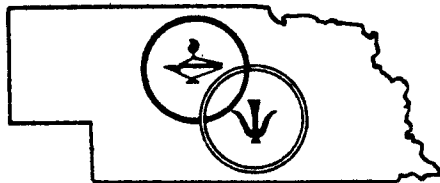


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NATURAL RATES OF TEACHER ATTENTIONS AND STUDENT SEX DIFFERENCES
AT THE FIRST-GRADE LEVEL

by

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A great deal of interest and distress has been expressed by educators, psychologists, and other concerned citizens about the loss of talent that the nation's underachieving children represent. As a manifestation of this concern numerous investigations have sought to identify the origin of underachievement so that proper remedial steps could be taken. In this vein, Shaw and McCuen(1960) found that male underachievers tended to receive lower grades than achievers in grade one and that these differences were significant in grade three while the difference in grades between female achievers and underachievers became significant at grade nine. From this and other investigations it has been determined that underachievement begins early in the school years and that it affects a greater number of males than females.

The school is the main locus of the manifestations of and concern with academic underachievement but the bulk of research has tended to deal with such non-school related dimensions as personality and parental background. There has been little work which investigated the school environment itself as a possible determinant of underachievement.

It was the intention of the present study to observe first-grade classrooms in order to determine if male students received positive and negative attentions from their teachers at the same rate as the female students and to observe the natural or existing rates of positive and negative teacher attentions. It was anticipated that males would

receive fewer positive teacher attentions and more negative teacher attentions than females which could be a possible cause for the situation itself, school, and/or the punisher, teacher, to become more aversive to males than to females and thus provide a possible explanation for the high rate of male underachievement.

Method

Subjects

The subjects consisted of eleven first grade teachers and their students in six Lincoln, Nebraska elementary schools. All teachers were white females while their students included approximately equal numbers of males and females. A small number of minority group children were present in most classrooms.

The six elementary schools were randomly chosen from telephone listings by the experimenter. They included a newer middle-class school on the fringe of the city as well as an older lower-class school nearer the city's center. The eleven teachers were also randomly chosen by the experimenter as not all teachers in the six schools could be included due to time limitations.

Procedure

The in-class observation procedure consisted of entering a classroom for at least five minutes before beginning data collection to allow the teacher and students to adjust to the experimenter's presence. Each class was then observed for 25 minutes wherein teacher attentions were recorded as either directed to a male or a female

student and further subdivided as to type of attention following the categories described by Thompson(1974).

Teacher behaviors recorded as positive attentions were:

1. Verbal praise. Any verbal behavior of the teacher which indicated approval, commendation, or achievement of a student.
2. Granting privileges. Any teacher behavior which allowed a student to perform a preferred task that was not readily available to members of the class.
3. Positive physical contact. Teacher initiated physical contact that appeared pleasant to the student.
4. Consumables and tokens. Delivery by teacher of a consumable such as candy or a token that could be traded for a consumable or preferred activity.

Teacher behaviors recorded as negative attentions were:

1. Verbal criticism or sarcasm. Any verbal behavior of the teacher that indicated disapproval or condemnation of a student's behavior.
2. Withdrawing privileges. Any teacher behavior signifying that a child could no longer perform a favorable task that would ordinarily be available.
3. Isolation. Placing a child outside the boundaries of the classroom.
4. Aversive physical contact. Teacher initiated physical contact that appeared unpleasant to the student.

Individual pupils were given tallies under the above categories when the teacher attention was directed to a single child. When the attention was aimed at a small group then each person in that group

was credited with one attention. No credit was given when a teacher attention was directed to the entire class as it was considered too diffuse.

Each classroom was observed a second time using the same procedure detailed above. The total observation time for each teacher was 50 minutes. Observation of classrooms was not restricted to any specific period or time of day. Due to this lack of restriction, observed classroom activities ranged from reading to pizza making. The only activities systematically excluded were physical education and recess.

Inter-rater Reliability

During three observation sessions, each of 25 minutes duration, the experimenter and another trained observer independently recorded teacher attentions. Each observer's records were then condensed into four categories: male positive attentions, female positive attentions, male negative attentions, and female negative attentions. The records were then compared and reliabilities for each of the four categories during each of the three joint observation periods were calculated by dividing the smaller tally by the larger. This procedure yielded twelve reliability ratings with a range of .6 to 1.00, of which 2/3 were above .8.

Results

The mean number of positive and negative attentions per same sex student delivered by each of the sample of eleven teachers is presented

in Table 1. Each ratio was calculated by totaling the tallies in each category obtained by each sex during the 50 minute observation period of each teacher and dividing this total by the number of students of each sex in the classroom. For data analysis purposes, the original sixteen categories were reduced to four due to very little deviation from the verbal mode by the teacher sample.

Analysis indicated that there was little difference between the number of positive attentions received by male and female students but did demonstrate that male pupils were credited with a greater number of negative attentions than were the female pupils. Although not statistically significant, a strong trend was indicated. Descriptively, more positive than negative attentions were dispensed to both males and females but negative attentions were frequent enough that, on the average, students received a negative teacher attention once every 100 minutes.

Table I
 Mean Positive and Negative Attentions per Student of Each Sex
 During 50 Classroom Minutes

Teacher	Pos Males	Pos Females	Neg Males	Neg Females
1	1.00	.68	.70	.27
2	3.14	1.68	.26	.10
3	1.67	3.00	.08	.21
4	1.06	1.09	.38	.03
5	.20	.12	.60	.65
6	2.70	4.86	.88	.06
7	.69	1.17	.09	.21
8	.05	.05	.83	.55
9	1.22	.65	.28	.70
10	2.53	2.13	.59	.35
11	.64	1.31	.75	.55

Discussion

Results of this study indicate that male students tend to receive more negative teacher attentions than female students and that all students receive a significant number of negative attentions.

Meyer and Thompson(1956), in a somewhat similar study, found that sixth-grade males received a significantly larger number of disapproval contacts than did female students. Good(1973) found that boys received both more positive and more negative contacts from teachers than did girls and that proportionately more of the girls' contacts were positive. This author further further subdivided the sex categories into high and low achievers and found that high males received frequent and supportive teacher contact while low males received a concentration of criticism and negative treatment. These investigations disclosed that males, or one specific group of males, received a greater share of negative attentions than their numbers would justify.

These findings take on added significance when the consequences of punishment are considered. It has been pointed out by Karen(1974) that punishment can elicit strong, disruptive, emotional behavior as well as escape and avoidance behavior. It has further been described as being able to cause a situation in which it is excessively used to become aversive(O'Leary, 1972).

If there is a relationship between high rates of male under-achievement and high rates of punishment one would expect male under-achievers to exhibit some or all of the attitudes and behaviors predicted to occur after high rates of punishment. This seems to be the case although causality is not demonstrated. Raph(1966) found that high school underachieving boys could be distinguished from

high achieving boys in their attitudes toward school. The under-achievers were less satisfied with school and wanted more change. Wilson and Morrow(1962) studied 98 high IQ high school boys and discovered that 76% of the high achievers but only 24% of the under-achievers reported attitudes toward school described as usually positive and 65% of the high achievers against 31% of the underachievers reported a usually positive attitude toward teachers. Hostility was found by Shaw and Grubb(1958) to be a more pronounced characteristic of bright underachievers than of bright male achievers.

The present study and several prior investigations point to a relationship between high rates of punishment in the classroom and high rates of academic underachievement. Natural or existing high rates of teacher verbal disapproval were also reported by White(1975) in sixteen observational studies of primary and secondary classrooms. She concluded that, over both primary and secondary areas, rates of teacher disapproval were higher than rates of approval. Thomas, Presland, Grant, and Glynn(1978) also found that teacher disapproval rates were higher than approval rates in seventh-grade classrooms even though a different population sample and a different observation technique was used. Both investigations reported similar rates for seventh-grade students. The present investigation supports White's(1975) observations in first-grade classrooms by producing similar results with a different sample of children observed with different observation techniques.

The available evidence concerning the effects of reinforcement and punishment and the rates of teacher positive and negative attentions in natural settings produced by this and previous research may be related to the common observation that pupil learning behaviors decline in enthusiasm from first grade on (White,1975). The situation certainly warrants further investigation as it has implications for classroom intervention programs and for teacher training programs. Until further clarification is provided, however, it appears necessary that we continue to operate under the assumption that we should 'catch 'em being good.'

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