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ABSTRACT

The purpose of the study was to explore the formation of teachers' expectations of students' academic performance. First-grade teachers were interviewed or asked to respond to questionnaires concerning their pupils, and ranked their students on expected academic performance at three periods in the school year. Teachers rankings of expected performance were highly stable over time. Metropolitan Readiness Test scores were significantly correlated with prior teacher rankings of expected performance. Many student behaviors and characteristics were identified as correlating significantly with teachers' rankings of expected academic performance. [Not available in hard copy due to marginal legibility of original document.] (Author)

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FORMATION OF TEACHERS' EXPECTATIONS OF FIRST GRADE STUDENT'S ACADEMIC PERFORMANCE*

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Much of the research (Flowers, 1966; Rosenthal and Jacobson 1968; Claiborn, 1969; Jose and Cody, 1971) on teachers' expectations o pupils' academic performance has focused largely on the self-fulfilling ature of such expectations. Many self-fulfilling prophecy studies (Flowe s, 1966; Beez, 1967; Rosenthal and Jacobson, 1968) were based on a resear h paradigm involving the creation of expectations from fictitious student I formation communicated to the teacher by the researcher. The results from studies based on this paradigm have been ambiguous. Publishe studies b Claiborn (1969), Jose and Cody (1971) and Fleming and Anttonen (1971) ha e failed to replicate the Rosenthal and Jacobson (1968) findings that tea her expectations created from fictitious student information were self fulfilling Fleming and Anttonen (1971) and Brophy and Good (1972) have sugg sted possible explanations for the effectiveness or lack of effective ess of fictitiously induced expectations.

Whether or not they are given fictitious information, teach rs do generate their own expectations of pupil performance. Studies b Palardy (1969), Ebbensen (1968), and Doyle, Hancock and Kifer (1971) hav shown that teacher generated expectations have been found to be accura e or to result in self-fulfilling prophecies. These studies have shown rela- tionship between expectations generated by the teacher and measu ed pupil achievement.

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While differential teacher expectations for the academic performance of students have been shown to exist and to influence the level of a student's academic achievement (Rosenthal and Jacobson, 1968; Pavlidy, 1969; Doyle, Hancock and Kifer, 1971), several investigators (Rist, 1970; Hastings, 1966 Goodwin and Sanders, 1959) have noted the lack of research on the formation of teacher expectations.

PURPOSE OF THE STUDY

The purpose of this study was to explore the formation of teacher generated expectations of students' academic performance. Several aspects of the problem investigated were: 1) The relation between student behaviors and characteristics as perceived by the teacher and the teacher's rankings of expected academic performance, 2) The stability over time of teachers' rankings of expected student achievement, 3) The ability of teachers' initial rankings of expected academic performance to predict students' scores on a school readiness test, and the possible influence of knowledge of test scores on the second teacher ranking of expected achievement.

METHODS AND PROCEDURES

Subject Sample 74 female first grade teachers in the Memphis Public School System and the Shelby County School System were subjects in the study. Teachers were selected from elementary schools in white, middle class communities in Memphis or Shelby County; ninety-five percent of the student population in these schools were white. Two-thirds of the total teacher subject population were white; one-third was black.

Procedure. Two experimental designs were used: one group of teachers was requested to respond to an Adjective Description Form, rating their pupils on specified physical, social and academic characteristics; a second group of teachers was asked to discuss their pupils in largely unstructured interviews. All interviews were tape recorded. Both groups of teachers were requested to rank order their pupils on expected academic performance. Data from both groups of teachers were collected at each of three periods in the school year. These data periods were: The first 2 weeks of school prior to administration of the Metropolitan Readiness Test; 1 - 2 weeks after the Metropolitan Readiness Test had been scored by the teacher; the end of the first semester.

The use of two experimental designs was intended to ascertain whether similar or compatible results would be obtained by two different methods. Frequently, the factors influencing the teacher - child relationship have been investigated by asking teachers to respond to questionnaires or by conducting highly structured interviews. Thus, the experimenter may be imposing or communicating his own biases or hypotheses to the subjects. The freely structured interviews in the present study were an attempt to control for such influences. Investigators conducting the interviews in the present study were not familiar with previous studies of factors influencing the teacher-pupil relationship and had only the limited information given the teachers concerning the purpose of the study.

RESULTS AND DISCUSSION

The results will be considered in terms of the 3 aspects of the problem stated in the purpose of the study: I Relation between student behaviors and characteristics as perceived by the teacher and the teacher's rankings of expected academic performance.

Table 1 shows the correlations between teachers' ratings of pupils on adjectives from the Adjective Description Form and teachers' rankings on expected academic achievement for each of three data periods. Adjective categories relating most highly to expected academic achievement appear to be specific work-related skills and abilities (reading, attentiveness, independence in work), and general characteristics or attitudes (maturity, self-control, creativity), which are commonly associated with achievement or success. More general work-oriented behaviors (neatness, industriousness, clarity of speech), as well as social characteristics of pupils (friendliness, helpfulness) are significantly, but more moderately correlated with expected achievement. Correlations between almost all adjective categories and achievement rankings were highly stable across repeated samplings, indicating that teachers ordered the relative importance of the adjectives in predicting academic achievement very early in the school year and were consistent in their beliefs over time. Except for significant sex differences on conduct, teachers generally perceived the relative importance of behaviors and skills listed on the Adjective Description Form to be very similar for both sexes.

Table 2 indicates the categories from interview data which correlated significantly with teachers' rankings of expected academic performance for all 3 data periods. For the interview data, significantly correlated categories of independence in work, following directions, and neatness are similar to work skills and abilities listed in the Adjective Description Form. Likewise the category of maturity/immaturity was significantly correlated with expected achievement rankings.

However, some categories from interview data which are similar in content to adjectives on the Adjective Description Form did not have the consistent and highly significant correlations found in results from the Adjective Description Form. Interview categories on physical attractiveness and size, the child's self-confidence, and his social interactions with other children did not correlate significantly with achievement expectations as highly or as consistently as correlations and stability coefficients from the Adjective Description Form for related categories.

This difference may be a result of the procedures used in obtaining interview and adjective form data. The teacher using the adjective form was required to rate each student on each pre-selected adjective category, while the interviewed teacher was free to discuss any aspect of the child. There may be a greater tendency for a halo effect or logical error to influence adjective form ratings. The failure of interviewed teachers to mention certain categories does not necessarily mean that they had not observed these pupil characteristics, nor that these behaviors lacked importance for the teacher. Although encouraged to do so, the teacher may have been hesitant to repeat the same information on consecutive interviews.

Compared to the interview categories, the number of adjectives on the Adjective Description Form is limited. Numerous additional categories from interview data were found to correlate significantly with teachers' rankings of expected academic achievement. Additional categories include: Teacher's knowledge of pupil's family, her knowledge of the child's preschool experiences, and her expectations and knowledge of the Metropolitan Readiness Test scores. Several additional categories are from the categorical divisions of Family and Social/Emotional Characteristics.

Perhaps, certain of the adjective form categories are more distinctly defined by several of the interview categories. Interview categories may indicate that what the teacher is observing and rating is more diverse and complex than data from the Adjective Description Form would indicate. Thus, highly significant correlations, comparable to those from the Adjective form data, are found only when several of these distinct interview categories are added to form sum scores.

II The stability over time of teachers' rankings of expected student achievement.

Table 3 shows the correlations between teachers' rankings of expected academic achievement across the 3 data periods. It appears that the stability of rankings of expected academic achievement increased as the year progressed. Stability of rankings for interview and adjective form groups appears to be similar according to size and significance level of the correlation coefficients.

Although rankings of boys appear to be more stable than for girls, this can be explained by a larger amount of variance for boys, resulting in higher correlation coefficients.

III The ability of teachers' initial rankings of expected achievement to predict students' scores on a school readiness test.

Table 4 shows the correlations between Metropolitan Readiness Test scores and teachers' rankings of expected academic performance for each of the three data periods. It appears that teachers' first rankings of expected academic achievement made within the first 7-8 days of school are quite accurate and are supported at a significant level by scores from the Metropolitan Readiness Test, which was administered after the first rankings

of expected achievement were made. For all groups, the correlation between Metropolitan Readiness Test scores and the second teacher rankings of expected achievement are significantly higher ($p < .01$) than are correlations between the Metropolitan Readiness Test scores and the first teacher rankings. There is no significant difference in correlations between Metropolitan Readiness Test scores and teachers' second and third rankings.

However, it cannot be definitely determined from this data whether the significant differences in correlations of Metropolitan Readiness Test scores and teachers' rankings for periods one and two are solely or primarily due to teachers' knowledge of test scores. Teachers had had more time to observe and interact with pupils in the classroom by period two, and this may have influenced their rankings.

Nevertheless, the stability of correlations between Metropolitan Readiness Test scores and teachers' rankings on Times 2 and 3 would seem to indicate that knowledge of Metropolitan Readiness Test scores had some influence on teacher expectations.

IMPLICATIONS FOR FURTHER RESEARCH

This research was an exploratory study of factors related to the formation of teachers' expectations of students academic performance. Validity of these results would be strengthened by replication and expansion of this study for similar teacher and student populations. Comparable research might also be done for different grade levels, for classes formed by special ability grouping, and for certain ethnic groups. The Goodwin and Sanders study (1969) would suggest that different factors might be related to expected achievement rankings for older children at different grade levels.

Data periods for this research were timed to measure the influence of test scores on the formation of achievement expectations as generated by the teacher. The results strongly suggests that knowledge of test scores influences expectations. Additional studies might be so timed to measure the influence on expectations of other sources of information about the child which are available to the teacher, such as registration froms, health records and parent interviews.

Table 1

Correlations of Adjectives from Adjective Description Form with Teacher Achievement Ratings Across 3 Time Samples [1]

	Time 1		Time 2		Time 3	
	Boys	Girls	Boys	Girls	Boys	Girls
Very attentive to class procedings/Does not pay attention	.70**	.70**	.72**	.71**		
Gets along well with others/Fights, argues, shows aggressive behavior	.21**	.37**			.18**	.28**
Very self-confident/ Lacks self-confidence	.70**	.65**			.68**	.62**
Active participant, often makes comments or asks questions/Very quiet	.50**	.39**	.49**	.39**		
Very obedient/Disobedient, defiant	.34**	.45**			.29**	.34**
Has very good self-control/ Restless, hyperactive, can't sit still	.34**	.40**	.34**	.45**		
Good looking/ Unattractive	.30**	.34**				
Large/Small	.20**	.15*				
Mature/Immature	.71**	.71**	.66**	.67**		
Works very well without constant teacher supervision, follows instructions easily/Does not work well without constant teacher supervision	.75**	.76**			.76**	.69**
Industrious, always tries to do his best/Lazy, often doesn't do his best			.56**	.61**		

Table 1

(Continued)

	Time 1		Time 2		Time 3	
	Boys	Girls	Boys	Girls	Boy	Girls
Leader/Follower			.49**	.46**		
Easily understood, speaks very clearly/Very hard to understand (whispers, uses baby talk)			.56**	.48**		
Has many friends/Has few friends			.54**	.46**		
Very neat/Very messy			.57**	.61**	.51 *	.53**
Best Reader in class/Poorest Reader in class			.85**	.85**	.86 *	.85**
Very healthy/Frail, not healthy					.37 *	.38**
Very cautious, careful/ Very impulsive					.43 *	.44**
Helpful, assists teacher or other children voluntarily/ Not notably helpful, does not assist teacher or children voluntarily					.54 *	.52**
Creative, imaginative/Not notably creative or imaginative					.62 *	.64**

* p .05
** p .01

[1]Lines under pairs of coefficients indicate the following:

_____ Significant difference between sexes for adjective category for given data period at .05 level

═══ Significant difference between sexes for adjective category for given data period at .01 level

All N's exceed 475

Table 2

Categories from Interview Data which Correlated Significant / with Teachers' Rankings of Expected Achievement Across 3 Data Periods

	Time 1		Time 2		Time	
	Boys	Girls	Boys	Girls	Bo	Girls
Race (1-White, 2-Non-white)	-.13*	-.21**	-.12*	-.13*	-.0	-.13*
Family						
Parents - divorced without remarriage; parent absent from home	.02	-.18**	-.13*	-.11	-.1	-.15*
U/G - Negative, Family	-.11	-.21**	-.16**	-.18**	-.1	-.15*
Sum - Negative, #20-29 (Parents)	-.08	-.18**	-.10	-.15*	- 1	-.14*
Sum - Negative, Family	-.10	-.22**	-.17**	-.19**	-.1	-.20**
Social/Emotional						
Mature	.20**	.23**	.19**	.15*	.0	.15*
Immature, a baby	-.39**	-.38**	-.24**	-.29**	-.1	-.17**
Sum - Negative, Social/ Emotional	-.36**	-.31**	-.24**	-.21**	-.1	-.14*
Attitude/Motivation						
Does not try, gives up easily	-.10	-.12*	-.05	-.13*	-.0	-.22**
Classroom Behavior						
Well behaved	.12*	.10	.13*	.28**	.0	.12*
Sum - Negative, Classroom Behavior	-.25**	-.33**	-.37**	-.41**	-.3	-.35**
Readiness for School						
Ready/prepared for school	.16**	.11	.13*	.09	.1	.17**
Has not been to kindergarten	-.15*	-.02	.03	.13*	-.0	-.12*
Does not see likenesses/ differences	-.16**	-.20**	-.18**	-.19**	-.1	-.11

Table 2

(Continued)

	Time 1		Time 2		Time	
	Boys	Girls	Boys	Girls	Boys	[illegible]
Readiness for School						
Poor motor coordination	-.12*	-.14*	-.14*	-.06	-.16**	.02
Has good knowledge of outside world	.16**	.09	.20**	.01	[illegible]	12*
Sum - Positive, #73-33 (Specific Readiness Skills)	.26**	.08	.25**	.18**	.12*	22**
Sum - Negative, #73-33	-.22**	-.32**	-.30**	-.31**	-.32**	33**
Sum - Positive, Readiness for School	.34**	.18**	.36**	.33**	.20**	29**
Sum - Negative, Readiness for School	-.25**	-.33**	-.37**	-.41**	-.37**	35**
Oral/Verbal Skills						
Sum - Positive, Oral/ Verbal Skills	.26**	.05	.08	.15*	.06	15*
Work Related Behavior						
Does not listen	-.14*	-.14*	-.19**	-.04	-.08	10
Shows independence in work	.08	.22**	.21**	.02	.11	18**
Ability - Child is bright, average, slow (1-bright, 2-average, 3-slow)	-.15*	-.10	-.28**	-.22*	-.28**	28**
Child may fail, be withdrawn	-.09	-.29**	-.22**	-.28**	-.50**	- 48**
Perceptual problem	-.11	-.13*	-.12*	.00	-.24**	- 08
U/G - Positive	.31**	.25**	.37**	.32**	.27**	23**
U/G - Negative	-.18**	-.16**	-.24**	-.24**	-.22**	22**
Sum - Positive, #95-102 (Specific work related behaviors)	.27**	.20**	.28**	.11	.20**	20**
Sum - Negative, #95-102	-.31**	-.27**	-.18**	-.14*	-.11	18**
Sum - Positive, #103-107 (Ability Statements)	.26**	.25**	.31**	.31**	.40**	33**

Table 2

(Continued)

	Time 1		Time 2		Time 3	
	Boys	Girls	Boys	Girls	Boys	Girls
Work Related [illegible] for Sum - Negativ [illegible] 07	-.30**	-.31**	-.38**	-.42**	-.48**	-.50**
Sum - Positiv Work Related Behav or	.45**	.41**	.51**	.42**	.47**	.45**
Sum - Negativ , Work Related Behav or	-.42**	-.41**	-.43**	-.41**	-.46**	-.46**
Sum Total - P sitive	.46**	.33**	.42**	.43**	.31**	.40**
Sum Total - N gative	-.47**	-.49**	-.49**	-.47**	-.43**	-.44**

* $p < .05$
** $p < .01$

[1]All N's exce l 275

Table 3

Sta ility of Teachers' Rankings of Expected Student Achievement

Across Three Time Samples[1]

	Questionnaire			Interview		
	Tim	1-2	Time 2-3	Time 1-3	Time 1-2	Time 2-3	Time 1-3
Boys		69	.82	.64	.68	.86	.60
Girls		67	.81	.61	.68	.85	.58

[1] All N's exce d 250

All r's stat stically significant at $p < .01$

Table 4

Correlation of MRT Scores and Teacher Rankings of Expected Student Achievement Across Three Time Samples[1]

	Questionnaire			Interview		
	Time 1	Time 2	Time 3	Time 1	Time 2	Time 3
Boys	.63**	.80**	.75**	.60**	.79**	.72**
Girls	.56**	.75**	.71**	.61**	.79**	.78**

** $p < .01$

[1] All N's exceed 250