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TEACHER EXPECTATIONS AND STUDENT ACHIEVEMENT

THE INFLUENCE OF TEACHER EXPECTATIONS ON THE SCHOOL PERFORMANCE OF HANDICAPPED CHILDREN

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Increasing numbers of children are being referred to special education as a result of school failure. Some of these children are severely handicapped (e.g., mentally retarded, cerebral palsied, blind, deaf, autistic, etc.) which accounts for their limited success. Other children exhibit only mild to moderate problems whose precise etiology is impossible to accurately determine. For administrative purposes, these students are frequently labeled as "mildly handicapped." In certain instances, placement in special education may provide the most appropriate and beneficial educational services for those children who are exhibiting relatively minor academic underachievement and/or behavior problems. When this procedure is routinely followed, however, traditional assumptions underlying the concept of "handicapping conditions" must be expanded to include the role of the teacher in either facilitating or impeding school success.

In the past, special educators have been quick to attribute the cause of all "handicapping conditions" to frequently ill-defined internal deficits, lack of support in the home, insufficient motivation, etc. In short, the child's failure was viewed as being due either to some inherent disorder within himself or to environmental deficiency. Recent research, however, has demonstrated that, for certain children, school failure may be directly related to the expectations that his teacher holds for him. An understanding of the role of teacher expectations and their resultant self-fulfilling prophecies may be instrumental in determining why some apparently normal children inexplicably fail in school.

The purpose of this paper is to acquaint special educators with the basic components of teacher expectations and self-fulfilling prophecies. An effort will be made to define those situations where teacher expectations can adversely affect student achievement, delineate student characteristics which key teacher behavior, and discuss some implications for special education.

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TEACHER EXPECTATION AND SCHOOL PERFORMANCE

The effects of teacher expectations on the school performance of children has been the topic of much interest and research. This section will discuss the nature of teacher expectations and how, in certain instances, they may act as precursors to self-fulfilling prophecies. The early research which promoted widespread interest in this phenomena will be reviewed, with implications for understanding certain aspects of school failure.

Nature of Expectations

Teacher expectations are inferences or predictions that teachers make about the present and future academic achievement and general classroom behavior of their students (Good & Brophy, 1973). Taken by themselves, expectations are neither good nor bad and are virtually impossible to avoid. Everyone forms perceptions and expectations of people with whom they interact. Their ultimate effects depend upon their accuracy, flexibility and the manner in which they are communicated. For example, during the first few days of a school year a teacher may determine that a child is reading below grade level and is experiencing difficulty in completing classroom assignments. As a result of this perception, the teacher forms a low expectancy for this student and, consequently, expects only minimal achievement for the rest of the year. In follow-up interactions, however, the teacher finds that the child does not read at as low a level as she had previously assumed. In addition, he tries very hard and seems truly motivated to do well in class. Based upon these revised perceptions, the teacher's expectation is modified to the extent that the student is now expected to be performing on grade level in a relatively short period of time. This teacher's expectation was originally accurate, flexible, and open to change on the basis of new information.

Some teachers, on the other hand, are not generally accurate or flexible in their perceptions of students. In some instances, a teacher may develop strong, rigid, and inaccurate expectations about students and will resist modifying them even when presented contrary evidence. If a teacher persists indefinitely with inappropriate and inflexible expectations for students, it will have certain effects on the behavior of both the student and the teacher. Inappropriately low expectations will result in the teacher being content with school performance that is below the student's potential. Consequently, the student will not be likely to achieve at a level that is commensurate with his ability. Inappropriately high expectations will cause the teacher to consistently pressure the student to achieve beyond his capabilities, so that he will be likely to experience failure and discouragement. It should be kept in mind, therefore, that teacher expectations are normal and ubiquitous. Their potential for adversely affecting student achievement and behavior is determined not by their presence or absence but, instead, by their general degree of accuracy, flexibility, and potential for adjustment in response to change in the student.

Self-Fulfilling Prophecies

A teacher's expectation functions as a self-fulfilling prophecy if it acts as a cause of student behavior rather than as a result of observed student behavior. The potential for teacher expectations to become self-fulfilling prophecies exists when the expectation is inaccurate and rigid, so that the teacher begins to treat a student consistently as if he were different from what he actually is. Merton (1957) was one of the first in the field of behavioral science to introduce the concept of self-fulfilling prophecy. He observed that the "self-fulfilling prophecy is, in the beginning, a false definition of a situation invoking a new behavior which makes the originally false conception come true" (p. 423). The self-fulfilling prophecy, then, is a mechanism whereby the original error, whether it be in judgment, prediction, or evaluation yields the very condition erroneously believed to exist. If a first grade teacher believes that boys are slower in learning to read than girls, s/he may unconsciously act to fulfill that belief. Boys may be exposed to greater amounts of teacher criticism and fewer instruction opportunities. As a result, boys *will* learn to read at a slower rate than girls.

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Self-fulfilling prophecies may be observed in almost any situation where teachers and children are engaged in instructional activities. Any experienced teacher can recall many situations in which a child lived up (or down, as the case might be) to the expectancies that were held for him. In a recent study (Larsen, McNeil, Parker & Bagley, 1974) in which a large group of first graders were followed through their first four months of school, every formal academic teaching situation was observed to determine both the quality and quantity of teacher-student interactions. Before the school term began, each teacher was interviewed to ascertain which student characteristics she preferred and which student behaviors she felt designated the "bright" child who would do well during his academic career. Teacher A explained that she enjoyed the child who was "outgoing," "alert," and "not afraid to speak his mind." Once the school year began, some children enrolled in her classroom did exhibit these gregarious qualities, but others did not. Johnny was a child who tended to be generally shy and retiring. In the course of all teaching activities during the four months, Teacher A called upon or interacted with Johnny on only three occasions; and two of these were the result of Johnny asking a question. Only once did the teacher direct a question to him! It was apparent that the child was not learning, primarily because he was not being taught.

In early December, Johnny was referred to special education (a newly established resource room) because he was "not learning to read" and had begun to "withdraw." He was administered a battery of tests and was subsequently labeled as "learning disabled." Add to this the fact that Johnny possessed normal intelligence, adequate language skills (tests administered independently of the school system), and had scored in the upper 15th percentile on the Metropolitan Readiness Tests and the problem takes on even more ominous overtones. Apparently, this child's failure was due to a deficit present in the instructional style of his teacher rather than to some fault of his own. He did not live up to the expectancies of his teacher and, as a result, was subjected to negative treatment patterns.

The mere existence of an expectancy does not necessitate its actualization. Certain circumstances must be present in order for a teacher to significantly affect or alter a student's academic and/or social achievement. Good and Brophy (1973) have specified five basic steps, all of which must be present in order for teacher expectations to serve as a basis for self-fulfilling prophecies.

1. The teacher expects specific behavior and achievement from particular students.
2. Because of these different expectations, the teacher behaves differently toward different students.
3. This teacher treatment tells each student what behavior and achievement the teacher expects from him and affects his self-concept, achievement motivation, and levels of aspiration.
4. If this teacher treatment is consistent over time and if the student does not actively resist or change it in some way, it will tend to shape his achievement and behavior. High expectation students will be led to achieve at high levels, while the achievement of low-expectation students will decline.
5. With time, the student's achievement and behavior will conform more and more closely to that originally expected of him. [p. 75]

It should be clearly noted that it would be inappropriate to assume that teacher expectancies are automatically self-fulfilling. For example, this process will not occur with children toward whom teacher expectations were originally appropriate or were inappropriate but not rigid. In the first case, the teacher will simply respond to student behavior as she sees it, and in the latter case she will quickly adjust her expectation to conform to the behavior the student exhibits. In neither case will the student be unjustly influenced as the result of consistently negative behavior. On the other hand, if the teacher's expectations are inaccurately based and rigidly low, the student will tend to have much fewer interactions with the teacher and will receive less praise and more criticism than his achieving peers.

Early Research

As early as 1961, the concept of self-fulfilling prophecy was removed from a theoretical framework and placed in the experimental laboratory. The phenomena then became known as the "experimental bias effect." Presumably, this operation could be the result of the experimenter's desire, bias, or expectancies. Rosenthal (1966) gave a brief rationale for the assumed existence of this process:

> The particular expectancy the scientist has of how his experiment will turn out is variable, depending on the experiment being conducted, that the presence of some expectancy is virtually constant in science. The independent and dependent variables selected for the study by the scientist are not chosen by means of the table of random members. They are selected because the scientist expects a certain relationship to appear between them. [p. 127]

The experimenter bias effect proposes that the experimenter unintentionally influences, through subtle and unconscious means, the outcome of an experiment.

One of the first and still most frequently quoted laboratory studies regarding self-fulfilling prophecies was conducted by Rosenthal and Fode (1963). The subjects participating in this study were undergraduate students enrolled in a laboratory course in experimental psychology. The students were told that some would be

working with Maze-Bright rats and others would be working Maze-Dull rats. They were also told that if assigned to the Maze-Bright rats they should see some evidence of learning the first day and increasingly improved performance thereafter. Conversely, if working with Maze-Dull rats the students should find very scanty evidence of learning taking place throughout the experiment. Thus, students' expectations were elicited for the two groups of animals, although the rats were actually selected at random with no differentiation of learning potential. However, an analysis of the results showed the "bright" rats performing the correct response (i.e., advancing toward the darker of two platforms) a mean number of 4.01 while the "dull" rats responded correctly at a mean of 0.78. Since the difference between these means was statistically significant, this study was interpreted as demonstrating a experimenter bias effect. While the phenomena of self-fulfilling prophecy was being widely debated in the early 1960s, it was not until 1968 that Rosenthal and Jacobson attempted to apply it to an educational situation. Their book, *Pygmalion in the Classroom*, initiated some of the most heated debates in the history of educational research.

The main purpose of this study was to investigate the hypothesis that "teachers' favorable expectations can be responsible for gains in their pupils IQs" (p. 98). The research procedure instituted in this study was relatively simple. In May of 1964, the total school enrollment of those children who would be returning to one elementary school the following September was administered the Harvard Test of Inflected Acquisition. The administrators of the test (the regular classroom teachers) were led to believe that this exam was designed to signify those children most likely to show "academic spurt"—to designate "late blooming" in certain children. The Harvard Test of Inflected Acquisition was in reality Flanningan's (1960) Test of General Ability (TOGA). The TOGA was selected for several reasons. First, it is a standardized test of intelligence, the form of which was unfamiliar to the teachers. Second, test results reflected scores in verbal, reasoning, and total IQ. Third, this instrument may be group-administered. The fourth and most important factor in its selection was that the TOGA was designed to measure general learning aptitude. Thus, the child's score did not depend solely upon his knowledge of reading, writing, and arithmetic skills gained through classroom instruction. Due to the school's composition (predominately lower-class and with a large Mexican, bilingual population), such a characteristic made the TOGA the most preferred instrument in this experimental setting.

After the May administration of the TOGA, 20% of the children tested were randomly selected to be in the experimental group and were labeled as "bloomers." At the beginning of the fall term, each teacher was given a list of those children in her class who might exhibit marked intellectual development. To quote the authors: "The difference between the children earmarked for intellectual growth and the undesignated control children was in the mind of the teacher" (p. 70).

After the initial administration of the TOGA and after the experimental treatment began (i.e., informing each teacher as to which children were more likely to show improvement), three subsequent retests were conducted. One was what the authors referred to as "the basic post-test" which was administered one year after the pre-test in May of 1965. Another re-test was given in January 1965, prior to the basic post-test. And finally the third re-test was administered in May of 1966, two years after the pre-test. The first re-test was used to ascertain if any expectancy effects would appear early in the experiment. The post-test administered two years later was needed to determine if the expectancy effects would continue to be operative over two school years.

In reporting their findings, Rosenthal and Jacobson took into consideration four different variables. First, mean gain in IQ was compared for the experimental and control groups by grade. The authors then went on to compare IQ for the two groups by ability group, sex, and finally, minority-group status. In addition, findings were reported not only for the basic post-test but also for the first re-test and again for the follow-up post-test. Finally, additional information was provided from supplemental analyses of subject grades, teacher ratings of classroom behavior, and achievement test scores.

The findings of this study, although complex in their initial presentation, may be summarized as follows. When considering only mean gain in total IQ for the four variables, significant expectancy advantage was found for the experimental groups in grades one through six. However, this advantage was attributable primarily to the very high gain manifested in the lower two grades. The difference between girls and boys expectancy advantage as measured by mean gain in total IQ was significant. After two years, groups in the experimental tract evidenced significant gains in IQ over the fast and slow ability groups. And finally, minority group children were more advantaged by favorable expectations than non-minority group children although the differences were not significant.

The publication of *Pygmalion in the Classroom* was largely responsible for generating further research into the ambiguous sphere of teacher-pupil interactions. However, the reported result of expectancy advantage has not been unanimously accepted by all scientists and educators. The procedures and the interpreted results of this experiment

have been the target of avid criticisms (Thorndike, 1968; Snow, 1969; Taylor, 1970). It is important to note, however, that regardless of the position one takes on the original data presented by Rosenthal and Jacobson, the accumulated results of research conducted over the past several years have convincingly established that teacher expectations do have the potential to function as self-fulfilling prophecies. Selected studies are presented in following sections which discuss some of the determinants of negative teacher-child interactions.

School Failure

The role of inappropriate teacher expectations and behavior in contributing to a child's school failure has become of increasing concern to special educators. This concern has grown out of the need to develop an understanding of why large numbers of essentially normal children are referred from regular classrooms and are being diagnosed and labeled as "handicapped" (learning disabled, emotionally disturbed, minimal brain injury, etc.). In many instances, the services provided to these children consist of spending the majority of their school day in the regular classroom, supplemented by periodic visits to the resource room. It is assumed that the instructional plan initiated by the resource teacher will serve to remediate the academic and/or behavioral deficit allowing the "handicapped" child to function at a level commensurate with his peers. It is becoming increasingly apparent, however, that the relatively short period of time the child spends in the resource room is not in itself sufficient to promote adequate academic or social functioning. The limited success of many traditional resource room programs may be due to the general lack of communication and carry-over between the resource and regular classrooms. In addition, the "handicapped" child in all likelihood is continuing to be subjected to inappropriate teacher expectations and behaviors which may have originally caused or maintained the school failure. Any program designed to alleviate the school problems of the "handicapped" must direct careful attention to the regular classroom to determine its relevance in either facilitating or impeding student growth.

The role of teacher expectations in school failure is based upon three basic assumptions:

1. Children come to school with widely variant attributes and characteristics.

2. In some instances, teachers formulate inaccurate and rigid expectations based upon these individual characteristics of students; these expectations influence the ways in which teachers and children interact.

3. These differential interaction patterns may become so consistently inappropriate and pervasive that they will significantly impair a child's ability to function academically as well as socially.

The significance of student-teacher interaction and their possible effects on student achievement can be used to explain some of the behavioral manifestations exhibited by children with mild to moderate school problems. For example, Rubin and Balow (1971) investigated the prevalence of children presenting educational or behavioral problems in the school setting. This study was longitudinal in nature and followed 967 children in kindergarten through 3rd grade. Educational and behavioral handicaps were operationally defined as the inability of students to adequately meet the demands of the educational systems in which they were enrolled. The results of the study found that 41% of the subjects, 50% of the boys and 31% of the girls, were classified in one of four categories. These categories included special class placement, retention, receipt of special services, and problems of behavior and attitude. Special placement or services had been instituted for 24.3% of the study population. It is important to note that pre-testing of these children demonstrated essentially normal scores on measures of school readiness, language development, and intelligence. The authors state,

> ...schools and teachers are oriented to a narrow band of expected pupil behaviors which are not consistent with typical behavior patterns of young boys; any pupil outside of that narrow range is treated as needing special attention. Clearly, the problem is not with the child alone. [p. 298]

These data suggest that at least as much diagnostic and remedial intervention needs to be directed towards teachers as well as children.

In a similar vein, Adelman (1970) has hypothesized that some school failure may be explained on the basis of the typical school program which tends to be rigid and does not accommodate individual differences among children. In most instances, the teacher determines the emotional tone of the classroom. If a teacher's perceptions and expectations of particular children are inflexible and inappropriately low, it is reasonable to assume that these students will experience some type of school failure. Keogh and Becker (1973) have also expressed concern regarding teacher-child interactions in the early prediction of children who are likely to fail in school. This concern dealt primarily with "self-fulfilling prophecies" which may develop as a result of hypothesizing that some children will be likely candidates for special education. When children are identified as "high risk" a unique set of expectancies, anxieties, and differential treatment patterns may develop. The potentially negative effects of these expectancies are

particularly insidious when considering that pre-school and kindergarten children have not yet developed the deficit conditions for which they were originally identified.

Newcomer (in press) has also discussed the importance of considering the role of the teacher in understanding the causes of academic underachievement. It is also implied that any diagnostic or remedial techniques which ignore the potentially potent effects of the regular classroom teacher is relatively useless in the successful resolution of school problems. She states:

> ...the focus on learning problems as child-centered disorders ignores or at least de-emphasizes that learning is an interactive phenomenon and that failure to learn is often intricately associated with breakdowns in a child's relationship with teachers and peers. More succinctly, diagnosing and remediating children's academic difficulties in settings removed from the regular classroom may not be sufficient if the problems interfering with learning relate primarily to the types of experiences the child has within the regular classroom. Resolution of these problems cannot take place unless the special educator becomes involved in the regular classroom activities. [p. 5]

It is apparent from the discussion thus far that teacher expectations and the self-fulfilling prophecies which are based upon them play a significant role in the academic and/or social failure of some children. It is important that special educators become thoroughly familiar with the determinants of teacher expectations in order to circumvent situations where children will be exposed to consistently negative and punishing classroom interactions. A discussion of factors which have been found to adversely influence teacher behavior is appropriate at this point.

CHILD CHARACTERISTICS THAT AFFECT TEACHER EXPECTATIONS AND BEHAVIOR

Many characteristics of students have been found to affect a teacher's perception of specific children and to influence their patterns of interaction with them. On the basis of these characteristics, certain teachers develop rigid and inflexible expectations for students and will tend to treat them in a manner that is detrimental to adequate school performance. Knowledge of those characteristics which adversely affect teacher perceptions and behavior is essential for special educators in order to understand why some children are particularly prone to academic failure and cannot be easily maintained in the regular classroom. Membership in racial and ethnic minority groups, underachievement, and sex have all been demonstrated to be strong determinants of teacher behavior.

Racial and Ethnic Groups

Jackson and Cosca (1974) surveyed 494 classrooms located in the southwestern United States. This study was designed to measure whether ethnicity of the student influenced the quantity or quality of teacher verbal interactions. In particular, the possible disparity between Mexican-American and white children was emphasized. The authors reported that teachers praised or encouraged whites 35% more than they did the Mexican-American children, accepted or used the ideas of white students 40% more than they did those of the Mexican-American, and directed 21% more questions to whites than to Mexican-Americans. It was concluded that the Mexican-American child received substantially less of those teacher behaviors presently known to be most strongly related to gains in student achievement. It appears that at least two factors are contributing to the disparities in teacher behavior and the generally poor academic performance of Mexican-American students. These include the linguistic and cultural differences of Mexican-American pupils when compared to their predominantly middle class, white teachers and the tendency of teachers to respond differently to identical behaviors exhibited by students of different racial groups, socioeconomic status, or achievement levels (Brophy & Good, 1970; Good & Brophy, 1970).

Hawkes and Furst (1971, 1973) conducted two experiments to investigate whether teachers were generally accurate in their perceptions of the comparative nature of black children located in inner-city schools and white children attending schools in the suburbs. The first study utilized 704 black students and 495 white students who were in the fifth and sixth grades. All children were administered a general anxiety questionnaire. The inner-city children showed more concern than their suburban school peers on items that tapped objective fears, general worry, anxiety symptomatology, and concern about school work and self-adequacy. The second study involved asking 628 teachers to predict how both the black and white children responded to the 16 individual items on the general anxiety questionnaire. The results indicated that the average number of accurate predictions per individual was 6.18. It is interesting to note that on only four of the anxiety items did a majority (over 50%) predict correctly. On a plurality basis the respondents were accurate on only six items.

Hawkes and Furst (1973) made an additional analysis by dividing the teachers into 46 subsamples on criteria of age, sex, psychology background, grade-point average, teaching experience, and type of high school graduated from. Teachers who had more than three years teaching experience in both inner-city and suburban schools (N=18) were the most accurate in their predictions. Surprisingly, those who were most inaccurate included teachers who reported a grade-point average of 3.5 or better on a 4.0

scale (N=27) and those who had accumulated more than 36 hours of academic credit in psychology (N=50).

These findings represent serious misconceptions on the part of teachers and prospective teachers about the relative fears, concerns, and anxieties of black children from lower socioeconomic backgrounds in the inner-cities as opposed to predominantly white middle-class children in private or public suburban schools. The sterotypes held by teachers regarding racial and minority groups can easily affect teachers' perception of individual children and may result in differential treatment patterns. The authors noted that the following conception is held by the vast majority of subjects in this study:

> The inner-city child who lives in a hazardous environment becomes accustomed to that environment, he reacts to that environment by becoming psychologically "tough" and resilient, he is unlikely to admit to fears and concerns about his daily existence, indeed he is unlikely to have such concerns, he does not care as much as his middle-class peer does about getting ahead either in life or school, his parents haven't trained him to care or be concerned about doing well in school, he doesn't mind being scolded by his teachers, he is not as likely as his middle-class peer to worry, and he is unlikely to manifest symptoms of anxiety. [p. 29]

That teachers may actually hold more negative and inflexible expectations for black than white students has been reinforced in other studies. Leacock (1969) explored the expectations of teachers from different racial groups. The results of this study indicated that a significant number of teachers held white students in greater esteem than black students. Not only were white students perceived in a more favorable manner, but particular hostility and rejection was exhibited toward the ***brighter*** black student. Apparently, teacher expectations were influenced by whether the teacher was located in the middle-class white versus the lower-class black classrooms. For example, student inattention in the predominantly black schools was viewed as being due to the "limited attention span of the students." In the middle-class school, however, this particular behavior was perceived as a fault of the teacher in not maintaining student interest.

Coates (1972) analyzed the feedback made by adults when teaching one of four nine-year-old boys, two of whom were white and two of whom were black. The teaching situation was structured in such a way that the adults could see the child while working with him but could not monitor his responses. The children participating in the experiment were told to only pretend to respond to the adult instruction. Feedback via mechanical means were given to the adults to indicate how fast their child was learning. Identical feedback was given to each adult regarding their student's progress. The adults were required to give a statement to the child following each pretended response. These statements were to be selected from a list of five ranging from praise to criticism. The results of this study indicated that the adults were significantly more negative toward black than white children. In addition, adult ratings of the children on a 19-point adjective description scale demonstrated that race was a factor in how the child was perceived. In every instance the black males were rated more negatively than white males on such variables as attentiveness, dullness, friendliness, etc.

The problem of racial and ethnic misconceptions and hostility toward students is not confined to black and Mexican-American students by any means. Kleinfeld (1972) studied the interactional patterns and attitudes of teachers regarding Indian and Eskimo children in Alaska. These children attend elementary schools in their own villages, but when entering urban high schools they were frequently subjected to a broad range of possibly negative teacher behavior. The large number of teachers and students at high schools demonstrated hostility and negativism toward the minority students. The inappropriate teacher behaviors were usually exhibited in some combination of apathy and hostility or in attitudes that were generally favorable but were coupled with low expectations for performance. As would be expected, the teachers who were most successful with the Indian and Eskimo children were those who communicated feelings of acceptance and warmth but at the same time maintained high standards of performance.

Sex

Special educators have continually noted that boys seem to fail in school at a much higher rate than girls. This finding is not surprising in that the sex of a given student has been found to be an important factor in the formation of teacher expectations. In a study conducted by Palardy (1969), the effect of teachers' beliefs about sex differences in the potential for first grade reading was studied. This experiment matched two groups of first grade teachers according to whether or not they believed boys would be as successful in learning how to read as girls. The teachers in Group A reported their opinion that both sexes would be equally successful. Teachers in Group B, however, expressed their belief that boys would be less successful than girls in acquiring this skill. The students were essentially homogenous according to four variables: age, no grade retention, middle-class background, and average to superior scores on a reading readiness instrument. At the end of the semester, the scores from a reading achievement test administered to all students participating in the study were compared. It was found that the boys being instructed by teachers in Group A did, in fact, achieve as well as the girls. Conversely, in Group B the girls scored

significantly higher than their male classmates. Palardy interpreted these findings to indicate the operation of a self-fulfilling prophecy.

The sex of a student has also been found to influence teacher perceptions of the relative intelligence of children in their classroom. Doyle, Hancock, and Kifer (1972) determined that a group of first grade teachers tended to overrate the IQs of girls and underrate those of boys. The expectation that boys are less intelligent than girls appeared to be related to achievement scores at the end of the year. Students who were perceived as being more capable intellectually, performed at a higher level than could be predicted from their actual IQs. Students who were rated as being less intelligent achieved at a lower level than could be predicted from their measured IQs. The authors conclude that the teachers had stimulated achievement in students for whom they had higher expectations.

That teachers generally view girls more favorably than boys has been demonstrated (Arnold, 1968; Datta, Schafer & Davis, 1968). The most frequent behavioral finding reported was that boys are subjected to much more teacher disapproval and criticism than girls. In addition, teachers are far more likely to use a more strident or disapproving vocal quality when criticizing boys. Criticism, when infrequently directed toward girls, is usually delivered in a normal conversational tone (Spaulding, 1963). It should not be surprising, therefore, that boys appear to have a much less favorable attitude toward school than girls (Jackson, 1968; Antes, Andersen & DeVault, 1965).

Student Achievement

Today, the vast majority of "mildly handicapped" children are referred to special education because of academic underachievement (Kirk & Elkins, 1974). It appears that teachers' expectations and self-fulfilling prophecies not only may initiate school failure, but also maintain it once a child's academic achievement falls below that of his peers. Considerable research has been reported which indicates that students of different achievement levels are exposed to differing types of verbal interactions with their teachers. Studies by Hoehn (1954), deGroat and Thompson (1949), Morrison and McIntyre (1969), and Good (1970) found that low achieving students received more criticism and less praise than their achieving peers. Not only do teachers address more favorable comments to high achieving students and more critical comments to low achieving students, they also have been found to differ in the number of opportunities for academic responses given to each group. Beez (1968) conducted a study which monitored the teaching behavior of tutors assigned to high and low achieving students. Tutors who demonstrated high expectations for their students attempted to teach more than those with low expectations.

The use of a tracking system has been found to intensify the effects of teacher expectancies on student achievement. This system is designed to provide "appropriate" educational opportunities for students of different "ability levels." As a consequence, the highest achieving children are likely to receive the most advantageous educational opportunities that the school system has to offer, while low achievers are likely to be exposed to the worst (Dahloff, 1971). It is possible that over time this factor alone is likely to increase the differences between high and low achieving children. This process may induce feelings of failure and frustration in low achievers while also providing a less adequate education (Lippit & Gold, 1959).

Rist (1970) presented an interesting longitudinal study which followed the progress of a particular ghetto classroom from entrance into kindergarten through the 1st and 2nd grades. After the first eight days of kindergarten, the teacher seated the children around three tables. Observational data reported that the students in each of the three groups were distinguishable by at least four criteria. First, physical appearance—cleanliness, neatness, and quality of clothes. The second criterion, social behavior of the children—the leaders as opposed to the followers in group activities. The third, language used by the three groups—standard English as opposed to black dialect. The fourth criterion, certain social factors known to the teachers, such as the size of the family, parental income, educational background. Using these four criteria as the scale, the children at table one would be rated the highest, while those at table three would be rated lowest. The author maintained,

> The teacher developed, utilizing some combination of the four criteria outlined above, a series of expectations about the potential performance of each child and then grouped children according to prestige and similarities in expected performance. [p. 422]

The kindergarten teacher's differential expectations for the children were readily manifested in the type of teacher behavior directed toward the children at table one and those at tables two and three. The children at table one received preferential treatment. These students were given more opportunities to answer questions and interact with the teacher. They were also rewarded with more praise and less criticism than the other children. Students who were seated at tables two and three received less contact with the teacher and less instruction and, hence, were less involved in classroom activity. A particularly interesting finding was that the students who were seated at table one

seemed to share the teacher's negative attitude toward the children who were seated at tables two and three. It was apparent that as the year progressed, the children seated at table one frequently insulted and ridiculed the children seated at the other two tables. It was also noted that the children who were seated at tables two and three, while directing negative comments toward one another, did not particularly express hostility toward those students seated at table one. It would seem that the children had become aware of the "pecking order" and had learned to direct derogatory remarks only at the "inferior" students.

Rist followed 18 of these 30 children after they entered in the same first grade classroom. Those students who were in the low achieving groups in the first grade were retained in essentially the same academic position. Follow-up in the second grade demonstrated that the children were maintained in the same essential pattern. In that classroom, the teacher termed the first group Tigers, the middle group Cardinals and the low group *Clowns*! It is Rist's contention that the second grade teacher formed groups according to how children had previously performed in school rather than how they were performing at that time. Rist discussed the grouping systems as follows:

> No matter how well a child in a lower reading group might have read, he was destined to remain in the same reading group. This is, in a sense, another manifestation of a self-fulfilling prophecy in that a "slow-learner" has no options but to continue to be a slow learner, regardless of performance or potential. [p. 435]

In a similar, but a somewhat more restricted study, Jeter and Davis (1973) studied teacher-child verbal interaction patterns in three suburban schools (10 fourth grade social studies classes). After the teachers had ranked their pupils on how well they expected them to perform, six observational periods were conducted to ascertain the character of various classroom interactions. When comparing the three highest and three lowest rated children, it was found that teachers' responses depended upon the expectancy held for the student. Those children who were rated "low" had less total contact with their teachers. In addition, when the "lows" attempted to answer a question they received less appropriate feedback and were criticized more frequently when incorrect. The children who were perceived as achievers received more response opportunities in the form of both process and product questions. The teachers also demonstrated a tendency to question the "highs" even after failure to give appropriate answers to initial questions. This practice allowed the achieving children to receive almost twice as much positive feedback as the underachieving children.

Handicapping Conditions

The fact that some youngsters are labeled "handicapped" has been shown to be a significant factor in the way in which these children interact with either regular or special class teachers. Not only does the label affect teacher perceptions and expectations, but it has also been demonstrated to create stereotypes which can be detrimental to the academic and/or social development of particular children. Stereotyping of certain children has been found to exist even with teachers who have been trained in special education. Salvia, Clark and Ysseldyke (1973) attempted to determine if stereotypes of exceptionality are maintained in the face of normal behavior. In other words when teachers encounter intellectually normal children who are improperly labeled, will they retain the stereotype by rating the behavior of children labeled "gifted" more positively than when the same child is labeled "normal" and by rating the behavior of a child labeled "retarded" more negatively than when the same child is labeled "normal"?

In this experiment two groups of undergraduate students in special education (N=48) and general education (N=117) were randomly assigned to three experimental conditions. Using a checklist consisting of 27 items arranged in five categories (attitudes and reactions toward adults, attitudes toward tasks, attitudes toward own performance, motor reactions, and verbalizations), the subjects were asked to rate a mentally retarded, normal, and gifted child. Each subject completed three separate ratings. During the first rating, the subjects in group one observed a child on videotape who was designated as mentally retarded. The subjects in group two observed the same child performing the same task but were told that the child was gifted. The third group observed the same videotape but were told that he was normal. After viewing each tape, the subjects were asked to rate the child. The three children rated were Caucasian boys (ages 6, 8, and 10 years) who had been previously determined to possess normal intelligence and to be free from obvious sensory or physical impairment. The findings of this study indicated that the children who were labeled gifted were seen more positively than children labeled normal on attitudes toward the task and toward own performance. Children labeled retarded, however, were rated less favorably than children designated normal on all five dimensions of the checklist. It would seem that even teachers who have been trained to react mainly to observed student behavior still have a tendency to retain stereotypes of "handicapping conditions" even when the handicapping conditions are not present.

Teacher attitudes associated with the mainstreaming of handicapped children were measured in a study conducted by Shotel, Iano, and McGettigan (1972). The purpose of this experiment was to determine how a program for integrating handicapped children into regular classes with supportive resource room services would affect the attitudes of regular classroom teachers toward handicapped children. Regular classroom teachers from six elementary schools were divided into experimental and control groups. Three of the schools were currently involved in the first year of an experimental resource room program which involved disbanding self-contained special classes for emotionally disturbed and educably mentally retarded children. These children were assigned to regular classrooms and were provided supportive help in a resource room. Three control schools were matched with the experimental schools according to school size, proximity of student population, and the presence of at least two self-contained special classes. A questionnaire was designed to elicit teachers' attitudes toward (1) placement of handicapped children in regular classes with resource room support, (2) potential of handicapped children for normal academic achievement, (3) potential of handicapped children for normal social adjustment, (4) their competency for teaching handicapped children, and (5) the need for special methods and materials for teaching handicapped children. The questionnaire was administered at the beginning and the end of the school year.

The results of this study indicated that the teachers were generally more positive in their attitudes toward the learning disabled child than toward the emotionally disturbed or educably retarded child. In addition, the teachers in the experimental group initially expressed a great deal of optimism concerning the integration of the educably retarded child and the emotionally disturbed child into regular classes. However, at the end of the school year this optimism had largely disappeared and was replaced by doubt that these children could be maintained successfully. All teachers in the study reported the great need for special methods and materials that could be used for "handicapped" children in the regular classroom situation. It was the obvious feeling of the regular classroom teacher that it would be extremely difficult to integrate these children without a vast array of specific methods and materials. It was the authors' feeling that "special educators themselves are largely responsible for encouraging a mystique that will make it difficult to develop successful integrative programs for handicapped children" (p. 683).

The school performance of students enrolled in self-contained, special education classes seems to be directly related to their teacher's perceptions of them. The relationship between teacher expectancy and academic and social achievement of 267 educably mentally retarded children was investigated by Haskett (1969). The Metropolitan Achievement Test and the Syracuse Scales of Social Relations (SSSR) were used as measures of achievement and social development respectively. Only SSSR scores for half of the 32 special classrooms participating were manipulated either up or down prior to being reported to the teachers. Scores from the Metropolitan were stated accurately. The major finding of the study was the significant and positive correlation between teacher expectancy and student social development. In addition, a significant correlation was found for the relationship between teacher expectancy and student achievement.

Meichenbaum, Bowers, and Ross (1969) studied the effects of expectancy instructions upon the academic performance of institutionalized adolescent female criminal offenders. Six of fourteen girls utilized in the experiment were identified as "late bloomers." "Late bloomers" in comparison to control subjects significantly improved academic achievement and also behaved more appropriately in class. Observations of the teacher-pupil interactions during the two week base line and follow-up expectancy period revealed that expectancy instructions differentially affected teacher's behavior. Some teachers significantly increased the frequency of their positive interactions with the "late bloomers." In total, the experimental subjects were subjected to fewer negative comments from the teachers.

Taken together, the studies outlined thus far indicate that certain student characteristics significantly influence teacher attitudes, perceptions, and expectations. It should not be thought, however, that only those characteristics discussed have relevance to the formation of negative teacher expectations and resultant self-fulfilling prophecies. Other child characteristics have been shown to influence teacher behavior. These include social class differences (Becker, 1952; Smith, 1965; Goodwin & Sanders, 1969; Brown, 1969; Mackler, 1969; Goodacre, 1967), personality (Hadley, 1954; Feshback, 1969; Good & Grouws, 1972; Kelly, 1958; Yarrow, Waxler & Scott, 1971; Schmuck, 1963), physical attractiveness (Clifford & Walster, 1971; Dion, Berscheid & Walster, 1972), seating location (Adams & Biddle, 1970; Delefes & Jackson, 1972; Brophy & Good, 1970; Daum, 1972; Schwebel & Cherlin, 1972), writing neatness (Chase, 1968; Huck & Bounds, 1972), and speech and language characteristics (Guskin, 1970; Williams, Whitehead & Miller, 1972; Naremore, 1970; Seligman, Tucker & Lambert, 1972).

To summarize, teachers appear to react quite differently to individual students on the basis of their initial perceptions and expectations. It also seems likely that, in certain instances, these teacher perceptions and expectations have

the potential to significantly affect school performance of their students. Future research in this area should continue to explore individual characteristics of students, since these seem to be essential to understanding differential treatment patterns within classrooms. It is reasonable to hypothesize that the accurate prediction of some negative treatment patterns is possible when only provided information about the child. The effects of teacher expectations and self-fulfilling prophecies have been demonstrated to be operational in special education self-contained classrooms as well as regular classrooms. Consequences of teacher expectations are pervasive and need to be recognized and dealt with in any educational situation.

IMPLICATIONS FOR SPECIAL EDUCATION

In this article, research evidence has been presented which indicates that teacher expectations and self-fulfilling prophecies can negatively influence a child's performance in school. Obviously, these findings have extensive implications for special educators when attempting to provide effective programming for the heterogenous population of children who are referred for special services. In this section, three major implications will be discussed which relate to (1) the traditional assumptions that are usually applied to students labeled as handicapped, (2) current trends in moving previously self-contained youngsters back into the regular classroom, and (3) the early identification of children who are likely to fail in school.

Assumptions Underlying "Handicapping Conditions"

Perhaps the most frequently held assumption regarding children who exhibit school-related problems is that they are somehow disabled or disordered and, therefore, are significantly different from "normal" students. While this belief may have some relevance to more severely involved children, its application to students who merely fail to read at grade level or are mild behavior problems is largely superfluous. In that the majority of pupils now placed in special education appear to function normally in every respect with the exception of relatively minor school problems, it is quite tenuous to assume that some internal deficit is impeding their learning process. However, current practices in the diagnosis of "handicapping conditions" dictate that some hypothesized internal disability must be identified in order to justify special education placement as well as to provide appropriate remedial programs. The use of such diagnostic procedures are fallacious when applied to the underachieving or nonconforming child and, more importantly, may result in a series of events that will serve to ensure continued failure.

Once educators accept the assumption that a child does possess a disorder of some type (i.e., deficits in visual or auditory perception, perceptual-motor functioning, psycholinguistic ability, etc.), it is frequently thought that the regular educator can no longer be held accountable for the lack of school success. Obviously, this assumption implies that the failure is primarily the fault of the child and is not due to inadequacies in the instructional techniques or interactional patterns utilized in the classroom. While the child may still spend the majority of the day in the regular classroom, it remains for the special educator to correct the diagnosed deficiency before any success can be expected. Consequently, the teacher's perceptions and expectations of the child, which in all probability were already negative as a result of the lack of school success, are likely to result in behavioral interactions that will maintain the cycle of failure. Unless the teacher is helped to modify the quality and quantity of her interactions to be more appropriately challenging and supportive, no amount of time, money, or effort spent in the resource room will be truly effective.

Special educators must come to the realization that the concept of "handicapping conditions" when applied to the child who is exhibiting only mild problems is highly inaccurate and may possibly have the effect of seriously exacerbating the school problem. Indeed, when the presenting symptom appears to be only that of basic underachievement or a minor behavior disorder it is questionable whether the child should be placed in special education for any reason. It would seem far more feasible to incorporate a service-delivery model where regular class teachers are carefully observed to determine whether they are unconsciously playing a role in the child's failure. Remedial strategies should include some or all of the following:

1. The teacher should be assisted to overcome the instructional deficiencies present in her own teaching style.
2. The child should be moved to a different and more supportive classroom environment if the teacher refuses to cooperate and does not modify her behavioral interactions with the student.
3. A relatively brief period of academic tutoring should be initiated in the classroom setting to assist the child in closing the gap between his present and potential level of achievement.

Remediation necessitating short-term removal from the regular classroom should be undertaken in only extreme cases and, when done, should always be carefully explained

to the teacher in terms of how to utilize the newly attained skills in the school curriculum. It is important to note that the activities listed above can, in many instances, be undertaken without referral to the special educator. If regular educators can be encouraged to assume responsibility for achievement and/or adjustment problems that are the result of inadequacies within the classroom, special educators would be free to focus upon those children whose genuine internal disorders preclude normal classroom functioning.

Mainstreaming

The role of teacher expectations in school failure also has direct implications to the current trend of moving children previously placed in special education self-contained units into the regular classroom (i.e., mainstreaming). This trend has gained widespread support, resulting in many school systems routinely and unquestioningly mainstreaming the majority of their special education students. This practice, while very popular nationally, is now being seriously questioned by some educators who feel that insufficient research has been conducted to fully substantiate its ultimate usefulness. Edwin Martin (1974), Deputy Commissioner for Education of the Handicapped, states:

> I am concerned today... about the pell-mell and I fear naive mad dash to mainstream children, based upon our hopes of better things for them.... First, it is the question of the attitudes, fears, anxieties, and possibly overt rejection, which may face handicapped children, not just from their schoolmates but from the adults in the schools.... If the majority of handicapped children–the mildly and moderately retarded, the children with behavioral disorders, the children with language and learning problems, the children with orthopedic difficulties–are to be spending most or much of their time in regular classrooms, there must be massive efforts to work with their regular teachers, not to just "instruct them" in the pedagogy of special education but to share their feelings, to understand their fears, to provide them with assistance and materials, and in short, to assure their success. [p. 151-152]

Based upon the data presented in this article, it would seem prudent to carefully review the practice of mainstreaming when considering the dearth of available research regarding the interactional process between special education students and regular classroom teachers. In some situations, teachers will undoubtedly endeavor to provide a facilitating environment which will promote improved classroom functioning. It is also reasonable to predict, however, that some teachers will form unrealistic expectations for these students which will most certainly work against "normalization" of either academic or social behavior. In all probability, special education students will receive more criticism from their teachers than their achieving peers, will be exposed to far fewer teacher contacts, and will develop less positive concepts of self-worth. In these instances, regardless of the type of remediation provided in the special education facility, the child will be subjected to repeated failure and frustration in his efforts to learn. It is important that once a child is placed back in a regular classroom continual monitoring be conducted to assure that he is receiving appropriate instructional opportunities. Special educators will need to become proficient in the use of techniques (primarily observational) which allow the assessment of a wide variety of classroom situations. A number of observational systems have been developed which are helpful in determining the patterns of teacher–child interactions. For example, the Flander's System of Interaction Analysis (Flanders, 1970), the Indiana Behavior Management System (Fink & Semmel, 1971), and the Florida Climate and Control System (Soar, Soar & Ragosta, 1971) are observational instruments which require little training and may be used to assess various aspects of classroom environments.

Early Identification of Learning Problems

The effects of teacher expectations and self-fulfilling prophecies have direct implications to the early identification of "high risk" children. From the previous discussion it is apparent that large numbers of children are referred to special education who exhibit no "internal deficit" affecting their ability to learn. In some instances, children are referred to special education because of certain characteristics which may lead the teacher to interact with him in a manner which is not conducive to school success. It is highly likely that a beginning first grade child who is Mexican-American, male, poor, and speaks a dialect will tend to be treated more negatively than a peer who is white, female, middle-class, and standard English speaking. This will be true even if both children possess normal intelligence, school readiness skills, motor ability, etc. The first child will be prone to underachievement and as a result may be considered "high risk." In some instances, he actually may be referred from the regular class, diagnosed, and placed in special education. This process, at best, is extremely unfair and will result in the use of inappropriate labels which will tend to promote repeated school failure. A careful rethinking of the genesis of "handicapping conditions" is needed which takes into account the role of the teacher as well as the child in understanding school failure. If this is not done, special education will continue to be the recipient of large numbers of children whose failure is due to negative interactional patterns as a result of not fitting teachers' expectations and stereotypes as to what is "normal."

In summary, the influence of teacher expectations and self-fulfilling prophecies on the school performance of children has been amply demonstrated. Although the potentially negative affects of these interactional patterns do not occur in every teaching situation, their importance when present demands careful attention. It is imperative that regular as well as special educators develop the skills necessary to adequately assess the appropriateness of classroom interactional patterns and be able to intervene when necessary. Whenever feasible, remedial efforts should be conducted in the regular classroom and focus upon the primary subject area in which the child is experiencing difficulty. This practice will necessitate the involvement of the regular educator and will emphasize the importance of reacting to observable behavior rather than focusing upon existing expectancies which may act as an antecedent to school failure. When the teacher responds to each child on the basis of his demonstrated strengths and weaknesses, the opportunity for achievement at some level is greatly enhanced; when classroom interactional patterns are dictated by inaccurate and inflexible expectations, school failure is largely unavoidable.

It is apparent that continued research needs to be conducted into the phenomena of teacher expectations and self-fulfilling prophecies. Educators may be encouraged by the words of Alfred North Whitehead (1906):

> The last thing to be discovered in any science is what the science is really about. Men go on groping for centuries, guided merely by a dim instinct and a puzzled curiosity till at last some great truth is loosened. [p. 223]

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CLASSROOM FORUM

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Our learning disabilities program is expanding to include a high school resource program. There seem to be many problems involved in instigating such a program. Can you make suggestions as to details that need to be worked out before starting such a program?

Programs for children with specific learning disabilities began with emphasis on elementary-aged children. This is indeed understandable, since it has been shown that younger children tend to make more progress more rapidly than do older children. Many younger children can return to regular classroom situations with no need for continued support from learning disabilities programs. However, there are those who will need continued support into the high school years. Usually this type of young person has had rather severe learning problems and, therefore, a history of academic failures and poor school adjustments. As a result of past failures, the student is likely to have emotional overtones to the learning problem. The student might have become a behavioral problem in school or perhaps just withdrawn. Therefore, it has become increasingly apparent that high school programs are necessary—for those needing continued support after learning disabilities services in elementary and middle grades, as well as for those having learning difficulties in high school who never received help in earlier years. Because of the emotional, physical, and academic complexities of the high school age, there are many things to be considered in initiating and carrying out a successful high school program. It is hoped that some of the suggestions listed below will prove helpful.

1. *Statement of Criteria for the Program.* Before any program is actually started, it is vital that the goals for the program are established and that some criteria be developed for those who will be included in the program. Such requirements should be thoroughly understood by all those involved in the program as well as staff members of the school. It is easy for special programs to become "dumping grounds" for those who are problems in the classroom. A clear statement of criteria might eliminate much confusion and misunderstandings. It is sometimes helpful to have a special committee to review a student's test scores, academic and social history, and other recommendations in order to decide upon placement into the program.

2. *Principal.* The principal of the school in which the learning disabilities program is to be housed is a vital member of the team. He should be cooperative and should understand and appreciate the value of such programs. He should be involved in as much of the planning as possible and should understand the needs and goals of the program. He should be kept informed of the program at all stages of development.

3. *Teacher Selection.* The teacher can "make or break" the program. An understanding of adolescents—their physical, emotional, and academic needs—is of utmost priority. An understanding of the secondary curriculum is important, as is skill in counselling. Because many materials are not geared for the high school aged student, the teacher will have to be inventive and creative in order to have adequate remedial materials and aids for learning. Many hours will have to be spent in preparation of materials.

4. *Liaison Person.* Someone who knows the community resources that might be utilized in LD programs would be a vital member of the team. Many times the counselor in the building might prove to be an excellent liaison person, especially since his cooperation and interest could be readily used.

5. *Job Training Counselor.* If it is possible for such a person to be included in the program, there are many ways his services could be utilized. This person might serve to find and/or create job opportunities for those having learning problems who were interested in such a program. Communication with those employers in the community and students involved in the program would be a primary responsibility. Observation of students on the job and feedback would be helpful. This program should be similar to those D.E. and DCT programs already operating in the high school curriculum.

6. *Coordinator for High School Programs.* A coordinator becomes a necessity when several high school programs are operating. He/she should know the administrators of the schools, serve as resource to regular staff members

as well as learning disabilities teachers, and know where resources of materials and equipment are located. Helping to communicate with the teachers and giving feedback and encouragement to them is a prime responsibility.

7. *Inservice Sessions with High School Staff.* It has been proven effective to have one inservice session in the spring to familiarize the staff with the idea of a new program and to discuss the goals and expectations of the program. A discussion of how the program is expected to function and how the program will relate to the faculty and organization of the school is helpful. The faculty should be given a chance to provide input into planning and to discuss their feelings about such a program. Another inservice session should be planned in the fall to re-emphasize and rediscuss the program. This interchange of ideas and communication should help modify both the attitudes and behaviors of the staff.

8. *Material Selection.* Because most of the students involved have a history of failure, motivation is very important. The teacher will probably have to make many of the materials so that the students can have a new slant on learning. *High interest, low vocabulary readers* should be available. Various approaches to learning should be utilized. Many of the audio visual aids help in such adaptations. *Tape recorders* should be available to the students. These are especially helpful to those students who have difficulty writing—in taking notes in regular classes, in writing and copying assignments, in taking tests. In this way the student could tape lectures, tape assignments, and even tests when allowed. This takes much cooperation and communication with regular teachers. A small room could be made available to students for taping. *Typewriters* too aide students with writing problems. *Talking books* not only are helpful to the blind, but also are available for others who are interested. It is important to know where these can be obtained, what materials are available on tape, how long it takes to obtain them. Those whose reading skills are extremely poor but who have excellent auditory comprehension and are anxious to learn would greatly benefit from such books. If additional books are needed, a program might be organized to use other high school students with good reading skills to do the taping. Future Teachers clubs are often looking for projects, and their support might be invited. These young people might also be used as *peer teachers* who may have the option of using a free period or study hall to help students with learning problems by reading to them, helping reinforce lessons from the regular class, and giving moral support. *Vocational training* was mentioned briefly in the section on job training counselor. Development of such a program could prove very motivating and rewarding to the student with learning disabilities.

Certainly, not all areas have been covered, but it is hoped that these ideas will give impetus to creative and innovative programming for the high school learning disabilities programs. Special thanks go to Miss Joyce Zachow, Acting Coordinator for Specific Learning Disabilities Programs, Dekalb County, Georgia for her input.