relationship existed between teachers' expectations for average or above average students and at-risk students and teachers' instructional behaviors toward students so labelled.

Sample

The researcher requested volunteers among colleagues from a rural school in a large school system in north Florida. There were six volunteers: four from kindergarten through third grade and two from grades four and five. Due to the complexity of the data collection and analysis, only four

teachers were observed. The four teachers observed were chosen through blind selection. The selected teachers taught grades kindergarten, first, fourth and fifth in heterogeneously grouped classes. A total of 74 students were observed in the four classes. The majority of the students in the identified classrooms have a low socioeconomic background. The teachers were each videotaped for 20 minutes during a language arts lesson. Prior to the videotaping, the teacher completed a seating chart for the observer. After the videotaping, the regular classroom teacher identified on the seating chart the average or above average students and the at-risk students, using the definitions found in Chapter 1. Eighteen students were identified as at-risk. The teachers were not informed as to what the observer would be looking for either prior to or during the experiment.

Instrumentation

Using Rosenthal's four factors or effects reflective of teacher expectations, climate, input, output, and feedback, the

researcher developed an instrument for analyzing the videotapes of the teachers. (See Appendix A for a copy of this instrument.) Based on expert advice from a classroom management professor, 10 behaviors were chosen from the Florida Performance Measurement System that reflect Rosenthal's factors. The selected Florida Performance Measurement System indicators of teachers' instructional behaviors include the following:

1. Varying tone and volume of voice,
2. Smiling and nodding at the students,
3. Maintaining eye contact with students,
4. Nodding at students,
5. Questioning students with low order questions,
6. Questioning students with high order questions,
7. Probing students for corrective feedback,
8. Prompting students for corrective feedback,
9. Giving general praise to students,
10. Giving specific praise to students.

Data Analysis Procedures

Using the instrument developed and the information provided by the teachers regarding their expectations of students' achievement, the researcher analyzed the videotapes. The teachers' 10 instructional behaviors were in two categories: interactions with average or above students and interactions with at-risk students, and in grades kindergarten and 1 and grades 4 and 5. The teachers' instructional behaviors were recorded each time the behavior occurred during the 20 minute observation.

Table 1 on pages 25 and 26 contains raw score numbers from kindergarten and first grade and Table 2 on pages 27 and 28 contains raw score numbers from the fourth and fifth grades. Table 3 on pages 29 and 30 records the combined data from Tables 1 and 2. The data were initially analyzed with only the raw score numbers.

Table 1

Behavior Frequency for Grades K and 1

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=32	At-risk no.=11
Varying tone and volume of voice	3	2
Smiling at the students	2	3
Maintaining eye contact with the students	9	6
Nodding at the students	5	4
Questioning students with low order questions	16	9
Questioning students with high order questions	7	3

(table continues)

Table 1

Behavior Frequency for Grades K and 1

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=32	At-risk no.=11
Probing students for corrective feedback	4	1
Prompting students for corrective feedback	2	4
Giving general praise to students	6	3
Giving specific praise to students	8	2

Table 2

Behavior Frequency for Grades 4 and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=24	At-risk no.=7
Varying tone and volume of voice	1	1
Smiling at the students	4	2
Maintaining eye contact with the students	10	5
Nodding at the students	2	2
Questioning students with low order questions	13	7
Questioning students with high order questions	13	4

(table continues)

Table 2

Behavior Frequency for Grades 4 and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=24	At-risk no.=7
Probing students for corrective feedback	8	4
Prompting students for corrective feedback	2	5
Giving general praise to students	13	8
Giving specific praise to students	8	1

Table 3

Behavior Frequency for Grades K, 1, 4, and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=56	At-risk no.=18
Varying tone and volume of voice	4	3
Smiling at the students	6	5
Maintaining eye contact with the students	19	11
Nodding at the students	7	6
Questioning students with low order questions	29	16
Questioning students with high order questions	20	7

(table continues)

Table 3

Behavior Frequency for Grades K, 1, 4, and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=56	At-risk no.=18
Probing students for corrective feedback	12	5
Prompting students for corrective feedback	4	9
Giving general praise to students	19	11
Giving specific praise to students	16	3

Further analysis of the data was obtained using the percentage of teacher behavior as directed toward either the average or above average students or the at-risk students. Table 4 on pages 32 and 33 contains the percentage of teacher behavior from kindergarten and first grade and Table 5 on pages 34 and 35 contains the percentage of teacher behavior from grades four and five. Table 6 on pages 36 and 37 combines the percentage of instructional behaviors of all four teachers.

Table 4

Percentages of Teacher Behaviors for Grades K and 1

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=32	At-risk no.=11
Varying tone and volume of voice	60%	40%
Smiling at the students	40%	60%
Maintaining eye contact with the students	60%	40%
Nodding at the students	56%	44%
Questioning students with low order questions	64%	36%
Questioning students with high order questions	70%	30%

(table continues)

Table 4

Percentages of Teacher Behaviors for Grades K and 1

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=32	At-risk no.=11
Probing students for corrective feedback	80%	20%
Prompting students for corrective feedback	33%	67%
Giving general praise to students	67%	33%
Giving specific praise to students	80%	20%

Table 5

Percentages of Teacher Behaviors for Grades 4 and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=24	At-risk no=7
Varying tone and volume of voice	50%	50%
Smiling at the students	67%	33%
Maintaining eye contact with the students	67%	33%
Nodding at the students	50%	50%
Questioning students with low order questions	65%	35%
Questioning students with high order questions	76%	24%

(table continues)

Table 5

Percentages of Teacher Behaviors for Grades 4 and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=24	At-risk no.=7
Probing students for corrective feedback	67%	33%
Prompting students for corrective feedback	29%	71%
Giving general praise to students	62%	38%
Giving specific praise to students	89%	11%

Table 6

Percentages of Teacher Behaviors for Grades K, 1, 4, and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=56	At-risk no.=18
Varying tone and volume of voice	57%	43%
Smiling at the students	55%	45%
Maintaining eye contact with the students	63%	37%
Nodding at the students	54%	46%
Questioning students with low order questions	64%	36%
Questioning students with high order questions	74%	26%

(table continues)

Table 6

Percentages of Teacher Behaviors for Grades K, 1, 4, and 5

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=56	At-risk n.=18
Probing students for corrective feedback	71%	29%
Prompting students for corrective feedback	31%	69%
Giving general praise to students	63%	37%
Giving specific praise to students	84%	16%

A narrative summary of the findings may be found in Chapter IV. Chapter V contains implications and recommendations based upon the summary.

Chapter IV

Results of Procedures

Four elementary teachers were observed and videotaped for 20 minutes each during a language arts lesson. Of the 74 students in the four classes, teachers identified 18 of the students as at-risk, using the definition in Chapter 1. The videotapes were analyzed to determine if a relationship exists between teachers' expectations for average or above average students and at-risk students and the teachers' instructional behaviors with those students.

The frequency and types of teacher interactions with average or above average students and at-risk students are recorded in Tables 1, 2, and 3. Table 1 reflects the data in raw score numbers from observations of one kindergarten class and one first grade class. Table 2 contains the data from one fourth grade class and one fifth grade class. Table 3 combines the data from the observations of all four teachers.

In order to compare the teachers' use of specific

instructional behaviors with the two groups of students, the average or above average students and the at-risk students, the raw score numbers were converted to percentages, as displayed in Tables 4, 5, and 6. Table 4 contains the percentages of teacher behaviors from the kindergarten and first grade classes and Table 5 contains the percentages of teacher behaviors from the fourth and fifth grade classrooms. Table 6 combines the instructional behaviors of all four teachers.

The results of the study indicate a relationship appears to exist between teachers' expectations of average or above average students and at-risk students and teachers' instructional behaviors. There was a greater difference in the frequency of occurrences between those directed to the average or above average students and those directed to the at-risk students in the following teachers' instructional behaviors: giving specific and general praise to the students, questioning students with high and low order questions,

probing and prompting students for corrective feedback, and maintaining eye contact with the students. Varying tone and volume of voice, smiling at the students, and nodding at the students had smaller differences in the frequency of occurrences between those behaviors directed to the average or above average students and those directed to at-risk students. Prompting students for corrective feedback was the only instructional behavior that occurred more frequently with the at-risk students.

Chapter V

Conclusions and Recommendations

Conclusions

Consistent with the review of the literature, this study indicates that a relationship appears to exist between teachers' expectations for average or above average students and at-risk students and teachers' instructional behaviors. The teachers' instructional behaviors indicate that teachers interact with the average or above average students more than the at-risk students in the areas of maintaining eye contact with students, questioning students with low order and high order questions, probing students for corrective feedback, and giving general and specific praise to the students. Prompting students for corrective feedback was the only teacher instructional behavior that occurred more frequently with the at-risk students. The differences were not as significant with the teachers' instructional behaviors directed to the average or above average students and those directed to at-risk

students in the areas of varying tone and volume of voice, smiling at the students, and nodding at the students.

However, there may be other factors that contribute to the differences other than the teachers' expectations of the different students. The main factor that may affect the results of the research is the unequal number of average or above average students and at-risk students in each class. The ratio of average or above average students to at-risk students in all four classes was 4:1. As a result, the at-risk students perhaps only participated in the lesson proportionally to their number in reference to the sample as a whole.

As a result of being videotaped, the teachers may have altered their "normal" teaching style. One teacher who participated in the study said that when she was being videotaped she was less enthusiastic and did not smile as much as she usually does. She was conscious of the camera and did not want to appear as though she was "acting for the camera".

The teachers were videotaped the last two weeks of May, approximately two weeks before the end of the school year.

This factor may account for the low enthusiasm of the teachers towards all the students: the low instances of variance in tone and volume of voice and the few occurrences of smiling and nodding at the students.

It is important to note that the results of the study were obtained from teachers' instructional behaviors in the language arts area. The same results may not be found in other subject areas. Therefore, it would be inappropriate to generalize the results of the study to all curriculum areas.

There were factors in the kindergarten class and the fifth grade class that may have influenced the outcome. In the kindergarten class the lesson observed contained mostly choral responses by the students. As a result, fewer individual questions were asked, and student individual responses could not be tallied. This is the only class that frequently used this method.

The fifth grade class had seven average or above average students absent due to a field trip. Therefore, the at-risk students had an increased opportunity to be questioned by the teacher as there were less average or above average students in the class.

It is important to note that the sample consisted of only 74 students. Eighteen of these students were identified as at-risk students. As this is a small sample, the results of the study are tentative, and it would be inappropriate to make a generalization based upon the results.

Recommendations for Further Study

It is recommended that the study be replicated using an equal number of average or above average students and at-risk students in the classrooms to be observed. This procedure would insure that each group of students would have an equal opportunity to participate in the lesson. If the study were replicated using an equal number of average or above average students and at-risk students, then further analysis of the

data should be conducted. The data analysis should reflect the frequency of the teachers' instructional behaviors relative to the proportion of the number of average or above average students and the number of at-risk students in the observed classrooms.

Another recommendation is to observe several teachers at the same grade level and/or several teachers teaching similar lessons. Furthermore, observing other areas of the curriculum may result in different outcomes than what was obtained from the language arts area.

Using an increased sample is also recommended. The results may be different with a greater number of participants, and more generalizations may be possible.

It would be interesting to compare the frequency of teachers' instructional behaviors in September and in May to see if the differences are due to the time of the year or to the teachers' expectations of the students. The frequency of the following instructional behaviors may change as a result:

varying tone and volume of voice, smiling at the students, maintaining eye contact with the students, and nodding at the students.

The final recommendation is to incorporate student achievement into a study. It would be interesting to study the effect of teacher expectations and teacher instructional behaviors and their role in student achievement.

The results of the study appear to indicate that teachers' expectations of different ability level students affect the teachers' instructional behaviors. It is important for teachers to be aware of this apparent relationship. As found in the review of the literature, studies confirm both at-risk students and average or above average students are aware of the differences in teachers' treatment of high and low achievers. Since this may affect student achievement, teachers need to be informed of possible differences in their instructional behaviors.

There are several ways to educate teachers about the

relationship between teacher expectations and teacher instructional behaviors. One way is through teacher education institutions. Teacher inservice education within a school or county can also educate the teachers.

Another method of making teachers aware of differences in their instruction is by self-analysis. Teachers can videotape a lesson and compare their interactions with average or above average students and at-risk students. The instrument found in Appendix A may be helpful to use.

As the literature review indicates that students are aware of differences in teacher instructional behaviors, teachers may want to survey their classes to see if their students are aware of any differences in the teachers' behaviors. Such surveys would draw to the teachers' attention the way the students perceive the teachers' treatment of themselves and their classmates.

Research indicates that teacher expectations influence teachers' instructional behaviors and, in turn, may influence

student achievement. It is important for teachers to be aware of the effects their expectations may have on students. With the school age population increasing, the number of at-risk students is also expected to increase. Low achievement is one characteristic of at-risk students. Teachers need to be certain their expectations are not affecting the different ability level students in a negative way.

Appendix A

Table

Behavior Frequency

Teachers' instructional behaviors	Students	
	Avg. or above avg. no.=	At-risk no.=
Varying tone and volume of voice		
Smiling at the students		
Maintaining eye contact with the students		
Nodding at the students		
Questioning students with low order questions		
Questioning students with high order questions		

(table continues)

Teacher Expectations

Table

Behavior Frequency

	Students	
Teachers' instructional behaviors	Avg. or above avg. no.=	At-risk no.=
Probing students for corrective feedback		
Prompting students for corrective feedback		
Giving general praise to students		
Giving specific praise to students		

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