



THE EFFECTS OF RACE AND SEX OF
CHILDREN ON THE BEHAVIOR
OF KINDERGARTEN TEACHERS

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BEHAVIOR OF KINDERGARTEN TEACHERS

By

Henry O. Braddock

A THESIS

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DEDICATION

To my family -

especially my wife, Toni

You all have been my bridge over troubled waters.

Let every bird sing it's own note.
It is hard to get two heads under one hat.
All bread is not baked in one oven.
All feet cannot wear one shoe.

Anonymous.

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ABSTRACT

THE EFFECTS OF RACE AND SEX OF CHILD ON THE
BEHAVIOR OF KINDERGARTEN TEACHERS

BY

Henry O. Braddock

This research investigated the non-verbal behavior of ten kindergarten teachers toward children of different races and sex.

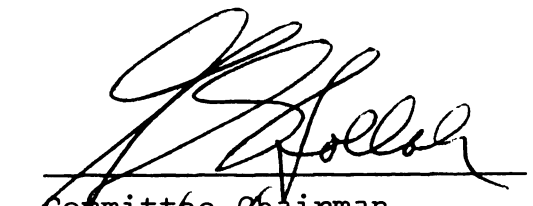
It was hypothesized that teachers would respond differentially to children in terms of sex and race of the children. The variables were: eye contact (the number of times a teacher makes and maintains eye contact with a student when interacting with him/her); positive physical contact (how often a teacher touches, holds, embraces, holds hands, etc., of a student); negative physical contact (shaking, spanking, grabbing, etc., when punishing or disciplining the child); smiling (the number of times teachers had smiling or friendly expressions when dealing with or evaluating children); initiation of interaction (positive, negative, and neutral). Positive initiation included supportive, encouraging, and generally reinforcing behavior. Negative initiations were those that were scolding, punitive or generally hostile in nature. Neutral responses were those not clearly indentifiable as positive or negative.

The results showed no significant differences in teacher behavior in terms of eye contact or physical contact. The race and sex of the

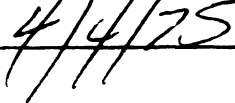
children did not significantly affect teacher behavior. Teachers were overwhelmingly more positive than negative in their physical interactions with all children. Initiations were much more positive than neutral or negative toward all children.

Potential for this kind of research is indicated; recommendations for further investigations are presented.

Approved: _____


Committee Chairman

Date: _____



CHAPTER I

INTRODUCTION

Overview

The problems of American education cannot be resolved by increased technology, curriculum changes, or dumping large amounts of money and time into existing facilities. We have to take a closer look at the people who make up the educational system.

The most significant factor in classroom education is the teacher and his or her behavior. When we begin to examine teachers and their training, it is not hard to see that some very important issues are missing or minimized in that training. Teachers are not often taught enough about the psychological and educational consequences of their behavior in the classroom, both verbal and non-verbal.

Teachers are people and bring with them all the prevalent social attitudes and values of the society of which they are a part. The same biases, prejudices, and preferences that are common to anyone else are also common to teachers. The problem arises when teacher training proceeds with too dull a focus on these phenomena as they relate to classroom behavior and performance.

This is particularly true with children of different socio-economic backgrounds, race, or sex than that of the teacher. Teachers tend to be

white, female, and middle class and may tend to respond to similar children who have different characteristics.

These phenomena then, define the area of interest that generated this investigation. The hypothesis of this study is that kindergarten children are treated differentially as a function of their race and sex.

This kind of research is very important in that it may serve to generate a further examination of teacher training in terms of psychological and behavioral variables, non-verbal behavior, and general teacher-student interactions.

LITERATURE REVIEW

Teacher competence has been voluminously researched. Gage (1960), has noted the growing unmanageability of bibliographies on the subject. Little agreement has been realized in terms of what the definition of a competent teacher really is. Biddle and Ellena (1964), expounded on the complexity of it, but have encountered disagreement from other educators, such as Hamachek (1965), that have very definite ideas of what "good" teachers are.

Though the direct purpose of this study was not to assess teacher competency, the research does indicate a relationship between "good" teachers and teacher behavior. Hart (1964), conducted an opinion survey with 3,725 high school seniors concerning best and least liked teachers. Ratings were over forty-three different reasons and he found that teacher personality traits dominated the top rankings across all the students.

Hart's findings have been supported by other researchers. Witty (1947), analyzed letters received from students concerning "The Teacher Who Helped Me Most" and found personality and behavior considerations much more important issues than mastery of subject matter, etc..

These studies reflect personal characteristics of teachers. Generally these characteristics are indicative of high capacity for warmth, patience, tolerance, and interest in the student. Many researchers (e.g., Reed, 1962; Sears, 1963), have shown the positive effects of these kinds of people who happen to be teachers on student performance.

Generally, teachers who like pupils tend to have pupils that like each other, (Sears, 1963). Spaulding (1963), found that through psychological principles of imitation and identification, the teacher becomes a model for appropriate behavior and students appear to assume and reflect those personal characteristics most dominant in the teacher.

Barr (1929), studied differences in instructional procedure and teaching styles of social studies teachers in the high school setting. Every facet of teacher-student interaction was considered and recorded. He found very different behaviors that distinguished good teachers from poor teachers. Poor teacher behavior exhibited overtones of frustration, futility, and impatience. Good teachers tended to be more challenging and encouraging.

Ryans (1960), studied the self-related expressions of 6,000 teachers and found differences between those of high and low emotionally stable ones. Stable teachers saw themselves as self confident and cheerful. They liked active contact with people and reported happy experiences in childhood. Low stability teachers also preferred contact with others but expressed less self-confidence and had unhappy memories of their childhood.

Combs (1965), was even more specific in his analysis of teacher self perceptions. He found in comparison with poor teachers, good teachers are more identified with people and less withdrawn. They feel adequate and capable of dealing with the problems they encounter. They see themselves as trustworthy, reliable, and dependable. They feel

attractive to others, and see themselves as people of consequence and integrity.

Many authors investigating teacher perceptions--Combs and Snygg (1959), Hamachek (1965), Jourard (1963), Maslow (1954), and Rogers (1961)--generally have concluded that good teachers see themselves as good people, that is, they are positive, healthy, and self accepting.

These kind of findings are of interest, but it is also important to note how these people affect their students. Davidson and Lang (1960), found those children with more favorable self images were those who more likely than not perceived their teacher's feelings toward them more favorably. They also found that the more positive the perception of their teacher's feelings, the better was their academic achievement, and the more desirable classroom behavior, as rated by teachers. Heil (1960), found similar results.

How do teachers conduct themselves in the classroom? Flanders (1960), made one of the most recent and complete investigations in this area. He found that teachers who were able to provide flexible influence styles, by shifting from direct to the indirect (instructional procedures and methodology) depending on the situation, were better able to create climates in which students learned more. The students of teachers who were unable to do this learned less. Heger (1968), and Russell and Galloway (1968), also used the Flander's system and found similar results.

What a teacher expects from a child also influences teacher behavior and student performance. Henderson and Long (1972), found that race differences in teachers and students produced significant differences in the probability of learning to read in the first grade.

Chaikin and Sigler (1973), found that tutors of children arbitrarily labeled "bright" exhibited more positive non-verbal (smiles, nods, etc.,) to these children than did tutors of children labeled "dull" or control children not labeled. Rosenthal and Jacobsen (1964), in their book, Pygmalion in the Classroom, further suggest the self-fulfilling prophecy of teacher expectations of student behavior. The study indicated that in most cases, if a teacher expected a child to be intelligent, he would actually demonstrate greater intellectual capacity.

Other researchers, Becker (1952), Wilson (1962), Clark (1965), investigated this area as it relates to the expectancies of teachers working with disadvantaged children. Boyd (1960), found that experienced teachers change attitudes toward the underchosen child with the benefit of an inservice training program, while younger, less experienced teachers did not.

Cullen and Auria (1969), studied the relationship between ethnic prejudice and the behavior of student teachers. They found that those student teachers who had difficulty accepting criticism and assuming responsibility evidenced significantly more prejudice than others who did not have these difficulties.

Silberman (1970), also documents how racial considerations may affect teacher behavior.

A sixth-grade class in a racially mixed school. A black girl calls out the answer to a question the teacher had asked the entire class. "Don't you call out," the teacher responds. "You sit where I put you and be quiet." A few minutes later, a blonde-haired, blue-eyed girl calls out an answer to another question, the teacher responds, "Very good, Annette; that's good thinking." (p. 92)

Non-verbal behavior plays a crucial role in classroom behavior. It is often the vehicle through which unconscious teacher attitudes present themselves. Galloway (1968), indicates that the acts of a teacher suggest reflections of a teacher's self. Interpretation and inferences from non-verbal cues are made by students attempting to fully understand a teacher. Students assume non-verbal cues to be more consonant with the actual feelings and thoughts of a teacher. Therefore, what a teacher says means little if there is a failure to understand what kind of self is being projected non-verbally.

Silberman (1970), further points out that teachers tend to call on boys far more often than on girls, the reason being that calling on a male student is a means of keeping him "under control."

Past research and discussion has focused on the personal characteristics of teachers, their classroom behavior, and the effect of these variables on student self-perception, learning, and school adjustment. It has set the stage for further research, to which this present study attempted to be a contribution.

CHAPTER II

METHODOLOGY

Procedure

Six pairs of coders were instructed to observe ten kindergarten classes and classify certain aspects of the teacher's non-verbal behavior toward the different children as a function of race and sex of the child, (Caucasian male, Caucasian female, Black male, Black female). The pairs observed a class in the morning and did not record teacher behavior. The same pair observed and recorded in the afternoon. The other half of the coders observed in the afternoon and recorded the following morning. This was done to control for possible differences in the time of day. The observers were to observe four teacher behaviors. The first was, eye contact. They were to observe whether the teacher looked at children when speaking to them, which children were usually contacted more or less than others, and generally did the teacher smile at the class when interacting with the children.

The second variable was physical contact. This variable had two levels, positive and negative. Positive contact included embraces, pats on the head and back, holding hands, putting arm around child, etc.. Negative contact was squeezing or shaking (as for discipline or punishment), pushing away, etc.. The third variable was smiling. Observers were to note whether teachers had smiling or friendly facial expressions when dealing with or evaluating children and whether some children were smiled at more often than others, etc..

The fourth variable, initiation of interaction had three levels, positive, negative and neutral. Observers recorded whether teachers, when reacting to children or initiating an interaction with them, exhibited punitive, corrective, or supportive attitudes. An example of a negative initiation might be, "Billy, stop that noise!" An example of a positive initiation might be, "Billy, show your picture to the rest of us, it is an interesting one!" Neutral responses were those on which no negative or positive value could be determined.

The classes were observed for thirty minutes. The classes observed, were all volunteered by the respective teachers through the Lansing Public School system and not randomly chosen by the experimenter.

In order to adjust for differences in the number of children in each racial-sexual category, proportion scores were obtained using this formula: the number of observations divided by the quotient of the number of observers multiplied by the number of children of each category present in the classroom.

Design

A 2 x 2 within design was employed whose dimensions were race, Caucasian and Black, and sex, male and female, across ten classrooms. Thus, the independent variables were sex and race of the child and the dependent variables were non-verbal teacher behavior. Analysis of variance was used to analyze the data. The subjects were ten Caucasian, female kindergarten teachers.

RESULTS

Interrater reliability was assessed by examining the correlation (product-moment coefficients) of the frequencies of teacher behaviors recorded by the members of the six coder pairs assigned to the 10 classrooms. The coefficients ranged from .57 to 1.00, with a mean of .75. (Appendix A presents the six coefficients.)

To examine the data in terms of the independent variables of race and sex and of students, the average frequency of each teacher behavior category over a rater pair was calculated for each type of student (i.e., Black female, Caucasian female, Black male, Caucasian male) in each classroom. These transformed scores, which equated the data for differences in the distributions of student types across classrooms, were subjected to four, within classroom analyses of variance. One analysis (summarized in Table 1) examined the teacher's eye contact behavior. A second analysis (summarized in Table 2) examined the amount of positive and negative physical contact the teachers displayed to each type of student. The third analysis (Table 3) explored the teacher's smiling behaviors. Finally, the fourth analysis (Table 4) examined the teacher's positive, neutral, and negative initiations of interactions with each type of student.

Table 1

Analysis of Variance for variable I, Eye Contact

Source	df	MS	F	P
Race	1	.51	.98	n.s.
error	9	.52		
Sex	1	.09	.53	n.s.
error	9	.09		
Race x Sex	1	.13	.05	n.s.
error	9	2.46		

Table 2

Analysis of Variance for variable II, Physical Contact

Source	df	MS	F	P
Race	1	.47	1.45	n.s.
error	9	.32		
Sex	1	0	0	n.s.
error	9	.08		
Type of Contact	1	4.66	10.60	.01
error	9	.44		
Race x Sex	1	.08	1.00	n.s.
error	9	.08		
Race x Contact Type	1	.73	1.46	n.s.
error	9	.50		
Sex x Contact Type	1	.03	.21	n.s.
error	9	.14		
Race x Sex x Contact Type	1	.02	.03	n.s.
error	9	.67		

Table 3

Analysis of Variance for variable III, Smiling

Source	df	MS	F	P
Race	1	.16	.44	n.s.
error	9	.36		
Sex	1	.26	4.33	.10
error	9	.06		
Race x Sex	1	.75	1.74	n.s.
error	9	.43		

Table 4

Analysis of Variance for variable IV, Initiation of Interaction

Source	df	MS	F	P
Race	1	.26	1.13	n.s.
error	9	.33		
Sex	1	.02	.17	n.s.
error	9	.12		
Type of Initiation	2	2.94	2.72	.10
error	18	1.08		
Race x Sex	1	.31	1.41	n.s.
error	9	.22		
Race x Type of Initiation	2	.03	.06	n.s.
error	18	.47		
Sex x Type of Initiation	2	.20	.46	n.s.
error	18	.43		
Race x Sex x Initiation	2	.28	.45	n.s.
error	18	.62		

The findings from these analyses did not support the hypothesis that the teachers would behave differently as a function of the race and sex of their students. In fact, the only relevant comparison that approached significance was the difference in smiling behavior as a function of student sex. This finding indicated that teachers tended to smile more at males ($\bar{X} = .40$) than females ($\bar{X} = .32$).

Two other F ratios were significant, but both of them reflected main effect differences in types of physical contact and initiations (Tables 2 and 4). Teachers displayed more positive physical contacts ($\bar{X} = 5.27$) than negative ($\bar{X} = .44$); and they made more positive ($\bar{X} = 6.06$) than neutral initiations ($\bar{X} = 1.3$) and more neutral than negative initiations ($X = 1.5$). Thus, in general, the data reflected a rather positive orientation toward students that did not differ as a function of the children's race or sex.

CHAPTER IV

DISCUSSION

Teachers in this study were volunteers and were highly experienced; all were middle aged. This may have affected the data. If the classrooms were randomly chosen for observation without direct teacher volunteering, perhaps the outcomes would have been different. It may also have been important that the teachers were older and more experienced. The coders were trained over two ninety minute training sessions. Longer training and more pre-tests may have increased the reliabilities of their observations and consequently, the results.

Though the differences were not significant, teachers did appear to devote more eye contact to males, blacks in particular. This may have had to do with discipline. The data suggest that though teachers did not show much preference in terms of eye contact, in general, not much direct eye contact was made. The significance of scores in physical indicated that the physical contact between teachers and students was overwhelmingly positive rather than negative across all children. The lack of appreciable differences in sex and race dimensions indicate no differential behavior by teachers. Teachers smiled more at males than females, hence a significant difference in terms of sex. This may be associated with slightly more contact with males. Often these behaviors were a measure of control. The significance of scores (type of initiation) in the initiation of interaction indicates that teachers were very much more positive in their initiations than negative or neutral. Again many of these initiations were with males, but not significantly so.

Generally, the findings of this study could lead one to conclude that teachers are much more positive than negative in their interactions with children, that differences in treatment in terms of race and sex, were negligible and that at least this sample of teachers were less racist and sexist than other samples. These conclusions may be realistic, but should be broached with caution. The forementioned limitations of interaction analysis and observation should be considered. The fact that the teachers volunteered must be noted, and also the fact that they were older and more experienced. All of these factors played important roles in the results of the data.

This study examined whether kindergarten teachers differentially responded to children as a function of the race and sex of the children. The data did not support this hypothesis. There were a few considerations that may have affected the outcome of the data.

Observation analysis has some implicit shortcomings. The method may not be unobstrusive enough not to affect somewhat what is being observed. It is possible to cause a change in subject behavior just by having an observer present. There may have been more differential non-verbal behavior than noted, in the normal setting, but the limitation of the method may have influenced its expression.

The relatively low reliability scores of the coders could have influenced the validity of the data. The coders could have had longer training periods and more trial exercises in order to increase the reliability of their observations.

Only kindergarten classrooms were observed and recorded. The nature of teacher-pupil interactions differ from grade to grade (Heil, 1960). It is possible that the kindergarten level is not the most salient period of analysis for this kind of investigation, (Leonard, 1968).

The fact that race was not significant in any of the variables is in contrast to Cullen and Auria (1969), who found that student teachers who had difficulty accepting criticism and assuming responsibility evidence much more ethnic prejudice than others who did not have the difficulties. The fact that the teachers in this study were more experienced could be important in this regard. Teachers with more experience may have become more liberal and less race conscious as compared to new teachers. Boyd (1960), found that experienced teachers changed their behavior, attitudes, and beliefs toward socially unaccepted children after an inservice training program where less experienced teachers did not change.

The lack of influence of the race variable on teacher behavior is further contrasted by Henderson and Long (1972). They investigated the academic expectancies of teachers for children entering school. The teachers rated the stimulus children on the probability of learning to read in the first grade. Race, socio-economic class, readiness test score, activity, and attention of children, plus the race of the teacher (black or caucasian) were varied in a factorial design. Their results indicated significant effects for race of teacher, test scores, activity, and attention and five interactions, three of which involved race. The conclusion was that teachers in fact have complex determinants in their

expectations of children, but race bias clearly plays a part. These data stand in relief to the present study.

The lack of sex differences in the variables other than smiling behavior, may be due to similar reasons concerning sex. All the teachers being females, it could perhaps seem that female students would be responded to preferentially, but this was not true. More attention was made toward males. This is not unlike the results of other investigators such as Silberman (1970), who found that teachers were more attentive to males because it served as a measure of control or discipline. This may partially explain the outcome of the present study.

The significance of scores (type of contact or interaction) in both the initiation of interaction variables indicate that this sample of teachers were more positive in these behaviors than neutral or negative. Generally, the data have suggested that without regard to sex or race, these teachers responded in a positive manner to all children in their classrooms. This is important in that though there were not significant differences in teacher behavior to the different children, the implications of the data may still be negative. There is nothing to suggest that equal treatment is necessarily a positive attribute. Some children may need more physical contact than others. Some children may view the teacher's behavior in a different light than some other students, though the behavior appears to be equally or at least non-preferentially distributed. Diensfrey (1968), points out that sub-cultural expressions among racial, ethnic, and social classes can differ markedly. One behavior to one person, might in fact, be interpreted differently by another person.

There are many variables that need to be considered in view of individual differences and response sets. The child's self concept may have a lot to do with the attitudes, behavior and perceptions of those around him. A child who feels unloved and unwanted by the world may perceive a teacher's eye contact as hostile and threatening. A happy child may react differently. The unloved child may become aggressive and "unruly" due to his perceived threat against his already damaged ego, as Berkowitz (1962), points out. The happy child may respond positively and openly because he does not feel threatened.

Many events take place prior to arrival at school. Children from broken homes, extended families, etc., all come together with different needs. Therefore, to the extent that children are treated the same across the board, some children are actually "discriminated" against or at least are having fewer of their needs met than others.

These phenomena bring the results of "no difference" into a different light. It sets the stage for further research into teacher-pupil interaction. It may be important to document the pupil's background, family experiences, and self-teacher perceptions in order to get at the kinds of needs that he/she may have relative to the teacher. Teachers have different needs and values as well and they must affect in some way the behavior, verbal or non-verbal, that is expressed in the classroom.

An analysis of different grades, settings, etc., may be interesting for extended research. Rural schools may have different kinds of variables as compared to urban ones. Urban teachers may have differences relative to rural ones. Race and sex variables among teachers should be further investigated also.

Future research in the classroom should become as unobtrusive as possible, in order to allow the natural, uninhibited expression of behavior within the classroom. Observers should be extensively trained and pretested to increase the interrater reliability. These and other considerations pave the way for further research in this area.

We do not know enough conclusively from this study, due to its limitations, about teacher behavior. We can, however, begin to make some intelligent statements relative to the impact of teacher behavior and expectations on children. It can be seen that "no difference" in teacher behavior may be due to several factors and that it can be a positive entity in terms of the non-preferentiality of teacher behavior or it can be negative in terms of a teacher's lack of awareness of differences in the individual needs of children or how to deal with them. It is also clear that there is much to be done to refine the techniques of interaction analysis and observational kinds of research such that there is no interference or influence with that being observed. Future research will have to address these and other issues as investigations in this area progress.

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APPENDIX A

CODER RELIABILITY

CODER RELIABILITY

	OBSERVATION TEAM					
	1	2	3	4	5	6
CORRELATION COEFFICIENT	.82	.79	.57	1.00	.58	.74