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AUTHOR Hale, Judy A.  
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ABSTRACT

This pilot study examined the treatment of kindergarten children by one student teacher to determine whether there were differences in the teacher's treatment of male and female children. Data were collected by observing and tape recording a kindergarten classroom in which a student teacher interacted with 10 male and 10 female students for a 30-minute time period. Frequency of interaction between the teacher and individual students was noted. The chi-square goodness of fit test was used to analyze the set of observed frequencies. Number of interactions between teacher and students was 49. Results showed that the student teacher interacted more frequently with males (42 times) than with females (7 times). The study includes strategies to alleviate classroom inequities.  
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**INTERACTION OF STUDENT TEACHER  
WITH KINDERGARTEN  
MALES AND FEMALES**

Judy A. Hale, Mississippi State University

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**INTERACTION OF STUDENT TEACHER  
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Introduction

During the late 1960s and early 1970s, our nation experienced the women's rights movement (Joffe, 1977; Rendel, 1985). With that movement came the increased awareness of the inequalities facing women and minorities (Selakovich, 1984). Twenty years later, we are seeing the results of this movement, or the lack thereof. The intent of this pilot study is to look at these results, as they pertain to the classroom, and to determine if the same holds true at the kindergarten level with a student teacher. Last of all, the strategies used by successful classroom teachers to alleviate classroom inequities will be discussed.

Purpose

During the fall of 1991, The American Association of University Women (AAUW) released the results of an extensive study in which they found that females are discouraged from a wide range of academic pursuits. The discouragement which they receive is systematic (Pottker & Fishel, 1977) but maybe unintentional (AAUW, 1991). Through teaching methods and tools, counseling, and gender role stereotyping (Keating, 1992), gender differences which are slight at age eight or nine become barriers

to entire areas of study and, later, careers by age 15 (AAUW, 1991; Podesta, 1991).

The implications of this study suggest grave consequences for our future work force. AAUW (1991) points out that in the next 10 years the fastest-growing occupational fields in this country will be those requiring strong educational backgrounds in the areas of math and science. Gender inequity in our schools drives females away from advanced study and careers in a wide range of academic pursuits, particularly math and science (AAUW, 1991; Keating, 1992; Kelly, 1985). "Already, sex-linked employment stratification has been observed in the relatively young computer industry, with job opportunities involving complex thinking (programming, marketing) being filled by men, while data-processing and other low-level, and low-paying, jobs are held predominantly by women" (Keating, 1992, p. 458).

The results of AAUW's study should be frightening for all educators. The study was conducted on 3,000 school-aged children, none of whom were of the early childhood level (AAUW, 1991). Obviously, the results can not be generalized to early childhood. But what if they could be? Would we also find gender inequities in the early childhood program? Early childhood educators spend so much time and energy developing a curriculum for four, five, and six year olds which is free of inequities. Through such a curriculum, children are allowed to explore

nontraditional roles (Joffe, 1977). This means that little boys may choose to play in the housekeeping center -- dressing up, washing the dishes, and tending to the baby. Little girls may choose to spend time in the block center -- designing castles, tall buildings, and maybe even entire cities. Could it be that we, as early childhood educators, are unraveling all of our efforts by simple interacting with boys and girls differently?

#### Method

The simplest form (Sadker & Sadker, 1982) of interaction between a teacher and a student was used to determine if a kindergarten student teacher interacts more with males than with females. A student teacher was observed, as opposed to a more "seasoned" teacher, because several student teacher observations had already been conducted and entrance into the classroom could be achieved with a minimal amount of disturbance to either the children or the student teacher. Interaction, for this purpose, is being defined as all comments, including questions, answers, rewards, directions and so forth that are given to either a male or a female (Sadker & Sadker, 1982).

The data were collected by observing and tape recording a kindergarten classroom for a 30 minute time frame as suggested by Sadker and Sadker (1982). A frequency count was kept during the 30 minute time frame and the tape recording was later used to verify the results of the

tally. All comments by the student teacher were counted. Only when the teacher spoke to the entire class or to a mixed group of females and males were the comments not counted. The sample size consisted of 10 males and 10 females for a total of 20 students.

### Results

The chi-square goodness of fit test was chosen to analyze the set of observed frequencies against frequencies that were expected on the basis of an a priori model that was assumed to be true. The two categories to be tested were males and females. The alternative hypothesis stated that the proportions of teacher interactions with males and females were not equal. The alpha level was set at .05.

The results suggest that the distribution of frequencies does not "fit" the distribution in the general population when males were compared to females,  $\chi^2(1, N = 49) = 25.00$ ,  $p < .05$ . For amplification refer to table 1.

There was evidence to reject the null hypothesis. With this comes the conclusion that we, as kindergarten educators may be unraveling all our efforts by simply interacting with males and females differently.

Table 1

Frequencies of Interactions Between Teacher and Students  
By Gender

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<u>Category</u>	<u>Number of</u> <u>Interactions</u>	<u><math>\chi^2</math></u>
Males	42	
<u>Females</u>	7	<u>25.00*</u>
<u>N = 49</u>		<u>*p &lt; .05</u>

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## Strategies

By not recognizing that gender bias may exist in our classrooms, we are allowing a negative environment for our students to continue to grow. In order to offset the growth of this negative environment, teachers need to develop and incorporate strategies which will improve the environment of our students. Verbal interaction of the teacher with students is the most visible aspect of gender-fair teaching in the classroom (Keating, 1992; Sadker & Sadker, 1982; Stitt, 1988).

Stitt (1988) offers the following suggestions as strategies to use in the classroom to help alleviate the problem of interacting differently with students:

- \*Praise males and females equally for academic and nonacademic behaviors.
- \*Criticize males and females equally for intellectual quality and effort in academic concerns.
- \*Criticism of males and females should be equally harsh or mild in non-academic concerns.
- \*Ask an equal number of low-level and high-level questions to males and females.

## Conclusion

Twenty years after the women's rights movement of the late 1960s and early 1970s, we are finding that gender inequities in our classrooms still exist. Part of this is due to the fact that teachers interact differently



with males and females when compared. To only recognize this as a problem will do nothing towards stopping the growth of such a negative environment. Teachers must actively incorporate strategies which will foster an improved environment.

Since this pilot study was conducted using only one student teacher, the results can not be generalized beyond that. One suggestion for future research is to increase the number of student teachers observed and to also observe each one several times. A second suggestion is to compare the results of student teachers to more "seasoned" teachers.

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